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Report on Public finances in EMU 2013

EUROPEAN ECONOMY 4|2013

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Public finances in EMU – 2013

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EDITORIAL

The European Union and the euro area economies have been through another difficult year, but there are signs of improvement on the horizon. Thanks to policy measures taken at the EU, euro area and national level, financial tensions subsided and market sentiment towards euro area Member States has improved. In spite of that, the economy has continued to be weak and the recovery has not started yet. However, the recent improvement in the high-frequency indicators gives hope that the recovery in the EU will finally commence in the second half of this year, as forecast in the Commission Spring forecasts.

Policy challenges remain and will remain daunting as time will be needed to repair the damage inflicted by the crisis on the EU economy and public finances. This report is the traditional annual contribution of the Commission's Directorate General for Economic and Financial Affairs to the policy debate in the domain of fiscal policy. It discusses economic and policy developments, implementation and advances in fiscal surveillance as well as improvements in the analytical framework applied to fiscal policy.

The debate about the role of fiscal policy has been very intense over the recent past. It has been triggered by the stark deterioration of public accounts around the world during the financial and economic crisis, but the controversies intensified when European governments embarked on the difficult task of bringing their public finances back on a sustainable footing. As shown in Part I, the size of efforts implemented to date has been commendably large, in particular in some Member States. The size of the fiscal adjustment looks even more impressive, if one takes into account the impact of the on-going correction of macroeconomic imbalances on fiscal aggregates, which distort tax elasticities by lowering the response of revenues to GDP compared to normal, and can give the impression that Member States have undertaken relatively low structural efforts even when this is not the case. This contaminates the reading of standard measures of the fiscal stance and call for the use of complementary indicators, such as the Discretionary Fiscal Effort indicator proposed in Part III of the report. It is hard to deny, however, that these consolidation efforts have borne fruit and helped to improve fiscal sustainability and to restore market confidence. Policy decisions no longer have to be taken overnight under the pressure of investors withdrawing *en masse* from the sovereign bond market.

The progress made so far in fiscal consolidation will now allow Member States to slow the pace of adjustment– this is visible in both Member States' fiscal plans and the EU policy advice issued recently to Member States in the context of the 2013 European Semester and the regular surveillance under the Stability and Growth Pact, as discussed in Part I. The improvements in the fiscal positions of EU Member States allowed the Council – based on Commission's recommendations – to abrogate Excessive Deficit Procedure for Hungary, Italy, Latvia, Lithuania and Romania, which corrected their excessive deficits in a lasting manner. Seven Member States were given more time to reach their deficit targets. These are Member States which took fiscal measures in line with Council recommendations, but where the economic situation hampered the timely correction of their excessive deficits. I would like to remove any ambiguity, which sometimes surfaces in the debate and stress that these extensions of the deadlines are fully in line with the rules of the Stability and Growth Pact. The Pact explicitly allows the Council to extend the deadline for the correction of an excessive deficit in case where effective action has been taken, but adverse economic conditions prevented the headline deficit targets from being reached. As a sign that challenges still remain, the Council opened one new Excessive Deficit Procedure (Malta) and stepped up the EDP where effective action had not been taken in response to the previous recommendation (Belgium).

The recent improvements in the aggregate fiscal picture notwithstanding, only some Member States have reached their medium-term budgetary objectives (MTO), which ensure sustainable budgetary position, while at the same time leaving room for manoeuvre in case of a cyclical downturn, as explained in in Part II. The Member States, which have not yet reached their MTO, will need to continue improving their budgetary positions, albeit more gradually, to reach their MTO by the deadline recommended by the Council in the Country Specific Recommendations issued in the context of the 2013 European Semester.

In this context, the Commission's advice on how to conduct fiscal consolidation at the current juncture still stands and applies both to Member States in EDP, which need to continue consolidation to correct their excessive deficits, and to those outside the EDP which are on the path towards the MTO. For the last few years the Commission has been calling for a differentiated and growth-friendly consolidation: the pace of consolidation should be differentiated according to the available fiscal space, while the composition of consolidation should pay attention to the growth effects of the chosen consolidation measures and preserve – within the available fiscal space – budgetary items conducive to growth. The evidence presented in Part I and Part III shows that last year's consolidation efforts have been differentiated broadly in line with Commission's advice but that there is still a lot of room for improvement in the composition of consolidation. Governments have too often relied on increasing taxes, and the expenditure-cutting measures have too often been concentrated on investment. While the Commission has advocated expenditure-based consolidation in principle - partly as the tax burden is already at a relatively high level in most EU countries – it has also emphasised the need to improve the quality and efficiency of public spending. It is not an easy task, but a necessary one, as the pressure on public spending will continue, not least due to the challenges stemming from population ageing. As a contribution to the debate, Part IV takes a closer look at health care expenditure – one of the biggest spending items in the EU which will be growing quickly due primarily to non-demographic factors. The report shows that there are options for reform to contain expenditure growth in this area while ensuring access to high-quality health services and various EU members have indeed implemented such reforms.

It is in the interest of each Member State to improve the efficiency and effectiveness of public spending, but it is also in the collective interest of all Member States to ensure sound public finances in the EU and coherent fiscal policies across the Member States. The crisis was a painful reminder about the strengths of spillovers in a closely integrated economic area such as the EU and even more so in the euro area. Efficient policy oversight and good coordination mechanisms are key in face of growing interlinkages among countries. The comprehensive and deep changes in the EU economic governance introduced by the Six Pack have been recently complemented by the Two Pack – two new regulations that improve coordination and transparency of policy making in the euro area, which are presented in Part II.

While it might seem at the first sight that they bring merely procedural order to EU process, that would be a very misleading conclusion. The Two Pack brings real change to the way policies are coordinated in the euro area, either at the time of financial stress or under normal economic conditions. In the budgetary sphere, after significant strengthening of the SGP by the Six Pack, the new legislation further strengthens the ex-ante approach to policy coordination and gives the Commission and the Council the possibility to discuss draft national budgets from the point of view of their compliance with the Stability and Growth Pact. This by no way impinges on the competences of national stakeholders. On the contrary – by fostering debate it improves transparency and accountability, and strengthens collective responsibility for the euro area economy. It also responds to what we learned in the crisis: prevention is better than the cure.

The Two Pack entered into force at the end of May this year. It opens a new phase in the way EU Member States coordinate their economic policies. It is Commission's role and privilege to contribute to this endeavour with rigorous economic analysis and transparent policy advice, which are the aims of this report.

Marco Buti

Director General

Economic and Financial Affairs

SUMMARY

Despite easing financial tensions, growth has not picked up yet…

Bold policy measures taken at the EU and Member States level have led to an easing of financial tensions in 2012, amid an economic outlook that remains subdued. Improvements in the financial stability architecture and on-going adjustments in vulnerable Member States reduced immediate sustainability risks alleviating the feedback loops between fragile public finances, vulnerable banks and growth.

The reduction of these tail risks has not yet resulted in a recovery: credit growth has not picked up, confidence remains low and the economic situation is muted. The on-going deleveraging process in the private and public sectors still weighs on demand. The economic situation should gradually improve by the end of 2013, when lower deficits, stabilising debt ratios, and a rebound in confidence and GDP growth should help the European economy to enter a self-sustaining recovery.

…and the differences across countries are particularly marked

Current growth developments at EU level mask wide disparities across countries. Focussing on the largest Member States, real GDP is expected to increase in Poland, the United Kingdom and Germany in 2013, while it is forecast to fall in Spain, Italy, the Netherlands and France.

Fiscal consolidation continued in 2012 despite a difficult economic environment…

Strong fiscal tightening continued across the EU in 2012, with a reduction in the aggregate structural balance by more than 1pp for the second year in a row. The size of the consolidation at a time of stagnant or negative growth, indicates strong resolve to repair the deterioration in national budgets inflicted by the crisis. At the same time, the headline budget deficit fell by around 0.5% of GDP in both the EU and the euro area and reached 4.0% of GDP and 3.7% of GDP respectively.

…which prevented the correction of excessive deficits in a number of countries, despite the action taken.

Sixteen Member States recorded headline deficits above the 3% of GDP Treaty reference value in 2012 and were subject to the Excessive Deficit Procedure (EDPs). The deterioration in the economic situation prevented seven Member States from meeting the deadline for correction of the excessive deficit, despite the implementation of consolidation measures. This prompted the Council – on Commission's recommendation – to extend the deadlines for correction in June 2014, in line with the Stability and Growth Pact (SGP). At the same time, four Member States corrected their excessive deficit in 2012 in a lasting manner, which allowed the Council to abrogate their EDP. Finally, Belgium had its EDP stepped up and was given notice to correct its deficit by 2013, as it missed its 2012 deadline to correct its deficit and was found not to have taken effective action.

The achievements to date will enable a slowing of the pace of consolidation in the coming years…

Commission forecasts indicate that the pace of consolidation will slow down in the coming years. This reflects more and more countries reaping the benefit of the recent efforts and exiting their EDPs as well as the positive impact of improved market sentiment towards euro area Member States. The aggregate headline deficit in the EU is forecast to decline to 3.4% of GDP in 2013 and 3.2% of GDP in 2014. In the euro area the deficit is forecast to come in below 3% of GDP in 2013 for the first time since 2008 and then slightly decline to 2.8% of GDP in 2014. Structural balances are forecast to improve by ¾ % of GDP in both the EU and the euro area in 2013 and to remain broadly stable thereafter. The government debt ratio is expected to

continue rising in the forecast horizon to reach 88% of GDP in the EU and 96% of GDP in the euro area by 2014.

… with Member States' budgetary plans confirming this for 2014.

Member States' fiscal plans, as presented in the 2013 Stability and Convergence Programmes (SCPs) are broadly in line with Commission forecasts for 2013, and are more ambitious from 2014 onward – largely due to the fact that Commission forecasts are based on unchanged policy assumptions. Member States plan a significant decline in general government deficits, stemming mainly from a continuing underlying fiscal effort. The pattern of consolidation across Member States continues to be differentiated according to the fiscal space. Overall, the Member States planning the largest structural improvement are those with the largest structural deficits and vice-versa, while those at their medium-term budgetary objective (MTO) are no longer tightening policy. The adjustment planned for 2013 in the EU and in particular in the euro area will take place at a time when the negative output gap is still widening, resulting in a broadly pro-cyclical fiscal stance. The pro-cyclicality of the fiscal stance is expected to be reduced in 2014 when the output gap starts shrinking and the structural adjustment decelerates.

The planned composition of consolidation calls for caution, in particular due to planned cuts in investment spending.

Fiscal consolidation strategies across the EU are expected to shift from a revenue-based approach in 2013 to an expenditure-based thereafter. However, these plans should be interpreted with caution in view of last year's experience, when consolidation – initially planned to be expenditure-based – turned out revenue-based. This shift from expenditure based plans to revenue based outcomes is partially responsible for Member States delivering lower reductions in their deficits in 2012 than planned – with the disappointing performance of economic growth also contributing. While the planned revenue measures for 2013 can be broadly regarded as growth-friendly, the plans on the expenditure side contain relatively large cuts in investment spending, which are typically more detrimental to growth.

The debt ratio has been rising, but the turning point is in sight

The significant consolidation efforts undertaken have not yet placed government debt on a downward path – it should continue rising until 2013-14. Nevertheless, this year's plans are the first vintage of the SCPs since the beginning of the crisis, which show declining debt within the programme horizon. The declining debt path is supported by improvements in primary balances, but high interest payments and low growth continue to weigh on debt prospects, particularly in some vulnerable Member States. In the short-term, the debt forecasts presented in the SCPs will ensure compliance with the debt reduction benchmark which is now applicable under its transitional form to countries that have recently had their EDPs abrogated. Yet, the structural balances planned for 2014 by the Member States in their SCPs are sufficiently strong so as to halt the increase in debt in both the euro area and the EU over the longer term according to the Commission's projections.

The weaknesses in budgetary governance structure evidenced by the crisis brought a wave of reforms…

The strong focus put on debt developments stems from the introduction into the SGP of the debt reduction benchmark, as part of the extensive reforms to European budgetary and economic governance. The reforms started in 2010 with the institution of the European Semester to integrate budgetary and economic surveillance, followed by the in-depth reform of the EU economic surveillance through the Six Pack, in 2011. The Six Pack strengthened the European framework for surveillance of budgetary policies, gave new that

relevance to national fiscal surveillance – by introducing a directive requiring Member States adhere to certain minimum requirements in their national budgetary processes – and instituted an economic surveillance procedure – the Macroeconomic Imbalances Procedure which includes a corrective arm, the Excessive Imbalances Procedure.

… with the latest addition being the Two Pack which addresses the particular needs of the euro area.

However, the crisis also highlighted the magnitude of the spillovers between euro area countries and the consequent need for deeper budgetary integration among them. In response, an additional reform package, known as the Two Pack which applies to all euro area Member States, entered into force on 30 May 2013.

The Two Pack strengthens budgetary monitoring at euro-area level, fiscal institutions at national level and improves decision making process for countries under market stress.

The Two Pack consists of two EU regulations. To improve the existing framework for fiscal policy-making in the euro area as a whole, one text adds new provisions for the coordination of budgetary policy among euro area countries, the reinforcement of national fiscal frameworks and a tightened surveillance of those with excessive deficits. The second text simplifies the economic and budgetary surveillance that applies to euro area countries under financial strain, including those receiving financial assistance and integrates into the EU framework. The dual aims of increasing coordination and transparency run through both regulations, which simply differ by their target, as the first one concerns all Member States of the euro area while the second deals with the specific case of those facing financial difficulties. The measures contained in the Two Pack fall under three main axes. First, they close the circle of monitoring of national budgetary decisions at euro area level, creating a rolling process of information and improving exchanges between the EU and the Member States; the aim is to encourage a more collective approach to fiscal policy decisions, by making all countries aware of the impact of their own policies on their partners of the euro area. A key element of this is the assessment of countries' draft budgetary plans by the Commission, every autumn, before the adoption of the budget to assess compliance with the SGP. Second, they increase the responsibility and accountability of national fiscal policy decision-makers, giving independent institutions a prominent role in the process and increasing the information that governments should make available to both the EU and general public. Finally, they recognise the special position of countries under financial strain, setting out a decision-making process underpinned by principles of transparency and information sharing, to protect both the countries themselves and the euro area as a whole from the damage financial instability can cause.

The Two Pack mirrors in EU law commitments made under the TSCG, on the integration of the medium-term budgetary objective (MTO) into national processes.

The entry into force of the Two Pack on 30 May 2013 embodies the fulfilment of one of the immediate priorities set out in the Commission's Blueprint for a deep and genuine EMU, adopted in November 2012. Also, the focus on national fiscal frameworks introduced under the Six Pack, is strengthened by requiring euro area Member States to go further than required by the Directive on national budgetary frameworks and have in place independent bodies for monitoring compliance with the preventive arm of the SGP. In doing so, it partially mirrors in EU law the commitment made by the signatories of the Treaty on Stability Coordination and Governance (TSCG), to integrate their medium-term budgetary objective (MTO) into

national law, including an automatic correction mechanism, which would be triggered in case of significant deviation from this MTO or the path towards it.

The MTO is the cornerstone of the preventive arm of the SGP and….

The MTO is a country-specific target for structural deficit, which – once reached – ensures that good economic times are used to strengthen sustainability and increase the fiscal space that will then act as buffer when more difficult times arrive. The MTO is the main element of the EU fiscal framework guiding Member States' fiscal policy when outside the EDP and its importance is clear given the experience of the last few years. The ability to absorb increases in deficits and debt resulting from external shocks has been a key differentiator between countries that were able to weather the crisis and those facing a disproportionate impact to their economies.

…will play an increasingly important role as countries leave the EDP.

Strengthening the role of the MTO and the preventive arm of the SGP has therefore been a central concern of policy-makers, as reflected by the introduction of sanctions in the preventive arm of the SGP by the Six Pack. With the gradual abrogation of the EDPs that were opened under the crisis, the MTO will become the target of reference and Member States will need to be on an appropriate adjustment path leading them to their MTO. Following a request made under the TSCG, the Commission has presented the deadline for convergence to the MTO, in line with the SGP, for all euro area Members and two of the non-euro area Member States. Currently, the reformed SGP contains detailed provisions about the required adjustment on the path towards the MTO, which have served as the basis for Commission's analysis.

The MTO is defined in structural terms to take account of the effect of the economic cycle….

According to the SGP, the appropriate adjustment path towards the MTO is based on an overall assessment including the structural balance and expenditure developments. The structural balance is a cyclically-adjusted measure of the budget balance (meaning that the impact of the cycle is removed) net of one-off and temporary measures. Along with its key role under the preventive arm, it is also central to the corrective arm of the SGP, the EDP. Countries under EDP are given budgetary targets in nominal terms along with the corresponding structural figures, linked by a macroeconomic scenario. In this way, if economic circumstances turn out to be less favourable, delivering the required structural effort can show that Member States have taken effective action, but were hampered in meeting the appropriate nominal corrections due to the effect of the cycle.

…but it does not tell us everything we need to know about the magnitude of policy action.

The calculation of the structural balance is based on estimating the impact of the position of the economy in the cycle and removing its impact from the headline balance. The resulting cyclically-adjusted balance (CAB) can be interpreted as the government deficit that would prevail if GDP were at its potential level and is a so called "top-down" estimate of the fiscal stance. This approach is widely used in fiscal policy worldwide, with the CAB being estimated according to well-established methods which allow replication and scrutiny. It is not free of shortcomings, though, particularly with regard to the interpretation given to it.

Interpreting the change in the CAB as fiscal effort requires a lot of caution, since the cyclical correction models cannot correct for all elements stemming from economic developments. Instead, while the CAB corrects for the impact of certain economic aggregates according to observed medium-term trends, it

remains influenced by some economic developments that are outside the government's control. Windfalls or shortfalls in revenues or unemployment expenditures, which are not adequately captured by the cyclical correction – due, for example to a decoupling of the tax base from GDP – constitute a clear example in this regard. As a result, revenue shortfalls (windfalls) can lead to deterioration (improvement) in the CAB, despite no discretionary measures being taken. Interpreting this change in the CAB as a loosening (tightening) of policy would be misguided – at least in the short-term. Analogously, expenditure shortfalls or windfalls can lead to erroneous assessments.

Complementing it with a more bottom-up approach can be informative…

A complementary approach to measuring the fiscal stance is a "bottom-up" or narrative approach, which consists of directly estimating the yield of the measures implemented by the authorities. This approach has been favoured in the recent literature as a remedy to the weakness of the top-down approach. However, the bottom-up approach has its own weaknesses. These are mainly related to the difficulty in defining the benchmark of "unchanged policy" against which the impact of the government actions would be assessed. This benchmark requires real-time estimates of the unchanged policy scenario, which is particularly difficult to estimate in the case of expenditures, and the computational assumptions made by the national authorities are at the moment neither comparable across countries and nor transparent for the time being.

…and allows the impact of changes in tax elasticities to be taken into account.

Taking into account the limitations and strengths of both approaches, a mixed indicator, the discretionary fiscal effort (DFE) is introduced. It consists of a "bottom-up" approach on the revenue side and an essentially "top-down" approach on the expenditure side, reflecting the absence of a credible counterfactual for spending. Estimating this DFE and comparing it with the CAB for the period 2004-2013 shows that the difference between the two indicators follows a pro-cyclical pattern. This means that the DFE gives a less favourable view of the orientation of fiscal policy in booms with respect to the CAB and an opposite effect in recessions. Under the CAB, fluctuations in tax elasticities blur the impact of policy measures, as improvement (deteriorations) in revenues due to windfalls (shortfalls) in booms (recessions) are attributed to government policy. However, refinements of the CAB are also illustrated, which – by including " bottom-up" measures – try to address some of the shortcomings.

Applying the DFE methodology to assess the fiscal stance in 2012 and 2013 yields results in line with the general pattern. Similarly, the DFE methodology yields a larger fiscal effort associate with Member States' consolidation plans as set out in the SCPs, than that indicated by the change in the structural balance, for those Member States undergoing rebalancing of their economies. On the contrary – although to a lesser extent – the effort has the same sign but is lower for Member States with a wider fiscal space, pointing to appropriate differentiation in the consolidation strategies.

Using such an approach shows that tax elasticities vary considerably over the cycle, with the structural balance being more favourable to governments in booms and less so in recessions.

Tax elasticities play a key role in the difference between the DFE and the CAB. While the CAB assumes that the elasticities are constant and equal to their long-term value, a more detailed analysis reveals significant short-term fluctuations in their value. Estimating tax elasticities in the EU over 2001 to 12 confirms that they were close to unity on average, which is consistent with tax revenues developing broadly in line with nominal output over time. However, they displayed significant variation in the short run, irrespective of whether or not discretionary measures were removed. This indicates that discretionary measures per se are not the main factor driving short-term fluctuation in gross elasticities, but that these are rather explained by other types of revenue windfalls/shortfalls. This confirms the relevance of complementing the CAB with the DFE. Comparing the values of both indicators over the past years helps to illustrate that before the crisis, discretionary easing of the tax burden was partially masked by the impact of strong growth and is reflected in the positive differences between the CAB and DFE. With the onset of the crisis, countercyclical tax cuts were undertaken with the CAB and DFE presenting broadly similar messages. More recently, the currently observed large differences between the two indicators can be associated with the revenue-based consolidation measures and testify to the large role played by the cyclical behaviour of elasticities.

In order to improve budget balances in a lasting way, ensuring the efficiency of large expenditure items is important.

The reliance of the recent consolidation efforts – particularly in 2012 – on revenue measures goes counter to the evidence that expenditure-based consolidation usually produce longer-lasting results. EU policy advice favours expenditure-based consolidation in countries, where tax burden is already high, which is the feature of most EU Member States. The EU advice has emphasised the need for selective reductions in expenditure to preserve the main growth drivers, and the need to increase effectiveness and efficiency of public expenditure. Efforts to improve fiscal sustainability can be filled in in different ways. Many reforms must focus on making efficiency gains, paying attention that reforms are well-designed in order to avoid negative repercussions on economic growth and poverty levels. The Commission has stressed in various Communications and reports that growth enhancing expenditures need to be prioritised in order to emerge stronger from the crisis and to foster smart, inclusive and sustainable growth. In this report, one of the biggest spending items in the EU, health care expenditure (HCE) is examined in detail, from the public finance perspective.

Healthcare spending has increased over time driven by demographic as well as non-demographic factors…

Overall, public spending on health has gradually increased from 5.7% of GDP in 1980 to about 8% in 2010 in the EU. This upward trend includes periods of faster and slower growth, showing a pattern of staggered increase over time, albeit with variation across Member States.

More recently, during the 2008/2009 recession, the HCE to GDP ratio went up in a large majority of EU Member States, reflecting unchecked growth in expenditure levels combined with the denominator effect of a contraction of nominal GDP. Containment in spending and a return of growth in 2010 reversed this trend. It remains to be seen whether spending-to-GDP decrease will continue or be reversed again in coming years.

To delve into the issue of the long-term evolution of healthcare expenditure, the report presents the results of an econometric model which looks at past trends of HCE and makes long term projections. The model draws on

existing empirical studies which show that demographic factors, such as population ageing, have had a second order impact on HCE growth compared with other drivers, such as income, technology, relative prices, and policies and institutional settings. The analysis disentangles the impact of demographic and non-demographic drivers of total public health spending, such as income, productivity and relative prices ("Baumol effect") and technology and policy regulations – which are reflected in the large residual component.

Three scenarios for the HCE to GDP ratio up to 2060 are presented and the results are compared with other projections, from the OECD, IMF, and the Economic Policy Committee of the European Commission's 2012 Ageing Report. The results of the projections are an acute reminder of the need to proceed with the efforts to curb HCE growth and improve the efficiency of health systems. The analysis confirms prior results that the most important driver in the increases in health expenditure is not demographic change, but factors linked to the delivery of health care and that wage growth in excess of productivity is significant contributor to the increases in costs.

...showing that Member States have to focus on structural reforms, to secure sustainability of health systems in the longer term.

The report also gives a taxonomy of recently implemented health reforms showing that few EU Member States have been active in structural reforms directed at generating efficiency gains and improving the quality of health expenditure. Instead recent reforms have mainly focused on generating savings and improving the financing side, despite there being ample scope for further reforms improving the performance of health care systems and their long term financial sustainability. Emergency measures on the financing and cost-saving side may be an effective means of improving budget balances in times of economic crisis, but they do not tend to be conducive to securing long term sustainable improvements in the value for money of public health care services. In view of future fiscal challenges related to rising health care costs, EU Member States will have to strengthen reform efforts in the coming years and broaden their scope to cover also efficiency and quality issues.

Part I

Current developments and prospects

SUMMARY

Bold policy measures taken at both the EU and Member States level have led to an easing of financial tensions in 2012 and broken the vicious cycle between sovereign and banking risks, but without being reflected in economic growth. Economic activity was disappointing in 2012, stagnating in the EU and shrinking in the euro area. Growth is expected to continue to falter in 2013 with the Commission's services 2013 spring forecast, showing growth of -0.1% in the EU and of -0.4% in the euro area. The recovery is expected to slowly take off by the end of 2013, mainly driven by external demand with moderate growth returning in 2014.

Growth developments in the EU revealed wide disparities and different dynamics across Member States reflecting different external and internal rebalancing needs, as well as differing developments in competiveness. Indeed in 2012, while some Member States continued to grow, others re-entered recession: real GDP growth ranged from over 3% in the Baltics to large negative values in a number of countries (Greece, Portugal, Cyprus, Italy and Slovenia).

Against this background, Chapter I.1 presents the economic and budgetary outturns for 2012, discussing Member States' public finances, the context in which they are set, and perspectives for the coming years and Chapter I.2 presents the related developments in surveillance.

In 2012, as detailed in section I.1.2, a strong fiscal retrenchment was implemented in the EU, with a reduction in the aggregate structural balance by more than 1pp for the second year in a row while still under difficult economic conditions. Compared with 2011, the structural balance tightened by 1.1pp of GDP in the EU and 1.5pp of GDP in the euro area.

Weak economic growth has meant that this strong adjustment in structural balances has not been entirely reflected in magnitude on the headline values. In 2012, the EU average headline deficit came in at 4.0% of GDP, down from 4.4% in 2011 and at 3.7% in euro area, down from 4.2% in 2011. The reduction in government deficits in recent years has been impressive, as they continue to fall from an average high of over 6% of GDP in both 2009 and 2010. Commission's forecasts show that consolidation efforts will be maintained in 2013, though at a slower pace than in 2012, with the tightening easing further in 2014. However it has to be reminded that Commission's forecasts for 2014 are made under the assumption that policies are unchanged which prevents the Commission from taking into account future measures. Despite this progress achieved in terms of the consolidation efforts, budget deficits are still expected to remain sizeable in a number of countries over the next few years. Overall, the average headline deficit is forecast to decline to 3.4% of GDP in the EU and 2.9% in the euro area in 2013, with a more limited decrease in 2014.

The effect of these years of large deficits has been a significant increase in government debt, which is forecast to continue this year before stabilising in 2014, as presented in Section I.1.3. The impact of the primary deficit has also been compounded by the snow-ball effect. Debt increased from 59.0% of GDP in the EU and 66.4% in the euro area in 2007 to reach 86.9% of GDP and 92.7% of GDP respectively, in 2012. By 2014, it is forecast to attain 90.6% in the EU and 96.0% in the euro area under the no-policy change assumption.

The sustained consolidation efforts achieved by Member States are being reflected in the implementation of the Stability and Growth Pact (SGP), in particular in its corrective arm the Excessive Deficit Procedure (EDP). This is presented in Chapter I.2, which describes the implementation of the SGP, focussing on the sixteen EDPs that were on-going in 2012 due to deficits having exceeded the Treaty limit of 3% of GDP.

On the basis of the 2013 Commission Spring forecast, the Commission recommended to the Council the abrogation of the EDPs for Italy, Latvia, Lithuania, Romania and Hungary, based on a lasting correction of their deficits. Concerning countries that are not in line with the deadline to correct their nominal deficit, or that are not on course to meet it, the Commission recommended a stepping up of the procedure, setting a deadline of 2013 for Belgium – which did not bring its deficit below 3% of GDP by the 2012 deadline, while it had also not delivered the required structural adjustments either. On the other hand, since it has been considered that effective action had been taken, a deadline extension was recommended for Cyprus, France, the Netherlands, Poland, Slovenia,

Spain and Portugal. Finally, the Commission proposed that a new procedure be opened for Malta. These developments are discussed in Section I.2.1.

The remainder of the Chapter discusses developments concerning the preventive arm of the SGP, i.e. concerning Member States which are not in EDP, based on the 2013 updates of the Stability and Convergence Programmes (SCPs) submitted by Member States this Spring. It also features a stock-taking of the implementation of the Directive on national budgetary requirements ("the Directive") approved in 2011 as part of the Six Pack.

First, Section I.2.2 considers Member States' plans based on the SCPs they submitted in the context of the European Semester. Overall, the macroeconomic assumptions underpinning the SCP plans are similar to those of the Commission Spring forecast. The SCPs show that consolidation is planned to continue, with its pace slowing over time as the result of frontloaded consolidation, following the significant reductions in deficits achieved over 2010-12 in many Member States. When compared to the Commission forecasts, the SCP deficit plans are similar in 2013, but envisage smaller deficits in 2014. The more ambitious targets for 2014 should mainly be read as the result of a policy gap: this means that, in order for Member States to reach their SCP targets, they would need to introduce new policy measures. This represents an element of risk, as the achievement of the plans relies on the political willingness to drive these policies through.

As well as a reduction in deficits, this section shows that government policies have also resulted in a reduction of the sustainability risk. Relative to 2009, there has been a large reduction in the number of countries above the threshold for short-term fiscal stress, as estimated by the Commission's S0 indicator. If Member States' plans are implemented as described in the SCPs, the gains in debt sustainability are projected to persist over the medium term, before costs of ageing gradually increase.

Finally, Section I.2.3 discusses the status of the transposition of the Directive by Member States on the basis of the interim report prepared by the Commission in December 2012. This Section shows substantial but uneven progress across Member States in the transposition process, with areas where improvements are clearer – regarding numerical fiscal rules for instance, while existing provisions still lack details or are partial concerning other elements of the Directive – for example, regarding some parts of the accounting and statistical provisions and the forecast provisions. The Section features a selected number of recent reforms, with the aim of illustrating each Chapter of the Directive with one example of reform as part of its transposition

1. CURRENT DEVELOPMENT AND PROSPECTS

1.1. ECONOMIC DEVELOPMENTS AND PERSPECTIVE ON CONSOLIDATION

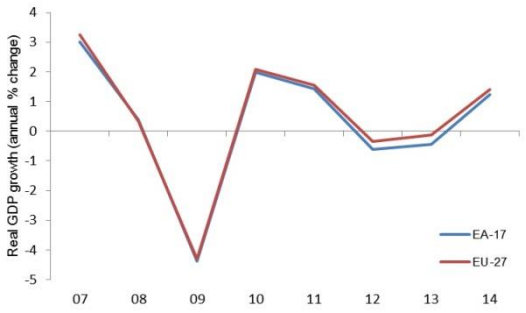
Since mid-2012, financial market stress in the EU has eased, on the back of important policy measures adopted both at the EU and at the Member State level (e.g. establishment of the European Stability Mechanism, introduction of the ECB's Outright Monetary Transactions, decision by the European Council to strengthen the architecture of the EMU, including by creating a Banking Union, as well as significant fiscal adjustment and structural reforms conducted by Member States). Altogether, these policy measures have contributed to reducing tail risks and to weakening the vicious circle between fragile public finances, vulnerable banks and weak economic activity, which had fuelled the sovereign-debt crisis before mid-2012.

Nonetheless, the improvements in the financial conditions have had limited impact on the real economy so far. Economic activity disappointed in the second half of 2012, and turned out weaker than expected in the first quarter of 2013. This was due to two interrelated set of factors. First, because of persistent weaknesses in the banking sector, the improvement in the financial markets' situation has not yet fed in the credit growth. Credit conditions remain tight, especially across the euro area periphery, and interest rates on new loans to households and corporates have not declined significantly. Second, the process of deleveraging of the private and the public sector is still on-going in many economies, and this weighs on aggregate demand. In particular, domestic demand remains muted due to high unemployment and as a result of persistent uncertainty amongst households and enterprises regarding the future economic outlook and the development of the debt crisis. At the same time, given the remaining fiscal sustainability concerns, governments in many Member States have to continue the necessary fiscal retrenchment.

Looking ahead, latest developments in leading indicators point to delays in the return of confidence in the private sector, and suggest that stabilisation of the EU economy is still fragile in the first half of 2013. Based on the assumption that the above mentioned policies to reinforce the EMU will be effectively implemented and thus reduce uncertainty, the Commission Spring forecast project recovery to slowly take off by the end of 2013. This recovery will mainly be driven by external demand, with economic activity projected to return to moderate growth only in 2014. Still, the on-going deleveraging in the private sector, together with the need to continue fiscal consolidation in several Member States, even if at a reduced pace, are expected to weigh on the speed of the recovery, especially in the euro area. These drags on growth should, however, gradually fade away: an improved situation in government finances and a rebound in confidence and in GDP growth would then help the European economy to enter in a virtuous self-reinforcing circle by 2014.

Graph I.1.1 presents forecasts for real GDP growth according to the Commission 2013 Spring forecast. In 2013, annual GDP is projected broadly unchanged from 2012 (-0.1%) in the EU27, while it is expected to shrink (-0.4%) in the euro area. These developments follow a drop in GDP growth in 2012 for both the EU27 (-0.3%) and the euro area (-0.6%). However, the outlook for 2014 is encouraging, with EU and euro area GDP growth expected to rebound to 1.4% and 1.2%, respectively (even though, given the no-policy change assumption, these figures do not reflect the measures that will be taken for 2014).

Graph I.1.1: **Real GDP growth**



Source: Commission service

The overall growth developments in the EU mask divergent dynamics across Member States. These wide disparities stem, among other things, from differences in factors affecting domestic demand (e.g. developments in real disposable income, changes in confidence) which in turn reflect fundamental differences in external and internal

rebalancing needs across the EU. While some Member States continued to grow in 2012, others re-entered recession. GDP growth ranged from 5.6% in Latvia and over 3% in Estonia and Lithuania to -6.4% in Greece, followed by -3.2% in Portugal, -2.4% in Cyprus and Italy, and -2.3% in Slovenia. Negative growth rates were recorded also in Belgium, Spain, the Netherlands, Finland, Czech Republic, Denmark and Hungary. In 2013, among the largest Member States, GDP is expected by the Commission 2013 Spring forecast to increase in Poland (1.1%), the United Kingdom (0.6%) and Germany (0.4%), while it is forecast to decrease in Spain (-1.5%), Italy (-1.3%), the Netherlands (-0.8%) and France (-0.1%).

The state of the labour market is a serious concern for the EU. Adverse labour market developments not only have severe social consequences, but also weigh on growth perspectives and on the sustainability of public finances. These effects could be increased by high hysteresis effects. In contrast to the experience of 2009, when the labour market proved very resilient to the shock of the economic crisis, mainly thanks to adjustment in the working hours and supportive policy measures, the current outlook is characterised by a marked deterioration of employment and a risk of permanent job losses. In line with weak economic activity, unemployment increased to 10.5% in 2012 (11.4% in the euro area) and is expected to further increase in 2013 to 11.1% (12.2% in the euro area), and to stabilize in 2014. At the same time, the non-accelerating wage rate of unemployment (NAWRU), which can be considered a gauge of structural unemployment, has been increasing substantially since 2008.

However, labour market developments differ substantially across countries. Member States which undergo necessary large-scale fiscal adjustments experience rapid and deep deterioration in their labour market. Hence, the highest unemployment rates are observed in Greece and Spain, followed by Portugal, while the unemployment rate in Cyprus is expected to almost double in 2013, compared to 2011. Among large Member States, unemployment rate will continue to increase in Spain, Italy, the Netherlands, and France, while it is set to remain broadly stable in the United Kingdom and in Germany (which displays among the lowest unemployment rates in the EU).

Consolidation of public finances has been strong over 2010-2012, yielding a sizable improvement of the budgetary positions in the EU and the euro area. After the fiscal stimulus in 2009-2010, in face of increasing debt and intensifying market tensions, Member States stepped up consolidation to avert risks to their debt sustainability. The size of the on-going consolidation in public finances is remarkable, as it occurs at the time of output contraction and mostly negative and widening output gaps. In particular, in 2012, an already negative output gap widened by almost 1pp of GDP in both the EU and the euro area. In 2013, it is expected to widen further. Given the progress made in fiscal consolidation and the reinforcement of the economic governance, fiscal tightening is expected to decelerate in 2013, according to the 2013 update of the Stability and Convergence Programmes (see I.2.2), fiscal tightening is expected to decelerate as from 2013.

Although fiscal consolidation has led to visible reduction in deficits, which can be expected to continue, albeit at a slower pace, those deficits will remain sizeable in the next few years in certain countries, while the debt-to-GDP ratio is projected to start stabilising only by 2014.

1.2. SHORT-TERM DEVELOPMENTS IN BUDGET DEFICITS

Table I.1.1 shows the budget balance for the 27 EU Member States from 2010 to 2014 on the basis of the Commission 2013 Spring forecast. Consolidation efforts are bearing fruits. In 2012 the EU headline deficit came in at 4.0% of GDP, down from 4.4% in 2011 and 6.5% in 2010 (in the euro area 3.7% in 2012, 4.2% in 2011 and 6.2% in 2010). Against the current growth outlook, the aggregate EU deficit is forecast to decline to 3.4% of GDP in 2013 and to continue decreasing to 3.2% of GDP in 2014. Broadly the same profile is expected for the euro area: the aggregate deficit is forecast to decline to 2.9% of GDP in 2013 and to continue decreasing to 2.8% of GDP in 2014.

In both the EU and the euro area, the decrease in the headline deficit has been accompanied by a larger decrease (by 1.1 and 1.5 pp, respectively) in the structural deficit, i.e. the headline deficit net of cyclical factors and one-off and other temporary measures.

Table I.1.1: **Budget balance in EU Member States (% of GDP)**

	Budget balance					Structural balance					Structural primary balance				
	2010	2011	2012	2013*	2014*	2010	2011	2012	2013*	2014*	2010	2011	2012	2013*	2014*
BE	-3.8	-3.7	-3.9	-2.9	-3.1	-3.4	-3.5	-3.0	-2.3	-2.3	0.0	-0.2	0.4	0.9	0.9
DE	-4.1	-0.8	0.2	-0.2	0.0	-2.3	-0.9	0.3	0.4	0.3	0.2	1.6	2.8	2.8	2.6
EE	0.2	1.2	-0.3	-0.3	0.2	-1.1	-0.6	0.2	-0.2	0.2	-1.0	-0.5	0.3	0.0	0.3
IE	-30.8	-13.4	-7.6	-7.5	-4.3	-9.1	-7.7	-7.4	-6.9	-4.8	-5.9	-4.3	-3.7	-1.9	0.2
EL	-10.7	-9.5	-10.0	-3.8	-2.6	-8.8	-5.4	-1.0	2.0	2.0	-3.0	1.8	4.0	5.9	6.4
ES	-9.7	-9.4	-10.6	-6.5	-7.0	-7.4	-7.2	-5.5	-4.4	-5.5	-5.5	-4.8	-2.5	-1.0	-2.0
FR	-7.1	-5.3	-4.8	-3.9	-4.2	-5.8	-4.7	-3.6	-2.2	-2.3	-3.4	-2.0	-1.0	0.3	0.2
IT	-4.5	-3.8	-3.0	-2.9	-2.5	-3.7	-3.6	-1.4	-0.5	-0.7	0.9	1.4	4.1	4.8	4.9
LU	-0.9	-0.2	-0.8	-0.2	-0.4	-0.1	0.3	0.1	0.7	0.3	0.3	0.8	0.5	1.2	0.8
NL	-5.1	-4.5	-4.1	-3.6	-3.6	-4.0	-3.7	-2.6	-2.0	-2.3	-2.0	-1.6	-0.7	-0.1	-0.4
AT	-4.5	-2.5	-2.5	-2.2	-1.8	-3.3	-2.2	-1.5	-1.6	-1.7	-0.7	0.4	1.1	1.0	0.9
PT	-9.8	-4.4	-6.4	-5.5	-4.0	-8.8	-6.6	-4.2	-3.6	-2.0	-6.0	-2.5	0.2	0.7	2.3
SI	-5.9	-6.4	-4.0	-5.3	-4.9	-4.7	-4.7	-2.7	-2.4	-3.3	-3.0	-2.8	-0.6	0.0	-0.5
FI	-2.5	-0.8	-1.9	-1.8	-1.5	-0.7	-0.1	-0.7	-0.6	-0.5	0.3	1.0	0.3	0.4	0.5
MT	-3.6	-2.8	-3.3	-3.7	-3.6	-4.6	-3.6	-4.1	-3.8	-3.7	-1.6	-0.5	-1.0	-0.6	-0.5
CY	-5.3	-6.3	-6.3	-6.5	-8.4	-5.7	-6.6	-6.7	-5.4	-5.1	-3.5	-4.2	-3.6	-1.3	-1.0
SK	-7.7	-5.1	-4.3	-3.0	-3.1	-7.1	-5.2	-4.1	-3.0	-2.4	-5.8	-3.7	-2.3	-1.1	-0.5
EA-17	**-6.2**	**-4.2**	**-3.7**	**-2.9**	**-2.8**	**-4.5**	**-3.6**	**-2.1**	**-1.4**	**-1.5**	**-1.6**	**-0.5**	**1.0**	**1.7**	**1.5**
BG	-3.1	-2.0	-0.8	-1.3	-1.3	-2.1	-1.6	-0.4	-0.8	-0.9	-1.4	-0.8	0.5	0.1	0.1
CZ	-4.8	-3.3	-4.4	-2.9	-3.0	-4.5	-3.0	-1.7	-1.6	-2.1	-3.1	-1.7	-0.2	0.0	-0.4
DK	-2.5	-1.8	-4.0	-1.7	-2.7	-0.2	0.3	0.3	0.0	-0.3	1.5	2.0	2.0	1.6	1.3
LV	-8.1	-3.6	-1.2	-1.2	-0.9	-2.9	-1.6	-0.3	-1.4	-1.5	-1.5	-0.1	1.0	0.1	0.1
LT	-7.2	-5.5	-3.2	-2.9	-2.4	-4.7	-4.9	-3.2	-2.8	-2.8	-2.9	-3.1	-1.3	-1.0	-1.0
HU	-4.3	4.3	-1.9	-3.0	-3.3	-3.3	-4.1	-0.7	-1.1	-1.8	0.8	0.0	3.4	3.1	2.1
PL	-7.9	-5.0	-3.9	-3.9	-4.1	-8.3	-5.4	-3.8	-3.3	-2.9	-5.6	-2.7	-0.9	-0.6	-0.4
RO	-6.8	-5.6	-2.9	-2.6	-2.4	-6.2	-4.0	-2.7	-1.7	-1.4	-4.7	-2.4	-0.9	0.1	0.4
SE	0.3	0.2	-0.5	-1.1	-0.4	1.3	0.2	0.2	-0.1	0.3	2.1	1.3	1.0	0.6	1.0
UK	-10.2	-7.8	-6.3	-6.8	-6.3	-8.9	-6.8	-7.0	-5.7	-5.4	-5.9	-3.5	-4.0	-2.8	-2.5
EU-27	**-6.5**	**-4.4**	**-4.0**	**-3.4**	**-3.2**	**-4.9**	**-3.9**	**-2.8**	**-2.0**	**-2.1**	**-2.2**	**-0.9**	**0.2**	**0.9**	**0.8**

Note: The structural budget balance is calculated on the basis of the commonly agreed production function method (see European Commission (2004)).
* Figure from the 2013 Commission Spring 2013 forecast. Source: Commission services
Source:

Still, the aggregate figures hide different developments between Member States. Those different budgetary developments reflect mainly uneven starting conditions, different impact of the crisis on the Member States' budgets, as well as different needs for banks recapitalisation. In 2012, the largest adjustment took place in Ireland, whose headline deficit in 2012 came in at 7.6% of GDP, down from 13.4% in 2011. Among euro area countries, a marked improvement was recorded also in Slovenia (4.0% of GDP, after 6.4% in 2011). Improvements between 1.0 and 3/4 pp of GDP were recorded in Germany, Italy and Slovakia, while France and the Netherlands achieved smaller improvements. Other euro area countries saw a deterioration of their budgetary positions, the greatest being in Estonia(-0.3% of GDP after the 1.2% surplus in 2011), Portugal

Table I.1.2: **Euro Area- The general Government budget balance (%of GDP)**

	2009	2010	2011	2012	2013*	2014*
Total revenue (1)	44.9	44.8	45.3	46.2	46.8	46.5
Total expenditure (2)	51.2	51.0	49.5	49.9	49.7	49.3
Actual balance (3) = (1) - (2)	-6.4	-6.2	-4.2	-3.7	-2.9	-2.8
Interest (4)	2.9	2.8	3.0	3.1	3.1	3.1
Primary balance (5) = (3) + (4)	-3.5	-3.4	-1.1	-0.6	0.2	0.3
One-offs (6)	0.0	-0.7	0.0	-0.4	0.1	0.0
Cyclically adjusted balance (7)	-4.5	-5.1	-3.5	-2.6	-1.4	-1.6
Cyclically adj. prim. balance = (7) + (4)	-1.7	-2.3	-0.5	0.5	1.7	1.5
Structural budget balance = (7) -(6)	-4.5	-4.5	-3.6	-2.1	-1.4	-1.5
Change in actual balance:	-4.2	0.2	2.1	0.4	0.8	0.1
- Cycle	-2.7	0.8	0.4	-0.5	-0.4	0.4
- Interest	-0.2	0.0	0.2	0.1	0.0	0.0
- Cycl.adj.prim.balance	-1.7	-0.6	1.8	1.0	1.2	-0.2
- One-offs	0.0	-0.7	0.7	-0.5	0.5	-0.1
- Structural budget balance	-1.6	0.0	0.9	1.4	0.8	-0.2

Note: Differences between totals and sum of individual items are due to rounding
* Figure from Commission services' Spring 2013 forecast
Source: Commission services

Box I.1.1: **Budgetary developments in programme countries**

Four euro area Member States have received financial assistance from EU funds and the IMF: Greece, Ireland, Portugal and Cyprus. These policy loans are subject to conditionality that aims at improving debt sustainability and restoring macroeconomic balances and financial stability. Under their programmes the four countries have implemented budgetary measures according to the agreed Memoranda of Understanding (MoUs). Spain received EU financial assistance to address problems in its financial sector, but the conditionality of its programme did not contain budgetary measures. As for non-euro area member states, the programme for Romania under the Balance of Payments (BOP) facility ended in March 2013. This box gives a brief overview of the most important budgetary developments in the remaining four programme countries.

Greece

The general government deficit amounted to 10% of GDP in 2012 reflecting one-off costs associated with the resolution of three banks of almost 4% of GDP. Net of these one-off measures, despite continued headwind from the deep recession, Greece is estimated to have achieved a headline deficit of 6.3%, and a primary deficit of 1.3% of GDP, slightly better than expected. On the basis of the last package of measures taken in November 2012 amounting at almost 6.5% of GDP over 2013-14 in the context of the programme, Greece is expected to achieve primary balance in 2013. Recent developments are broadly in line with this programme target although there are risks in certain areas of the budget. The revenue outlook is adversely impacted by weaker-than-expected social security contribution collection and delays in property tax revenues. In the first months of 2013 there have been significant expenditure overruns in the health sector, but measures are being taken to address these slippages. Assuming the effective implementation of the budget according to the programme, the bank recapitalisation in 2013 will have a very significant impact on the headline deficit compared to the current forecast. This could not be included in spring forecasts as the exact nature and size of such impact on the deficit depends on the ultimate form of the operations, which were not yet finalised. In structural terms, the improvement is even more significant leading to a projected structural balance of 2% of GDP in 2014, up from some -14¾% in 2009, reflecting a clear turnaround in the fiscal position compared to the beginning of the crisis.

The ratio of public debt to GDP in 2012 was 156.9% down from 170.3% in 2011. This reduction was mainly driven by the debt buy back completed on 11 December 2012. The above mentioned ratio is expected to rise in 2013. However, from 2014 and onwards, the debt ratio is projected to decline at an accelerating pace as the fiscal balance continues improving and economic growth resumes.

Ireland

The 2012 deficit excluding one-off bank-support measures was 7.6% of GDP, well within the programme ceiling of 8.6%. This reflects continued determined budgetary implementation and strong revenue collection, but also favourable surprises in one-off revenues. The 2013 deficit is estimated at the ceiling of 7.5% of GDP. The adjustment effort of 2.5% of GDP in 2013 results only in a marginal reduction of the headline deficit, due to a series of deficit-increasing one-off elements. Those include transactions costs related to the liquidation of Irish Bank Resolution Corporation, while the overall operation, including the exchange of the promissory notes with the long-dated government bonds, will deliver significant fiscal gains from 2014.

The debt/GDP level reached 117% in 2012 and is expected to peak in 2013 at 122% declining thereafter. The exchange of the promissory notes with government bonds with lower interest rates and longer maturity in early 2013 had no immediate impact on the government debt level, but will lower the future debt path as a result of interest cost savings.

(Continued on the next page)

Box (continued)

Portugal

Amid a challenging macroeconomic environment Portugal undertook a large fiscal consolidation effort in 2012. In spite of rigorous budget implementation on the expenditure side, large revenue shortfalls resulting from a deterioration of the economic activity and the faster-than-expected adjustment from domestic demand towards the exports, led to a revision of the fiscal adjustment path. The general government deficit in 2012 was above target, at 6.4% of GDP. However, without the impact of a number of unexpected one-off operations, the general government deficit would have been 4.7% of GDP. Confining the deficit required additional consolidation measures. All in all, the fiscal effort in 2012 as measured by the change in the structural balance was 2.4% of GDP. Potential output has been revised downward since and tax elasticities have been much lower than average (see Part III.) Without such effects the measured effort would have been much higher.

Gross public debt rose from 108.3% of GDP in 2011 to 123.6% of GDP in 2012, mainly driven by higher interest expenditure and the evolution of real growth. In addition, the statistical treatment of some operations also contributed to the upward shift of the debt ratio. Going forward the debt is expected to engage in a sustainable downward path from 124% of GDP in 2014 if fiscal consolidation effort is maintained and the government implements the measures contained in the MoU such as the completion of the privatisation efforts.

Cyprus

Already in 2012 before the programme started, the government aimed at improving budgetary outcomes by increasing the VAT, better targeting of social transfers and reductions of public sector wages. Under the programme, Cyprus aims to achieve a continuous strengthening of the primary balance, resulting in a primary surplus of 3% of GDP in 2017 and 4% of GDP in 2018, and maintaining at least such a level thereafter. The measures agreed in the MoU for 2013 comprise inter alia increases of the statutory corporate income tax, the interest income withholding tax and the bank levy.

Public debt rose by almost 15 pp. to 85.8% of GDP in 2012, mostly due to bank recapitalisation. For 2013 and 2014, the debt-to-GDP ratio is expected to rise to unprecedented levels of 109.5% and 124%, largely driven by recapitalisation of financial institutions and the continued contraction in GDP.

(6.4% after 4.4% in 2011) and Spain, (10.6% after 9.4% in 2011). Deficits increased also in Finland, Luxembourg, Greece, Malta and Belgium. In 2012 Germany was the only EU Member State to have posted a surplus (0.2% of GDP). According to the Commission 2013 Spring forecast (based on the no-policy-change assumption that only legislated measures are taken into account), most of the euro area Member States will record improvements in their budgetary positions over the forecast horizon, although developments vary across the countries.

Outside the euro area, in Hungary, Czech Republic, Denmark and Sweden, budgetary positions deteriorated in 2012, although from a surplus in case of Hungary and Sweden. The deterioration in the headline deficit of Hungary (about 6½ points of GDP) came in after the country had experienced an unprecedented improvement (about eight points of GDP) in 2011, due to the one-off accounting impact of a reform of the pension system. Both Czech Republic and Denmark had an increase in the headline deficits in 2012, but their budgetary positions are forecast to improve again in 2013. Latvia and Romania brought down their deficits below 3% of GDP in 2012 and are projected to continue – albeit at a much slower pace – the deficit reductions until 2014. The United Kingdom posted the highest headline deficit (6.3% of GDP) outside the euro area, which is expected to further worsen (up to 6.8%) in 2013.

From the perspective of EU fiscal rules, only 11 Member States had in 2012 headline deficits below or equal to 3% of GDP Treaty reference value. After correcting the excessive deficits, Member States are mandated by the Pact to progress

towards their country-specific Medium Term budgetary Objective (MTO), which is a target for their structural balance which should ensure fiscal sustainability over the medium term (see Chapter II.3). In 2012, Germany and Estonia were the only euro area Member State that had achieved their MTOs. Outside the euro area, Bulgaria, Denmark, Latvia, Hungary and Sweden have also reached their MTOs.

1.3. SHORT-TERM DEVELOPMENTS IN DEBT

Average government debt in the EU was standing at 86.9% of GDP in 2012, up by 3.8 pp relative to 2011. It is projected to continue rising to 89.8% of GDP in 2013 and 90.6% in 2014. In the euro area, debt levels reached 92.7% of GDP in 2012, from 4.7 pp in 2011. They are projected to rise to 95.5% of GDP in 2013 and to 96% in 2014.

Table I.1.3 shows the projected change in the government debt ratio between 2009 and 2014 according to the Commission 2013 Spring forecast, and the composition of the change in terms of primary balance, the "snowball effect", and stock-flow adjustments. For the EU, as whole, deficit appears to have been the main driver of debt accumulation, followed by stock-flow adjustments. In the euro area, however, the snowball effect was the biggest component of the increase in the debt ratio, as a number of Member States with a high (starting) level of debt have faced both an increase in refinancing costs and a more negative GDP development.

Aggregate EU and euro area figures for debt levels again mask considerable variation across Member States in their evolution over the past years. In 2012, debt ratios ranged between 10.1% of GDP in Estonia (whose debt, however, increased by about 4 pp from 2011) to 156.9% in Greece (which posted a decrease of about 13 pp relative to 2011, as a result of its debt restructuring). Over the last 4 years, debt-to-GDP ratios have been on a broadly increasing path in all EU Member States, except for Greece in 2012, Sweden (where debt has been steadily declining since 2009), Hungary and Latvia (debt has been declining in 2011 and 2012), Denmark and Poland (debt decreased in 2012 for the first time since 2009).

In 2012, increases in debt-to-GDP ratios from 2011 were particularly marked in Spain, Cyprus and Portugal (by about 15 pp), Ireland (11 pp), Slovakia (9 pp), Slovenia and Italy (more than 6 pp). But these developments hide different pre-crisis debt levels and diverging dynamics. Ireland, whose debt level was relatively low before the crisis, saw its debt rocketing in 2009-2010 as result of the public interventions in the financial sector.

However, since 2011, the rate of debt increase has remained moderate and Irish debt is projected to start declining in 2014, after reaching a peak at 123.3% of GDP in 2013. On the contrary, debt increase has been accelerating over the last year in Spain, Slovakia and Cyprus.

Overall, the continuously rising debt-to-GDP ratios reflect the combined effect of high primary deficits, negative or very weak growth, and high interest expenditure in some Member States. In particular, the large differential between the real interest rate and the real GDP growth continued to push up debt in Italy, despite the primary surpluses recorded since 2010. Negative GDP growth has aggravated the debt challenge in Spain, as well as in Greece and Portugal. Public interventions to support the financial sector have also contributed to the rise in debt and to its heterogeneity across countries.

Six Member States (Belgium, Ireland, Greece, Italy, Cyprus and Portugal) are expected to record a debt level above 100% of GDP by 2013. In Greece, the already very high debt ratio, after a drop in 2012, is expected to continue increasing in 2013, reaching 175.0% of GDP in 2014 (under a no-policy-change assumption).

Italy's debt-to-GDP ratio hit the 100% threshold before the crisis; it has been continuously rising since then and is forecast to exceed 130% by 2014. In Portugal the debt-to-GDP ratio exceeded 100% in 2011 and is set to continue growing to 124.3% in 2014 (after a small drop in 2013). Belgium's debt is forecast to increase above 100% of GDP in 2013 and to continue rising in 2014.

Germany, France, Hungary, Malta, the Netherlands, Austria and the United Kingdom also had debt ratios above the 60% of GDP threshold in2012, and further increases are projected over the forecast horizon in all these countries, except

Table I.1.3: **Composition of changes in the government debt ratio in EU Member States (% of GDP)**

	Gross debt ratio						Change in debt ratio	Change in the debt ratio in 2009-14 due to:		
	2009	2010	2011	2012	2013*	2014*	2009-14*	Primary balance	Interest &growth contribution	Stock-flow adjustment
BE	95.7	95.5	97.8	99.6	101.4	102.1	6.4	1.0	2.6	2.9
DE	74.5	82.4	80.4	81.9	81.1	78.6	4.1	-7.3	-0.3	11.8
EE	7.2	6.7	6.2	10.1	10.2	9.6	2.4	-1.8	-1.9	6.1
IE	64.8	92.1	106.4	117.6	123.3	119.5	54.7	43.4	10.8	0.5
EL	129.7	148.3	170.3	156.9	175.2	175.0	45.4	10.5	62.4	-27.5
ES	53.9	61.5	69.3	84.2	91.3	96.8	42.9	29.1	12.3	1.4
FR	79.2	82.4	85.8	90.2	94.0	96.2	17.0	12.8	2.7	1.5
IT	116.4	119.3	120.8	127.0	131.4	132.2	15.8	-9.3	19.4	5.7
LU	15.3	19.2	18.3	20.8	23.4	25.2	9.8	0.4	-2.9	12.3
NL	60.8	63.1	65.5	71.2	74.6	75.8	15.0	11.1	4.6	-0.7
AT	69.2	72.0	72.5	73.4	73.8	73.7	4.5	0.4	0.7	3.4
PT	83.7	94.0	108.3	123.6	123.0	124.3	40.6	10.2	21.0	9.5
SI	35.0	38.6	46.9	54.1	61.0	66.5	31.4	15.7	10.8	5.0
FI	43.5	48.6	49.0	53.0	56.2	57.7	14.2	3.3	-3.1	14.0
MT	66.4	67.4	70.3	72.1	73.9	74.9	8.6	1.4	1.9	5.2
CY	58.5	61.3	71.1	85.8	109.5	124.0	65.5	16.8	23.4	25.3
SK	35.6	41.0	43.3	52.1	54.6	56.7	21.1	14.6	-0.7	7.2
EA-17	**80.0**	**85.6**	**88.0**	**92.7**	**95.5**	**96.0**	**16.0**	**4.6**	**6.5**	**4.9**
BG	14.6	16.2	16.3	18.5	17.9	20.3	5.6	4.4	0.9	0.3
CZ	34.2	37.8	40.8	45.8	48.3	50.1	15.9	10.9	5.1	-0.2
DK	40.7	42.7	46.4	45.8	45.0	46.4	5.7	4.6	2.1	-1.0
LV	36.9	44.4	41.9	40.7	43.2	40.1	3.2	7.8	-4.8	0.2
LT	29.3	37.9	38.5	40.7	40.1	39.4	10.1	12.3	-2.9	0.7
HU	79.8	81.8	81.4	79.2	79.7	78.9	-0.9	-12.4	6.3	5.3
PL	50.9	54.8	56.2	55.6	57.5	58.9	8.0	11.4	0.9	-4.3
RO	23.6	30.5	34.7	37.8	38.6	38.5	14.9	11.7	-0.5	3.7
SE	42.6	39.4	38.4	38.2	40.7	39.0	-3.5	-2.6	-4.2	3.3
UK	67.8	79.4	85.5	90.0	95.5	98.7	30.8	22.4	3.0	5.4
EU-27	**74.6**	**80.2**	**83.1**	**86.9**	**89.8**	**90.6**	**16.0**	**7.1**	**3.9**	**4.9**

Note: Differences between the sum and the total of individual items are due to rounding
* Figure from Commission services' Spring 2013 forecast
Source: Commission services

Table I.1.4: **Euro area- Government revenue and expenditure (% of the GDP)**

	2009	2010	2011	2012	2013*	2014*
Total revenue	**44.9**	**44.8**	**45.3**	**46.2**	**46.8**	**46.5**
Taxes on imports and production (indirect)	12.5	12.7	12.8	13.0	13.1	13.1
Current taxes on income and wealth	11.6	11.5	11.9	12.4	12.7	12.5
Social contributions	15.8	15.7	15.7	15.9	16.0	15.9
of which actual social contributions	14.6	14.4	14.5	14.7	14.7	14.7
Other revenue	5.0	4.9	5.0	4.9	5.0	5.0
Total expenditure	**51.2**	**51.0**	**49.5**	**49.9**	**49.7**	**49.3**
Collective consumption	8.6	8.4	8.2	8.2	8.2	8.1
Social benefits in kind	13.7	13.6	13.4	13.4	13.4	13.3
Social transfers other than in kind	17.6	17.5	17.3	17.6	17.8	17.8
Interest	2.9	2.8	3.0	3.1	3.1	3.1
Subsidies	1.2	1.4	1.4	1.3	1.2	1.2
Gross fixed capital formation	2.8	2.6	2.3	2.1	2.1	2.0
Other expenditures	4.4	4.7	3.8	4.2	3.9	3.8

Notes: Differences between the sum and the total of individual items are due to rounding.
Expenditure figures are corrected for the differences between the definition of expenditure according to ESA95 and according to EDP rules.
* Figure from Commission services' Spring 2013 forecast
Source: Commission services

Germany (where debt is expected to decline in 2013 and 2014) and Hungary (where debt is forecast to decline in 2014). Moreover, the debt-to-GDP ratio is projected to decline in Bulgaria, Denmark and Lithuania in 2013.

1.4. COMPOSITION OF ADJUSTEMENT

The fiscal consolidation policies conducted in the EU between 2009 and 2012 were mainly based on reducing expenditure, which fell by 1.7 pp of GDP, while revenues increased by 1.2 pp.

Table I.1.5: **Government revenue and expenditure (% of the GDP)**

	Revenue						Expenditure					
	2009	2010	2011	2012	2013*	2014*	2009	2010	2011	2012	2013*	2014*
BE	48.1	48.7	49.5	50.8	51.1	51.0	53.6	52.4	53.2	54.7	54.1	54.2
DE	45.1	43.6	44.5	45.2	45.2	45.1	48.2	47.7	45.3	45.0	45.4	45.1
EE	43.5	40.9	39.5	40.2	39.3	37.8	45.5	40.7	38.3	40.5	39.6	37.6
IE	34.7	35.2	34.9	34.6	34.8	35.0	48.6	66.1	48.2	42.2	42.3	39.4
EL	38.3	40.6	42.4	44.7	43.5	43.9	54.0	51.3	51.9	54.7	47.3	46.5
ES	35.1	36.6	35.7	36.4	36.8	35.9	46.3	46.3	45.1	47.0	43.3	42.9
FR	49.2	49.5	50.6	51.7	53.3	52.9	56.8	56.5	55.9	56.6	57.2	57.1
IT	46.5	46.1	46.2	47.7	48.2	47.7	52.0	50.5	50.0	50.7	51.1	50.2
LU	43.8	42.0	41.5	42.1	42.9	42.9	44.6	42.9	41.8	43.0	43.1	43.4
NL	45.8	46.1	45.4	46.4	47.3	47.2	51.4	51.3	49.9	50.4	50.9	50.8
AT	48.5	48.1	48.0	48.7	49.0	49.0	52.6	52.6	50.5	51.2	51.3	50.8
PT	39.6	41.6	45.0	41.0	43.1	42.6	49.7	51.5	49.4	47.4	48.6	46.6
SI	43.1	44.5	44.4	45.0	45.0	44.2	49.3	50.4	50.8	49.0	50.3	49.1
FI	53.4	53.0	53.9	53.7	54.5	55.2	55.9	55.5	54.7	55.6	56.3	56.7
MT	38.7	38.4	39.3	40.5	40.9	41.1	42.4	42.0	42.1	43.9	44.6	44.7
CY	40.1	40.9	39.7	40.0	40.6	39.1	46.2	46.2	46.0	46.3	47.1	47.5
SK	33.5	32.3	33.3	33.1	33.9	33.2	41.6	40.0	38.3	37.4	36.9	36.3
EA-17	44.9	44.8	45.3	46.2	46.8	46.5	51.2	51.0	49.5	49.9	49.7	49.3
BG	37.1	34.3	33.6	34.9	36.2	36.9	41.4	37.4	35.6	35.7	37.5	38.2
CZ	38.9	39.0	39.8	40.1	40.5	40.3	44.7	43.8	43.0	44.5	43.4	43.3
DK	55.3	55.0	55.7	55.5	56.1	54.1	58.0	57.5	57.5	59.5	57.8	56.8
LV	34.0	35.3	34.9	35.2	34.3	33.8	43.8	43.4	38.4	36.4	35.5	34.7
LT	35.5	35.2	33.3	32.9	32.6	32.4	44.9	42.4	38.8	36.1	35.6	34.8
HU	46.9	45.4	53.8	46.5	46.6	47.0	51.5	49.7	49.5	48.4	49.6	50.3
PL	37.2	37.6	38.4	38.4	37.6	36.9	44.6	51.5	49.4	47.4	48.6	46.6
RO	32.1	33.3	33.8	33.5	34.1	34.4	41.1	40.1	39.4	36.4	36.6	36.8
SE	54.0	52.3	51.2	51.3	51.2	51.2	54.7	52.0	51.0	51.8	52.2	51.5
UK	39.9	40.3	40.8	42.2	41.7	41.5	51.4	50.5	48.6	48.5	48.5	47.8
EU-27	44.2	44.1	44.7	45.4	45.8	45.5	51.1	50.6	49.1	49.4	49.2	48.8

Note: Differences between the sum of revenues and expenditures and the balance can be due to rounding
* Figure from Commission services' Spring 2013 forecast
Source: Commission services

Table I.1.6: **Government structural revenue and expenditure (% of the GDP)**

	Structural Revenue						Structural Expenditure					
	2009	2010	2011	2012	2013	2014	2009	2010	2011	2012	2013	2014
BE	48.3	48.7	49.6	50.4	50.8	51.0	52.2	52.0	53.1	53.4	53.1	53.3
DE	44.9	43.5	44.7	45.2	45.2	45.1	45.8	45.9	45.6	44.8	44.8	44.8
EE	41.0	38.6	38.9	40.2	39.3	37.9	42.1	39.7	39.5	40.0	39.4	37.8
IE	34.2	34.5	34.8	34.6	34.8	35.0	44.0	43.6	42.5	42.0	41.7	39.8
EL	38.4	40.0	41.8	43.6	42.8	43.4	53.2	48.8	47.1	44.6	40.7	41.4
ES	35.7	36.6	35.6	36.1	36.8	36.3	44.3	44.0	42.8	41.6	41.1	41.8
FR	49.1	49.5	50.4	51.6	52.9	52.9	55.1	55.3	55.1	55.1	55.2	55.2
IT	45.8	45.9	45.8	47.7	48.3	47.8	49.9	49.6	49.4	49.1	48.8	48.5
LU	43.9	42.0	41.6	42.2	43.0	43.0	42.9	42.1	41.2	42.1	42.2	42.7
NL	45.6	46.1	45.3	46.2	46.9	46.8	49.7	50.1	49.0	48.9	48.8	49.1
AT	48.3	48.0	48.0	48.6	48.8	48.9	51.0	51.3	50.3	50.1	50.4	50.6
PT	39.8	40.0	40.9	40.7	42.5	42.1	48.4	48.8	47.4	44.9	46.1	44.1
SI	43.0	44.4	44.4	44.7	44.9	44.1	47.3	49.1	49.0	47.4	47.2	47.4
FI	52.6	52.5	53.7	53.4	54.2	54.9	52.0	53.3	53.8	54.2	54.8	55.5
MT	38.1	37.8	38.9	40.3	40.8	41.1	42.0	42.4	42.5	44.4	44.6	44.8
CY	40.1	40.9	40.0	39.0	38.9	39.0	46.6	46.6	46.5	45.7	44.3	44.0
SK	33.1	32.2	32.8	32.8	32.9	32.5	40.3	39.4	38.1	37.0	35.9	35.0
EA-17	44.7	44.7	45.2	46.1	46.7	46.5	49.2	49.1	48.7	48.2	48.1	48.1
BG	36.9	34.1	33.5	34.9	36.1	36.8	40.4	36.2	35.1	35.2	36.9	37.6
CZ	38.8	38.7	39.6	40.0	40.3	40.1	44.2	43.2	42.6	41.6	41.9	42.2
DK	55.1	54.7	55.5	55.2	54.7	53.9	54.8	54.9	55.2	54.9	54.7	54.2
LV	32.8	34.2	34.3	35.1	34.4	33.9	37.8	37.1	35.9	35.4	35.8	35.4
LT	34.1	34.6	33.2	32.8	32.6	32.4	40.7	39.3	38.1	35.9	35.5	35.3
HU	46.5	44.5	43.4	45.6	46.3	46.8	48.9	47.8	47.5	46.4	47.4	48.7
PL	37.1	37.7	38.5	38.2	37.3	36.6	45.3	45.9	43.9	42.0	40.5	39.6
RO	32.1	33.2	33.8	33.4	33.9	34.2	41.6	39.4	37.8	36.1	35.6	35.6
SE	53.5	52.2	51.2	51.2	51.0	51.1	50.8	50.9	51.0	51.0	51.2	50.8
UK	39.9	40.3	40.8	40.4	41.6	41.5	49.3	49.2	47.6	47.3	47.3	46.9
EU-27	43.9	44.0	44.4	45.1	45.6	45.5	49.0	48.9	48.3	47.8	47.7	47.6

Source: Commission services

In the euro area, the composition was evenly distributed between expenditure and revenue, as expenditure fell by 1.3 pp and revenues increased by the same amount.

In 2012, the EU and the euro area saw both Revenue and expenditure ratios increase, although the latter only marginally.

In 2013, the revenue-to-GDP ratio is projected to increase again, of 45.8% and 46.8%, in the EU and in the euro area respectively. At the same time, expenditures are projected to continue declining in 2013 and 2014 (after a minor increase in 2012).

Table I.1.4 presents the main components of government revenue and spending for the euro area over 2009 to 2014. On the revenue side, social contributions appear as broadly stable over the period, while Member States are steadily raising indirect taxes, taxes on income and wealth, which are expected to have a less distortionary impact on growth.

On the expenditure side, public investment (as measured by the gross fixed capital formation in percentage of GDP) has experienced significant cuts. A deeper analysis of the composition of consolidation is conducted in Section I.2.5.

Table I.1.5 compares the revenue and expenditure ratios for all EU countries. According to the Commission 2013 Spring forecast, in most countries, both the revenue and the expenditure-to GDP-ratios are forecast to remain broadly stable over the horizon. As exceptions to this average trend, the expenditure ratio is projected to decrease notably in Greece and Spain, while a particularly marked increase in the revenue ratio is forecast in Portugal, Finland and France.

Table I.1.6 shows that this general picture of the composition of fiscal consolidation does not change if are considered structural revenues and expenditures (i.e. cleaning out the effects of the cycle on expenditure, revenue and GDP at consideration for those ratios). However, this analysis allows detecting that in countries like Cyprus and Italy, structural expenditures are actually expected to decrease. This indicates that part of the effect observed in the decrease in the expenditure ratio is led by cyclical developments of GDP rather than the behaviour of the expenditures.

2. IMPLEMENTATION OF FISCAL SURVEILLANCE

The EU fiscal framework, as laid down by the Stability and Growth Pact (SGP), aims at ensuring budgetary discipline through two main requirements. First, Member States are required by the Treaty to avoid excessive government deficit and debt positions, measured against reference values of 3% and 60% of GDP, respectively. ([1]) Second, they are required by the preventive part of the SGP ([2]) to achieve and maintain their medium-term budgetary objectives (MTO), which are cyclically adjusted targets for the budget balance, net of one-off and temporary measures. Country-specific MTOs are set to secure the sustainability of public finances and to allow the automatic stabilizers to work without breaching the deficit thresholds required by the Treaty.

Following the marked deterioration of public finances in EU Member States in the wake of the severe economic recession of 2009, fiscal consolidation efforts started in 2010. They intensified in 2011 and 2012 and led to a significant improvement of public finance in both the EU and the euro area. Section I.1 discussed the strong corrections in government deficits that have already occurred.

The magnitude of the challenge faced means that despite those large efforts, sixteen EU Member States had government deficits exceeding the 3% of GDP reference value in 2012, based on data notified by Member States and validated by Eurostat. ([3]) On a more encouraging note, based on the latest assessment of the Commission services, reflecting the 2013 Commission Spring forecast five countries appear to have brought their excessive deficits to below 3% of GDP in 2012, in a manner that can be considered durable, with one country's excess over the 3% limit being due to the implementation of pension reforms.

As indicated in Chapter I.1 according to the Commission 2013 Spring forecast, the estimated improvement of the structural budget balance in 2013 compared to 2012 is expected to be around ¾ pp of GDP both in the EU and in the euro area. The associated projected improvement of the budgetary situation in the EU is differentiated across Member States, with ten Member States forecast to see headline deficits increase in 2013. However this increase is only expected to be substantial in two cases. The deterioration in 2013 in Slovenia reflects a one-off conversion of hybrid debt-equity instruments into equity of the two largest banks, while the one in Hungary is expected to result from the expiration of one-offs from 2012 and a lasting correction of the deficit after 2013 seems to be assured by a recently-adopted package of measures.

In 2012 and 2013 the Commission and the Council adopted new EDP steps in the case of ten euro-area countries (Cyprus, Greece, Spain, Portugal, Malta, France, the Netherlands, Italy and Slovenia) and six non-euro area countries (Bulgaria, Hungary, Latvia, Lithuania, Romania and Poland). For three Member States (Bulgaria, Germany and Malta), the excessive deficit procedure was abrogated in 2012. In March and December 2012, following Commission recommendations, the Council issued two consecutive decisions amending its 12 July 2011 decision to give notice and to reinforce and deepen fiscal surveillance in Greece. Subsequently, in May 2013, the Commission issued a communication stating that Greece had taken effective action. In May 2013, the Council adopted a revised recommendation with regard to Cyprus and in June 2013 to Spain, France, the Netherlands, Poland, Portugal and Slovenia. Furthermore, also in June 2013, the Council stepped up the EDP issuing a decision to give notice with regard to Belgium and addressed a new EDP recommendation to Malta. At the same time, the Council issued decisions abrogating the

([1]) Article 126 TFEU lays down an excessive deficit procedure (EDP) which is further specified in Council Regulation (EC) No. 1467/97 'on speeding up and clarifying the implementation of the excessive deficit procedure', amended in 2005 and 2011, which represents the corrective arm of the SGP. Relevant legal texts and guidelines can be found at: http://ec.europa.eu/economy_finance/sgp/legal_texts/index_en.htm

([2]) The preventive arm of the SGP is contained in Council Regulation (EC) No. 1466/97 'on the strengthening of the surveillance of budgetary positions and the surveillance and coordination of economic policies', which was amended in 2005 and 2011. Together with Regulation (EC) No.1467/97 and the new Directive on requirements for budgetary frameworks of the Member States (Directive (EC) No. 2011/85) and Regulation (EU) No 1173/2011 on the effective enforcement of budgetary surveillance in the euro area, it forms the SGP.

([3]) This is somewhat worse than previously expected: in the Commission services' 2013 Winter forecast only fifteen countries were projected to exceed the 3% of GDP reference value.

decision on the existence of excessive deficit for Latvia, Romania, Italy, Lithuania and Hungary.

Currently, fifteen EU Member States are subjected to the EDP. Among the Member States subjected to the EDP, Greece, Portugal, Ireland and Cyprus are benefiting from financial assistance, ([4]) while the Balance of Payment (BoP) programme for Romania ended in June 2013 (see Box I.1.1). The excessive deficit procedure is currently in abeyance for all countries benefitting from financial assistance with the exception of Cyprus.

2.1. THE EXCESSIVE DEFICIT PROCEDURE (EDP)

This section focuses on the implementation of the EDP since January 2012. The historical country-specific developments are summarised in Tables I.2.1-I.2.3. ([5])

2.1.1. Euro-area Member States

On 11 January 2012, the Commission assessed the action taken by **Cyprus** in compliance with the July 2010 Council Recommendation to end the excessive deficit and concluded that effective action had been taken. However, following the unwinding of the very serious private and public sector imbalances in the Cypriot economy during 2012, the budget deficit turned out considerably worse than previously forecast. Taking into account the worse-than-expected economic downturn and the weaker overall position of the economy, on 7 May 2013, the Commission concluded that granting four additional years for the correction of the excessive deficit was warranted. Subsequently, on 16 May, the Council recommended that Cyprus put an end to the present excessive budget deficit situation by 2016 and established a deadline of three months for the Cypriot authorities to take effective action. Since March 2013, the excessive deficit procedure runs in parallel to the macroeconomic adjustment programme agreed between Cyprus and the Commission on behalf of the lenders, in liaison with the ECB and the IMF.

In the case of **Greece**, the excessive deficit procedure has run in parallel to the macroeconomic adjustment programmes since May 2010. ([6]) On 13 March 2012, the Council agreed to a second economic adjustment programme that had been negotiated by the Commission in December 2011 and January/February 2012. In the EDP context, the Commission further assessed, in March and November 2012, action taken in compliance with the amended May 2010 Council decision. Based on Commission recommendations, the Council adopted further amendments to its decision to give notice to the Greek authorities under Article 126(9) TFEU, in March and December 2012. In the latter one taking into account weaker-than-expected economic activity and acknowledging that Greece had taken effective action to remedy the situation of excessive deficit, the Council extended Greece's fiscal adjustment path by two years to 2016, revised the fiscal targets that Greece should respect in 2013 and 2014, and set new targets for 2015 and 2016.

On 30 May 2012, following **Germany**'s first notification of government deficit and debt data for 2011 which reported that the deficit-to-GDP ratio returned well below the 3% of GDP reference value, and given that, according to the Commission services' 2012 spring forecast, it is expected to further improve over the forecast horizon, the Commission adopted a recommendation for a Council decision abrogating the decision on the existence of excessive deficit for Germany. On 22 June 2012, the Council decided to abrogate the excessive deficit procedure for Germany.

In **Spain**, an unexpected contraction of economic activity resulted in a strong deterioration of Spain's fiscal outlook in 2012. As a consequence, on 6 July 2012, the Commission concluded that an additional year for the correction of Spain's excessive deficit would be warranted. Subsequently, on 10 July, the Council recommended that Spain put an end to the present

([4]) Spain is also benefitting of financial assistance, but not in the context of a full-fledged programme.

([5]) All the country-specific developments regarding the excessive deficit procedure (EDP) can be followed at: http://ec.europa.eu/economy_finance/economic_governance/sgp/deficit/index_en.htm

([6]) See Memorandum on Economic and Financial Policies and Memorandum of Understanding on Specific Economic Policy Conditionality (both 3 May 2010). All the documents related to the implementation of the EDP in the case of Greece can be found at: http://ec.europa.eu/economy_finance/sgp/deficit/countries/greece_en.htm

Table I.2.1: **Overview EDP steps - Euro area Member States**

Steps in EDP procedure	Treaty Art.	Country													
		IE	FR	ES	MT	BE	DE	IT	NL	AT	PT	SI	SK	CY	FI
Starting phase															
Commission adopts EDP-report = start of the procedure	126(3)	18.02.2009	18.02.2009	18.02.2009	13.05.2009	07.10.2009	07.10.2009	07.10.2009	07.10.2009	07.10.2009	07.10.2009	07.10.2009	07.10.2009	12.5.2010	12.5.2010
Economic and Financial Committee adopts opinion	126(4)	27.02.2009	27.02.2009	27.02.2009	29.05.2009	27.10.2009	27.10.2009	27.10.2009	27.10.2009	27.10.2009	27.10.2009	27.10.2009	27.10.2009	27.5.2010	27.5.2010
Commission adopts:															
opinion on existence of excessive deficit	126(5)	24.03.2009	24.03.2009	24.03.2009	24.06.2009	11.11.2009	11.11.2009	11.11.2009	11.11.2009	11.11.2009	11.11.2009	11.11.2009	11.11.2009	15.6.2010	15.6.2010
recommendation for Council decision on existence of excessive deficit	126(6)	24.03.2009	24.03.2009	24.03.2009	24.06.2009	11.11.2009	11.11.2009	11.11.2009	11.11.2009	11.11.2009	11.11.2009	11.11.2009	11.11.2009	15.6.2010	15.6.2010
recommendation for Council recommendation to end this situation	126(7)	24.03.2009	24.03.2009	24.03.2009	24.06.2009	11.11.2009	11.11.2009	11.11.2009	11.11.2009	11.11.2009	11.11.2009	11.11.2009	11.11.2009	15.6.2010	15.6.2010
Council adopts:															
decision on existence of excessive deficit	126(6)	27.04.2009	27.04.2009	27.04.2009	07.07.2009	02.12.2009	02.12.2009	02.12.2009	02.12.2009	02.12.2009	02.12.2009	02.12.2009	02.12.2009	13.7.2010	13.7.2010
recommendation to end this situation	126(7)	27.04.2009	27.04.2009	27.04.2009	07.07.2009	02.12.2009	02.12.2009	02.12.2009	02.12.2009	02.12.2009	02.12.2009	02.12.2009	02.12.2009	13.7.2010	13.7.2010
deadline for taking effective action		27.10.2009	27.10.2009	27.10.2009	07.01.2010	02.06.2010	02.06.2010	02.06.2010	02.06.2010	02.06.2010	02.06.2010	02.06.2010	02.06.2010	13.01.2011	13.01.2011
fiscal effort recommended by the Council*		at least 1.5% of GDP in 2010-2013	at least 1% of GDP in 2010-2012	at least 1½% of GDP in 2010-2012	-	¾% of GDP in 2010-2012	at least 0.5% of GDP in 2010-2013	at least 0.5% of GDP in 2010-2012	¾% of GDP in 2011-2013	⅛% of GDP in 2011-2013	1½% of GDP in 2010-2013	¾% of GDP in 2010-2013	1% of GDP in 2010-2013	at least 1½% of GDP in 2011-2012	at least 0.5% of GDP on 2011
deadline for correction of excessive deficit		**2013**	**2012**	**2012**	**2010**	**2012**	**2013**	**2012**	**2013**	**2013**	**2013**	**2013**	**2013**	**2012**	**2011**
Follow-up of the Council recommendation under Art. 126(7)															
Commission adopts communication on action taken		-	-	-	-	15.06.2010	15.06.2010	15.06.2010	15.06.2010	15.06.2010	15.06.2010	15.06.2010	15.06.2010	27.01.2011	27.01.2011
Council adopts conclusions thereon		-	-	-	-	13.07.2010	13.07.2010	13.07.2010	13.07.2010	13.07.2010	13.07.2010	13.07.2010	13.07.2010	15.02.2011	15.02.2011
Commission adopts recommendation for NEW Council recommendation to end situation of excessive deficit	126(7)	11.11.2009	11.11.2009	11.11.2009	27.01.2010										
Council adopts recommendation for NEW Council recommendation to end situation of excessive deficit	126(7)	02.12.2009	02.12.2009	02.12.2009	16.02.2010										
deadline for taking effective action		02.06.2010	02.06.2010	02.06.2010	16.08.2010										
fiscal effort recommended by the Council*		2% of GDP in 2010-2014	above 1% of GDP in 2010-2013	above 1.5% of GDP in 2010-2013	¾% of GDP in 2011										
revised deadline for correction of excessive deficit		**2014**	**2013**	**2013**	**2011**										
Follow-up of the NEW Council recommendation under Art. 126(7)															
Commission adopts communication on action taken		15.06.2010	15.06.2010	15.06.2010	06.01.2011	11.01.2012								11.01.2012	
Council adopts conclusions thereon		13.07.2010	13.07.2010	13.07.2010	18.01.2011										
Commission adopts recommendation for Council decision establishing inadequate action	126(8)	-													
Council adopts decision establishing inadequate action	126(8)	-													
Commission adopts recommendation for NEW Council recommendation to end situation of excessive deficit	126(7)	03.12.2010		06.07.2012							27.09.2012			07.05.2013	
Council adopts recommendation for NEW Council recommendation to end situation of excessive deficit	126(7)	07.12.2010		10.07.2012							09.10.2012			16.05.2013	
deadline for taking effective action		07.06.2011		10.10.2012							09.01.2013			16.08.2013	
fiscal effort recommended by the Council*		9½% of GDP over 2011-2015		7% of GDP over 2012-2014							5½% of GDP over 2012-2014			**	
new deadline for correction of excessive deficit		**2015**		**2014**							**2014**			**2016**	
Follow-up of the NEW Council recommendation under Art. 126(7)															
Commission adopts communication on action taken		24.08.2011		14.11.2012											
Council adopts conclusions thereon		02.09.2011		04.12.2012											
Commission adopts recommendation for Council decision establishing Council adopts decision establishing inadequate action															
Commission adopts recommendation for NEW Council recommendation to end situation of excessive deficit			29.05.2013	29.05.2013	29.05.2013	29.05.2013			29.05.2013		29.05.2013	29.05.2013			
Council adopts recommendation for NEW Council recommendation to end situation of excessive deficit			21.06.2013	21.06.2013	21.06.2013	21.06.2013			21.06.2013		21.06.2013	21.06.2013			
deadline for taking effective action															
fiscal effort recommended by the Council*															
new deadline for correction of excessive deficit			**2015**	**2016**	**2014**				**2016**		**2015**	**2015**			
Abrogation															
Commission adopts recommendation for Council decision abrogating existence of excessive deficit	126(12)				14.11.2012		30.05.2012	29.05.2013							29.06.2012
Council adopts decision abrogating existence of excessive deficit	126(12)				04.12.2012		22.06.2012	21.06.2013							12.07.2011

Notes: * Average annual fiscal effort, unless indicated otherwise. ** Recommendations for Cyprus are expressed in terms of the nominal value of expected consolidation measures. Cyprus should rigorously implement the 2013 Budget Law and the agreed additional consolidation measures, which should amount to at least EUR 351 million in 2013. Cyprus should fully implement the fiscal measures for 2014 that were adopted in December 2012, amounting to at least 270 million EUR in 2014.
Source: Commission services

excessive budget deficit situation by 2014 and established a deadline of three months for the Spanish authorities to take effective action. On 29 May 2013, the Commission found that Spain had taken effective action, but given adverse economic events and a set of unfavourable factors it was not expected to meet the nominal budgetary targets. Consequently, on 21 June 2013, the Council, on recommendation by the Commission, issued a revised recommendation, extending the deadline to correct the excessive deficit by 2016.

On 27 September 2012, the Commission assessed the action taken by **Portugal** in compliance with the December 2009 Council Recommendation to end the excessive deficit and concluded that effective action had been taken. Taking into account that the Portuguese economy had been hit by unexpected events leading to a worse-than-expected economic outlook, the Commission recommended granting an additional year for the correction of the excessive deficit. Subsequently, on 9 October 2012, the Council recommended that Portugal put an end to the present excessive budget deficit situation by 2014 and established a deadline of three months for the Portuguese authorities to take effective action. On 29 May 2013, the Commission concluded that Portugal had taken effective action, but given adverse economic events and a set of unfavourable factors, it was not expected to meet the nominal budgetary targets. Consequently, on 21 June 2013, the Council issued a revised recommendation, extending the deadline to correct the excessive deficit by 2015.

On 14 November 2012, following **Malta**'s notification of a general government deficit of below 3% of GDP in 2011, the Commission

concluded that effective action had been taken to end the excessive deficit within the deadline established in the July 2009 Council Recommendation. Subsequently, on 27 November 2012, the Council thus agreed that the excessive deficit in Malta had been corrected and decided to close Malta's excessive deficit procedure. However, already a few months later, following the notification by Malta of a deficit in excess of 3% of GDP in 2012, the Council issued, on 21 June 2013, a recommendation to put an end to the present excessive deficit situation in Malta by 2014.

On the basis of **Italy**'s 2013 Spring notification of government deficit data and of the Commission 2013 Spring forecast, the Commission adopted a recommendation for a Council decision to abrogate the decision on the existence of an excessive deficit on 29 May 2013. On 21 June 2013, the Council decided to close the excessive deficit procedure for Italy.

In the case of **Belgium**, following a recommendation by the Commission, on 21 June 2013, the Council issued a decision establishing that Belgium had not corrected its excessive deficit by the deadline in 2012 and had not taken effective action in response to the Council recommendation. This decision was followed by a decision to give notice to take measures for the deficit reduction judged necessary in order to remedy the situation of excessive deficit by 2013.

Also on 21 June 2013, following a recommendation by the Commission, the Council assessed that **France**, the **Netherlands** and **Slovenia** were not expected to correct their excessive deficits by the deadline in 2013, but were projected to deliver effective action and therefore fulfilled the conditions for the extension of the deadline. Accordingly, Council recommended France and Slovenia to correct their excessive deficits by 2015 and the Netherlands by 2014.

2.1.2. Non-euro area Member States

Table I.2.1 shows the EDP steps taken for the non-euro area countries.

On 24 January 2012, the Council decided that **Hungary** had not complied with its previous recommendations. The Council followed a recommendation from the Commission which had concluded that Hungary had not taken effective action in response to the July 2009 Council recommendation to correct its excessive deficit in a sustainable manner by 2011. Consequently, on 13 March 2012, the Council followed a recommendation from the Commission and addressed a new recommendation to Hungary, requiring the country to correct the excessive deficit in 2012. ([7]) On 30 May 2012, the Commission concluded that Hungary had made adequate progress towards a timely correction of the excessive deficit, in response to the March 2012 Council recommendation to bringing an end to the excessive deficit situation, and that no further EDP steps were needed. ([8]) On 21 June 2013, based on the Spring 2013 EDP notification which showed that the excessive deficit had been brought below 3% of GDP in 2012 and following the implementation by the Hungarian authorities of a set of additional measures assuring the durable nature of the correction, the Council issued a decision abrogating the decision on the existence of excessive deficit.

On the basis of Bulgaria's first notification of government deficit and debt data for 2011 and of the Commission 2012 Spring forecast, the Commission adopted a recommendation for a Council decision to abrogate the decision on the existence of an excessive deficit on 30 May 2012. On 22 June 2012, the Council decided to abrogate the excessive deficit procedure for Bulgaria.

Likewise, the Commission assessed 2013 government deficit and debt data provided by Latvia, Lithuania and Romania against its 2013 Spring forecast and adopted a recommendation for a Council decision to abrogate the decision on the

([7]) On the same date, the Council also adopted a decision suspending almost a third of scheduled commitments for Hungary from the EU Cohesion Fund in 2013, taking recourse, for the first time, to the possibility of suspending cohesion fund commitments in case of non-compliance with its EDP recommendation under Article 126(7) of the Treaty, according to Article 4(1) of Regulation (EC) No 1084/2006

([8]) On the same date, the Commission also adopted a proposal for a Council decision to lift the suspension of the commitments from the Cohesion Fund Article 4(2) of Regulation (EC) No 1084/2006 establishing the conditions for lifting the suspension for the Cohesion Fund commitments, which the Council adopted on 19 June 2012.

Table I.2.2: **Overview EDP steps - Non-euro area Member States**

Steps in EDP procedure	Treaty Art.	Country								
		HU	UK	LV	PL	LT	RO	CZ	BG	DK
Starting phase										
Commission adopts EDP-report = start of the procedure	126(3)	12.05.2004	11.6.2008	18.02.2009	13.05.2009	13.05.2009	13.05.2009	07.10.2009	12.05.2010	12.05.2010
Economic and Financial Committee adopts opinion	126(4)	24.05.2004	25.6.2008	27.02.2009	29.05.2009	29.05.2009	29.05.2009	27.10.2009	27.05.2010	27.05.2010
Commission adopts:										
opinion on existence of excessive deficit	126(5)	24.06.2004	02.07.2008	02.07.2009	24.06.2009	24.06.2009	24.06.2009	11.11.2009	06.07.2010	15.06.2010
recommendation for Council decision on existence of excessive deficit	126(6)	24.06.2004	02.07.2008	02.07.2009	24.06.2009	24.06.2009	24.06.2009	11.11.2009	06.07.2010	15.06.2010
recommendation for Council recommendation to end this situation	126(7)	24.06.2004	02.07.2008	02.07.2009	24.06.2009	24.06.2009	24.06.2009	11.11.2009	06.07.2010	15.06.2010
Council adopts:										
decision on existence of excessive deficit	126(6)	05.07.2004	08.07.2008	07.07.2009	07.07.2009	07.07.2009	07.07.2009	02.12.2009	13.07.2010	13.07.2010
recommendation to end this situation	126(7)	05.07.2004	08.07.2008	07.07.2009	07.07.2009	07.07.2009	07.07.2009	02.12.2009	13.07.2010	13.07.2010
deadline for taking effective action		05.11.2004	08.01.2009	07.01.2010	07.01.2010	07.01.2010	07.01.2010	02.06.2010	13.01.2011	13.01.2011
fiscal effort recommended by the Council*		-	at least 0.5% of GDP in 2009/10	at least 2¾% of GDP in 2010-2012	at least 1¼% of GDP in 2010-2012	at least 1½% of GDP in 2009-2011	at least 1½% of GDP in 2010-2011	1% of GDP in 2010-2013	at least ¾% of GDP in 2011	at least 0.5% of GDP in 2011-2013
deadline for correction of excessive deficit		**2008**	**fin. year 2009/10**	**2012**	**2012**	**2011**	**2011**	**2013**	**2011**	**2013**
Follow-up of the Council recommendation under Art. 126(7)										
Commission adopts communication on action taken		-	-	27.01.2010	03.02.2010	-	-	15.06.2010	27.01.2011	27.01.2011
Council adopts conclusions thereon		-	-	16.02.2010	16.02.2010	-	-	13.07.2010	15.02.2011	15.02.2011
Commission adopts recommendations for Council decision establishing inadequate action	126(8)	22.12.2004	24.03.2009			-	-			
Council adopts decision establishing inadequate action	126(8)	18.01.2005	27.04.2009			-	-			
Commission adopts recommendation for NEW Council recommendation to end excessive deficit situation	126(7)	16.02.2005	24.03.2009			27.01.2010	08.02.2010			
Council adopts NEW recommendation to end excessive deficit situation	126(7)	08.03.2005	27.04.2009			16.02.2010	16.02.2010			
deadline for taking effective action		08.07.2005	27.10.2009			16.08.2010	16.08.2010			
fiscal effort recommended by the Council*		-	beyond 1% of GDP in 2010/11-2013/14			at least 2¼% of GDP in 2010-2012	1¾% of GDP in 2010-2012			
new deadline for correction of excessive deficit		**2008**	**fin. year 2013/14**			**2012**	**2012**			
Follow-up of the NEW Council recommendation under Art. 126(7)										
Commission adopts communication on action taken		13.07.2005	-		11.01.2012	21.09.2010	21.09.2010			
Council adopts conclusions thereon		-	-			19.10.2010	19.10.2010			
Commission adopts recommendations for Council decision establishing inadequate action	126(8)	20.10.2005	-							
Council adopts decision establishing inadequate action	126(8)	08.11.2005	-							
Commission adopts recommendation for NEW Council recommendation to end excessive deficit situation	126(7)	26.09.2006	11.11.2009							
Council adopts NEW recommendation to end excessive deficit situation	126(7)	10.10.2006	02.12.2009							
deadline for taking effective action		10.04.2007	02.06.2010							
fiscal effort recommended by the Council*		-	1¾% of GDP in 2010/11-2014/15							
new deadline for correction of excessive deficit		**2009**	**fin. year 2014/15**							
Follow-up of the NEW Council recommendation under Art. 126(7)										
Commission adopts communication on action taken		13.06.2007	06.07.2010		29.05.2013					
Council adopts conclusions thereon		10.07.2007	13.07.2010		21.06.2013					
Commission adopts recommendations for Council decision establishing inadequate action	126(8)	-	-		-					
Council adopts decision establishing inadequate action	126(8)	-	-		-					
Commission adopts recommendation for NEW Council recommendation to end excessive deficit situation	126(7)	24.06.2009								
Council adopts NEW recommendation to end excessive deficit situation	126(7)	07.07.2009								
deadline for taking effective action		07.01.2010								
fiscal effort recommended by the Council*		0.5% of GDP in cumulative terms in 2010-2011								
new deadline for correction of excessive deficit		**2011**			**2014**					
Follow-up of the NEW Council recommendation under Art. 126(7)										
Commission adopts communication on action taken		27.01.2010								
Council adopts conclusions thereon		16.02.2010								
Commission adopts recommendations for Council decision establishing inadequate action	126(8)	11.01.2012								
Council adopts decision establishing inadequate action	126(8)	24.01.2012								
Commission adopts recommendation for NEW Council recommendation to end excessive deficit situation	126(7)	06.03.2012								
Council adopts NEW recommendation to end excessive deficit situation	126(7)	13.03.2012								
deadline for taking effective action		13.09.2012								
fiscal effort recommended by the Council		at least 0.5% of GDP on top of the 1.9% of GDP foreseen								
new deadline for correction of excessive deficit		**2012**								
Follow-up of the NEW Council recommendation under Art. 126(7)										
Commission adopts communication on action taken		30.05.2012								
Council adopts conclusions thereon										
Abrogation										
Commission adopts recommendation for Council decision abrogating existence of excessive deficit	126(12)	29.05.2013		29.05.2013		29.05.2013	29.05.2013		30.05.2012	
Council adopts decision abrogating existence of excessive deficit	126(12)	21.06.2013		21.06.2013		21.06.2013	21.06.2013		22.06.2012	

Notes: * Average annual fiscal effort, unless indicated otherwise.
Source: Commission services

Table I.2.3: **Overview EDP steps - Greece**

Steps in EDP procedure	Treaty Art.	EL
Starting phase		
Commission adopts EDP-report = start of the procedure	126(3)	18.02.2009
Economic and Financial Committee adopts opinion	126(4)	27.02.2009
Commission adopts:		
opinion on existence of excessive deficit	126(5)	24.03.2009
recommendation for Council decision on existence of excessive deficit	126(6)	24.03.2009
recommendation for Council recommendation to end this situation	126(7)	24.03.2009
Council adopts:		
decision on existence of excessive deficit	126(6)	27.04.2009
recommendation to end this situation	126(7)	27.04.2009
deadline for taking effective action		27.10.2009
fiscal effort recommended by the Council		-
deadline for correction of excessive deficit		**2010**
Follow-up of the Council recommendation under Art. 126(7)		
Commission adopts recommendations for Council decision establishing inadequate action	126(8)	11.11.2009
Council adopts decision establishing inadequate action	126(8)	02.12.2009
Commission adopts Council recommendation for decision to give notice	126(9)	03.02.2010
Council decision to give notice	126(9)	16.02.2010
deadline for taking effective action		15.05.2010
fiscal effort recommended by the Council		at least 3½% of GDP annualy in 2010 and 2011, at least 2½% of GDP in 2012
new deadline for correction of the excessive deficit		**2012**
Follow-up of the Council decision		
Commission adopts communication on action taken		09.03.2010
Council adopts conclusions thereon		16.03.2010
Commission adopts recommendation for NEW Council decision to give notice	126(9)	04.05.2010
Council decision to give notice	126(9)	10.05.2010
fiscal effort recommended by the Council		at least 10% in cumulative terms over 2009-2014
new deadline for correction of the excessive deficit		**2014**
Follow-up - 1st review		
Commission adopts communication on action taken		19.08.2010
Council adopts conclusions thereon		07.09.2010
Commission adopts recommendation for Council decision amending the Council decision to give notice	126(9)	19.08.2010
Council decision amending the Council decision to give notice	126(9)	07.09.2010
new deadline for correction of the excessive deficit		**2014**
Follow-up - 2nd review		
Commission adopts communication on action taken		09.12.2010
Council adopts conclusions thereon		20.12.2010
Commission adopts recommendation for Council decision amending the Council decision to give notice	126(9)	09.12.2010
Council decision amending the Council decision to give notice	126(9)	20.12.2010
deadline for correction of the excessive deficit		**2014**
Follow-up - 3rd review		
Commission adopts communication on action taken		24.02.2011
Council adopts conclusions thereon		07.03.2011
Commission adopts recommendation for Council decision amending the Council decision to give notice	126(9)	24.02.2011
Council decision amending the Council decision to give notice	126(9)	07.03.2011
deadline for correction of the excessive deficit		**2014**
Follow-up - 4th review		
Commission adopts communication on action taken		01.07.2011
Council adopts conclusions thereon		12.07.2011
Commission adopts recommendation for Council decision amending the Council decision to give notice	126(9)	05.07.2011
Council decision amending the Council decision to give notice	126(9)	12.07.2011
deadline for correction of the excessive deficit		**2014**
Follow-up - 5th review		
Commission adopts communication on action taken		26.10.2011
Council adopts conclusions thereon		08.11.2011
Commission adopts recommendation for Council decision amending the Council decision to give notice	126(9)	26.10.2011
Council decision amending the Council decision to give notice	126(9)	08.11.2011
deadline for correction of the excessive deficit		**2014**
Follow-up - Second Adjustment Programme		
Commission adopts communication on action taken		09.03.2012
Council adopts conclusions thereon		13.03.2012
Commission adopts recommendation for Council decision amending the Council decision to give notice	126(9)	09.03.2012
Council decision amending the Council decision to give notice	126(9)	13.03.2012
deadline for correction of the excessive deficit		**2014**
Follow-up - Second Adjustment Programme		
Commission adopts communication on action taken		30.11.2012
Council adopts conclusions thereon		03.12.2012
Commission adopts recommendation for Council decision amending the Council decision to give notice	126(9)	30.11.2012
Council decision amending the Council decision to give notice	126(9)	04.12.2012
fiscal effort recommended by the Council		*
new deadline for correction of the excessive deficit		**2016**

Notes: * In the case of Greece, targets are expressed as the cyclically-adjusted-primary-balance-to-GDP ratio and as the cyclically-adjusted-government-deficit-to-GDP ratio. These targets are an improvement in the cyclically-adjusted-primary-balance-to-GDP ratio from 4,1 % in 2012 to 6,2 % in 2013 and at least 6,4 % of GDP in 2014, 2015 and 2016 and a cyclically-adjusted-government-deficit-to-GDP ratio at -1,3 % in 2012, 0,7 % in 2013, 0,4 % in 2014, 0,0 % in 2015 and -0,4 % in 2016, reflecting the original profile of interest payments.
Source: Commission services

existence of an excessive deficit on 29 May 2013. Following the recommendation of the Commission, on 21 June 2013, the Council issued a decision which closed the excessive deficit procedure for these three countries. Based on the Spring 2013 EDP notification, on 21 June 2013, the Council assessed that **Poland** had not corrected its excessive deficits by the deadline in 2012, but had delivered effective action and therefore fulfilled the conditions for the extension of the deadline. Accordingly, through a revised recommendation, Council recommended Poland to correct its excessive deficit by 2014.

2.2. STABILITY AND CONVERGENCE PROGRAMME

This section provides an overview of the Stability and Convergence Programmes (SCPs) that Member States submitted in April-May 2013, outlining their fiscal policy plans for the 2013 to 2016. ([9]) The SCPs are submitted as part of the European Semester. It aims at offering a global, aggregated view of fiscal policy plans in the Union and the euro area as a whole.

In its conclusions of 15 March 2013, the Council indicated that fiscal consolidation has to be pursued and should be differentiated, growth-friendly, in line with the priorities set out in the Annual Growth Survey, and based on an appropriate mix of expenditure and revenue measures at the level of the Member States. Together with the Stability and Growth Pact requirements, these principles represent the basis for the assessments of the SCPs and the Council recommendations in the context of the European Semester. These are expected to feed into the national budgets for 2014. This year is the first year when the implementation of the plans for the next year will be reviewed in Autumn with the introduction of the Commission's assessments of the draft budgetary plans following the entry into force of the Two Pack in May 2013 (see Part II).

2.2.1. Macroeconomic scenarios

On average, macroeconomic scenarios presented in the SPCs for 2013-2014 are marginally more optimistic if compared to the Commission forecasts, although the overall picture – a still subdued economic environment this year and a recovery next year – is similar. For the EU as a whole, growth is expected to be just 0.1% in 2013 and 1.5% in 2014.

With such low growth the negative output gap is forecast to continue to widen in 2013 and before starting to close in both the EU and in the euro area from 2014. In both regions, the output gap will not close by 2016, according to the Member States' plans. Negative output gaps prevail in nearly all Member States over the programme period. The only exceptions are the Baltic countries, which have positive and increasing output gaps over the whole programme horizon.

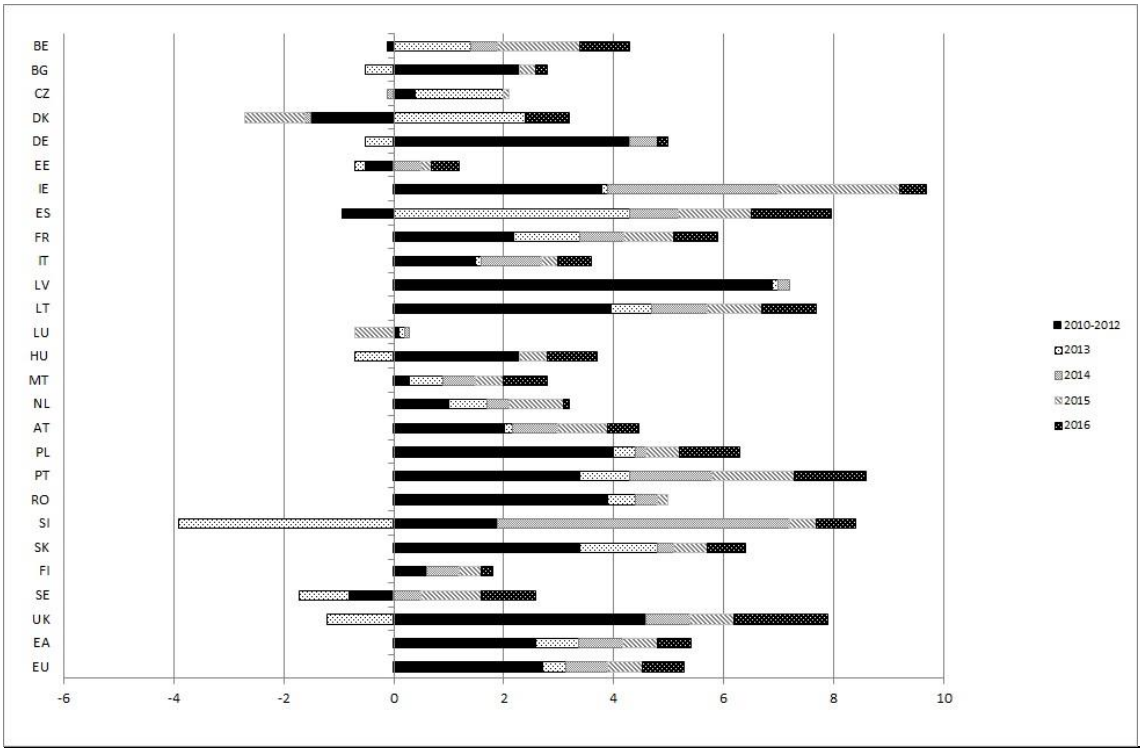
In 2013 the external sector is forecast to be the only growth driver in both the EU and the euro area, with investment putting the largest drag on growth. This pattern is expected to change next year, when a strong pick up in investment is planned to be the main driver of the recovery supported by improving private consumption. At the same time, government consumption is expected to continue weighing negatively on growth in both years.

The programmes are more optimistic than the Commission regarding the contribution of investment to growth, in particular for this year, but also for 2014. On the contrary, the programmes are rather cautious in their expectations about government consumption, in particular for 2014, compared to the Commission 2013 Spring forecast.

Optimistic assumptions throughout the period, as measured by comparison to the Commission 2013 Spring forecast, characterize the programmes of Hungary, Poland, and the Netherlands. Also Italy, Luxembourg and Finland have more optimistic growth forecast for 2014. On the other hand, in Sweden the macroeconomic assumptions are more cautions than the Commission 2013 Spring forecast for both 2013 and 2014.

([9]) Greece and Cyprus did not submit an SCP, which is subsumed under the Memorandum of Understanding (see BoxI.1.1).

Graph I.2.1: **Time profile of fiscal consolidation: the change in nominal budget deficits in EU Member States over 2010-12 and plans, as presented in 2013 updates of SCPs**



The graph decomposes the change in the deficit-to-GDP ratio for each county over five time periods
Source: Commission services

The recovery in private consumption and investment foreseen in the programmes in 2014 is associated with an acceleration in imports, but with an even stronger export dynamics, the aggregated programme scenario results in a continuous improvement of the external position ([10]) of the EU and the euro area throughout the period. With broadly stable terms of trade, improvements in external position imply that Member States' plans assume persistent positive differences between external and internal demand over the programme horizon. In the euro area, only in Estonia would the external position deteriorate and fall into a small deficit from 2015 on, while in Germany the external surplus is reduced slightly over the programme horizon. Among Member States that project large improvements in their external position, Spain and Malta see small surpluses continue rising over the programme period, while the already large surplus in the Netherlands is projected to grow further. If the programme scenarios were to materialize, the external position of the euro area would exceed 3% of GDP towards the end of the programme horizon, with an improvement of more than 3pp of GDP compared to 2007.

2.2.2. Fiscal consolidation

2.2.2.1 Size and time profile of planned consolidation

After achieving significant improvements of their structural balances in 2012, ([11]) Member States plan to continue consolidating with aggregate deficits falling every year, albeit at a slightly lower annual pace than in recent years (see Graph I.2.1).

The EU deficit should fall roughly by around 2½pp of GDP from its 2012 level to reach 1.2% in 2016, coming in below 3% of GDP in 2014 for the

([10]) The external position is defined as net lending towards the rest of the world and it comprises the current account and transfers received.

([11]) In the EU as a whole the structural budget balance improved by 1.1pps in 2012; in the EA, by 1.5pps.

first time since 2008. At euro area level, the deficit should fall from 3.6% of GDP in 2012 to 0.8% in 2016, coming in below 3% already this year. The continuing consolidation planned means that while in 2012 fourteen ([12]) of the Member States for which SCP data is available had deficits above 3% of GDP, six of these Member States ([13]) plan for their deficits to fall below 3% in 2013. By 2016, only the United Kingdom is projecting a nominal deficit above the 3% Treaty reference value. The lower annual pace of deficit reduction for future years reflects the fact that more and more countries are exiting the EDP and moving over to the preventive arm of the SGP.

The continuing consolidation planned means that while in 2012 fourteen ([14]) of the Member States for which SCP data is available had deficits above 3% of GDP, six of these Member States ([15]) plan for their deficits to fall below 3% in 2013. By 2016 only the United Kingdom is projecting a nominal deficit above the 3% Treaty reference value. The lower annual pace of deficit reduction for future years reflects the fact that more and more countries are exiting the EDP and moving over to the preventive arm of the SGP.

Graph I.2.1 shows the evolution in nominal balances from 2010 to 2016. It shows that on aggregate large reductions in deficits have already been undertaken with the deficits falling by over 1% of GDP per year between 2010 and 2012 in both the EU and euro area. Hence around half of the planned EU and euro area deficit reduction has already occurred, with the remaining half being spread over twice as many years. The improvements in the balances pencilled in for 2013-2016 are based on slightly easier economic conditions and should therefore be delivered with a lower burden of measures.

The pattern of the closure of the deficits over time is broadly differentiated according to the different circumstances that Member States have found themselves in. Countries with the largest deficits in 2010 and the least fiscal space are typically those that have already undertaken the greatest reduction of their deficit. On the other hand, countries with more fiscal space typically had both smaller reductions to make and less pressure to deliver them quickly.

([12]) Greece and Cyprus did not submit their SCPs (see previous footnote.)
([13]) Belgium, Czech Republic, Denmark, Lithuania, Malta, Slovakia.
([14]) Belgium, Czech Republic, Denmark, Ireland, Spain, France, Lithuania, Malta, Netherlands, Poland, Portugal, Slovenia, Slovakia, United Kingdom.
([15]) Belgium, Czech Republic, Denmark, Lithuania, Malta, Slovakia.

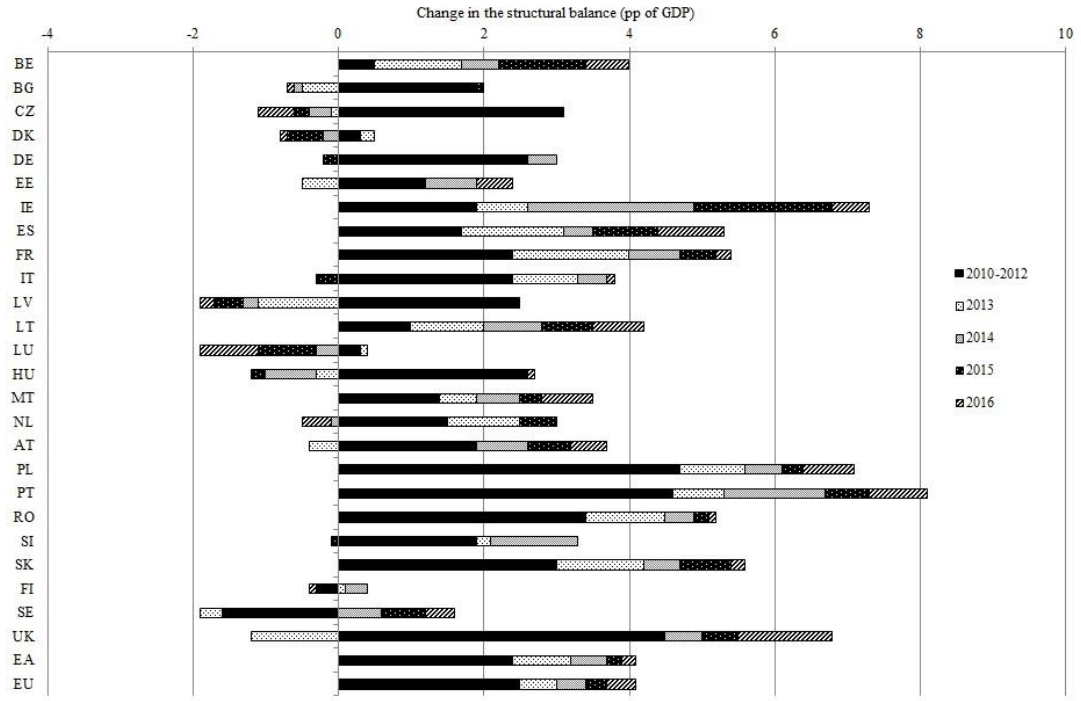
2.2.2.2 Evolution of structural balances and convergence towards the MTO

Over the SCPs horizon, the Member States generally plan continuous consolidation until the achievement of their medium-term budgetary objective (MTO). Over the last two years structural balances in the EU and the euro area have undergone significant adjustments. According to the SCPs, structural balances would continue to improve, though at a relatively more moderate pace in 2013 and 2014, followed by a further slowdown of the pace of consolidation in 2015 and 2016. Considering the overall adjustment period from 2010 until 2016, Graph I.2.2 shows that about three quarters of the cumulative improvement would have taken place by the end of 2013, thus indicating that the adjustment has been relatively frontloaded, in particular in the euro area. The cumulative changes in the structural balance of the general government over 2010 to 2016 are presented in Graph I.2.2.

The improvements foreseen by the 2013 SCPs, while remaining significant, have been somewhat scaled down compared to those announced in the 2012 SCPs. Member States have downsized the planned adjustments for 2013, given the progress made, as several countries have corrected the excessive deficit in 201, while others have been given more time to do so, as the recommended effort had been implemented and in view of continuously less favourable macroeconomic conditions than forecast over the past years. Indeed, the negative output gap, in both the EU and the euro area, instead of slowly shrinking as envisaged in 2012 SCPs, is significantly widening in 2013. The combination of a still significant structural adjustment and a widening negative output gap between 2012 and 2013 leads, again, to a pro-cyclical fiscal stance in 2013.

According to the SCPs, consolidation should continue in 2014 with an annual adjustment set at about 0.5pp of GDP in both the EU and the euro area. Structural adjustments are planned to

Graph I.2.2: **The change in structural budget balances over 2010-12 (cumulative, notified) and plans from 2013 to 2016 (as presented in 2013 SCPs) in the EU Member States**



This graph presents the 2012-2010 structural effort achieved by Member States based on the 2010 estimate of the structural balance by the Commission 2013 Spring forecast and the (recalculated) 2012 estimate presented by the Member States in 2013 SCPs. Starting from 2012, structural efforts are directly reported from the SCPs, using the commonly agreed methodology to recalculate structural balances.
Source: Commission services

continue thereafter and until 2016, albeit at a moderate pace. The structural deficits should therefore reach 0.8% of GDP in the EU and 0.4% of GDP in the euro area by the end of 2016.

While more than three quarters of the Member States plan a strengthening of their fiscal position over the period, there are substantial differences in terms of pace and timeline. The cumulated size of the structural adjustment tends to be related to the starting position of the Member States with a generally larger adjustment when the structural deficit is initially higher.. This confirms the functioning of the differentiated fiscal strategy, which foresees a modulation of the fiscal effort to the fiscal space, in line with the guidance of the European Council.

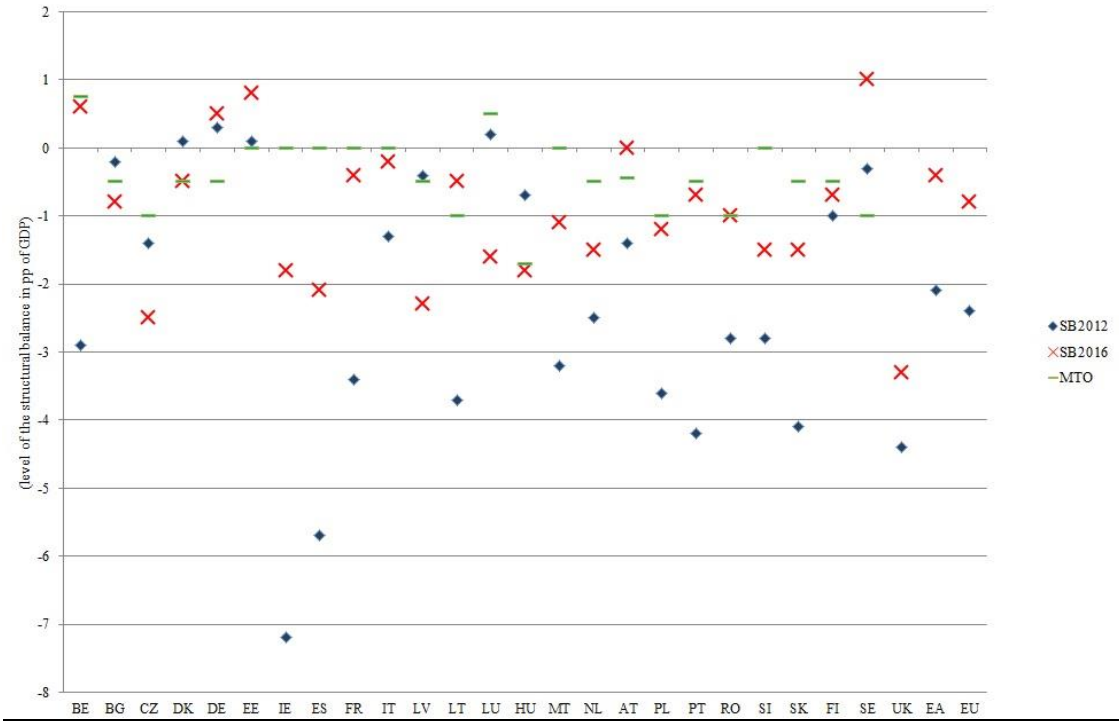
Following an update of the common parameters used to define MTOs, ([16]) the 2013 SCPs show a significant number of revisions of the objectives, although the EU and euro area averages remain broadly unchanged from last year. Graph I.2.3 presents Member States' structural balance at the start (2012, red cross) and at the end of the programme period (2016, blue diamond), together with their MTOs (green lines).

The graph shows a very mixed picture in terms of adjustment towards the MTO, with the possibility to distinguish four groups, on the basis of the structural balance as computed using the commonly agreed methodology. ([17]) On the one

([16]) The 2012 Update of the Minimum Medium Term Objectives, *Note for the Alternates of the Economic and Financial Committee*, agreed on 26 October 2012.

([17]) The recalculation of structural balances according to the common methodology might have an effect on the exact year of the MTO achievement as assessed in this note, when compared to the planned date presented in the programme.

Graph I.2.3: **Planned changes in the structural balance between 2012 and 2016 and MTOs**



This graph presents the structural balances of Member States in 2012 (red cross) and 2016 (blue diamond) as presented in their SCP and recalculated according to the commonly agreed methodology, versus their MTO (green line) as announced in their 2013 SCP. Some differences between the Commission's forecast and SCPs for 2012 structural balances may appear, due to possible different accounting of one-offs - this is particularly significant for Malta. The United Kingdom is not providing any MTO in its Convergence Programme; the MTO set by Slovenia does not reflect the requirements of the SGP
Source: Commission services

hand, Germany, Denmark, Estonia, Hungary, and Sweden have already achieved their MTO in 2012 (blue diamond is above the green line) and should maintain it through the programme, while Belgium, Italy, Lithuania, Austria, Poland, Portugal, Romania and Finland should gradually be reaching it by the end of 2016 (the red cross is above the green line). On the other hand, Bulgaria,

Luxembourg and Latvia are today planning to deviate from their MTO after having reached it in the course of the programme – generally reflecting country-specific events affecting the future structural balance, such as pension reforms or external shocks to revenues. Finally, Czech Republic, Spain, France, Ireland, Malta, the Netherlands, Slovenia and Slovakia do not foresee to achieve the MTO under the programme horizon, either because the distance from the objective is large or because they do not plan the annual improvements which are expected under the SGP. ([18])

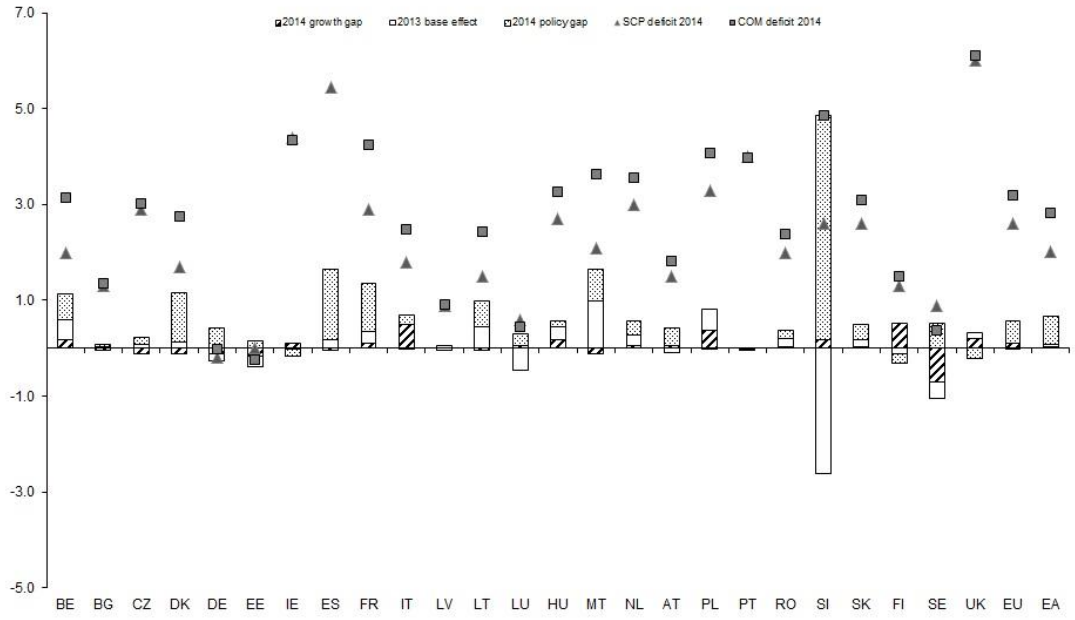
2.2.2.3 Risks to the SCPs targets: an assessment

The budgetary projections outlined in SCPs can be seen as vulnerable to three risks: i) less favourable macroeconomic conditions may negatively affect the achievement of the projections throughout the programme period; ii) the impact of the consolidation measures may have been overestimated; and iii) the projections may not be supported by sufficiently detailed measures, especially for the years not covered by the current budget.

Graph I.2.4 seeks to highlight these different risks by focusing on the gap between Member States' targets and the Commission services' deficit

([18]) Mind that Greece and Cyprus have not submitted the programmes and the MTOs this year and the United-Kingdom does not have an MTO.

Graph I.2.4: **General government deficit for 2014: decomposition of the gap between SCPs plans and the Spring Commission forecast for EU Member States**



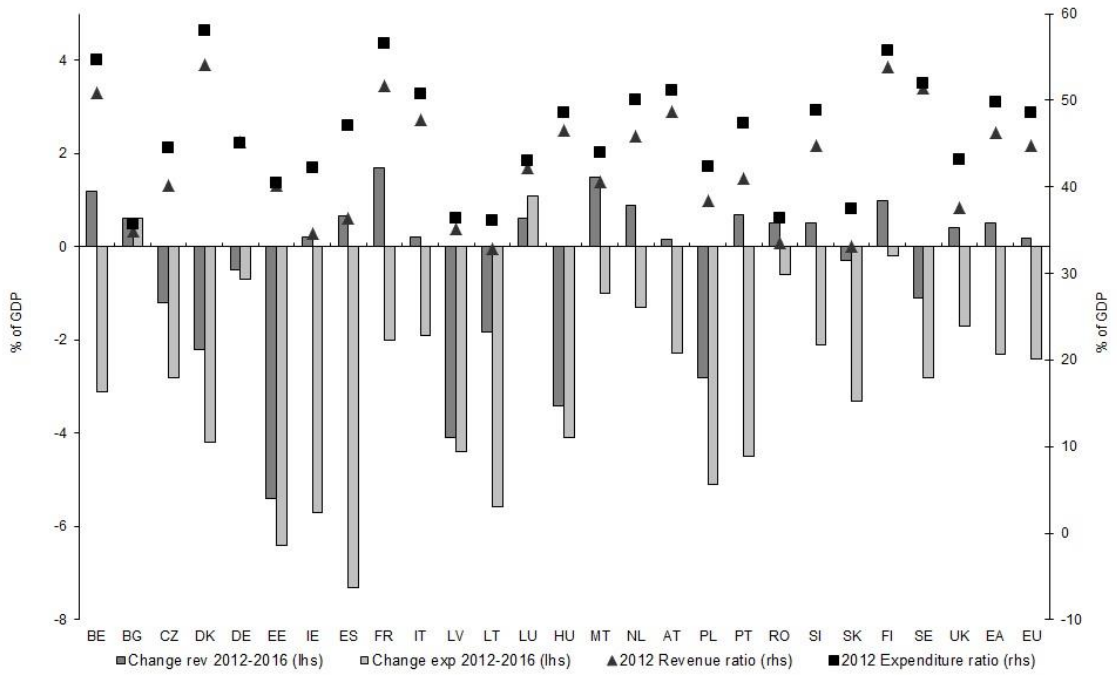
The graph shows the level and component changes in Member States' deficit in 2014, as a percentage of GDP. The squares represent the deficit ratio from the Commission 2013 Spring forecast; the triangle the deficit planned in the SCPs.. The point estimates show the actual values of the deficit, with the stacked lines representing the component. For the components, values above zero represent that the component has a deficit reducing effect in the SCP relative to the Commission 2013 Spring forecast, while values below zero indicate that the component increases the SCP deficit relative to the Commission's.
Source: Commission services

forecasts for 2014, in terms of the following three components: i) the difference in the deficits projected for 2013 (labelled the '2013 base effect'), reflecting differences in the growth projections for 2013 and/or the assessment of the impact of the measures in the 2013 budget; ii) the effect of difference in the growth projections for 2014 (labelled '2014 growth gap'), calculated using the standard semi-elasticities of budgetary balance to growth; and iii) the residual difference, (labelled the '2014 policy gap'), presumably mainly stemming from the absence of detailed consolidation measures for 2014 (and hence their non-inclusion in the Commission services' forecasts based on the no-policy change assumption).

There are significant differences between the Commission's and the SCP's projections for the deficit in 2014, both in aggregate and at individual country level, with the main driver being the policy gap. At EU level, the SCPs plans lead to an overall deficit of 2.6% of GDP, some 0.6% of GDP lower than the Commission figure, with most of the difference corresponding to the policy gap. At euro area level, the difference between the SCPs and Commission deficits shows a similar pattern as the SCPs show a deficit figure of 2.0%, which is 0.8% of GDP lower than the corresponding Commission figure of 2.8%, with most of the difference corresponding to the policy gap.

The policy gap can in turn be attributed to a number of differences. It can be due to Member States' intentions to introduce new policy measures or to restrain expenditure – if these measures were not adopted or the plans not sufficiently specified at the time of the Commission 2013 Spring forecast they would result in a policy gap. For example, Belgium, Spain, France, Slovakia and Hungary project significantly lower total expenditure ratios in their SCPs than in the Commission forecast for broadly similar growth assumptions.

Graph I.2.5: **Projected change in expenditure and revenue ratio (2012-2016, %GDP)**



The graph represents the planned changes in revenue and expenditure ratios (lhs) between 2012 and 2016 against the starting GDP ratios of expenditure and revenue ratios (rhs) as notified.
Source: Commission services

However, the interpretation of the policy gap can also be comparable to the growth gap, in that it can represent a difference in assumptions. For example, countries can be projecting revenues based on different elasticities than in the Commission forecast meaning that they expect to get higher (or lower) revenues with no additional policy measures. Similarly, different assumptions about factors outside the government's control, in particular as interest payments can also have an effect.

As Graph III.2.4 shows, the policy gap is largest for Denmark, Spain, and France, ([19]) with Belgium, Germany, Lithuania, Malta, Slovakia and Sweden also having gaps around the EU average. The underlying figures show that the countries with the highest policy gaps (Denmark, Spain and France) also project higher revenues on an unchanged policy basis than the Commission, indicating that the SCPs are based on more ambitious assumptions about revenues rather than on the adoption of additional measures.

2.2.2.4 Composition of consolidation

Since the beginning of the current consolidation strategy, the EU has emphasised the need for a differentiated and growth-friendly consolidation across Member States. This includes an appropriate composition of consolidation in terms of both the overall expenditure-revenue mix (e.g. for Member States with high shares of public expenditure and revenues, a fiscal consolidation based on expenditure cuts rather than tax increases is considered more supportive to growth in the long-run) and the selection of types of spending and taxes that are more supportive to growth and social fairness. ([20])

On average, from 2013 to 2016 the consolidations set out in the SCPs are almost entirely expenditure-based for the EU and primarily expenditure-based

([19]) The case of Slovenia is not considered in this context as the figures are driven by the aid to the financial sector that increased the 2013 deficit.

([20]) See the Annual Growth Survey 2013, available online at http://ec.europa.eu/europe2020/making-it-happen/annual-growth-surveys/index_en.htm

for the euro area.

Graph III.2.5 presents the 2012 starting level for revenue and expenditure (as percentages of GDP) as well as the change for the two variables by 2016, as set out in the SCPs. It shows that, on average, general government expenditure is projected to decrease by around 2 ½ pp of GDP in both the EU and the euro area (from 48.5% in 2012 to 46.1% of GDP in 2016 and from 49.8% in 2012 to 47.5% in 2016, respectively). The changes in the revenue ratios are overall smaller, with a projected increase of 0.5pp in the euro area (from 46.2% of GDP in 2012 to 46.7% in 2016), and of 0.2pp in the EU (from 44.7% of GDP to 44.9%). The change in the expenditure ratio corresponds to almost the entire reduction in the deficit in the EU and to 4/5th of the overall reduction planned in the euro area.

The fact that at EU level the planned fiscal consolidation is largely expenditure-based, while having a relative larger and negative effects in the short term (given higher short-term multiplier for expenditures), should reduce adverse effects on medium-term growth (given the high starting level of expenditure and revenue ratios), especially if the more growth-friendly spending items are preserved. However, the same conclusion does not necessarily hold for individual Member States since (i) expenditure and revenue ratios vary substantially by Member State, (ii) across Member States planned changes in expenditures and revenues are only weakly correlated with starting expenditure and revenue ratios, respectively (i.e. Member States cutting expenditures and revenues are not necessarily those with, respectively, higher expenditure and revenue ratios).

Table I.2.4: **Fiscal adjustment for the EU:2013 SCPs vs. Commission 2013 Spring forecast**

	2013		2014		2015	2016
	SCP planned Δ	EC forecast Δ	SCP planned Δ	EC forecast Δ	SCP planned Δ	SCP planned Δ
Revenues	0.4	0.7	0.0	-0.4	-0.2	0.0
Expenditure	0.0	-0.2	-0.8	-0.5	-0.8	-0.8
Government balance	0.4	0.4	0.8	0.2	0.6	0.8

Source: Commission services

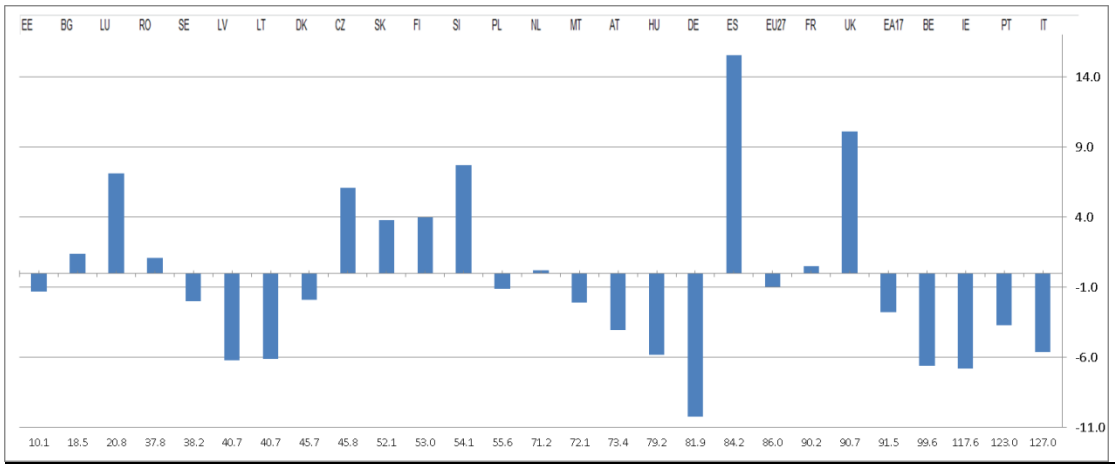
Table I.2.4 displays the annual changes in the deficit, expenditure and revenue ratios at the aggregate EU level as projected in the SCPs between 2013 and 2016. They are compared with the corresponding changes according to the Commission 2013 Spring forecast for the years 2013 and 2014. The improvement in the headline balance according to Commission forecast marginally exceeds that projected by SCPs for 2013, whereas for 2014 the improvement in the primary balance is much larger according to SCPs than in Commission 2013 Spring forecast. This is unsurprising since 2014 figures in Commission forecast are based on a no-policy change scenario, i.e. do not include policy actions that are not certain.

Table I.2.4 also shows the composition of the planned adjustment (expenditures vs. revenues). For 2013, the SCP adjustment is fully revenue-based, while the Commission forecast envisages a consolidation based for around 4/5th on revenues. Conversely, for 2014, 2015 and 2016, SCP consolidation is entirely expenditure-based, with revenues even decreasing (as a share of GDP) in 2015 and 2016. Overall, the envisaged adjustment appears to be front-loaded on the revenue side (albeit a small share of the overall adjustment) and slightly back-loaded on the expenditure side, raising the need to closely monitor the implementation of planned expenditure cuts by Member States over the programme horizon.

The Stability and Convergence Programmes also provide information on the envisaged composition of fiscal consolidation by main type of government expenditure. At aggregate EU level these show two main developments; (i) a generalised reduction of public investment, running against the Commission and Council recommendations to preserve this type of spending amid consolidations; ([21]) and (ii) a generalised reduction in compensation of employees and intermediate consumption, which is often considered by the literature as growth-friendly over the medium term. Therefore, even based on broad spending categories, no firm general conclusion can be drawn on whether the spending composition in the

([21]) The blueprint for a deep and genuine economic and monetary union and the two-pack (See Part II) require the Commission to explore ways within the preventive arm to accommodate investments in the assessment of the SCPs. The Commission provided indications on how it intends to act in a letter by VP Rehn of 3 July (http://ec.europa.eu/commission_2010-2014/rehn/documents/letter_on_investment_clause_en.pdf; see also press release http://europa.eu/rapid/midday-express-03-07-2013.htm)

Graph I.2.6: **Changes in general government debt projected in SCPs 2012-2016**



Member States are ordered according to increasing debt level (horizontal axis). The bars indicate the change in debt-to-GDP ratio over the period. The graph shows no correlation between the size of debt reduction and the initial debt level.
Source: Commission services

EU is to become more growth-friendly or less based on current SCP plans.

2.2.2.5 Debt implications

According to the plans presented in the SCPs, general government debt in the EU is expected to peak at slightly above 90% of GDP in 2013-2014 and fall back to 86% in 2016. Similarly in the euro area, overall debt is projected to reach around 94% of GDP in 2013-2014 before decreasing to slightly below 90% in 2016.

The trend of falling debt ratios as from 2014 would be the result of the fiscal consolidation that has taken place so far in the EU, and the average debt-to-GDP ratio in the EU in 2016 is expected to be almost 2.5pp below the level in 2012. Graph I.2.6 shows the starting debt level in 2012 and the increases pencilled in between 2012 and 2016.

For all Member States with a debt above the 60% of GDP, debt is projected to be lower in 2016 than in 2012 except in the United Kingdom and in Spain which project a large increase, and in the Netherlands and France but by a very small margin. ([22])

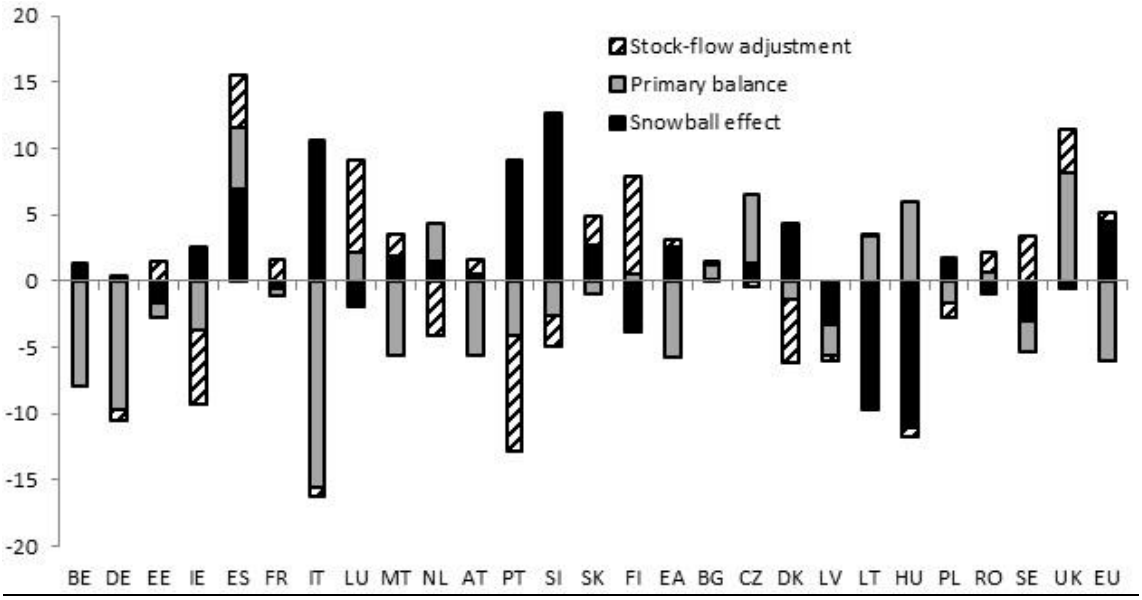
While consolidation is a prerequisite for the debt ratio to decrease in the long run, the debt dynamics also depends significantly on the interest rate-growth differential (i.e. the "snow-ball" effect) and on stock-flow adjustments. ([23]) Graph I.2.7 shows the contribution of fiscal consolidation (change in primary balance), of the difference between GDP growth and interest rates, and of the stock-flow adjustment to the change in the debt-to-GDP ratio between 2012 and 2016.

The debt ratio is projected to fall on average between 2012 and 2016 as a result of improvements in the primary balance. The contribution of consolidation is expected to more than offset the debt-increasing effect of the snow-ball effect. The stock-flow adjustment is expected on average to play a minor role on the debt dynamic up to 2016.

([22]) Based on plans, up to 2016, Member State concerned by the transition period of the debt criterion would overall implement structural adjustments large enough to meet the debt benchmark by the end of their transition period. A detailed country-specific analysis is provided in the Staff Working Documents accompanying the CSRs.

([23]) The change in the gross debt ratio can be decomposed as follows: $$\frac{D_t}{Y_t} - \frac{D_{t-1}}{Y_{t-1}} = \frac{PD_t}{Y_t} + \left(\frac{D_{t-1}}{Y_{t-1}} * (r_t - g_t)\right) + \frac{SF_t}{Y_t}$$ where t is a time subscript; D, PD, Y and SF are the stock of government debt, the primary deficit, nominal GDP and the stock-flow adjustment respectively, and r and g represent the average real interest rate and real rate of GDP growth. The term in parentheses represents the "snow-ball" effect, measuring the combined effect of interest expenditure and economic growth on the debt ratio.

Graph I.2.7: **Contributions to the change in the debt-to GDP ratio between 2012 and 2016**



Source: Commission services

The development of stock-flow adjustments is very much differentiated by Member State, and depends on country-specific situations. If in the EU stock-flows are slightly contributing to increase debt, few Member States project large debt-reducing stock-flow operations. The underlying reasons are country-specific, and can be related to necessity of supporting the financial sector and the payment of arrears of suppliers like in Spain (in 2013) or to the accumulation of assets in the pension system like in Finland.

The debt-decreasing impact of primary balances is projected to be particularly large (over 10pp) in Germany and Italy. On the opposite side, the primary balance is adding up to debt ratios over the whole period by more than 5pp in Spain, Czech Republic, Hungary and the United Kingdom

2.2.2.6 Short, medium and long-term fiscal sustainability

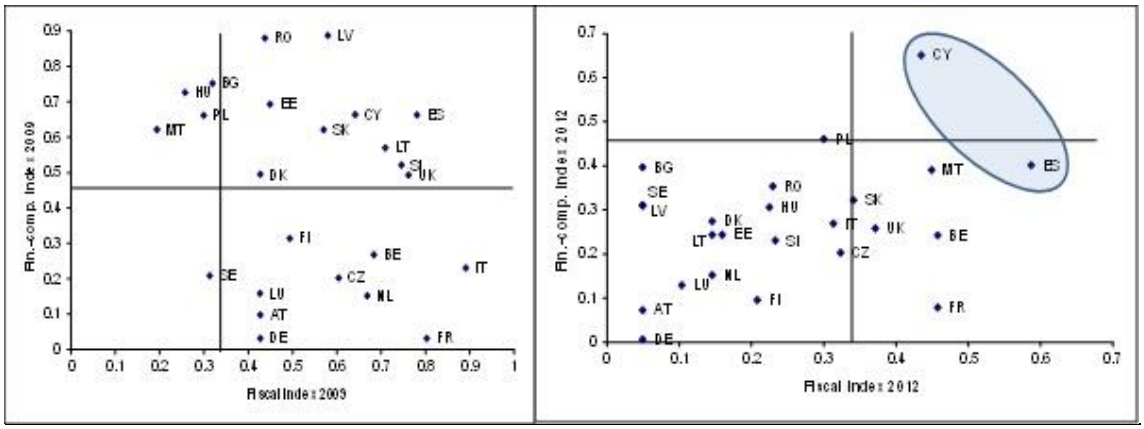
Given debt projections, it is relevant to assess the sustainability of public finances in the Member States, against the background of the impact of the crisis and the demographic evolution. ([24])

The enhancement of the fiscal sustainability assessment framework in the Fiscal Sustainability Report 2012 ([25]) supplements the traditional focus on long-term fiscal risks with medium- and short-term risk indicators. This multidimensional approach makes it possible to assess: ([26])

– short-term challenges, based on the S0 indicator (‘early detection of fiscal stress’);

([24]) Ageing projections come from the 2012 Ageing Repor.t European Commission (DG ECFIN) and Economic Policy Committee (AWG) (2012).
([25]) European Commission (2012c),.
([26]) The S1 and S2 indicators are traditional sustainability indicators based on forecasts for growth and fiscal balances, extrapolated by incorporating the long-term projections of the 2012 Ageing Report, in particular the projected trend in age-related expenditure. The higher the values of the S1 and S2 sustainability indicators, the greater the required fiscal adjustment and thus the sustainability risk. The S0 indicator is a new indicator based on current data, aggregating fiscal and macro-financial variables which have proven to be good predictors of fiscal stress episodes. The methodology for the S0 indicator is fundamentally different from the S1 and S2 indicators mentioned above. It is not a quantification of the required fiscal adjustment as in the case of the S1 and S2 indicators, but a composite indicator which estimates the extent to which there might be a risk of fiscal stress in the short term.

Graph I.2.8: **The S0 indicator, 2009 and 2012**



Source: Commission services.

– medium-term challenges, based on the modified S1 indicator ('debt compliance risk');

– long-term challenges, based on the S2 indicator ('ageing-induced fiscal risks').

Short-term challenges: the S0 indicator - early detection of fiscal stress

In terms of short-term challenges, risks for fiscal stress have been reduced in nearly all Member States in the last years. While in 2009 almost two thirds of the EU Member States were above the critical threshold for the S0 indicator, indicating at that time elevated risks of fiscal stress for 2010, in following years short-term risks have been progressively reduced (see Graph I.2.8).

In 2012, according to the S0 indicator highlighting fiscal risks for 2013, only two Member States appear to be still at risk, Spain and Cyprus (see also Table I.2.5). However, full implementation of the planned fiscal adjustment in Spain would go a long way towards reducing the risk for fiscal stress in the short term.

Medium- to long-term challenges

In terms of medium and longer term implications for fiscal sustainability taking account of the projected changes in age-related expenditure, the macroeconomic scenario and the fiscal outlook and plans, two main scenarios are considered:

– the "COM no-policy-change" scenario, with structural primary balance/GDP ratio kept constant at 2014 estimated level as in Commission 2013 Spring forecast (reflecting a "no-policy-change" assumption); ([27])

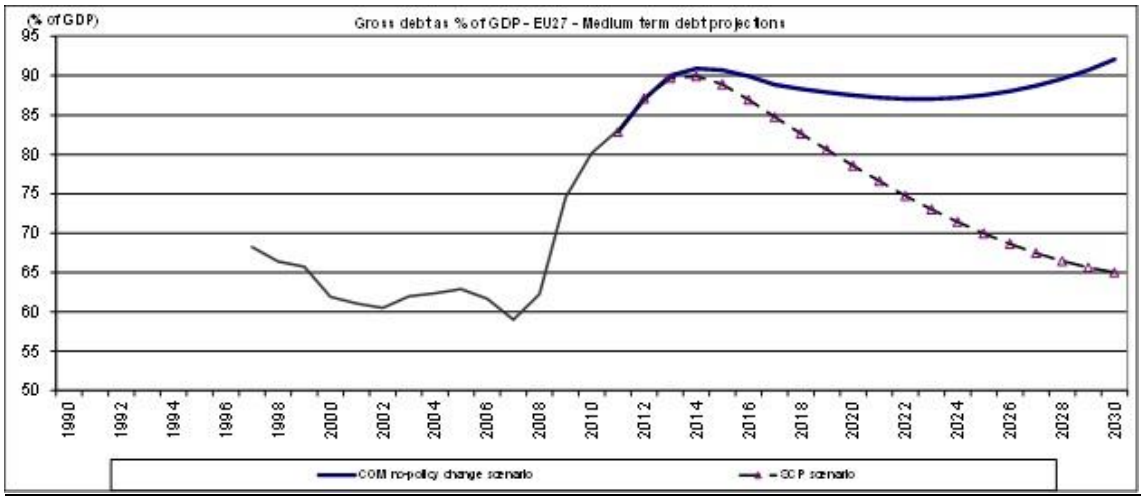
– the "SCP" scenario (structural primary as balance/GDP ratio kept constant at end of programme period covered by the SCPs), reflecting planned changes in fiscal policies reported in the SCPs.

Graph I.2.9 depicts the projected evolution for the government gross debt ratio (including the projected change in age-related expenditure), for the EU as a whole, assuming with the dotted line that the plans set out in Member States' SCPs are fully implemented. The counterfactual scenario is given by the solid thick line, which shows the outcome if no fiscal consolidation measures were introduced beyond those contained in the Commission 2013 Spring forecast (structural primary balance/GDP ratio kept constant at 2014 estimated level). Those scenarios incorporate expected future age-related spending, as projected in the 2012 Ageing Report.

The impact of pension reforms undertaken since the completion of the 2012 Ageing Report in

([27]) It should be noted that the meaning of the expression "no-policy change" in this context – indicating constant structural balance after 2014 – is different from the meaning of the same expression in the context of forecast, where it indicates the forecast that takes into account only the fiscal measures legislated which was used in he previous sections.

Graph I.2.9: **Medium term debt projections for the EU**



Note: The medium-term projections are based on the Commission services' spring 2013 forecast (up to 2014), and the macro-economic scenario of the 2012 Ageing Report. As a general rule, the output gap is assumed to close in t+5, after which the potential growth rates converge linearly to the AWG baseline scenario by t+10. The inflation rate (GDP deflator) converges linearly to 2% in 2017, when the output gap is closed and remains constant thereafter, for all countries. The overall (real) implicit interest rate on maturing debt (new and rolled-over) converges to 3% by 2017. The structural primary balance is kept unchanged after 2014 apart from the projected change in age-related expenditure according to the AWG reference scenario from the 2012 Ageing Report. The primary balance is adjusted by using the budget sensitivities in the period until the output gap is assumed to be closed (by 2017 as a rule). No stock-flow adjustment assumed after 2014 (end of forecast horizon).
Source: Commission services.

Belgium, Denmark, Hungary and the Netherlands were incorporated in the Commission's Fiscal Sustainability Report 2012 released on 18 December 2012. In addition, the impact of pension reforms in Poland, Latvia, the Czech Republic, Bulgaria and Slovakia are included in the analysis in this section. According to the Commission 2013 Spring forecast, debt rises to 90.9% of GDP in 2014 in the EU as a whole. Given the significant fiscal consolidation until 2014, debt is projected to decrease in the following years.

Moreover, the cost of ageing as a share of GDP is almost stabilized in the years to the mid-2020s. However, from 2024 onwards, the ageing costs take hold more firmly, and debt starts rising. As a result, debt in the EU as a whole reaches 92% of GDP in 2030, though with large differences across Member States.

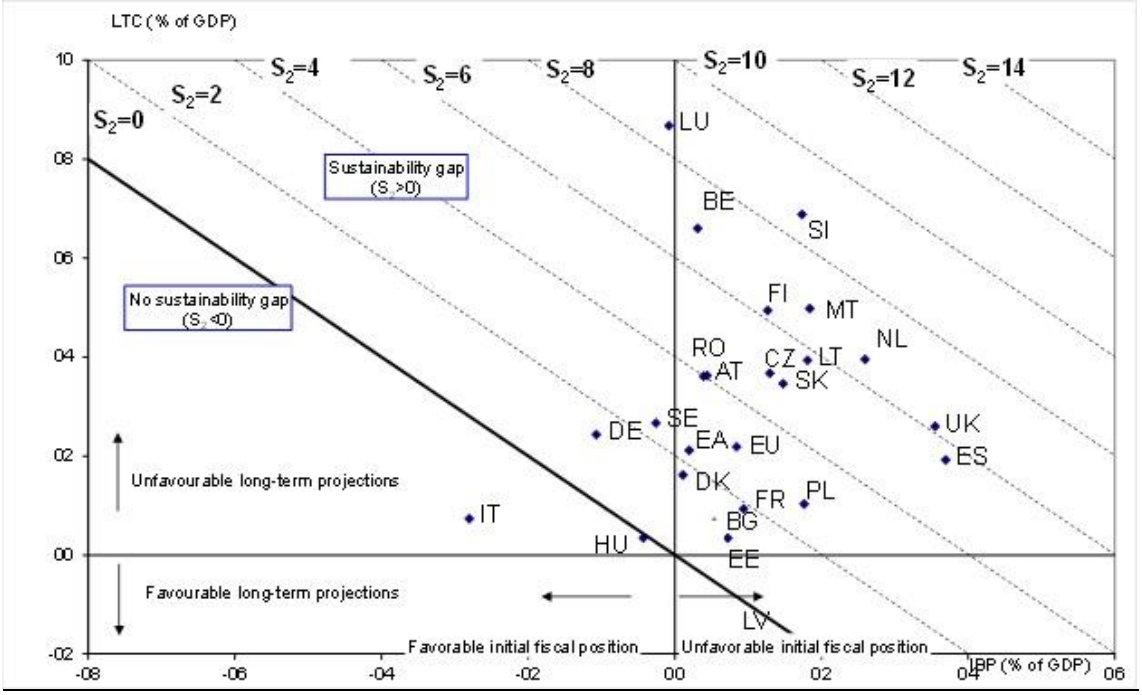
In contrast to the "COM no-policy-change" ([28]) scenario, the "SCP" scenario would lead to a more marked reduction in the debt-to-GDP ratio. However, debt would still be above the Treaty reference value of 60% of GDP by 2030 (at 65% of GDP).

Another way of looking at the adjustment needed in the medium-to-long term with respect to unchanged policies is to calculate the additional fiscal adjustment required up to 2020 in order to stabilize the debt-to-GDP ratio at 60% by 2030 (see Graph I.2.10). The improvement required in the structural primary balance to achieve a debt-to-GDP ratio target of 60% by 2030 amounts to 2.2 percentage points of GDP over the period 2015–2020 in the EU as a whole, i.e., an average annual fiscal consolidation effort of 1/3 percentage points per year. In other words, the structural primary balance in the EU has to improve from a forecasted surplus of 1.5% of GDP in 2014 (structural balance of -2.1% in 2014) to a surplus of 3.7% in 2020.

However, the required consolidation effort varies significantly across Member States, depending on the initial structural primary balances, starting debt ratios, future ageing costs and the growth prospects over the next 20 years. It should be noted that for some Member States, the structural primary balance in 2014 – the starting point for the medium-term projections – is very high, compared with what has been achieved in the past.

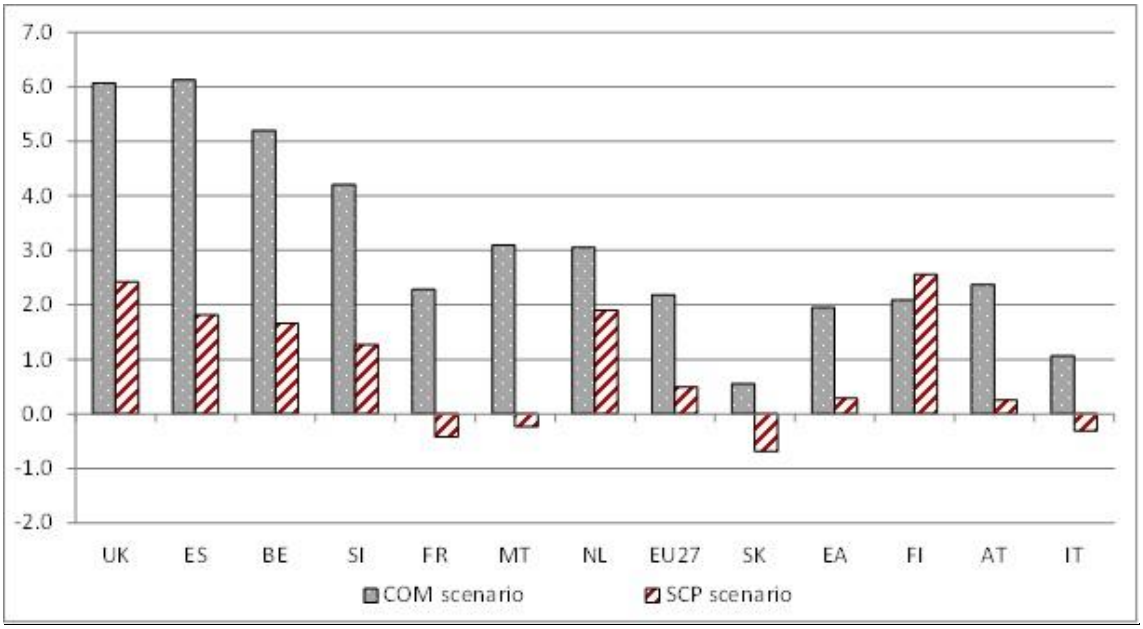
([28]) See previous footnote.

Graph I.2.10: **The S2 sustainability gap decomposed**



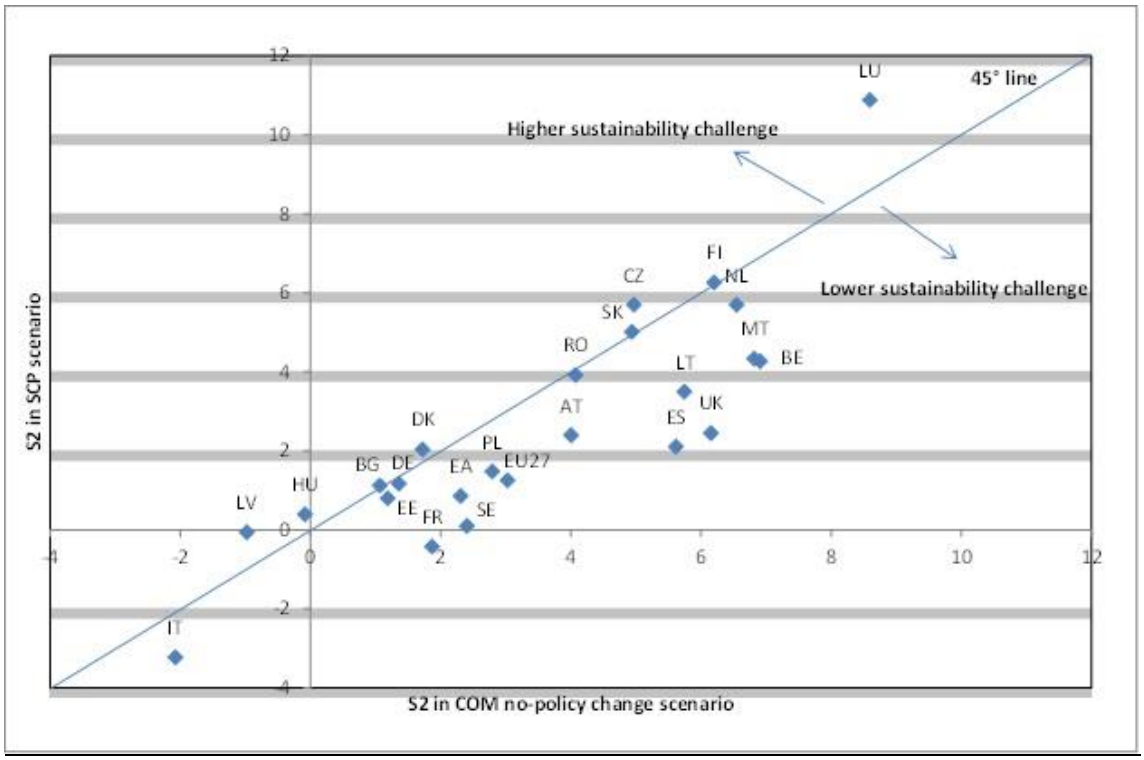
Source: Commission services.

Graph I.2.11: **S1 indicator (fiscal adjustment required until 2020 to reach a 60% public debt/GDP ratio by 2030, in per cent of GDP)**



Source: Commission services.

Graph I.2.12: **The S2 sustainability gap: 'COM no-policy-change' and 'SCP' scenarios**



Source: Commission services. 2013 Stability and Convergence Programmes

Thanks to substantial consolidation efforts, the structural primary balance in 2014 is estimated to end 2 pp of GDP higher than observed on average over the period 1998-2012 in the Czech Republic, Romania and Slovakia, and more than 3 pp of GDP higher in Greece, Italy, Hungary, Portugal. The adjustment of the primary balance required to reach a 60% of GDP debt ratio under the assumption of the COM no-policy-change scenario would be particularly demanding, indicating high risk (a fiscal consolidation effort over the period 2014-2020 higher than 3 pp of GDP) in Belgium, Spain, Malta, Netherlands, Slovenia, and the United Kingdom. Fiscal sustainability risks would be medium for Czech Republic, France, Italy, Lithuania, Austria, Poland, Slovakia, and Finland. The others are at low risk.

If the fiscal plans in the SCPs are fully implemented and additionally not weakened after the end of the programme horizon, additional fiscal consolidation, beyond the end of the period covered by the programmes (generally 2016) would be needed in Belgium, Czech Republic, Spain, Luxemburg, Netherlands, Austria, Slovakia, Finland and the United Kingdom, to reach 60% of GDP in 2030.

The S2 indicator –ageing-induced fiscal risks

In the long term, the sustainability of the fiscal position is assessed by the gap relative to the primary balance required to stabilize debt at the current level and pre-finance all the future increases in age-related expenditures. Graph I.2.11 shows the S2 sustainability indicator according to the 'COM no-policy-change' scenario.

It shows the initial fiscal position (IBP) on the horizontal axis and the long-term change in the fiscal position on the vertical axis. A dot positioned to the left has a favourable IBP; if it is below zero, it means that the budgetary position contributes positively to fiscal sustainability. A dot positioned towards the bottom of the axis has a low long-term 'cost of ageing'. The horizontal lines indicate the size of the sustainability gap. For example, the EU a whole has a sustainability gap of 3pp of GDP. The structural primary balance in 2014 – the starting point for the medium-term

projections – is very high compared with what has been achieved in the past in some Member States and maintaining such primary balances over the medium term and beyond, as assumed in the no-policy-change scenario, may prove challenging in view of competing fiscal pressures.

Graph I.2.12 shows the S2 indicator calculated on the basis of the projected changes in age-related expenditure up to 2060 (from the 2012 Ageing Report and incorporating pension reforms after its release) with two different starting points:

Table I.2.5: **Risk classification in the 2013 assessment round, COM 'no-policy-change' scenario**

	S0 Short-term fiscal sustainability challenge	S1 Medium-term fiscal sustainability challenge	S2 Long-term fiscal sustainability challenge
BE	Low (0.3)	High (5.2)	High (6.9)
BG	Low (0.3)	Low (-2.9)	Low (1.1)
CZ	Low (0.24)	Medium (0.7)	Medium (5)
DK	Low (0.24)	Low (-2.5)	Low (1.7)
DE	Low (0.02)	Low (-0.3)	Low (1.4)
EE	Low (0.22)	Low (-3.4)	Low (1.2)
ES	High (0.45)	High (6.1)	Medium (5.6)
FR	Low (0.19)	Medium (2.3)	Low (1.9)
IT	Low (0.28)	Medium (1.1)	Low (-2.1)
LV	Low (0.24)	Low (-3)	Low (-1)
LT	Low (0.22)	Medium (1)	Medium (5.7)
LU	Low (0.12)	Low (-1.5)	High (8.6)
HU	Low (0.28)	Low (-1.4)	Low (-0.1)
MT	Low (0.41)	High (3.1)	High (6.8)
NL	Low (0.15)	High (3.1)	High (6.5)
AT	Low (0.07)	Medium (2.4)	Medium (4)
PL	Low (0.41)	Medium (1.1)	Medium (2.8)
RO	Low (0.32)	Low (-0.8)	Medium (4.1)
SI	Low (0.23)	High (4.2)	High (8.6)
SK	Low (0.33)	Medium (0.6)	Medium (4.9)
FI	Low (0.13)	Medium (2.1)	High (6.2)
SE	Low (0.24)	Low (-2.7)	Medium (2.4)
UK	Low (0.29)	High (6.1)	High (6.2)
EU27	:	Medium (2.2)	Medium (3)
EA	:	Medium (2)	Medium (2.3)

Note: S0 indicator: Member States with a value for the overall composite indicator above the threshold (0.44) in 2012 are at risk for fiscal stress in the year ahead.
The S1 indicator: The following thresholds were used to assess the scale of risk for 'debt compliance':
• if the S1 value is less than zero, the Member State is assigned low risk;
• if it is between 0 and 3 (thus requiring a structural adjustment in the primary balance of up to 0.5 pp of GDP per year – the benchmark adjustment in the SGP - until 2020), it is assigned medium risk; and,
• if it is greater than 3 (meaning a structural adjustment of more than 0.5 pp of GDP per year is necessary), it is assigned high risk.
The S2 indicator: As was the case in the 2009 Sustainability Report, the following thresholds for the S2 indicator were retained:
• if the value of S2 is lower than 2, the Member State is assigned low risk;
• if it is between 2 and 6, it is assigned medium risk; and,
• if it is greater than 6, it is assigned high risk
Source: Commission services

(i) the "COM no-policy-change" scenario (see above) and

(ii) the "SCP" scenario. According to the COM no-policy-change scenario, fifteen Member States have a sustainability gap of 2% of GDP or more indicating medium risk ([29]) and seven of these have a gap higher than 6% of GDP (Belgium, Luxemburg, Malta, Netherlands, Slovenia, Finland and the United Kingdom) indicating high risk.

The 'SCP' scenario shows the extent to which the implementation of the fiscal consolidation plans would contribute to ensuring fiscal sustainability because it is constructed assuming that Member States respect their projections. Under the assumption that the fiscal plans in the programmes are fully implemented, nearly all Member States are expected to have a lower sustainability gap (as shown a position below the 45° degrees line in the figure). In the EU as a whole, the S2 fiscal gap would be 1.2% of GDP. Even assuming the full implementation of the fiscal plans in the SCPs, thirteen Member States would still have sustainability gaps in excess of 2 % of GDP (Belgium, Czech Republic, Denmark, Spain, Lithuania, Luxemburg, Malta, Netherlands, Austria, Romania, Slovakia, Finland, and the United Kingdom) and two Member States over 6 % of GDP (Luxemburg and Finland). In terms of risk classification, in the 'SCP' scenario, six Member States would go to a lower risk category (Belgium, Malta, the Netherlands and the United Kingdom from 'high' to 'medium' risk, Poland and Sweden from 'medium' to 'low' risk), and one Member State would go to a higher risk category (Denmark from 'low' to 'medium' risk). On thebasis of the multidimensional approach and the indicators described in this section, a summary of the fiscal sustainability analysis is provided in Table I.2.5.

2.3 IMPLEMENTATION OF THE DIRECTIVE ON NATIONAL BUDGETARY REQUIREMENTS

This Chapter provides an overview of the advancements in the implementation of the Council Directive 2011/85/EU on requirements for budgetary frameworks of the Member States

([29]) Belgium, Czech Republic, Spain, Lithuania, Luxemburg, Malta, Netherlands, Austria, Poland, Romania, Slovenia, Slovakia, Finland, Sweden and the United Kingdom

(hereinafter referred to as the Directive). ([30]) The improvement in national fiscal frameworks is one of the objectives of the strengthening of the EU fiscal governance, which aims at combining the need for appropriate national fiscal policy with greater national ownership of the European framework.

Moving beyond EU budgetary surveillance according to rules, processes and thresholds defined at EU level, and consistently with it, the Directive provides the first opportunity for Member States to enshrine in their own national legal order and budgetary processes a set of essential requirements supporting common objectives across Member States. All Member States have to transpose the Directive by 31 December 2013 by determining the most appropriate means to comply according to their national context and preferences. As the text entered into force end-2011, they have been given two full years to determine and set into law the necessary elements.

Upon the entry into force of the Directive, although some Member States were more advanced than others, thus leading to differentiated institutional efforts needed to comply with the Directive, no Member State had reached such a stage where no additional measures would be necessary to bring its budgetary framework up to the standards set by the Directive. Beyond the introduction and enhancement of institutional features, the successful enforcement of such reforms is paramount.

In order to take stock of the progress in strengthening national fiscal frameworks by transposing the Directive, the Commission prepared an interim progress report. ([31]) This informative report was made public and submitted to the Council and the European Parliament in mid-December 2012, as required by Article 15(3) of the Directive. It consisted in a Communication providing an overview of the progress made in transposing to date – mirroring the structure in five policy sections of the Directive, and in an accompanying Staff Working Document including one fiche per Member State. This interim progress report was primarily based on information provided by the Member States which transmitted information on their progress and plans in autumn 2012. It is important to stress that the report provides only a snapshot of the national efforts to comply with the Directive; in according with the existing practice, the Commission will conduct a full-fledged assessment only after the transposition deadline.

The main insights from this interim progress report are summarised hereunder. These insights are further illustrated by a focus on five Member States (Austria, Bulgaria, France, Slovakia and Spain) who have taken some significant steps to enhance their national budgetary frameworks since 2011.

Overall, Member States reported substantial but uneven progress in transposing the Directive. Regarding the accounting and statistical provisions, Member States have still some way to go to ensure timely and comprehensive coverage for all general government sub-sectors. In parallel with the Member States' efforts, Eurostat established, together with national experts, a Task Force on the implications of the Directive on the collection and dissemination of fiscal data, which prepared a set of methodological guidelines on this specific issue. As to the forecasts provisions, reported elements lack detail in quite a few Member States. Progress is somewhat more advanced regarding numerical fiscal rules requirements: a wide array of national instruments is being prepared to buttress national fiscal policy-making.

The mutually-reinforcing nature of all pieces of legislation contained in the Six Pack, combined with the additional impetus brought by the TSCG and by the agreement on the Two Pack, has helped placing these issues high on the Member States' reform agenda. While many Member States reported that Medium-Term Budgetary Frameworks in the sense of the Directive were in place or planned, the details given are sometimes

([30]) Council Directive 2011/85/EU of 8 November 2011 on requirements for budgetary frameworks of the Member States, published on 23 November 2011 in the Official Journal of the EU. The Directive is one of the components of the legislative package on the strengthening of economic governance (also known as the 'Six Pack') reforming the SGP

([31]) Interim Progress Report on the implementation of Council Directive 2011/85/EU on requirements for budgetary frameworks of the Member States, European Commission, European Economy - Occasional Paper 128, February 2013.

scarce and do not provide yet enough evidence of full compliance with the Directive's specifications. Finally, work on effective coordination arrangements for sub-national governments is being carried out in many Member States, but the positive intentions reported need to be turned into concrete and enforceable arrangements. A number of Member States considered good fiscal performers have reported fewer completed reforms at this stage, but are considering formalising part of their currently informal framework for increased efficiency.

Beyond these overall messages, there are also more specific considerations in the interim progress report, addressing in more detail the key issues covered by the Directive. A summary is presented below and a presentation of the reforms undertaken in a selection of Member States is given in Box I.2.1.

A) ACCOUNTING, STATISTICS AND TRANSPARENCY

Sound fiscal policy should be based on sound fiscal reporting. Comprehensive, timely and accurate information on budgetary execution is essential for policy-makers. Up until recently, high-frequency fiscal reporting has been patchy in the majority of Member States. Even where reporting duties were properly defined, general government data have been collected for different tiers of government under different accounting rules or statistical principles, in terms of frequency, reporting deadlines or compilation methodologies. Against this background, negative budgetary developments have remained undetected for an overly long period of time, especially when they originated in non-central government entities.

In response to this, the Directive (Chapter II and Article 14) provides a major opportunity to harmonise accounting conventions within general government, streamline reporting lines, and ensure an effective data feed to decision-makers and external observers. Enshrining existing informal collection processes and new statistical requirements in law would ensure that the hundreds — and sometimes thousands — of entities entering the general government definition are properly integrated within a comprehensive data collection system. In particular, the Directive sets standards for a comprehensive and consistent nature of national public accounting systems across all subsectors, for the regular publication of fiscal data (monthly for central government, state government and social security; quarterly for local government) and for the publication of major contingent liabilities. The Directive also requires Eurostat to publish Member States' quarterly debt and deficit levels.

More efforts are required in many Member States to make fiscal data of non-central government sectors available timely. While almost all Member States make monthly data for the central government bodies available in cash or other accounting basis, fiscal data availability is lower for social security entities, and even scarcer for local government, and on-going reforms are not yet completed for state government in several federal states. For the implementation of Article 4(7) of the Directive, Eurostat released for the first time on 6 February 2012 a dedicated, regular press release on quarterly government debt, providing data for the EU, the euro area and individual Member States. A similar initiative is envisaged for the quarterly deficit.

B) MACROECONOMIC AND BUDGETARY FORECASTS

Macroeconomic and budgetary forecasts used for fiscal planning have long been considered a weak spot in the production of annual budgets. Some Member States have been seen for a long time to be suffering from a bias in their fiscal estimates. This is why the Directive pays particular attention to forecasting by devoting a chapter to this issue (Chapter III). It essentially requires Member States to base their fiscal planning on realistic and up-to-date macroeconomic and budgetary forecasts, to identify the body responsible for their production, to explain significant deviations from the Commission's forecasts, to publish their main assumptions and to undertake ex-post evaluation of their own forecasts in order to detect and correct potential bias. For euro area Member States, the Two Pack further specifies the involvement of independent bodies in producing or endorsing government's forecasts used for the preparation of the budget.

Overall, a third of Member States reported having structured processes in place, involving several institutions or bodies, to ensure transparency and

accountability of the forecasts. Other Member States are still at the drawing board stage, or have so far reported only declarations of intent. The drafting of alternative macroeconomic and budgetary scenarios — a sound preventive step that facilitates budget shifts at the budget execution stage when actual parameters depart from the central scenario — was reported by a third of Member States. Only a minority of Member States reports that they compare (or plan to compare) their forecasts with those of the Commission. Few Member States reported having taken in 2012 any specific measures to assess ex post the quality of forecasts in the sense of Article 4(6) of the Directive.

C) NATIONAL NUMERICAL FISCAL RULES

Well-designed rules-based frameworks are known to significantly enhance budgetary discipline. At the European level, the SGP already provides for a set of fiscal rules – concerning the nominal and structural deficit, as well as ensuring a rapid decrease of high debt levels. The Directive requires Member States to have in place country-specific numerical fiscal rules that effectively promote compliance with these Treaty obligations in the field of budgetary policy. While Chapter IV does not specify such rules in detail, it states that they must include requirements to ensure an appropriate definition of the targets and scope of the rules, an effective and timely independent monitoring, strict compliance mechanisms and well-circumscribed escape clauses. In particular, periodic checks by monitoring institutions with sufficient authority would also provide an opportunity to raise awareness of fiscal sustainability, and foster a healthy debate with fiscal authorities and the general public on shared national fiscal objectives.

Spurred by the introduction of the Directive and supported by the TSCG, major reforms leading to an overhaul of fiscal rules have been unveiled or are reportedly already completed in twenty Member States. Including proposed legislation and entry into force after a transitional period, new budget balance rules have been unveiled in fourteen Member State, while existing budget-balance rules are being strengthened in five other Member States. Expenditure rules are being established in ten Member States, and reformed in five other Member States. The introduction or strengthening of national debt rules is a new development in twelve Member States. In addition, Member States under an adjustment programme are subject to a multi-annual, multi-target framework constraining their fiscal policy as a de facto fiscal rule with enhanced features for monitoring and enforcement. Many Member States declare that the new or updated rules will have features in line with the Directive's requirements. In particular, almost half of the Member States report that monitoring institutions are or will be tasked with assessing the implementation of national numerical fiscal rules. Overall, the establishment of national numerical fiscal rules appears to be on the right track. However, their specific features and overall consistency will have to be assessed against the requirements of the Directive's Articles 5 and 6.

D) MEDIUM-TERM BUDGETARY FRAMEWORKS

Under the Directive (Chapter V), Member States are required to establish a credible, effective Medium-Term Budgetary Framework (MTBF) – i.e. a set of rules and procedures to frame fiscal policy-making with a medium-term perspective – over at least three years, enabling them to expand fiscal planning beyond the annual horizon and thereby fostering more consistent, effective and potentially ambitious policy-making over the medium term. If annual budgets need to be adapted to specific contingencies of the macroeconomic outlook for instance, the stability of fiscal planning, ensured by a consistent vision over the medium-term, is proved essential for sounder public finances through the cycle. The institution of MTBFs in all Member States intends to help delivering and updating this medium-term vision.

An appropriately-designed MTBF contains multi-annual budgetary objectives, in combination with projections of each major revenue and expenditure item based on unchanged policies, with explanations of corrective medium-term policies to bridge the gap between the no-policy change projections and policy targets. Additionally, it features an assessment as to how the policies envisaged are likely to affect the long-term sustainability of public finances. Wherever necessary, the MTBF should replace existing planning documents or consolidate them into a

single, well-identified, strategic document. Consistency is critical and should be understood along several dimensions. First, the MTBF should genuinely serve as a basis for the subsequent preparation of the annual budget. Second, as some Member States have developed multiannual binding fiscal rules, figures derived from these fiscal rules should naturally feed into the MTBF. Third, the MTBF document(s) should also be consistent over time by documenting in detail and transparently numerical adjustments. Finally, the MTBF positioning in the national budgetary timeline should be defined taking into account the requirements stemming from the 'two-pack' regulations and from the European Semester process.

Multi-annual frameworks were reported to be in place or concrete plans exist to establish them, in twenty-two Member States. Almost all are of a rolling nature and consequently updated at least every year with the inclusion of an outer year. Ten reported multi-annual frameworks span three years, nine four years and two, five years. Multi-annual frameworks are also a vehicle of choice for setting expenditure ceilings or targets in almost half of the Member States, although the presentation of medium-term developments only for expenditure would not suffice to qualify as a medium-term budgetary framework in the sense of the Directive. Finally, only a few Member States report legislative provisions ensuring the consistency between annual and multiannual budgets, and even fewer report that multi-annual projections are presented under a no-policy change basis. The latter is crucial to establish a baseline scenario against which the impact of envisaged policy measures can be quantified in order to achieve budgetary targets implied by fiscal rules.

E) MECHANISMS OF COORDINATION ACROSS GOVERNMENT SUB-SECTORS

As a first step, efforts to improve budgetary frameworks concerned central government level only. With the Directive, the scene is set for a broad-based extension of the principles for accounting, statistics, forecasting and fiscal rules to social security funds and state/local government, which taken together, account for a sizeable share of total expenditure. In particular, the Directive indicates that all measures adopted by Member States must be consistent across, and comprehensive in the coverage of, all sub-sectors of general government. A clear delineation of budgetary responsibilities among government tiers is also required. National provisions should accordingly make sure that the constraints deriving from fiscal targets for general government are properly internalised by all government levels.

Beyond the establishment of fiscal rules for (or their extension to) sub-national governments, Member States report a variety of coordination instruments at different stages of the annual budgetary process. Finally, approximately one quarter of the Member States are considering adaptations to their coordination arrangements.

Box I.2.1: **National budgetary frameworks on the move**

This box presents the reforms adopted since 2011 in selected countries to improve national budgetary frameworks in line with the Directive: three euro area Member States (Austria, France, Spain) and two non-euro area Member States (Bulgaria, Slovakia) are included.

In the case of **Austria**, the reinforcement of the Internal Stability Pact represents a positive step towards a strengthened budgetary framework. In May 2012, a new and comprehensive Internal Stability Pact was signed by all levels of government. The key element of the pact is the introduction of a new system of multiple fiscal rules covering also states and municipalities. The main rules involve: a) more stringent deficit targets have been set in last year Austria Stability Programme; b) a structural balance rule has been introduced and will apply from 2017 onwards, with a lower limit of general government structural deficit of -0.45% of GDP (-0.35% for the central government and -0.1% for states and municipalities); c) in line with the preventive arm of the Stability and Growth Pact, the expenditure growth of all government levels (net of discretionary measures) must not exceed average potential growth and ensure an appropriate adjustment path towards the Medium-Term Objective; d) enhanced enforcement mechanisms based on sanctions have been introduced to ensure the credibility of these provisions. In the health sector central and subnational governments agreed on holding down health expenditure on a dampening path, by the introduction of an expenditure benchmark equal to average nominal GDP growth until 2016, while from 2016 onwards health expenditure growth should not exceed 3.6%. The extension of tighter fiscal rules to subnational governments, the introduction of enforcement mechanisms and the adoption of specific targets to contain health expenditure dynamic are expected to contribute to spending efficiency.

Bulgaria has recently strengthened its fiscal framework. A new public finance law was adopted in January 2013 and will enter into force in 2014. It confirms the existing numerical fiscal rules – including nominal deficit ceiling and expenditure ceiling as % of GDP. It introduces additional rules related to the Stability and Growth Pact: a medium term ceiling for the structural deficit of the general government at 0.5% of GDP (1% in case debt is under 40%) and as a limit to public expenditure growth. Requirements at the municipal level are strengthened with the alignment of accounting and statistics systems with the Eurostat methodology. In addition, the new law reforms the three-year medium term budgetary framework and commits the government to submitting to the Parliament a proposal on the designation of an independent body in charge of monitoring the national numerical fiscal rules by mid-2013.

France has significantly reformed its budgetary framework in the past years, and more recently by the adoption in December 2012 of an organic law on budgetary planning and governance *(Loi organique relative à la programmation et à la gouvernance des finances publiques)*. A budget balance rule expressed in structural terms has been established along with a correction mechanism that would be triggered in case of significant deviations from the country's medium-term objective, unless exceptional circumstances are called. The *Haut Conseil des Finances Publiques* was created in order to monitor the compliance with the fiscal rules and assess the forecasts underlying the budget documents. It is lodged in the Court of Auditors and headed by its first President. Its board members have a five-year mandate. Only board members coming from the staff of the Court of Auditors can be re-appointed. The first council's opinion on macroeconomic forecasts underlying the French 2013-2017 Stability Programme was published in April 2013. First adopted in February 2009, multi-annual public finance planning acts *(Lois de programmation des finances publiques)* are the main vehicle for multiannual planning. They include expenditure ceilings for the state at a disaggregated level over a three-year horizon. The multi-annual public finance planning act for 2012 to 2017 was approved in December 2012 and includes objectives on debt reduction and achievement of a structural budget balance in 2016 and 2017.

In **Slovakia**, a constitutional law on fiscal responsibility entered into force in March 2012. It has established automatic correction mechanism and specific sanctions in case the debt ceiling of 60% of GDP is breached and, as from 2018, the debt ceiling and the intermediate alert thresholds have to be reduced annually by one percentage point down to 50% of GDP in 2027. Escape clauses may apply in the event of a major recession, a banking system bailout, a natural disaster and international guarantee schemes. The introduction of more

(Continued on the next page)

Box (continued)

binding multiannual expenditure ceilings for the general government sector excluding the local government is also envisaged. The new Fiscal Responsibility Law also establishes an independent fiscal institution. The Council for Budgetary Responsibility started operating in the second half of 2012 and has already published several reports, including an assessment of the 2013-15 draft budget and a report on the long term sustainability of public finances. Its mandate includes the monitoring of national numerical fiscal rules, the monitoring of budgetary developments, the review of legislative budget proposals and the annual assessment of the long-term sustainability of public finances.

In **Spain**, the fiscal framework was significantly reformed in 2011-12, with the introduction of new fiscal principles in the Constitution (in particular, a balanced budget principle) and the adoption in April 2012 of an implementing Organic Law on Budgetary Stability and Financial Sustainability *(Ley Organica de Estabilidad Presupuestaria y de Sostenibilidad Financeria)*. For example, supplementing existing numerical fiscal rules, a budget balance rule, a debt rule and an expenditure rule for the general government sector have been defined in the Organic Law along with specific escape clauses and mechanisms to correct potential deviations. The Organic Law also aims at reinforcing the budgetary responsibility across sub-sectors of the general government. For example, the overall debt ceiling of 60% of GDP is broken down into disaggregated ceilings for central government (44%), regions as a whole (13% of GDP), and local government as a whole (3%). The correction mechanisms also involve the sub-sectors, requiring the government level responsible for the deviation to submit its correction plans and allowing a temporary, partial or total handover of budgetary responsibility to a higher government level in the event of repeated unjustified deviations. In addition, following the ratification of the TSCG, Spain is currently preparing the establishment of an independent fiscal institution whose responsibilities would include the monitoring of national numerical fiscal rules at all government levels, as well as the endorsement of macroeconomic forecasts.

ANNEX 1 OVERVIEW OF COUNCIL RECOMMENDATIONS RELATING TO FISCAL POLICY

1. AT

Summary assessment

The Council is of the opinion that Austria undertook considerable consolidation efforts to bring the budget on a path to correct the excessive deficit. With regard to the 2013 programme, the macroeconomic scenario underpinning the budgetary projections is optimistic. The main objective of the budgetary strategy outlined in the programme is to gradually reduce the general government deficit to reach a balanced budget in nominal terms by 2016 and to meet the medium-term objective (MTO) by 2015. The programme confirms the previous MTO of a structural deficit of 0.45% of GDP. The MTO is in line with the requirements of the Stability and Growth Pact. Based on current projections, Austria is on track to correct its excessive deficit by 2013 given that the general government deficit is at 2.5% of GDP in 2012 and is expected to further decrease to 2.2% of GDP in 2013 and to 1.8% of GDP in 2014 respectively according to the Commission forecast. However, there are possible additional costs relating to the unwinding of a large bank which could have a significant deficit-increasing impact. After a strong improvement exceeding the adjustment path required in the EDP in 2012, the structural balance deficit is projected to increase in 2013 up to 1.8%. A slight increase of the structural deficit in 2013 is confirmed also by the Commission forecast. According to the information of the programme from 2014 onwards, the recalculated structural balance foresees a structural adjustment exceeding 0.5% in 2014 and 2015 enabling Austria to reach the MTO two years in advance in comparison to the scenario presented in the programme, i.e. in 2015 instead of 2017. As for the expenditure benchmark according to the information provided in the programme the growth rate of government expenditure, net of discretionary measures, over years 2014 and 2016 is be in transition period from 2014 to 2016 regarding compliance with the debt criterion and plans would ensure sufficient progress towards compliance.

The strengthening of the budgetary framework has left the fiscal relations between layers of government largely unchanged and overlapping responsibilities and inconsistencies between funding and spending responsibilities remain a challenge. The complex mechanism of continuous agreements between the national government, social insurance providers and the sub-federal level, constitute an implementation risk to measures aimed at containing health expenditure. In education, the negotiations on a 6-point proposal including the abolition of school authorities at district level are a welcome step towards streamlining of responsibilities between different layers of government, but further simplification would be needed to reduce fragmentation more substantially.

Recommendation

• Implement the budget for the year 2013 as envisaged so as to correct the excessive deficit in a sustainable manner and achieve the average annual structural adjustment effort specified in the Council recommendations under the Excessive Deficit Procedure. After correction of the excessive deficit, pursue the structural adjustment effort at an appropriate pace so as to reach the MTO by 2015. Streamline fiscal relations between layers of government, for example simplifying the organisational setting and aligning spending and funding responsibilities.

• Bring forward the harmonisation of pensionable age for men and women, increasing the effective retirement age by aligning retirement age or pension benefits to changes in life expectancy implement and monitor the recent reforms restricting access to early retirement and further improve older workers' employability in order to raise the effective retirement age and the employment rate of older workers.

• Effectively implement the recent reforms of the health care system to make sure that the expected cost efficiency gains materialise. Develop a financially sustainable model for the provision of long-term care and put a stronger focus on prevention, rehabilitation and independent living.

2. BE

Summary assessment

The Council is of the opinion that the macroeconomic scenario underpinning the budgetary projections in the programme is plausible. In comparison to the Commission's 2013 Spring Forecast, which projects GDP growth to be flat in 2013 and to increase to 1.2% in 2014, it is slightly more optimistic (projecting 0.2% and 1.5%, respectively). Since 2010, Belgium has implemented consolidation measures, especially in 2012, and, also in 2012, introduced structural reforms in the pension system, the unemployment benefit system and product markets. However, the fiscal effort was not sufficient to be in line with the Council recommendation of 2 December 2009 to end the excessive deficit situation. Also in light of the recapitalisation of the banking group Dexia, which had a negative impact of 0.8% of GDP on the deficit outcome, and the worse than expected economic developments in the second half of 2012, the deadline for correction of the excessive deficit has been missed. As the correction of the excessive deficit by 2012 has not been achieved, the deficit is now foreseen to be brought below 3% of GDP from 2013. The objective of the budgetary strategy outlined in the programme is to reach a balanced budget in structural terms by 2015 and to achieve the medium-term objective (MTO) the year after. The programme has changed the MTO from a surplus of 0.5% to 0.75% of GDP. The new MTO is in line with the requirements of the Stability and Growth Pact. The programme is compatible with the new EDP deadline of 2013, but according to the Spring Forecast the safety margin against breaching the Treaty reference value is narrow, with a deficit projected at 2.9% of GDP in 2013. The planned annual progress towards the MTO, which is projected to be reached by 2016, is higher than 0.5% of GDP (in structural terms). No consolidation measures have been specified beyond 2013. According to the information provided in the programme, the growth rate of government expenditure, net of discretionary revenue measures, over 2014-2016 is expected to contribute to an annual structural adjustment towards the MTO by 0.5% of GDP. According to the programme, the debt ratio will peak at 100.0% of GDP in 2013 and will decline gradually to 93.0% of GDP by 2016. From 2014 to 2016, Belgium can be expected to be in a transition period regarding compliance with the debt criterion. According to the plans, the debt benchmark will be met at the end of the transition period. Based on the Commission 2013 Spring Forecast, which projects the debt ratio to reach 101.4% in 2013 and to rise further to 102.1% of GDP in 2014 under a no-policy-change assumption, the transition towards the debt reduction rule will not be respected in 2014, which indicates that progress towards the MTO is not sufficient. The programme does not explain how the planned adjustment will be shared between the different layers of government, an issue also addressed in last year's country specific recommendation. In addition to a rules-based multi-annual framework for general government, it is necessary to design and agree on explicit coordination arrangements to secure and enforce more robust, automatic commitments from the regions, communities and local authorities, to meet budgetary targets.

Recommendation

• Adopt additional measures to achieve the structural adjustment effort specified in the Council Decision to give notice to correct the excessive deficit by 2013 and to enhance the sustainability and credibility of the consolidation. A durable correction of the fiscal imbalances requires the credible implementation of ambitious structural reforms which would increase the adjustment capacity and boost potential growth. After the correction of the excessive deficit, pursue the structural adjustment at an appropriate pace so as to reach the medium-term objective by 2016 and ensure that the high debt ratio is put on a firm downward path. To this end, present growth friendly structural measures for 2014 by 15 October 2013 which ensure a sustainable correction of the excessive deficit and sufficient progress towards its medium-term objective. Ensure that the adjustment path is balanced over time or even front-loaded. Adopt explicit coordination arrangements to ensure that budgetary targets are binding at federal level and sub-federal levels within a medium-term planning perspective including through the prompt adoption of a rule on the general government budget

balance/surplus that complies with the requirements of the Treaty on Stability, Coordination and Governance in the Economic and Monetary Union and to increase the transparency of burden sharing and accountability across government layers.

• Step up efforts to close the gap between the effective and statutory retirement age, including by pursuing the on-going reforms to reduce the out early-exit possibilities. Underpin reforms of the old-age social security systems with employment-support measures and labour-market reforms conducive to active ageing. Increase the effective retirement age by aligning retirement age or pension benefits to changes in life expectancy.

3. BG

Summary assessment

The Council is of the opinion that public finances in Bulgaria have overall been sound. The medium-term objective (MTO) was reached in 2012. The macroeconomic scenario underpinning the budgetary projections in the convergence Programme is plausible for the 2013-14 period, when annual growth is expected to reach 1.0% in 2013 and 1.8% in 2014. The Commission 2013 spring forecast foresees a GDP growth of 0.9% in 2013 and of 1.7% in 2014. The objective of the budgetary strategy outlined in the programme is to keep the structural budget balance close to the MTO throughout the programme period. The programme confirms the previous MTO of -0.5% of GDP which is more ambitious than required by the Stability and Growth Pact. Based on the (recalculated) structural budget balance, which is estimated to weaken slightly form a deficit of 0.4% of GDP in 2012 to between 0.7-0.8% of GDP over 2013-2016. Bulgaria falls marginally below its MTO over the Convergence Programme period. In 2013-15, the growth rate of government expenditure, taking into account discretionary revenue measures, would respect the expenditure benchmark of the Stability and Growth Pact, yet breach it in 2016. The debt ratio is below 60% of GDP and, according to the Convergence Programme, it is expected to peak at 20.4% of GDP in 2014 and then to decrease over the Programme period. Similarly, the Commission 2013 spring forecast foresees the debt ratio to amount to 20.3% of GDP in 2014.

Recommendation

• Preserve a sound fiscal position by ensuring compliance with the medium-term objective and pursue a growth-friendly fiscal policy as envisaged in the convergence programme. Implement a comprehensive tax strategy to strengthen all aspects of the tax law and collection procedures with a view to increase revenue, notably by improving tax collection, tackling the shadow economy and reducing compliance costs. Establish an independent institution to monitor fiscal policy and provide analysis and advice.

• Phase out early retirement options, introduce the same statutory retirement age for men and women and implement active labour market policies that enable older workers to stay longer in the labour market. Tighten the eligibility criteria and controls for the allocation of invalidity pensions to effectively limit abuse.

4. CY

Detailed Recommendations are set out in the Memorandum of Understanding.

5. CZ

Summary assessment

The Council is of the opinion that the Czech Republic has reduced the headline deficit by 1.4% (1)of GDP from 2009 to 2012 due to substantial consolidation efforts and that, based on current expectations; it is on track to correct the excessive deficit. The macroeconomic scenario underpinning the budgetary projections in the programme is plausible. According to the convergence programme, real GDP growth is expected to be at 0% and 1.2% in 2013 and 2014, respectively, compared to -0.4% and 1.6 % in 2013 and 2014 respectively in the Commission 2013 spring forecast. The objective of the budgetary strategy outlined in the programme is to keep the general government deficit below the 3% of GDP reference value. The general government deficit target of 2.% of GDP in 2013 is in line with the

deadline for correcting the excessive deficit set out in the Council recommendation of 2 December 2009. The Commission 2013 spring forecast projects the government deficit at 2.9% and 3% of GDP in 2013 and 2014, respectively. There is a risk of worse-than-expected budgetary outcome in 2013 stemming from additional corrections in EU funds reimbursements. On the positive side, one-off revenues related to the planned auction of new telecom frequency bands could result in a better than- expected budgetary outcome in 2013. The convergence programme confirms the previous medium-term objective of a deficit of 1% of GDP, which adequately reflects the requirements of the Stability and Growth Pact. The (recalculated) structural budget deficit is projected to increase by 0.3%, 0.2% and 0.5% of GDP in 2014, 2015 and 2016 respectively; therefore no adjustment towards the medium-term objective is foreseen in the programme, which is not in line with the Stability and Growth Pact. The rate of growth of government expenditure complies with the expenditure benchmark of the Stability and Growth Pact in 2014 but deviates by 0.3% and 0.5% of GDP in 2015 and 2016 respectively. According to the convergence programme, the debt-to-GDP ratio is forecast to continue to increase over the programme period, albeit at a slowing pace, and to reach 51.9% of GDP in 2016.

Recommendation

• Implement as envisaged the budget for the year 2013 so as to correct the excessive deficit in 2013 in a sustainable manner and achieve the structural adjustment effort specified in the Council recommendations under the EDP. For the year 2014 and beyond, reinforce and rigorously implement the budgetary strategy, supported by sufficiently specified measures, to ensure an adequate fiscal effort to make sufficient progress towards the medium-term objective. Prioritise growth-enhancing expenditure including committing on time remaining projects co-financed with EU funds under the current financial framework.

• Increase the effective retirement age by aligning retirement age or pension benefits to changes in life expectancy, and review the indexation mechanism. Accompany the increase in retirement age with measures promoting employability of older workers and reduce early exit.pathways. In particular, remove the public subsidy for the pre-retirement scheme. Take measures to significantly improve cost-effectiveness of healthcare expenditure, in particular for hospital care.

• Take additional efforts to strengthen the efficiency and effectiveness of the public employment service. Increase significantly the availability of inclusive childcare facilities with a focus on children up to three years old, and the participation of Roma children, notably by adopting and implementing the law on provision of childcare services and strengthening the capacities of both public and private childcare services.

6. DE

Summary assessment

The Council is of the opinion that public finances in Germany have been overall sound and the medium-term budgetary objective (MTO) has been achieved. The macroeconomic scenario underpinning the budgetary projections in the programme is plausible. The stability programme's macroeconomic projections are broadly in line with the Commission's 2013 spring forecast as regards the pace and pattern of economic growth in 2013 and 2014 as well as with the Commission's estimate of Germany's medium-term potential growth rate. The objective of the budgetary strategy outlined in the programme is to ensure continued achievement of the medium-term budgetary objective (MTO). The programme confirms the previous MTO of -0.5 % of GDP. The MTO is in line with the requirements of the Stability and Growth Pact. Germany achieved a structural budgetary surplus and hence the MTO in 2012. According to the stability programme, the (recalculated) (2) structural balance will remain positive in 2013 and 2014, which is broadly in line with the Commission’s forecast, and hence created space for automatic stabilisers to play freely. Germany also complied with the expenditure benchmark in 2012. According to the information provided in the stability programme, the growth rate of government expenditure, net of discretionary revenue measures, would exceed the expenditure benchmark in 2013, while respecting

it in 2014. The programme plans gross debt to fall to 80½ % of GDP in 2013 and to remain on a downward path thereafter. Following the correction of the excessive deficit in 2011, Germany is in a transition period regarding compliance with the debt criterion and made sufficient progress towards compliance with the debt criterion in 2012. If the programme is implemented as planned, it is also making sufficient progress towards compliance with the debt criterion in 2013 and the debt benchmark will be met at the end of the transition period in 2014. Overall, the deficit and debt targets appear realistic.

Recommendation

• Preserve a sound fiscal position as envisaged which ensures compliance with the medium-term objective over the programme horizon. Pursue a growth-friendly fiscal policy through additional efforts to enhance the cost-effectiveness of public spending on healthcare and long-term through better integration of care delivery and a stronger focus on prevention and rehabilitation and independent living. Improve the efficiency of the tax system, in particular by broadening the VAT base and by reassessing the municipal real estate tax base; use the available scope for increased and more efficient growth-enhancing spending on education and research at all levels of government. Complete the implementation of the debt brake in a consistent manner across all Länder, ensuring that monitoring procedures and correction mechanisms are timely and relevant.

7. DK

Summary assessment

The Council is of the opinion that the macroeconomic scenario underpinning the budgetary projections in the programme is plausible. The scenario projecting GDP growth at 0.7% and 1.6% in 2013 and 2014 is broadly in line with the Commission's 2013 spring forecast of 0.7% and 1.7 %. The programme outlines a budgetary strategy aimed at correcting the excessive deficit and to fulfil its medium-term objective (MTO), of a structural deficit of no more than 0.5% of GDP, by 2013, reflecting the objectives of the Pact. The programme targets a general government deficit of 1.7% of GDP in 2013 and 1.8% in 2014, which is in line with the EDP deadline proposed by the Commission. The average annual fiscal effort over the period 2011-2013, based on the structural budget balance calculations, is in line with the Council recommendation under the excessive deficit procedure. In the Convergence Programme net discretionary measures are estimated to yield a consolidation broadly in line with the recommendation issued under the excessive deficit procedure. The real government expenditure (including discretionary income measures) is estimated to show zero growth in 2013 and to be at 0.4% in 2014, thus meeting the expenditure benchmark in both years. Public finances in Denmark are generally sound and the country is already at its MTO. However, also because the country has an ageing population and ambitious welfare policies, it is crucial for Denmark to maintain a sound and sustainable framework for fiscal policies and to keep the deficit below the 3 % of GDP reference value in the Treaty.

Recommendation

• Implement the budgetary strategy in 2013 as envisaged, so as to ensure the correction of the excessive deficit by 2013. Furthermore, implement the budgetary strategy for 2014 and beyond to ensure an adequate fiscal effort to remain at the medium-term objective.

8. EE

Summary assessment

The Council is of the opinion that the macroeconomic scenario underpinning the budgetary projections in the programme is plausible in 2013-2014 when real GDP growth is expected to average around 3.3%. The Commission 2013 spring forecast foresees growth of 3.5% in 2013-2014. Estonia achieved a headline budget deficit of 0.3% of GDP in 2012. The programme confirms the previous medium-term objective (MTO) of a structural surplus. This is more ambitious than required by the Stability and Growth Pact. As Estonia's structural balance was in surplus in 2012, the country achieved its MTO

one year earlier than foreseen in its previous programme. The objective of the budgetary strategy outlined in the Stability Programme is to ensure sustainable fiscal policy that supports balanced growth, by staying at the MTO while ensuring sufficient fiscal buffers and reducing the tax burden on labour. The planned headline deficit, 0.5% of GDP in 2013, is envisaged by the programme to improve over the forecast horizon, reaching balance in 2014 and moving into surplus thereafter. Following an overall assessment of the recalculated structural balance, including an analysis of expenditure benchmark, Estonia does not deviate significantly from the MTO in 2013, returning to a structural surplus in 2014. The debt ratio is well below 60% of GDP and, according to the programme, is likely to decrease after 2013 to about 9% in 2015-2016. Estonia plans to introduce a structural budget balance rule in 2013, in line with the requirements of the Treaty on Stability, Coordination and Governance. The rule should be complemented by strengthening the binding nature of the multiannual expenditure targets as soon as the budget rule is in place.

Recommendation

• Pursue a growth-friendly fiscal policy and preserve a sound fiscal position as envisaged, ensuring compliance with the medium-term budgetary objective over the programme horizon. Complement the planned budget rule with more binding multiannual expenditure rules within the medium-term budgetary framework and continue enhancing the efficiency of public spending.

9. EL

Detailed Recommendations are set out in the Memorandum of Understanding.

10. ES

Summary assessment

The Council is of the opinion that the macroeconomic scenario underpinning the budgetary projections in the programme is broadly plausible for 2013 and subject to some downside risks in 2014 and beyond compared with the Commission's 2013 spring forecast. Although the programme projects growth to be lower over the 2014-16 period compared to the Commission's 2013 spring forecast, the latter is based on a no-policy-change assumption and hence does not take into account the fiscal consolidation that will be needed to attain the budgetary targets in the programme. The objective of the budgetary strategy outlined in the programme is to bring the general government deficit below the 3% of GDP reference value by 2016. The consolidation relies mainly on expenditure restraint with the expenditure ratio decreasing by 3.7 percentage points over the 2012-16 period, but also on some revenue-increasing measures. Based on the (recalculated) structural balance (1) the annual improvement of the structural deficit planned in the programme is 1.2%, 0.4%, 0.9% and 0.9% of GDP for the years 2013 to 2016. Following the correction of the excessive deficit, the programme confirms the medium-term objective (MTO) of a balanced budgetary position in structural terms, which would be achieved by 2018. The MTO is more ambitious than required by the Stability and Growth Pact. The envisaged pace of adjustment in structural terms in 2017-18 represents sufficient progress towards the MTO. The programme projects the government debt ratio to peak in 2016 and to start declining thereafter. The deficit and debt adjustment paths are subject to downside risks. Measures to support the deficit targets are not sufficiently specified, especially at regional level. For 2016 the programme does not present any measures and previous temporary measures are extended only to 2014. Planned savings from the local government reform are subject to significant implementation risks. Moreover, there are uncertainties surrounding the economic, labour market and financial situation as well as revenue developments in the context of persisting large macroeconomic imbalances. Fully implementing the adopted early retirement reform and reaching an agreement on the sustainability factor would mitigate risks in the social security system. A further risk stems from contingent liabilities linked with asset protection schemes/guarantees. There were major progress in the reporting of budgetary execution, but there is scope for a more transparent and timely implementation of the Budgetary Stability Law's preventive and corrective mechanisms. Systematic and timely reporting on government arrears, whose large outstanding stock

required an ad-hoc repayment scheme, is missing. The establishment of an independent fiscal council has been lagging behind schedule. A proposed revision of indexation rules for all public revenues and expenditures would bring budgetary savings and a higher responsiveness of prices to economic conditions. The NRP also acknowledges the need to further improve cost-effectiveness in healthcare and pharmaceutical expenditure, e.g. by revising reference prices and centralising purchasing of pharmaceutical products, or extending co-payments.

Recommendation

• Deliver the structural fiscal effort as required by the Council recommendation under the EDP to ensure correction of the excessive deficit by 2016. To this end, implement the measures adopted in the 2013 budget plans at all levels of government, reinforce the medium-term budgetary strategy with sufficiently specified structural measures for the years 2014-16. A durable correction of the fiscal imbalances is predicated upon the credible implementation of ambitious structural reforms which would increase the adjustment capacity and boost potential growth and employment. After achieving the correction of the excessive deficit, pursue the structural adjustment at an appropriate pace so as to reach the medium term objective by 2018. Ensure a strict and transparent enforcement of the preventive and corrective measures provided for in the Budgetary Stability Organic Law. Establish an independent fiscal authority before the end of 2013 to provide analysis, advice and monitor compliance of fiscal policy with national and EU fiscal rules. Improve the efficiency and quality of public expenditure at all levels of government, and conduct a systematic review of major spending items by March 2014. Increase the cost effectiveness of the health-care sector, while maintaining accessibility for vulnerable groups, for example by reducing hospital pharmaceutical spending, strengthening coordination across types of care and improving incentives for an efficient use of resources. Take measures to reduce the outstanding amount of government arrears, avoid their further accumulation and regularly publish data on outstanding amounts. Adopt the dis-indexation law to reduce the degree of price inertia in public expenditures and revenues, in time to have it in force by the beginning of 2014 and consider additional steps to limit the application of indexation clauses. Finalise by end-2013 the regulation of the sustainability factor so as to ensure the long-term financial stability of the pension system, including by increasing the effective retirement age by aligning retirement age or pension benefits to changes in life expectancy.

• Adopt in line with the presented timetable the reform of the local administration and define by October 2013 a plan to enhance the efficiency of the overall public administration. Adopt and implement the on-going reforms to enhance the efficiency of the judicial system.

11. FI

Summary assessment

The Council is of the opinion that the public finances in Finland have been overall sound and efforts have been made to increase revenues and to control expenditures in order to move towards the medium-term objective (MTO). The macroeconomic scenario underpinning the budgetary projections in the programme is plausible. The growth projection for 2013 is similar to the Commission's spring forecast, whereas the one for 2014 is 0.6 pp higher than in the Commission's forecast. The objective of the budgetary strategy outlined in the programme is to balance the central government finances and to bring the central government debt to GDP ratio on a declining path by 2015. The programme incorporates a change in the medium-term objective (MTO) from 0.5% to -0.5%. The new MTO is in line with the requirements of the Stability and Growth Pact. The programme foresees reaching the MTO by 2014 and staying at the MTO until 2017. Based on the (recalculated) structural balance on the basis of information in the programme, Finland did not meet in 2012 the previously-applicable MTO and would not meet the new MTO in 2013. The programme projects the (recalculated) structural balance to improve from -1% of GDP in 2012 to -0.9% of GDP in 2013. Between 2014 and 2017, it would remain between -0.6% and -0.7% of GDP. In 2012, Finland's net expenditure increased by 0.4%, which remains below the applicable reference rate

of the expenditure benchmark. Due to the negative real GDP growth in 2012, the low structural adjustment is deemed sufficient. In 2013, Finland's (recalculated) structural balance is improving and its net expenditure is projected to deviate by only 0.1% of GDP from the expenditure benchmark. In the light of Finland's large negative output gap this is deemed to be appropriate. In 2014, Finland's (recalculated) structural balance is forecast to improve further, reaching -0.6% of GDP, thus getting sufficiently close to the MTO (moreover, according to the Commission's spring forecast Finland would fully reach it in 2014). Overall, this would entail compliance with the preventive arm of the Stability and Growth Pact. General government gross consolidated debt was 53% of GDP in 2012 and will remain, according to the programme, below 60% of GDP over the programme horizon. The programme foresees reductions in the debt level in 2016 and 2017. Long-term sustainability continues to be the most important challenge for fiscal policy. The ageing related sustainability gap, concerning pensions, healthcare and long-term care, has been recognised and needs constant monitoring.

Recommendation

• Pursue a growth-friendly fiscal policy and preserve a sound fiscal position as envisaged, ensuring compliance with the MTO over the programme horizon. Continue to carry out annual assessments of the size of the ageing-related sustainability gap and adjust public revenue and expenditure in accordance with long-term objectives and needs. Ensure the cost-effectiveness and sustainability of long-term care and put a stronger focus on prevention, rehabilitation and independent living.

• Ensure effective implementation of the on-going administrative reforms concerning the municipal structure, in order to deliver productivity gains and cost savings in the provision of public services, including social and healthcare services.

12. FR

Summary assessment

The Council is of the opinion that despite considerable consolidation efforts that brought the headline deficit down from 7.5 % of GDP in 2009 to 4.8 % in 2012, France is not expected to correct its excessive deficit by 2013 as recommended by the Council in late 2009. This is linked notably to a worse economic environment than expected at the time the recommendation was made which was only partly compensated by windfall revenues, while the effort was somewhat back loaded. The macroeconomic scenario underpinning the budgetary projections in the programme is plausible for 2013 but overly optimistic for 2014. In particular, the authorities anticipate that after a standstill in 2012 (0%) and in 2013 (+0.1%), GDP will grow by 1.2% in 2014 while assuming that fiscal measures are taken to bring the general government deficit to 2.9% of GDP. By comparison, the Commission forecasts that GDP will grow by 1.1% in 2014 based on a no-policy-change assumption, a scenario which only takes into account measures that have been adopted or sufficiently specified and hence forecasts a deficit of 4.2% of GDP. The main objective of the budgetary strategy outlined in the programme is to achieve the medium-term objective (MTO), which is a balanced budget in structural terms, as in last year's programme. This is more ambitious than required by the Stability and Growth Pact. The target year for reaching the MTO is 2016, compared with 2015 in the previous stability programme. The planned headline deficit set by the stability programme is consistent with a correction of the excessive deficit by 2014, one year after the revised deadline set by the Council under the excessive deficit procedure in late 2009. Given the overly optimistic growth forecast in the programme for 2014, unless additional measures are taken to substantially reinforce the effort for that year, the Council considers that the fiscal effort envisaged by the authorities is not compatible with an actual correction of the excessive deficit by 2014. Planned savings and additional revenue also lack specifics. In these circumstances, measures need to be specified for both 2014 and 2015 to credibly ensure that the excessive deficit is corrected by 2015 at the latest [as recommended by the Council]. In 2016, the structural balance, as recalculated by the Commission, is expected to be -0.4 % of GDP (-0.3 % in 2017) and thus the MTO would not be

reached by the end of the programme horizon. Progress towards the MTO in that year is expected to represent 0.3% of GDP, which is below the 0.5% of GDP benchmark. The general government debt has increased substantially since the beginning of the crisis. Starting from 64.2% in 2007, the ratio of debt to GDP reached 90.2% in 2012 and is projected to increase further to 96.2% by 2014 according to the Commission services' 2013 Spring Forecast. The authorities expect the debt ratio to peak at 94.3% of GDP in 2014 and then to drop to 88.2% in 2017. France will be in a transition period from 2016 regarding compliance with the debt criterion.

Recommendation

• Reinforce and pursue the budgetary strategy in 2013. Enhance the credibility of the adjustment by specifying by autumn 2013 and implementing the necessary measures for the year 2014 and beyond to ensure a correction of the excessive deficit in a sustainable manner by 2015 at the latest and the achievement of the structural adjustment effort specified in the Council recommendations under the EDP. Use all windfall gains for deficit reduction. A durable correction of the fiscal imbalances requires a credible implementation of ambitious structural reforms to increase the adjustment capacity and boost growth and employment. Maintain a growth-friendly fiscal consolidation course and further increase the efficiency of public expenditure, in particular by proceeding as planned with a review of spending categories across all sub-sectors of general government. Take action through the forthcoming decentralisation law to achieve better synergies and savings between central, regional and local government levels. After the correction of the excessive deficit, pursue the structural adjustment effort at an adequate pace so as to reach the MTO by 2016. Take measures by the end of 2013 to bring the pension system into balance in a sustainable manner no later than 2020, for example by adapting indexation rules, by increasing the full-pension contribution period, by further increasing the effective retirement age by aligning retirement age or pension benefits to changes in life expectancy and by reviewing special schemes, while avoiding an increase in employers' social contributions, and increase the cost-effectiveness of healthcare expenditure, including in the areas of pharmaceutical spending.

13. HU

Summary assessment

The Council is of the opinion that the macroeconomic scenario underpinning the budgetary projections in the Programme is somewhat optimistic. The Hungarian authorities' growth projections for 2013 and 2014 of 0.7% and 1.9% are higher by around half a percentage point compared to the Commission 2013 spring forecast. The objective of the budgetary strategy outlined in the programme is to ensure the sustainable correction of the excessive deficit by the 2012 deadline and the continued respect of the medium-term objective (MTO). Hungary has undertaken significant fiscal efforts in 2012 and with a budget deficit outcome of 1.9% of GDP overachieved the deficit target of 2.5% of GDP recommended by the Council, partly on account of additional one-off revenues of 0.2% of GDP on top of those which were acknowledged already at the time of the Council recommendation. However, the corrective measures for 2012 and beyond, notably those announced in the autumn of 2012 were mainly concentrated on the revenue side, primarily focusing on selected sectors, raising questions about the sustainability of the consolidation efforts. According to the Commission 2013 spring forecast further efforts are needed for both 2013 and 2014 in order to correct the excessive deficit in a sustainable manner. Following the publication of the spring forecast the government adopted a new corrective package, and based on the updated assessment of the Commission, the deficit is projected to remain below the 3% of GDP threshold with the new measures in both 2013 and 2014. The programme has changed the MTO from a structural balance of -1.5% to -1.7% of GDP. The new MTO is in line with the requirements of the Stability and Growth Pact. Hungary recorded a structural balance of -0.7% of GDP in 2012, i.e. well above its revised MTO, and the Commission 2013 spring forecast foresees the structural balance to stay in line with the MTO over the forecast horizon and to stand at -1.1% in 2013 and -1.8% in 2014. Based on the measures adopted after the Commission 2013 spring forecast the structural

balance could remain above the MTO in 2014 as well. The growth rate of government expenditure in 2013 and 2014, net of discretionary revenue measures, will be broadly in line with the reference medium-term rate of potential GDP growth, but is expected to significantly exceed it in 2015 and 2016. Thus, the expenditure benchmark will not be met in these two years. According to government plans, the public debt-to- GDP ratio will continuously decrease throughout the programme period from 79.2% in 2012 to 77.2% in 2014 and further to 73.4% in 2016, i.e. it will remain above the 60% of GDP reference value. In contrast, the Commission 2013 spring forecast, taking account of risks to the consolidation plans, expected only a marginal decrease to 78.9% of GDP in 2014 which should be around 0.5 pps lower with the new corrective measures. Hungary will be in a transition period from 2013 regarding compliance with the debt criterion, and according to the Commission 2013 spring forecast it is making sufficient progress towards compliance with the debt criterion in 2013 and 2014.

Recommendation

• Implement a credible and growth friendly fiscal strategy by specifying the necessary measures focusing on expenditure savings and preserve a sound fiscal position in compliance with the medium-term objective over the programme horizon. Building on the above steps, put the general government debt ratio on a firm downward path, also with a view to mitigating the accumulated macroeconomic imbalances. Enhance the medium-term budgetary framework by making it more binding and by closely linking it to numerical rules. Broaden the mandatory remit and enhance the transparency of the Fiscal Council, including through systematic ex-post monitoring of compliance with numerical fiscal rules as well as the preparation of regular macro-fiscal forecasts and budgetary impact assessments of major policy proposals.

14. IE

Detailed Recommendations are set out in the Memorandum of Understanding

15. IT

Summary assessment

The Council is of the opinion that the macroeconomic scenario underpinning the budgetary projections in the programme is optimistic for 2014, when compared with the Commission 2013 spring forecast. It is plausible as from 2015, but this is under the assumption of the full implementation of the adopted structural reforms, which remains challenging. The budgetary strategy outlined in the programme was confirmed by the new government and endorsed by Parliament. It aims to maintain the deficit below 3% of GDP throughout the programme period, reach the medium-term objective (MTO) in 2013 and put the debt to GDP ratio on a declining path as from 2014. The programme confirms the MTO of a balanced budgetary position in structural terms, which is in line with the Stability and Growth Pact. The deficit was brought to 3% of GDP in 2012 and, according to the Commission 2013 spring forecast released on 3 May, is expected to remain below the reference value in 2013-14. The provisions adopted by the Italian government on 17 May are assessed to have no significant impact on the deficit, if consistently implemented. After improving by 2.7 percentage points of GDP in cumulative terms between 2009 and 2012, and assuming no further policy changes, the structural balance as a share of GDP is forecast to improve by a further percentage point in 2013, to -0.5%, and then deteriorate marginally in 2014. The structural primary balance would reach nearly 5% of GDP in 2014. The forecast structural adjustment for 2013 is appropriate, also based on an analysis of expenditure net of discretionary revenue measures, while for 2014 it shows a deviation from the adjustment path towards the MTO. The programme projects the government debt ratio to peak in 2013 and to start declining thereafter, also thanks to foreseen privatisation proceeds amounting to 1 percentage point of GDP per year. In the forecast however, the debt to GDP ratio continues increasing, also due to the settlement of commercial debt, which adds around 2.5 percentage points over 2013-14, while no privatisation proceeds are included as the details have not yet been specified. As from 2013, Italy is in a three year transition period regarding compliance with the debt criterion and the debt trajectory in the stability programme ensures

sufficient progress towards compliance with it. However, the deficit and debt projections in the programme are predicated upon full implementation of the budgetary measures and structural reforms adopted, which are essential to anchor market confidence and boost growth and jobs.

Recommendation

• Ensure that the deficit remains below 3% of GDP in 2013, by fully implementing the adopted measures. Pursue the structural adjustment at an appropriate pace and through growth-friendly fiscal consolidation so as to achieve and maintain the MTO as from 2014. Achieve the planned structural primary surpluses in order to put the very high debt-to-GDP ratio on a steadily declining path. Continue pursuing a durable improvement of the efficiency and quality of public expenditure by fully implementing the measures adopted in 2012 and taking the effort forward through regular in depth spending reviews at all levels of government.

16. LT

Summary assessment

The Council is of the opinion that the macroeconomic scenario underpinning the budgetary projections in the programme is plausible and broadly in line with the assessment in the Commission's spring forecast. Following an ambitious fiscal consolidation since 2009, the general government deficit has been brought to 3.2% of GDP in 2012, which is considered sufficient for abrogation of the decision on the existence of an excessive deficit, taking into account the cost of the systemic pension reform. The deficit reduction was to some extent also based on robust economic growth and temporary expenditure freezes. The programme has changed the medium-term objective (MTO) from +0.5% to -1.0%, which is still in line with the objectives of the Stability and Growth Pact. The budgetary strategy outlined in the programme aims to reach the MTO by 2016. Based on the (recalculated) structural budget balance, annual progress towards the MTO in structural terms is higher than 0.5% of GDP. The expenditure benchmark over the programme period is met. The adjustment is slightly front-loaded and relies mainly on expenditure restraint, but is only partially supported by concrete measures, including one-offs that are not always specified. According to the Commission's forecast, the structural adjustment in 2013 and 2014 is expected to be at 0.3% and 0.0% of GDP respectively and thus below the required progress of 0.5% of GDP, which also casts doubt on the programme's adjustment path. Further consolidation measures have yet to be specified, and structural reforms including a shift to revenue based measures, should be considered. General government debt remains below 60% of GDP with 40.7% in 2012 and is expected to drop slightly over the programme period. While the convergence programme expects debt to ease to 39.7% in 2013 and to decline further to 34.5% by 2016, the Commission's forecast projects it to drop to 40.1% of GDP in 2013 and 39.4% in 2014. Differences are above all the result of lower assumed deficits in the convergence programme.

Recommendation

• Ensure growth friendly fiscal consolidation and implement the budgetary strategy as planned, pursuing a structural adjustment effort that will enable Lithuania to reach the medium-term objective. Prioritise growth-enhancing expenditure. Continue to strengthen the fiscal framework, in particular by securing enforceable and binding expenditure ceilings in the medium-term budgetary framework. Review the tax system and consider increasing those taxes that are least detrimental to growth, such as recurrent property and environmental taxation, including introducing car taxation, while continuing to reinforce tax compliance.

• Adopt and implement legislation on a comprehensive pension system reform. Align the statutory retirement age with life expectancy, restrict access to early retirement, establish clear rules for the indexation of pensions, and promote the use of complementary savings schemes while ensuring implementation of on-going reforms. Underpin pension reform with measures that promote the employability of older workers.

17. LU

Summary assessment

The Council is of the opinion that the macroeconomic scenario underpinning the budgetary projections in the programme is plausible. In particular, the programme scenario for 2013 is very close to the 2013 Commission spring forecast, while for 2014 it is slightly more optimistic. Medium-term deficit projections are made under a slightly optimistic growth scenario, above potential growth. The objective of the budgetary strategy outlined in the programme is to bring the deficit from 0.8% of GDP in 2012 to 0.6% of GDP in 2014. However in the outer years of the programme period, the deficit is forecast to deteriorate to 1.3% of GDP both in 2015 and 2016. This is the result of the introduction of the new VAT rules regarding electronic services, entering into force on 1 January 2015, which will bring Luxembourg into compliance with EU rules. According to these rules, the VAT revenues generated from e-commerce activities will be transferred from the country where the supplier is located to that of the residence of the customer. The impact of the new rules is estimated by the authorities to lower tax revenues from VAT by 1.4% of GDP. The government has already announced that the standard VAT rate will be increased, with a view to make up a part of the revenue loss. The 2013 Stability Programme confirms the previous medium-term budgetary objective (MTO) of a structural surplus of 0.5% of GDP. The MTO is in line with the requirements of the Stability and Growth Pact. Based on both the 2013 Commission spring forecast as well as on the (recalculated) structural budget balance in the programme, Luxembourg is expected to be at a structural surplus of 0.1% of GDP, which is below the MTO, in 2012, and is projected to achieve its MTO in 2013. However, Luxembourg is projected to depart again from its MTO starting from 2014 by 0.3% of GDP and even further in 2015 and 2016. The national authorities have reiterated their objective to return to the MTO at the latest in 2017 so as to provide greater room for manoeuvre. At 20.8% of GDP in 2012, gross government debt is well below the Treaty reference value.

Recommendation

• Preserve a sound fiscal position and remain at the medium-term objective so as to ensure the long-term sustainability of public finances, in particular by taking into account implicit liabilities related to ageing. Strengthen fiscal governance by adopting a medium-term budgetary framework covering the general government and including multi-annual expenditure ceilings, and by putting in place the independent monitoring of fiscal rules.

• Curb age-related expenditure by making long-term care more cost effective, in particular through a stronger focus on prevention, rehabilitation and independent living, strengthening the recently adopted pension reform, taking additional measures to curb early retirement and increasing the effective retirement age by aligning retirement age or pension benefits to change in life expectancy..

18. LV

Summary assessment

The Council is of the opinion that the macroeconomic scenario underpinning the budgetary projections in the programme is plausible. Economic growth is expected to slow down somewhat, to around 4% per year, over the programme period, while price increases are projected to remain moderate. The general government deficit declined in 2012 to a level well below 3% of GDP and the medium-term objective (MTO) was reached in that year, considerably earlier than what was foreseen in the previous programme. The programme confirms the previous MTO of -0.5%, which adequately reflects the objectives of the Pact. The objective of the budgetary strategy outlined in the programme is to maintain a structural budgetary position which is based on the MTO, with any deviation limited to the incremental impact of systemic pension reform; this reform entails a gradual increase in the share of social security contributions which is diverted to a funded pension scheme and is implemented in 2013, 2015 and 2016. However, following an overall assessment with the recalculated structural balance as a reference, including an analysis of expenditure net of discretionary measures, it appears that the structural balance is set to deviate from the MTO

by 1.0 pp. of GDP in 2013, i.e. significantly more than the incremental impact of the systemic pension reform, and by further 0.2 pp. in 2014. Government debt is set to remain well below 60% over the whole programme period, increasing from 40.7% of GDP in 2012 to 44.5% in 2013, as the government accumulates assets for debt repayments, and is declining from 2014 as repayments take effect, reaching 34.6% by the end of the programme period. The Fiscal Discipline Law was approved by the Latvian Parliament in January 2013 and entered into force in March 2013. If effectively implemented, the new law would considerably strengthen the fiscal framework in Latvia, providing an effective mechanism to limit expenditure growth in good economic times and serving as a basis for rules-based multi-annual budgeting.

Recommendation

• Reinforce the budgetary strategy to ensure that the deviation from the MTO only reflects the incremental impact of the systemic pension reform. Within this strategy, reduce taxation of low-income earners by shifting taxation to areas such as excise duties, recurrent property taxes and/or environmental taxes. Maintain efforts to improve tax compliance and combat the shadow economy. Continue strengthening the fiscal framework through effective implementation of the Fiscal Discipline Law and multi-annual budgeting.

19. MT

Summary assessment

The Council is of the opinion that the macroeconomic scenario underpinning the budgetary projections in the programme is plausible. The Council abrogated its decision on the existence of an excessive deficit in Malta on 4 December 2012, on account of its correction in 2011, which based on the Commission's 2012 autumn forecast appeared durable. However, in 2012 Malta recorded a general government deficit of 3.3% of GDP, again above the reference value of 3% of GDP. The objective of the budgetary strategy outlined in the programme is to gradually reduce the deficit from 3.3% of GDP in 2012 to 0.8% of GDP in 2016, implying gradual progress towards the medium-term objective. The programme confirms the medium-term objective of a balanced position in structural terms, which is more ambitious than required by the Stability and Growth Pact, but its achievement is not planned within the programme period. The 2013 deficit target in the programme relies on relatively high growth in tax revenues, which does not appear to be fully explained by the underlying macroeconomic scenario. In addition, it is not sufficiently supported by detailed measures, as is also the case for the subsequent years. As a result, the change in the planned (recalculated) structural balance is significantly higher than in the Commission's forecast. According to the latter, the structural balance improves by just ¼ pp. of GDP in 2013 and only marginally in 2014, on a no-policy-change basis. General government debt is projected to remain above the 60% of GDP threshold over the whole programme horizon. The national authorities project the debt to increase to 74.2% of GDP in 2014 and subsequently to start decreasing to 70% by 2016. In the Commission's 2013 spring forecast, the debt to- GDP ratio is expected to increase slightly faster, to 74.9% in 2014, as the primary deficit is expected to continue expanding. Given the correction of the excessive deficit in 2011, Malta is in a three-year transition period as regards the applicability of the debt reduction benchmark, starting in 2012. Malta did not make sufficient progress towards compliance with the debt criterion in 2012 and is not projected to do so in 2013-14. While Malta's fiscal framework is quite flexible, its non-binding nature and the short horizon of fiscal planning are not supportive of a sound fiscal position. Directive 2011/85/EU on budgetary frameworks has not yet been transposed and a structural budget balance rule, as provided for in the Treaty on Stability, Coordination and Governance, has not yet been introduced into national law. The stability programme states the intention of the government to set up a fiscal council, but no concrete plans are laid out.

Recommendation

• Specify and implement the measures needed to achieve the annual structural adjustment effort set out in the Council recommendations under the

EDP in order to correct the excessive deficit by 2014 in a sustainable and growth-friendly manner, limiting recourse to one-off/temporary measures. After correcting the excessive deficit, pursue the structural adjustment effort at an appropriate pace so as to reach the MTO by 2019. Put in place a binding, rule-based multiannual fiscal framework in 2013. Ensure concrete delivery of measures taken to increase tax compliance and fight tax evasion, and take action to reduce the debt bias in corporate taxation.

• To ensure the long-term sustainability of public finances, continue to reform the pension system to curb the projected increase in expenditure, including by measures such as accelerating the increase in the statutory retirement age, increasing the effective retirement age by aligning retirement age or pension benefits to changes in life expectancy and by encouraging private pension savings. Take measures to increase the employment rate of older workers by finalising and implementing a comprehensive active ageing strategy. Pursue health-care reforms to increase the cost-effectiveness of the sector, in particular by strengthening public primary care provision. Improve the efficiency and reduce the length of public procurement procedures.

20. NL

Summary assessment

The Council is of the opinion that the Netherlands implemented sizeable consolidation measures over 2011-2013, but that the fiscal effort is likely not to be sufficient to correct the excessive deficit by 2013, mainly in light of worse than expected economic developments. The macroeconomic scenario underpinning the budgetary projections in the programme is broadly plausible. For 2013 and 2014, the Stability Programme projects real economic growth of -0.4% and 1.1%, respectively, which is fairly close to the Commission's Spring 2013 forecast of - 0.8% and 0.9%. The stated objective of the programme is to reduce the headline deficit to below 3% of GDP from 2014 in a sustainable manner. The programme does not contain an explicit reference to the medium-term objective (MTO), suggesting that the MTO of -0.5%, as communicated in last year's Stability Programme, is confirmed. The MTO is in line with the requirements of the Stability and Growth Pact. In addition, whilst in 2015 the programme plans a reduction in the structural balance of 0.5% of GDP in structural terms, in line with the minimum annual structural requirement, in 2016 the structural balance is expected to deteriorate by 0.4% of GDP and to improve by 0.1% of GDP in 2017, thereby falling short from the appropriate adjustment path. Based on the Commission Spring forecast, the average annual fiscal effort of around 0.7% of GDP over the period 2010-2013 is in line with the structural effort of ¾% of GDP recommended by the Council. The budgetary adjustment in 2011 and 2012 was predominantly geared to the expenditure side, yet in 2013 relied largely on revenue measures. The planned headline deficit set by the Stability Programme is consistent with a correction of the excessive deficit by 2014, one year after the deadline set by the Council under the excessive deficit procedure in late 2009. The Council considers that the fiscal effort envisaged by the authorities is not compatible with an actual correction of the excessive deficit by 2014. Possible additional consolidation measures specified in the Stability Programme have been temporarily withdrawn and at any rate would not be sufficient. The Netherlands needs to define additional measures to bring the headline general government deficit below the 3% of GDP threshold in 2014 in a sustainable manner. According to the 2013 Stability Programme, the debt-to-GDP ratio is expected to rise further in 2013, to 74% of GDP and to increase slightly further to 75% of GDP in 2014. The debt ratio is thus projected to remain well above the 60% reference value. For 2015, the programme expects the debt ratio to decline to 71.4% of GDP and to decline slightly thereafter, reaching 70.8% in 2017. This decline in the debt ratio after 2014, however, is insufficiently underpinned by policy measures.

Recommendation

• Reinforce and implement the budgetary strategy, supported by sufficiently specified measures, for the year 2014 and beyond to ensure a timely correction of the excessive deficit by 2014 in a sustainable manner and achieve the structural adjustment effort specified in the Council recommendations under the EDP. Protect

expenditure in areas directly relevant for growth such as education, innovation and research. After the correction of the excessive deficit, pursue the structural adjustment effort that will enable the Netherlands reaching the medium-term objective by 2015.

• Adjust the second pension pillar, in consultation with social partners, to ensure an appropriate intra- and inter-generational division of costs and risks. Underpin the gradual increase of the statutory retirement age with measures to increase the employability of older workers. Implement the planned reform of the long-term care system to ensure its cost-effectiveness and complement it with further measures to contain the increase in costs, with a view to ensure sustainability.

21. PL

Summary assessment

The Council is of the opinion that the macroeconomic scenario underpinning the budgetary projections in the programme is optimistic. In particular, private consumption and private investment is expected to increase more strongly than in the Commission 2013 spring forecast, leading to an overall higher growth rate in 2013 (1.5% against 1.1%). The objective of the budgetary strategy outlined in the programme is to bring the deficit to 3.5% of GDP by 2013 (one year after the original 2012 EDP deadline) and reach the medium-term budgetary objective (MTO) by 2016. However, the 2013 Convergence Programme plans to bring the headline deficit below 3% of GDP only by 2015. Given the overly optimistic growth forecast and revenue projections in the programme the Council considers that the fiscal effort envisaged by the authorities is not compatible with an actual correction of the excessive deficit by 2013 unless significant additional measures are taken to reinforce the effort for this year. The programme is based on an optimistic scenario and not sufficiently supported by detailed measures in order to credibly ensure the correction of the deficit at the latest by 2014. Additional efforts are therefore required based on detailed measures for both 2013 and 2014. The authorities have not sufficiently exploited the pre-crisis growth environment to reform the structure of public spending to prioritise growth-enhancing items. The programme confirms the previous MTO of -1% of GDP, which reflects the objectives of the Pact. Based on the (recalculated) structural deficit, the MTO is not projected to be attained by 2016, as planned in the programme, as the planned annual progress towards the MTO of 0.3% of GDP (in structural terms) in 2015 and 0.7% of GDP in 2016 is not sufficient. The growth rate of government expenditure, taking into account discretionary revenue measures, is in line with the benchmark of the Stability and Growth Pact over the entire programme period. Additional efforts as well as changes in the composition of the adjustment may be required also in the outer years of the programme as the progress towards the MTO predominantly relies on sizeable cuts in public investment expenditure and is not sufficiently supported by detailed measures. General government debt is projected to remain below 60% of GDP in Poland over the programme period. The national authorities forecast it to remain broadly constant at slightly above 55.5% of GDP until 2014/2015 (and decrease in 2016), whereas the Commission, taking account of possible risks to the consolidation plans and debt decreasing items, expects an increase to around 59% of GDP in 2014. Tax compliance remains a key issue in terms of combating tax evasion, which also requires reducing the administrative burden on taxpayers and improving the efficiency of tax administration. To ensure the success of the fiscal consolidation strategy, it is important that the fiscal consolidation is backed by comprehensive structural reforms.

Recommendation

• Reinforce and implement the budgetary strategy for the year 2013 and beyond, supported by sufficiently specified measures for both 2013 and 2014, to ensure a timely correction of the excessive deficit by 2014 in a sustainable manner and the achievement of the fiscal effort specified in the Council recommendations under the EDP. A durable correction of the fiscal imbalances requires credible implementation of ambitious structural reforms, which would increase the adjustment capacity and boost potential growth and employment. After the correction of the excessive deficit, pursue the structural adjustment effort that

will enable Poland reaching the medium term objective by 2016. With a view to improving the quality of public finances minimise cuts in growth-enhancing investment, reassess expenditure policies improving the targeting of social policies and increasing the cost effectiveness and efficiency of spending in the healthcare sector. Improve tax compliance, in particular by increasing the efficiency of the tax administration.

• Ensure the enactment of a permanent expenditure rule in 2013 consistent with the rules of the European System of Accounts. Take measures to strengthen annual and medium-term budgetary coordination mechanisms among different levels of government.

22. PT

Detailed Recommendations are set out in the Memorandum of Understanding

23. RO

Summary assessment

The Council is of the opinion that the macroeconomic scenario underpinning the budgetary projections in the programme is plausible and in line with the assessment in the latest European Commission forecast. Thanks to substantial consolidation efforts and in line with the Council recommendation, Romania reduced its general government deficit to below 3% in 2012. The convergence programme aims at an MTO of -1% of GDP (previously -0.7% of GDP), which is in line with the requirements of the Stability and Growth Pact. The objective of the budgetary strategy outlined in the programme is to reach the MTO by 2014 which, when recalculated by Commission based on the commonly agreed methodology, corresponds to reaching the MTO by 2015. The progress in structural terms towards the MTO is higher than 0.5% of GDP in 2013 and about 0.4% in 2014. The expenditure benchmark over the programme period was met. Adjustment is front-loaded in 2013 with revenue-enhancing measures including reductions in tax-deductible items, improvement in the taxation of agriculture, the introduction of a windfall levy following the deregulation of gas prices and introduction of a special tax on transmission of electricity and gas. The main risks to the convergence programme relate to further possible financial corrections linked to the absorption of EU funds, or the financing from the national budget of priority projects, renewed accumulation of arrears, especially at local government level, and limited progress with restructuring of state-owned enterprises. Romania's public debt remains relatively low, at 37.8% of GDP in 2012. It is expected to rise to 38.6% in 2014 but will remain well below the 60% of GDP threshold over the programme period.

Recommendation

• Complete the EU/IMF financial assistance programme.

• Ensure growth-friendly fiscal consolidation and implement the budgetary strategy for the year 2013 and beyond as envisaged, thus ensuring achievement of the medium term objective by 2015. Improve tax collection by implementing a comprehensive tax compliance strategy and fight undeclared work. In parallel, explore ways to increase reliance on environmental taxes. Continue the pension reform started in 2010 by equalising the pensionable age for men and women and by promoting the employability of older workers.

• Pursue health sector reforms to increase its efficiency, quality and accessibility, in particular for disadvantaged people and remote and isolated communities. Reduce the excessive use of hospital care including by strengthening outpatient care.

• Strengthen governance and the quality of institutions and the public administration, in particular by improving the capacity for strategic and budgetary planning, by increasing the professionalism of the public service through improved human resource management and by strengthening the mechanisms for coordination between the different levels of government. Significantly improve the quality of regulations through the use of impact assessments, and systematic evaluations. Step up efforts to accelerate the absorption of EU funds in particular by strengthening management and control systems and improving public procurement.

24. SE

Summary assessment

The Council is of the opinion that the macroeconomic scenario underpinning the budgetary projections in the programme is plausible for 2013. The government projects a GDP growth of 1.2% and 2.2% in 2013 and 2014, respectively, whereas the Commission forecasts 1.5% and 2.5%. The objective of the budgetary strategy outlined in the programme is to ensure long-term sustainability of public finances by respecting the rules of the Swedish fiscal framework, including the target of having a surplus in general government net lending of 1% of GDP on average over the business cycle. General government balance slipped from a small surplus of 0.2% of GDP in 2011 to a deficit of 0.5% in 2012. The programme confirms the previous medium-term budgetary objective (MTO) of -1.0 % of GDP. The MTO is in line with the requirements of the Stability and Growth Pact. The programme foresees a structural general government balance, as recalculated by the Commission, to improve from a minor deficit around 0.4% of GDP in 2012-13 to a surplus in 2014 and onwards. Therefore, the MTO is likely to be met over the programme period. According to the information in the programme, the growth rate of government expenditure, net of discretionary revenue measures, would exceed the reference medium-term rate of potential GDP growth in 2012 and 2013, but would be below that rate in 2014. Even taking into account the possibility of further expansionary discretionary measures in 2014, the risks to the budgetary targets are limited. According to the programme, the debt ratio, which is below the 60% of GDP reference value, is projected to increase temporarily to 42% of GDP in 2013, but fall back below 40% of GDP in 2015. The Commission forecasts the debt ratio to decline to 39% in 2014.

Recommendation

• Implement the measures necessary to pursue a growth-friendly fiscal policy and preserve a sound fiscal position ensuring compliance with the medium-term objective over the programme horizon.

25. SI

Summary assessment

The Council is of the opinion that despite considerable although back-loaded consolidation efforts that have brought the deficit down from 6.2% of GDP in 2009 to 4.0% of GDP in 2012, Slovenia is not expected to correct its excessive deficit by 2013 as recommended by the Council in late 2009. This is notably linked to a worse economic environment than expected at the time. The macroeconomic scenario underpinning the budgetary projections in the programme is broadly plausible for 2013, but optimistic for 2014. In particular, the authorities anticipate that after a fall in GDP by 2.3% in 2012 and 1.9% in 2013, GDP will grow by 0.2% in 2014, while assuming that fiscal measures are taken to reduce the general government deficit from 4.2% of GDP (excluding bank recapitalisations) in 2013 to 2.6% of GDP in 2014. However, the Commission forecasts that GDP will fall by 0.1% in 2014 based on a no-policy-change assumption, a scenario which only takes into account measures that were adopted by mid-April 2013, and forecasts a deficit of 4.9% of GDP for 2014. The main objectives of the budgetary strategy outlined in the programme are to correct the excessive deficit by 2014, one year after the deadline set by the Council in late 2009, to achieve a balanced structural position by 2017 and stabilise the debt ratio below 55% of GDP. The programme confirms the medium-term objective (MTO), which is a balanced budget in structural terms. This MTO is not in line with the requirements of the Stability and Growth Pact because it does not adequately take into account the implicit liabilities related to ageing. The planned headline deficit targets in the programme are consistent with a correction of the excessive deficit by 2014. However, given the optimistic growth forecast for that year, significant risks to revenue projections as well as insufficiently specified expenditure measures, the Council considers that it is not likely that the excessive deficit will be corrected by 2014. In these circumstances, additional structural consolidation measures should be specified, adopted and implemented to ensure that the excessive deficit is corrected by 2015, at the latest in a credible and sustainable manner as recommended by the

Council on 21 June 2013. The general government debt-to-GDP ratio more than doubled from 22.0% in 2008 to 54.1% in 2012 and is projected to increase further to 66.5% by 2014 according to the Commission's 2013 Spring Forecast. The authorities expect the debt-to-GDP ratio to peak at 63.2% in 2014 and 2015 and then drop to 62.8% in 2016. Risks to the debt-to-GDP ratio are tilted towards a higher ratio, also due to large contingent liabilities and likely stock-flow adjustments from asset transfers to the Bank Asset Management Company, which is not included in programme projections.

In May 2013, the authorities made important steps towards the consolidation of public finances. They achieved an agreement with social partners on an additional 1¼% reduction in basic gross wages in the public sector, on top of the 3% reduction that was agreed in the May 2012 Act on Balancing Public Finances. Furthermore, Parliament approved a constitutional basis for establishing a general government budget balance/surplus rule in structural terms. However, the complete transposition of the provisions of the Fiscal Compact will be made in a special constitutional implementation act, scheduled for parliamentary approval by November 2013. Finally, Parliament almost unanimously tightened the constitutional rules to call and win a referendum, which is expected to facilitate the introduction of fiscal consolidation measures. Given the rapidly increasing debt, it is all the more important that the 2013 budget strategy is reinforced and strictly implemented, and that substantial consolidation efforts are firmly pursued in subsequent years. While some taxes are below the EU average, reliance on tax increases cannot indefinitely postpone the need to tackle expenditure dynamics. It therefore seems appropriate to complement the revenue increasing measures with additional fiscal efforts through structural expenditure cuts. The medium-term budgetary framework and expenditure rule remain insufficiently focused on achieving the MTO and securing long-term sustainability. In addition, budget constraints on certain general government units, especially indirect budgetary users, do not appear to be fully enforced. Finally, international and domestic estimates suggest that the size of the shadow economy in Slovenia is above the EU average, which indicates room for improving tax compliance as also recognised by envisaged measures in the Stability Programme.

Recommendation

• For the year 2013 and beyond, implement and reinforce the budgetary strategy, supported by sufficiently specified structural measures, to ensure the correction of the excessive deficit by 2015 in a sustainable manner and the improvement of the structural balance specified in the Council recommendation under the EDP. After the correction of the excessive deficit, pursue a structural adjustment effort that will enable Slovenia to reach the MTO by 2017 which should be set in line with the Stability and Growth Pact. Durable correction of the fiscal imbalances requires the implementation of ambitious structural reforms, which would increase the adjustment capacity of the economy and boost potential growth and employment. Safeguard growth-friendly spending, adopt measures to improve tax compliance and implement measures on the expenditure side underpinned by systematic reviews of public expenditure at all government levels. To improve the credibility of consolidation, complete the adoption of a general government budget balance/surplus rule in structural terms, make the medium-term budgetary framework binding, encompassing and transparent, and strengthen the role of independent bodies monitoring fiscal policy by end 2013. Take measures to gradually reduce the contingent liabilities of the state.

• Strengthen the long-term sustainability of the pension system beyond 2020 by further adjusting all relevant parameters, including through linking the statutory retirement age to gains in life expectancy, while preserving the adequacy of pensions. Contain age-related expenditure on long-term care and improve access to services by refocusing care provision from institutional to home care, sharpening targeting of benefits, and reinforcing prevention to reduce disability/ dependency.

26. SK

Summary assessment

The Council is of the opinion that Slovakia has reduced the general government deficit from 7.7% of GDP in 2010 to 4.3% of GDP in 2012 thanks to a substantial consolidation effort and, based on current expectations, is on track to correct the excessive deficit. The macroeconomic scenario underpinning the budgetary projections in the programme is plausible. Compared to the Commission forecasts, the authorities assume similar growth rates of GDP with a slightly different composition. The objective of the budgetary strategy outlined in the programme is to achieve a fiscal position that ensures long-term sustainability of public finances. To achieve this, the government confirms the objective of reducing the headline deficit below the 3% of GDP reference value in 2013, in line with the Council recommendation under the Excessive Deficit Procedure. The average annual fiscal effort in 2010-2013 amounts to 1.4% of GDP, well above the required effort of 1% of GDP recommended by the Council. A large part of the expenditure savings in 2013 is expected from the local governments and other general government units over which the central government does not have a direct influence. Achieving the target may therefore be at risk, also in light of expenditure overruns recorded in the past. The programme confirms the previous MTO of -0.5% to be achieved by 2018. The MTO is in line with the requirements of the Stability and Growth Pact. For the years following the expected date of correction of the excessive deficit the projected improvement in the (recalculated) structural budget balance is appropriate in 2014 and 2015 (0.6 pps and 0.7 pps of GDP respectively) but it would be insufficient in 2016 (0.3 pps of GDP). Slovakia is expected to comply with the expenditure benchmark. According to the programme, the government debt is foreseen to remain below the 60% of GDP reference value in the Treaty until 2016. The Commission's spring forecast projects an increase in the debt ratio to 54.6% of GDP in 2013 and 56.7% of GDP in 2014.

In order to ensure the sizeable reduction in the headline deficit since 2011, the authorities have also relied on reductions in investment financed from the general government budget, which may not be sustainable or desirable in a medium to long run perspective, as well as on one-off measures. Looking forward, the on-going consolidation and convergence process will need to safeguard expenditure on growth enhancing categories, such as education, innovation and transport infrastructure.

Recommendation

• Implement as envisaged the budget for the year 2013, so as to correct the excessive deficit in a sustainable manner and achieve the fiscal effort specified in the Council recommendations under EDP. After the correction of the excessive deficit, pursue the structural adjustment effort that will enable Slovakia to reach the medium-term objective by 2017. Avoid cuts in growth enhancing expenditure and step up efforts to improve the efficiency of public spending. Building on the pension reform already adopted, further improve the long term sustainability of public finance by reducing the financing gap in the public pension system and increasing the cost-effectiveness of the health-care sector.

27. UK

Summary assessment

The Council is of the opinion that the macroeconomic scenario underpinning the budgetary projections in the programme is plausible. The objective of the budgetary strategy outlined in the Convergence Programme is to achieve a cyclically-adjusted budget of close to balance at the end of a five-year rolling period. The general government deficit peaked at 11.5% of GDP in 2009-10 (4) and was reduced to 5.6% of GDP in 2012-13, thanks to one-off measures that artificially reduced the deficit by 2 pp. in 2012-13. However, the Convergence Programme shows that the government is projected to miss the deadline of 2014-15 for correction of the excessive deficit set by the Council as the deficit is estimated at 6.0% of GDP that year. According to programme projections, the year in which the excessive deficit will be corrected is in 2017-18 at 2.3% of GDP, three years after the deadline set by the Council in

December 2009. The programme implies that the structural general government deficit, as recalculated by the Commission, improving marginally from 5.6% of GDP in 2013-14 to 5.1% of GDP in 2014-15. Over the period 2010-11 to 2012-13, the average adjusted fiscal effort is estimated at 1.0% of GDP, well below the 1¾% of GDP recommended by the Council. The main risks to the budgetary projections stem from lower-than-expected growth due to persistently high inflation curtailing private consumption and a potential deterioration in the international environment that could affect trade and investment. The Convergence Programme does not include a medium-term budgetary objective as foreseen by the Stability and Growth Pact. The government has continued with its fiscal consolidation strategy but, because of higher-than-expected expenditure due to the operation of automatic stabilisers and lower-than-expected tax revenues, the deficit is higher than forecast. Also, the consolidation measures taken so far have not been sufficient in attaining the required fiscal effort to correct the excessive deficit. Moreover, the potential revenue contribution from structural reform, e.g. aiming to increase the efficiency of the tax system through revisions of the VAT rate structure, remains relatively under-exploited. Government debt as a percentage of GDP rose from 56.1% in 2008-09 to 90.7% in 2012-13. According to the programme, the general government debt ratio is projected to increase to 100.8% in 2015-16 and 2016-17 before falling back 99.4% in 2017-18.

Recommendation

• Implement a reinforced budgetary strategy, supported by sufficiently specified measures, for the year 2013-14 and beyond. Ensure the correction of the excessive deficit in a sustainable manner by 2014/15, and the achievement of the fiscal effort specified in the Council recommendations under the EDP and set the high public debt ratio on a sustained downward path. A durable correction of the fiscal imbalances requires the credible implementation of ambitious structural reforms which would increase the adjustment capacity and boost potential growth. Pursue a differentiated, growth-friendly approach to fiscal tightening, including through prioritising timely capital expenditure with high economic returns and through a balanced approach to the composition of consolidation measures and promoting medium and long-term fiscal sustainability. In order to raise revenue, make greater use of the standard rate of VAT. Take further action to increase housing supply, including through further liberalisation of spatial planning laws and an efficient operation of the planning system. Ensure that housing policy, including the "Help to Buy" scheme does not encourage excessive mortgage lending; and lead to higher house prices. Pursue reforms to land and property taxation to reduce distortions and promote timely residential construction. Take steps to improve the legal framework of rental markets, in particular by making longer rental terms more attractive to both tenants and landlords.

Part II

Evolving budgetary surveillance

SUMMARY

The global economic and financial crisis exposed weaknesses in economic and budgetary governance in the Economic and Monetary Union (EMU), which led to an overhaul of the existing framework.

In the budgetary area, a series of reforms were introduced, starting in 2010 with the institution of the European Semester and following with an in-depth reform of the EU economic governance, known as the Six Pack. ([32]) These reforms significantly strengthened the European budgetary framework. Nevertheless, the need for deeper budgetary integration among euro area countries became clear and set in motion a number of initiatives aiming to further strengthen the fiscal basis of EMU. End-May 2013 a reform package, known as the Two Pack, completed the framework. It will facilitate budgetary coordination among euro area countries and increase the transparency of Member States' budgetary decision-making. In introducing these changes, it is the first step towards fiscal union, in line with the Commission Blueprint's Roadmap towards a deep and genuine EMU. ([33])

Concretely, the Two Pack consists of two EU regulations ([34]) applicable to euro area Member States only. To improve the existing framework for fiscal policy-making in the euro area as a whole, one text adds new provisions for the coordination of budgetary policy among euro area countries, the reinforcement of national fiscal frameworks and a tightened surveillance of those with excessive deficits. The second text integrates and simplifies the economic and budgetary surveillance that applies to euro area countries under financial strain, including those receiving financial assistance, into the EU framework. ([35]) The dual aims of increasing coordination and transparency run through both regulations, which simply differ by their target, as the first one concerns all Member States of the euro area while the second deals with the specific case of those facing financial difficulties.

The legal texts introduce a series of provisions according to three main axes. First, they close the circle of monitoring at euro area level, to create a rolling process of information flowing between the EU and the Member States, aiming to improve the ability of Member States to take policy decisions that contribute to the attainment of public finances that can underpin a healthy euro; by raising the awareness of belonging to a single currency area, where the budgetary decisions of each Member State may affect its partners, these new elements of the budgetary process should encourage more prudent budgetary decisions within a more collective approach to fiscal policy-making. Second, they increase the responsibility and accountability of national fiscal policy setting, giving independent institutions a prominent role in the process and increasing the information that governments should make available to both the EU and general public. Finally, they recognise the special position of countries under financial strain and create a decision-making process underpinned by principles of transparency and information sharing for protecting both the countries themselves and the euro area as a whole from the damage such a situation can cause. The sections that follow consider these three axes in order.

([32]) The Six Pack reforms of 2011 are described in detail in European Commission (2011) (see part II "Evolving budgetary surveillance") and European Commission (2012a) (see part II.2 "The 2011 reform of the Stability and Growth Pact"). The legislation is available at: http://eur-lex.europa.eu/JOHtml.do?uri=OJ:L:2011:306:SOM:EN:HTML.
A complete guide to the operation of the SGP can be found at the following link: (http://ec.europa.eu/economy_finance/publications/occasional_paper/2013/pdf/ocp151_en.pdf), while a non-technical guide to its main features can be found at the following link: (http://ec.europa.eu/economy_finance/publications/occasional_paper/2013/op150_en.htm).

([33]) "Towards a Deep and Genuine Economic and Monetary Union Ex ante coordination of plans for major economic policy reforms", *Communication from the Commission to the European Parliament and the Council*, 20 March 2013, COM(2013) 166 final, available here: http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2012:0777:FIN:EN:PDF

([34]) Regulation (EU) No 472/2013 of the European Parliament and of the Council on the strengthening of economic and budgetary surveillance of Member States in the euro area experiencing or threatened with serious difficulties with respect to their financial stability; Regulation (EU) No 473/2013 of the European Parliament and of the Council on common provisions for monitoring and assessing draft budgetary plans and ensuring the correction of excessive deficit of the Member States in the euro area; the legal texts are available at: http://eur-lex.europa.eu/JOHtml.do?uri=OJ:L:2013:140:SOM:EN:HTML.

([35]) European Commission (2013a)

1. INTRODUCTION

On 30 May 2013, the Two Pack entered in force. Its two regulations apply only to the euro area as they address needs that are specific to the countries sharing the single currency. With the aim of protecting euro area Member States from the spillovers associated with imprudent budgetary outcomes, and based on the idea that those could be avoided with greater coordination and enhanced transparency, the Two Pack builds on the surveillance mechanisms reformed by the Six Pack to improve budgetary policy-making in euro area countries. The Two Pack is the subject of Chapter II.1, which explains its logic and its functioning.

In this context, the Two Pack constitutes the first step in translating the commitments of the Treaty on Stability Coordination and Governance in the Economic Monetary Union (TSCG) into EU law. This is relevant in that the TSCG complements the SGP by requiring Member States that signed it to introduce into national legislation key elements of the SGP, namely the country specific Medium-Term Budgetary Objective (MTO) and the adjustment path towards it.

The MTO is the key element of the preventive arm of the SGP, aimed at strengthening the public finances when conditions are favourable, to create enough fiscal space for the bad times. As the economy improves Member States will exit the Excessive Deficit Procedures (EDP) and attaining the MTO will move to centre stage in budgetary surveillance. Chapter II.2 discusses the MTO, considering both its role and the details for its computation.

2. TWO PACK

As part of its role of legislating for a significant strengthening of the coordination of the euro area's budgetary policies, the Two Pack is a first step in the translation into EU law of commitments made by the twenty-five signatories – including all members of the euro area – in the Treaty on Stability Coordination and Governance (TSCG). The TSCG, which entered into force on 1 January 2013, is an intergovernmental Treaty, meaning that it is agreed on between the signatory countries and that it is not rooted in EU law. The TSCG complements the SGP by committing the signatories to mirror key elements of the SGP, in particular of its preventive arm, in national law and by making further steps in the surveillance and coordination of budgetary policies. It is described in detail in Chapter II.5 of European Commission (2012) and an overview is given in Box II.2.1.

2.1. CLOSING THE MONITORING CYCLE

The experience of recent years has brought to the fore the importance of sound budgetary policy. For the euro area, the spillovers between countries require them to undertake their fiscal policy in a responsible manner, abiding by the rules that they set up, not just for their own benefit, but also for that of the other participants in EMU. Making sure that this occurs is a key aim of the Two Pack. To do so, it builds on the surveillance framework which exists at the EU level – i.e. the framework according to which Member States share information on their fiscal policies and the EU assesses whether those comply with commonly agreed rules (as part of the European Semester) – in order to increase the coordination between countries of the euro area.

To close what could be termed "the monitoring cycle", the Two Pack has introduced a continuous process of assessment of national fiscal policies, which will equip the EU with the information needed to establish whether euro area countries are compliant with their European budgetary obligations, and with the tools to take action where they are not. By the publication of this information, and as a result of the assessments undertaken, the information at the disposal of national stakeholders and governments on their fiscal policy will be enriched. This will aid the transparency of the budgetary policy – and therefore of the democratic process – as stakeholders will be better able to hold their law-makers to account. And governments in EMU will be guided throughout their budgetary year about the situation of the euro area and as to whether their policies are conducive to the budgetary targets that are in place to protect both them and their fellow euro area participants from the damage of imprudent policies. Excessive deficits should also be more promptly corrected.

Currently, monitoring under the preventive arm of the SGP is centred on the assessment of Member States' medium-term plans presented in the Stability Programmes (SCP) ([36]) every spring under the European Semester, and, one year later, the assessment of the actual budgetary outturns. The Two Pack introduces a coordinated assessment of Member States' draft budgetary plans in the autumn – an exercise enabled by the introduction of a common budgetary timeline in all the euro area – focusing on the measures to be adopted.

Starting in autumn this year, the Commission will publish opinions on each of the plans and their likely impact, made public for national parliaments and any other stakeholders. This will introduce an unprecedented degree of transparency. The opinions should act as early warnings on possible risks should a plan be judged negatively by the Commission. Not reacting adequately to this warning would be considered as an aggravating factor should those risks materialise.

The Two Pack also addresses the monitoring of the correction of excessive deficits under the Excessive Deficits Procedure (EDP). In the case of multiyear EDPs, having an in-depth up-to-date understanding of both the economic situation and the measures taken to correct the excessive deficit, takes on a particular importance. First, because, by definition, if such EDPs span a number of years, this is due to the seriousness of the challenges faced. Second, because an early slippage in the response can jeopardise the entirety of the correction strategy, possibly over a number of years. Third, because over time, the situation the Member States finds itself in will necessarily evolve and an adjustment in the response may

([36]) Euro area countries submit Stability Programmes, while non-euro area countries submit Convergence Programmes. They are therefore jointly referred to as Stability or Convergence Programmes (SCPs).

Box II.2.1: **Overview of the Treaty on Stability Coordination and Governance (TSCG)**

The TSCG contains six titles. The first two set out the aim of the Treaty and its relationship with the EU. Title III of the TSCG is known as the fiscal compact and contains the provisions that are most closely linked to the SGP. The fiscal compact commits countries to incorporating the medium-term budgetary objective (MTO) and the adjustment path towards it – as defined in the SGP – into national law through provisions of binding force and permanent character, preferably constitutional, or otherwise guaranteed to be fully respected and adhered to throughout the national budgetary process. The fiscal compact's provisions also establish the role of independent bodies, which are given the task of monitoring compliance with the national fiscal rules, including the operation of the national correction mechanism in case of deviation from the MTO or the adjustment path towards it.

Beyond these aspects, the fiscal compact stresses the importance of adherence to the debt reduction benchmark introduced by the Six Pack and commits its signatories to support the proposals or the recommendations issued by the Commission under the deficit requirement unless a qualified majority of countries is opposed. This replicates the reverse qualified majority voting procedure introduced in the Six-Pack for voting on the additional sanctions in the SGP. The EDP is also strengthened through the requirement for countries placed in it to put in place an Economic Partnership Programme (EPP) with a detailed description of structural reforms that will contribute to the lasting correction of the excessive deficit. Finally, the fiscal compact aims at increasing coordination in debt issuance, and commits signatories to report on their public debt issuance plans to the Council and Commission on an ex ante basis.

Despite the intergovernmental status of the Treaty, EU bodies are assigned specific roles for the implementation of the fiscal compact, anchoring the provisions firmly within the overall EU context. In this way, the Commission has proposed deadlines for reaching the MTO through the country-specific recommendations issued at the end of the European Semester ([1]) and the common principles according to which the national correction system should be set out ([2]) . It will also present a transposition report of the fiscal compact rules in the national legal order, which can serve as the basis for taking any country that is found to be non-compliant to the Court of Justice of the European Union – although a Court action does not necessarily need to be based on this report.

The fourth title of the TSCG commits signatory countries to work jointly towards economic policy that fosters the proper functioning of EMU, including ex ante discussion and, where appropriate, coordination of economic policy reforms ([3]) .

The final two titles of the TSCG are concerned with institutional issues. Title five institutes informal euro area summits and sets out their aims and broad rules. The national parliaments are given a forum for the discussion of budgetary issues. Finally, the ratification procedure and legal status of the TSCG is covered in title six, with a commitment to incorporate the substance of the TSCG into the legal framework of the EU within five years.

The Treaty is binding for the signatories which have ratified it, in its entirety for euro area Member States, while the others can, when ratifying it, select the provisions in Titles III and IV they would agree to be

([1]) The 2013 country-specific recommendations are available under http://ec.europa.eu/europe2020/making-it-happen/country-specific-recommendations/index_en.htm.
([2]) The Commission published common principles in COM (2012) 342 final: "Common principles on national fiscal correction mechanisms", http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2012:0342:FIN:EN:PDF.
([3]) The coordination of major economic reforms is identified as an immediate policy priority of the European Commission's vision for the deepening of EMU, set out in its Blueprint on deep and genuine EMU (see footnote 2).

(Continued on the next page)

Box (continued)

bound by ([4]) . Title V, nonetheless, applies to all Contracting Parties as from the date of entry into force of the Treaty.

([4]) For example, Denmark and Romania have stated that they commit themselves to being bound by Titles III, IV and V. For more information see: http://www.consilium.europa.eu/policies/agreements/search-the-agreements-database?command=details&lang=en&aid=2012008&doclang=EN

therefore be appropriate. For euro area Member States that are in EDP, the Two Pack addresses these needs through a system of reporting by the Member States and corresponding monitoring by the Commission. By enhancing the Commission's and Council's understanding of the situation that Member States under EDP are in, both at the launch and throughout the procedure, their ability to detect early possible risks that a Member State may not comply with the agreed path for correcting its excessive deficit is reinforced. This allows warnings, under the form of recommendations by the Commission, to be sent much earlier in the correction process.

In that respect, this closer monitoring of the correction of the excessive deficit increases the responsibility of the Commission in delivering timely guidance against the breach of EDP recommendations. In doing so it enhances the preventive role of the EU against the occurrence of slippages from EDP recommendations. With the stronger enforcement mechanisms applicable in the euro area since the changes under the Six Pack this is of particular importance; now that Member States are liable to financial sanctions all the way through the EDP it is important that any deviation of their policies from the recommendations under the EDP be flagged early on to allow them to take appropriate action and avoid the imposition of financial sanctions.

2.1.1. Enhancing budgetary coordination with an ex ante assessment of draft budgetary plans

A new phase in budgetary surveillance: the autumn assessment of Member States' draft budgetary plans

Under the preventive arm of the SGP, all Member States present annual updates of their medium-term budgetary plans in the form of SCPs by the end of April as part of the processes that come under the European Semester. The idea behind the introduction of this European Semester was to bring together the various mechanisms for providing Member States with early guidance as to their economic policies in a manner that allows them to be integrated into the national policy-setting. Accordingly, within the first six months of the year, Member States' plans are examined and assessed at the European level, before the national authorities prepare their budgets in the second half of the year.

Due to the Two Pack, euro area Member States will now submit draft budgetary plans to the Commission and to the Eurogroup, by 15 October, before the adoption of the budget, starting from October 2013. These draft budgetary plans should reflect the most important information of countries' draft budgets, presenting the measures they contain, in a format that will allow their assessment at European level. The purpose of this new exercise is to verify whether the measures contained in the draft budgets and the overall fiscal aggregates they lead to are consistent with the SGP rules and, where applicable, Council recommendations, and to analyse what Member States' budgetary plans imply for the fiscal stance of the euro area as a whole. It occurs between two European Semesters, by providing a follow-up to the recommendations in the previous spring and setting the scene for the next Semester.

The draft budgetary plans are meant to be synthetic documents presenting the main aspects of the budgetary situation of the general government sector and the detailed information on budgetary policy measures as planned in the draft budget for the next year. They are a detailed development of the SCPs for the year to come, focussing on the measures to be adopted to reach the targets set by either the preventive or the corrective arms of the SGP. The information to be included in these plans

Table II.2.1: **Process for the autumn assessment of draft budgetary plans**

	By when?	Who?	What?
	15 October	Each Member State	Submits its draft budgetary plan
Individual assessment of DBPS	*Normal process*		
	End-November at the latest	Commission	Adopts an Opinion on each DBP
	If Commission detects serious non-compliance with SGP obligations in a DBP		
	1 week of submission [indicative: 23 October]	Commission	Consults the Member State concerned
	2 weeks of submission [indicative: 30 October]	Commission	Adopts an Opinion requesting a revised DBP to be submitted within 3 weeks
	3 weeks of the date of Commission's Opinion at the latest [indicative: 21 November at the latest]	Member State concerned	Submits a revised DBP
	3 weeks of submission of revised DBP at the latest [indicative: 12 December at the latest]	Commission	Adopts a new Opinion on revised DBP
	No fixed deadline (in principle end-November)	Commission	Overall assessment of the budgetary situation and prospects in the euro area as a whole, on the basis of national DBPs and their interaction.

Source: Commission services

is set out in the Two Pack regulation and has been further elaborated on in a Code of Conduct,([37]) which includes template tables for the information to be submitted, in order to ensure homogeneity in the reporting and consistency across the assessment of the budgetary plans.

Table II.2.1 allows the comparison of the content of the draft budgetary plans and the SCPs. A number of differences are based on their different purposes; the SCPs are the vehicles for analysing policy-setting in a multiyear framework, while the draft budgetary plans are the documents that provide the information for judging whether the actual measures introduced are consistent with the budgetary targets for the next year.

The main differences between the two documents are the following:

(i) The draft budgetary plans contain information only on the forthcoming year, while the SCPs provide both outturn data and forecast data for at least three years.

(ii) The draft budgetary plans should provide a higher level of detail on the budgetary measures than the SCPs. While SCPs are only required to provide no-policy change projections on the revenue side, the draft budgetary plans must provide no-policy change projections for both revenue and expenditure, as well as a break-down of expenditure by function and a description of measures taken.

([37]) Available at: http://ec.europa.eu/economy_finance/economic_governance/sgp/pdf/coc/130701_-_two_pack_coc_final_endorsed.pdf

(iii) The draft budgetary plans should be based on independent forecasts. The use of independent institutions is a key element of the Two Pack. It is also a requirement of the TSCG and builds on the minimum requirements on national budgetary frameworks introduced under the Six Pack. It is discussed in detail in Section II.1.2.

(iv) With a view to increase transparency on the macroeconomic impact of budgetary measures, the draft budgetary plans should include an analysis of the expected distributional impact of the measures and on their estimated impact on economic growth (the fiscal multipliers).

(v) The SCPs should provide information necessary for the medium-term aspects of the surveillance process. They define the MTO and the (possibly multiannual) path to reach it, together with any information (such as on structural reforms) necessary to assess any deviation from the MTO or the adjustment path towards it.

(vi) Unlike the draft budgetary plans, the SCPs should also contain elements on medium to long-term fiscal sustainability such as the projected path for the debt ratio as well as implicit liabilities related to ageing.

In parallel, the Two Pack also increases requirements in terms of information disclosure to the Commission.

The examination of the draft budgetary plans by the Commission: individual Opinions and an overall assessment

Following the submission of the draft budgetary plans (DBP), the Commission will assess each plan individually and analyse the overall budgetary stance of the euro area implied by the sum of these plans. Table II.2.2 presents the various aspects of the assessment and their timing.

For the country-specific assessments, the Commission will evaluate the content of each DBP against the requirements stemming from the SGP and, where applicable, the recommendations addressed to the respective Member State in the budgetary area, such as the Country Specific Recommendations (CSRs) issued in the context of the European Semester, as well as recommendations issued on the basis of Article

Table II.2.2: **The information required by the Two Pack to feature in the draft budgetary plans and comparison with the content of the Stability Programmes**

	Article 6(3) Reg 473/2013	Article 3(2) Reg 1466/97
Targeted budget balance	the targeted budget balance for the general government as a percentage of Gross Domestic Product (GDP), broken down by sub-sector of general government	the medium-term budgetary objective and the adjustment path towards that objective for the general government balance as a percentage of GDP
Unchanged policy projections	the projections at unchanged policies for expenditure and revenue as a percentage of GDP for the general government and their main components, including gross fixed capital formation	the planned growth path of government revenue at unchanged policy
Targeted expenditure and revenue path	the targeted expenditure and revenue as a percentage of GDP for the general government and their main components, taking into account the conditions and criteria to establish the growth path of government expenditure net of discretionary revenue measures under Article 5(1) of Regulation (EC) No 1466/97	the planned growth path of government expenditure, including the corresponding allocation for gross fixed capital formation, in particular bearing in mind the conditions and criteria to establish the expenditure growth under Article 5(1)
Detail on expenditure plans	relevant information on the general government expenditure by function, including on education, healthcare and employment, and, where possible, indications on the expected distributional impact of the main expenditure and revenue measures	
Detail on measures	a description and quantification of the expenditure and revenue measures to be included in the draft budget for the year to come at the level of each sub-sector in order to bridge the gap between the targets and the projections at unchanged policies; may be less detailed for measures with a budgetary impact estimated to be lower than 0.1% of GDP particular and explicit attention shall be paid to major fiscal policy reform plans with potential spillover effects for other euro area Member States	a quantification of the planned discretionary revenue measures a quantitative assessment of the budgetary and other economic policy measures being taken or proposed to achieve the objectives of the programme, comprising a cost-benefit
Debt and implicit liabilities	debt developments for the forthcoming year	the expected path of the general government debt ratio information on implicit liabilities related to ageing, and contingent liabilities, such as public guarantees, with a potentially large impact on the general government accounts
Consistency with other economic policy reco.	indications on how reforms and measures in the draft budgetary plan, including in particular public investment, address the current recommendations to the Member State concerned in accordance with Articles 121 and 148 TFEU and are instrumental to the achievement of the targets set by the Union's Strategy for growth and jobs	information on the consistency of the stability programme with the broad economic policy guidelines and the national reform programme
Forecasts	the main assumptions of the independent macro-economic forecasts and important economic developments which are relevant to the achievement of the budgetary targets an annex containing the methodology, economic models and assumptions, and any other relevant parameters underpinning the budgetary forecasts and the estimated impact of aggregated budgetary measures on economic growth	the main assumptions about expected economic developments and important economic variables which are relevant to the achievement of the stability programme, such as government investment expenditure, real GDP growth, employment and inflation an analysis of how changes in the main economic assumptions would affect the budgetary and debt position
Structural reform clause		analysis of major structural reforms which have direct long-term positive budgetary effects, including by raising potential sustainable growth if applicable, the reasons for a deviation from the required adjustment path towards the medium term budgetary objective.

Source: Commission services

121(4) Treaty on the Functioning of European Union (TFEU) (in case of significant deviation from the preventive arm requirements of the SGP), or on the basis of Article 126 TFEU for countries subject to an EDP.

Based on this assessment, the Commission will issue an Opinion. In order to allow the national budgetary authorities, and in particular the national parliaments, to take this independent assessment into account and so to maximise its policy relevance, the Commission is committed to delivering it as early as possible and, at the latest, on 30 November. The Commission's Opinion will be an independent voice that contributes to the debate on euro area countries' budgets which are, and will remain, decided at the national level.

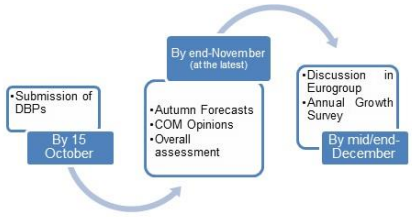
In the case where the Commission finds a DBP in serious non-compliance with the country's obligations under the SGP, the Two Pack introduces a specific procedure requiring the submission of a new draft budgetary plan. Such non-compliance could arise if a Member State clearly misses targets recommended by the Council under Article 121(4) in the context of the preventive arm of the SGP, or under the EDP, or when it entails an obvious breach of one of the Treaty reference values for the deficit and the reduction of the debt. Similarly, plans whose implementation would put at risk the financial stability of the Member State concerned or risk jeopardising the proper functioning of the euro area as a whole would lead to the same conclusion.

In such cases, the Commission will consult the Member State concerned and require that a revised draft budgetary plan be submitted within three weeks. This special procedure, which is intended to be used only in exceptional cases, is designed so that no more than five weeks separate the submission of the first draft of the plans and its revised version. The Commission Opinion requesting new plans aims to prevent gross policy errors which would result in the Member State falling under the reinforced sanctions mechanism associated with breaches of the SGP. Once the new plans are submitted, a new assessment and Opinion are issued.

The Commission's assessments of the DBP serve another role too – they feed into subsequent examinations of the budgetary outcomes. If the Commission Opinion on these plans is that the implementation of some of aspect would not be in line with the SGP, this would be considered as an early warning. If the budgetary outcomes then prove in breach of the SGP, the implementation of plans which had received a negative opinion would be considered as an aggravating factor. In this way, they would be treated more strictly than countries whose breach could not be predicted in advance.

The Commission will present its opinion to national and the European Parliament if called to do so.

Graph II.2.1: **Timeline for the autumn assessment of the fiscal stance**



Source: Commission services

For the assessment of DBP for the euro area as a whole, the Commission intends to provide a comprehensive overview of the fiscal outlook for the forthcoming year, on the basis of an aggregated evaluation of all draft budgetary plans. Graph II.2.1 sets out how this will contribute to the policy debate. This will facilitate a discussion on the most appropriate policy mix in the euro area, while putting individual policy choices in euro area perspective. This overall assessment should also be taken into account by the upcoming Annual Growth Survey, which constitutes the general guidance that the Commission delivers to Member States for the setting of their economic policy goals in the forthcoming year, launching the European Semester.

2.1.2. Improving the efficiency of the excessive deficit procedure

The years since the onset of the crisis saw an unprecedented number of EDPs being opened, many of them spanning a number of years. In contrast, EDPs opened prior to the crisis were usually much shorter. These longer procedures inevitably implied changes in countries' circumstances over the years concerned.

Box II.2.2: **The regular reporting under the EDP provided for by the Two Pack and specified by the delegated Regulation**

The Two Pack contains a provision for the precise format and content of the regular reporting introduced under for countries under EDP to be determined by a delegated act of the Commission (Article 10.3). The delegated Regulation in question was adopted by the Commission on 27 June 2013, specifying that the regular reports should include the following information:

For the general government and its sub-sectors:

- Actual balances, debt developments, and updated budgetary plans for the period of correction for the general government and its sub-sectors;
- Description and quantification of the fiscal strategy in nominal and structural terms (cyclical component of the balance, net of one-off and temporary measures) to correct the excessive deficit by the deadline set by the Council in the view of the latest Council recommendation or decision to give notice in accordance with Article 126(7) or Article 126(9) TFEU, including detailed information on budgetary measures planned or already taken to achieve these targets and their budgetary impact.

In addition, the delegated Regulation provides templates for tables that Member States are required to use to report this information. This harmonised framework should ensure that the monitoring of EDPs in euro area Member States is undertaken consistently across countries, based on a similar set of elements.

In line with the common understanding on delegated acts, this delegated Regulation should enter into force on 27 August 2013 at the latest, provided that the Council and the European Parliament did not raise objections to it; it can enter into force even earlier, provided both co-legislators have explicitly stated their intention not to raise objections to it. Once the delegated Regulation has entered into force, the Commission will be in a position to launch, as appropriate, requests to euro area Member States in EDP for the corresponding additional reporting requirements.

The Commission has so far mainly relied on its own instruments to monitor the progress in the correction of excessive deficits, namely bi-annual forecasts by the Commission services including fiscal notifications by Member States, as validated by Eurostat. However, these long procedures exposed the lack of sufficient information sharing on the side of the Member States, which introduced time lags in the monitoring of the EDPs and reduced the efficiency of the response.

Until the Two Pack, euro area Member States only reported on their fiscal strategy to correct their excessive deficit a few months after the opening of a procedure, in addition to the annual updates of their Stability Programmes. Once positively assessed by the EU, the Member State was left to implement this strategy, more or less until the deadline by which it was expected to have completed the correction in a lasting manner. The Commission monitored the Member State's progress over its EDP, based on the country's bi-annual fiscal notifications and the Commission services' forecasts. The complexity of the challenges created by the economic and financial crisis exposed the importance of enlarging the range of information available to the Commission and the Council, to better understand the progress achieved towards the EDP requirements. The Two Pack's enhanced reporting will provide greater details on the budgetary execution, including on infra-annual developments, and detailed information on the measures being taken, enabling a closer monitoring of the progress of countries under EDP.

The Two Pack has addressed the gap in information, with (i) a better understanding of the

initial point of departure, (ii) a more regular transmission of information on the implementation of the correction strategy, (iii) a possibility for the Commission to launch an audit of the public accounts or to request any additional information needed for a proper understanding of the situation of the Member State and finally (iv) a complementary tool, under the form of a roadmap of a broader fiscal structural strategy, that would come to support the fiscal consolidation measures, to ensure that an excessive deficit would not re-occur.

The innovations associated with this new reporting are summarised in Graph II.2.2, which brings together the existing and new reporting obligations for the various steps of the EDP.

A more regular and more thorough exchange on budgetary information from Member States in the process of correcting their excessive deficit

The new obligations begin with the launch of the EDP: the Commission is able to request that the Member State be subject to new, additional, reporting requirements, until the abrogation of the procedure. Such a request should in principle be formulated at the entry into EDP of any euro area country, except in cases when the Commission deems it to not be useful.

As a first step of these additional obligations the Two Pack introduces an in-depth assessment of the in-year budgetary execution of a country entering EDP, to provide a better understanding of the starting point for the correction strategy. This covers the general government and its subsectors, and needs to feature a consideration of the financial risks associated with contingent liabilities with potentially large impacts on public budgets, to the extent that they may contribute to the existence of the excessive deficit. This is going to help the identification of the particular difficulties that a Member States may face. This comprehensive assessment is to be submitted within the deadline for effective action included in the Article 126(7) Council recommendation, which is usually six months – or three if warranted by the seriousness of the situation.

As presented in a sub-section below, this in-depth review will also be accompanied by another new requirement of the Two Pack, the submission of an EPP, which should support the fiscal correction strategy with a broader structural approach to support the sustainability of the correction of the excessive deficit. ([38])

The first assessment of the action taken in response to the Council recommendation is therefore going to be conducted on the basis of this larger set of information. If the correction appears on track, the EDP is placed "in abeyance" until the correction of the excessive deficit is achieved and the procedure abrogated. Prior to the Two Pack, the SGP was silent on the follow-up of EDPs in abeyance, beyond stating that a regular monitoring should occur. In practice, the Commission regularly observed whether the country was still on track to meet its recommendations, but no formal requirements were placed for countries to update the Commission on the progress of the measures that they are taking to achieve the correction of the excessive deficit. The Two Pack has changed this.

Euro area countries subject to the new reporting requirements will now update the Commission and the Council on the fiscal strategy to correct the excessive deficit that they had presented in the initial report required by the SGP, every six months. In the spirit of transparency, this additional reporting is also going to be made public. If countries are placed in a further step of the procedure for not having effectively implemented the correction strategy (namely when subject to a 126(9) Council notice), the frequency of the regular reports increases to every three months, to reflect the greater need for a close monitoring of the correction of the excessive deficit in this particular country.

The precise information to be submitted in the context of this regular reporting will be set out in a delegated Regulation of the Commission. The detailed regular reports are going to provide the Commission with up-to-date estimates of the yields (in terms of revenue increases or expenditure decreases) of the measures taken by the government. This information is a key feature of the improvement of the monitoring of the correction strategy, in that it is going to allow a

([38]) As opposed to the additional requirements in terms of reporting on the budgetary strategy – which are activated by a request by the Commission – the obligation to submit an EPP applies to all euro area countries entering in EDP.

rolling monitoring of whether the measures taken support the adjustments required under the EDP and therefore whether the country is on track to correct its deficit according within the deadline issued. Box II.2.2 provides more information on the content of this text.

At any point during the EDP, the information at disposal of the Commission may be complemented by new reporting that it can activate upon request. The Two Pack enables the Commission to request that a Member States carry out and report on a comprehensive independent audit of the public accounts of all subsectors of the general governments, preferably to be conducted in coordination with national supreme audit institutions, within the deadline set out by the Commission. With an even broader scope, Member States will have to provide any available information for the purposes of monitoring progress towards the correction of the excessive deficit.

Taken together with the annual DBPs, the new reporting provisions provide the Commission with a full toolbox of information to conduct its monitoring of the response to EDPs. With enhanced possibility to detect early slippages from the path to correcting an excessive deficit, the Commission will be able to address a recommendation directly to the Member State concerned and to ensure that the measures planned are fully implemented. If appropriate, the recommendation may ask for the introduction of further measures. This recommendation is made public – with the Commission standing ready to present it to the Parliament of the Member State concerned at its request – and should act as a warning to the country that it is at risk of breach of its obligations under the EDP if it does not take appropriate action.

Similarly to the integration of the new Commission opinion on draft budgetary plans into the decision-making on the opening of an EDP, compliance with this autonomous Commission recommendation would be a factor that could influence further decisions to be made in that excessive deficit procedure, such as the Council decisions on effective action or the imposition of financial sanctions.

Economic partnership programmes to complement the budgetary monitoring by a roadmap for structural reforms

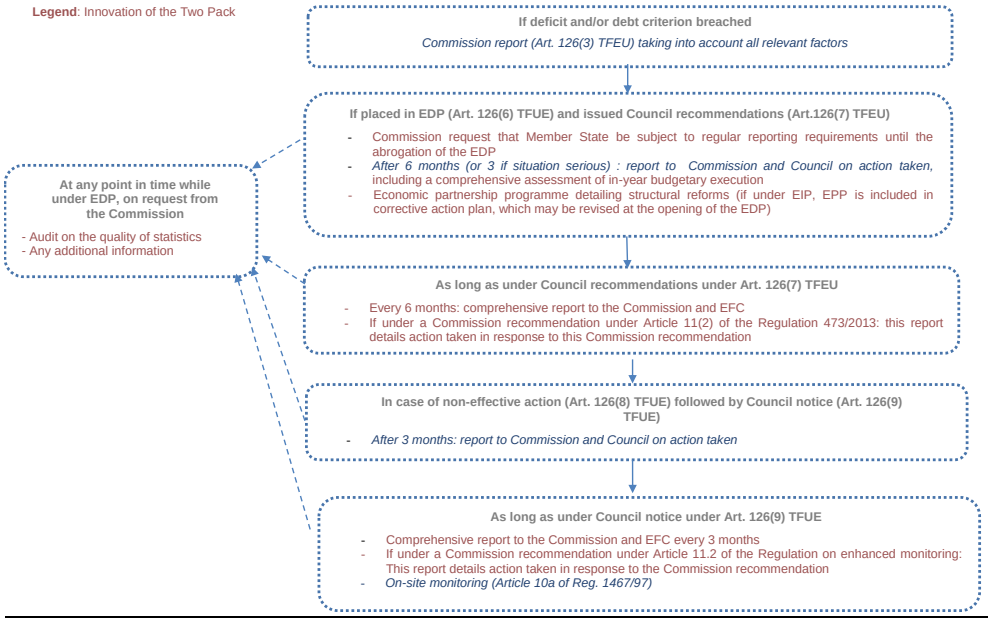
The fifteen or so years since the introduction of the SGP in 1997 have led to a maturing of the context within which fiscal challenges are considered. The crisis has highlighted the interplay between structural policies and the impact on fiscal outcomes, particularly over the medium or longer terms.

In order to encourage euro area Member States which are facing fiscal challenges, and are placed in EDP for this reason, to undertake the necessary structural reforms to support their consolidation plans, the Two Pack introduces the requirement to prepare and submit an economic partnership programme (EPP) at the start of the EDP. This requirement implements a commitment taken by Member States signatories of the TSCG. This EPP should act as a roadmap for the fiscal structural reforms which are deemed necessary by the Member State to ensure an efficient and lasting correction of the excessive deficit; the Member State should also identify and select its priorities in terms of competitiveness, long-term sustainable growth and addressing its structural weaknesses. The EPP thus complements the budgetary measures leading to the correction of the budgetary slippage, with a wider strategy aimed at avoiding the occurrence of excessive deficits.

The EPPs are documents which are produced and implemented by national authorities. When drawing up its EPP a Member State would be expected to proceed on the basis of the existing surveillance instruments (including existing Country Specific Recommendations it has been addressed by the European Council) in order to select the appropriate set of reforms and priorities to include, thus enhancing the links and coordination between the budgetary procedure and the work developed throughout the European Semester. The Code of Conduct presents more detailed guidelines for the content of the EPPs.

In terms of timeline, the EPP will be submitted a few months (usually six months) after the opening of the EDP, at the same time as the authorities report on the action taken in response to the

Graph II.2.2: **The EDP process for euro area Member States including the changes introduced with the Two Pack**



Source: Commission services

Council recommendation. ([39]) After its review by the Commission, the EPP receives an Opinion of the Council based on a proposal by the Commission. Following approval by the Council a light process based on the regular monitoring of NRPs and SCPs has been created, to follow the implementation of the EPP at EU level without burdening Member States with new procedure.

Euro area Member States already subject to the corrective arm of the MIP (known as the Excessive Imbalances Procedure) will not need to draft a new roadmap for reforms when entering the EDP. This is because these countries will already have presented present a comprehensive roadmap for reforms, the Corrective Action Plan (CAP). Graph II.2.3 presents the interaction between the two procedures and the streamlining which has been decided in the different cases.

([39]) The Two Pack contains transitional provisions so that Member States currently under EDPs will not submit an EPP unless a new EDP step (extension of deadline through a new Article 126(7) Council recommendation or a step-up through an Article 126(9) Council notice) is taken.

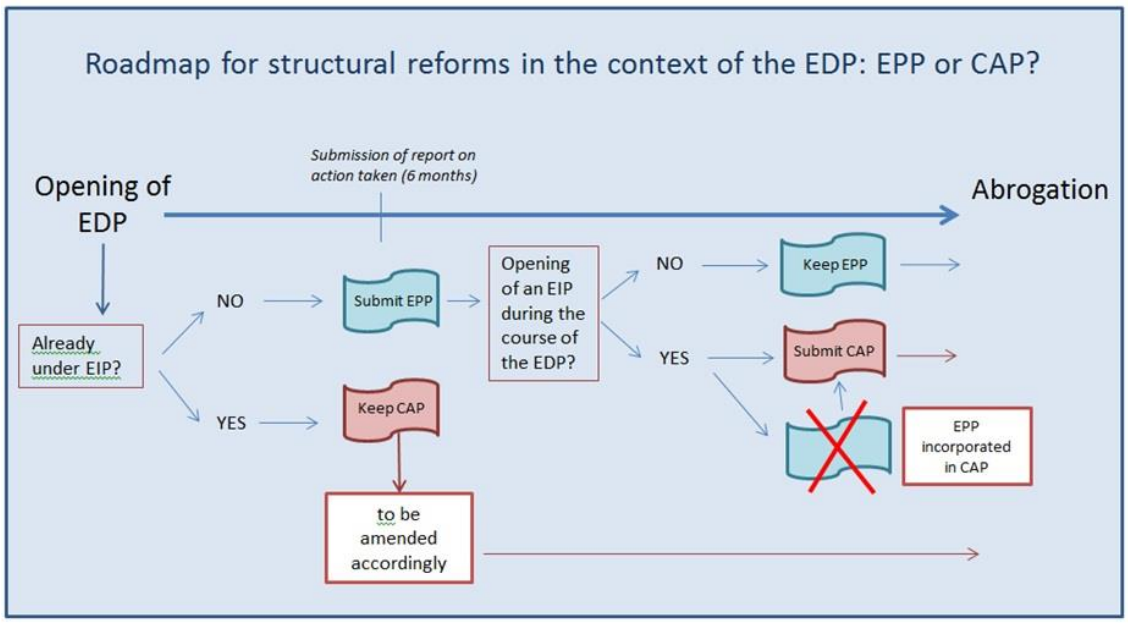
2.2. ACCOUNTABILITY AND RESPONSIBILITY IN SETTING FISCAL POLICY. EQUIPPING COUNTRIES WITH THE BEST CHANCE TO MAKE THE RIGHT POLICY CHOICES.

The second axis of the Two Pack concerns the circumstances under which national policy-makers set fiscal policy. Improving the quality of budgetary policy relies strongly on national institutions and processes being accountable and responsible. This is important not just in terms of the fiscal policy outcomes which affect both the country in question and the euro area as a whole via the spillovers and interdependencies between countries, but also in allowing national stakeholders – including the electorate – to understand and monitor government policy.

In focussing on national institutions and processes, the Two Pack builds on an approach that underlies the Directive on national budgetary frameworks ([40]), which was introduced as part of the Six Pack in 2011. This directive recognised the importance of the role that national policy-makers

([40]) http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2011:306:0041:0047:EN:PDF

Graph II.2.3: **Interaction of the EPP with the EIP Corrective Action Plan**



Source: Commission services

have in countries' ability to comply with the European requirements under the SGP and sets certain minimum criteria for national budgetary frameworks that countries should comply with. These criteria concern accounting and statistics, forecasts, numerical fiscal rules, the need to rely on medium-term budgetary frameworks, coordination arrangements and transparency. The Directive should be transposed into national legislation by 31 December 2013.

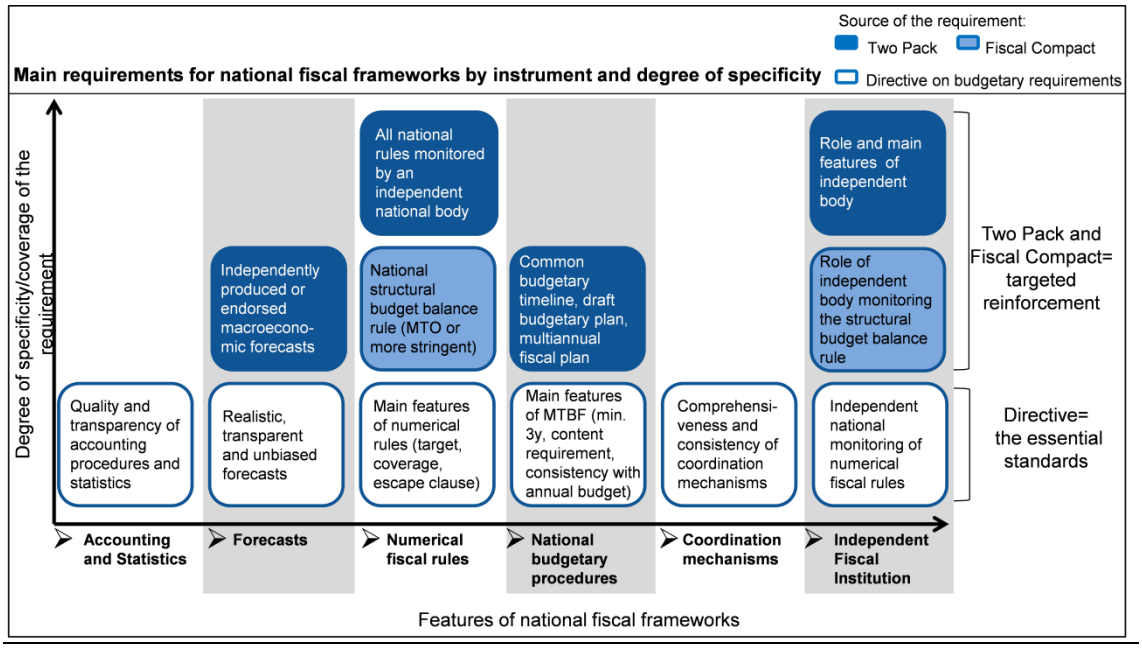
Building on this approach, the Two Pack goes further. It extends and specifies requirements for certain features of the national fiscal framework toolkit for the euro area. In order to enhance the reliability of the information that policy choices are based on and assessed with, it recognises the importance of credible macroeconomic forecasts by requiring that independent forecasts are used to underpin the budgetary process. It gives national independent fiscal institutions the role of monitoring domestic fiscal rules, and sets out the main features that makes such institutions able to ensure operational independence, in order to provide a credible watchdog to monitor how governments comply with their own fiscal rules.

In safeguarding the role of national fiscal rules, the Two Pack also builds on the commitments made by the euro area Member States in the TSCG (see Box II.2.1 for a summary of the TSCG Chapter II.5 of European Commission (2012) for a detailed discussion of its contents). The fiscal compact contained within the TSCG commits the signatories to introducing national provisions of binding force and permanent character to ensure compliance with the MTO – which forms the cornerstone of the preventive arm of the Pact – along with a correction mechanism to be triggered automatically. Independent institutions are given the role of ensuring compliance with this mechanism. The common objective of the TSCG commitments and the Two Pack requirements is to codify in national law a strong legal requirement and implement a national budgetary process which will put meeting the requirements of the preventive arm at the very heart of national fiscal policy.

The interaction and mutually reinforcing provisions of the Two Pack, the Directive and TSCG are presented graphically in Graph II.2.4.

The Two Pack's approach to how the national side effects budgetary outcome in the euro area contains one more dimension – it looks at how

Graph II.2.4: **Main requirements for national fiscal frameworks by legal instrument and degree of specificity**



Source: Commissions services

national processes affect the ability to coordinate and monitor policy at the euro area level. Section II.1.1 set out how the Two Pack enhances the information flow going both from the Member States to the EU and vice versa in order so that the impact of countries' policies on the euro area is assessed on a rolling basis. In order to do this, however, the timing of the policy decisions needs to be such as to allow the new continuous monitoring to feed into the national policy debate and an appropriate and common time. The Two Pack therefore introduces a common budgetary timeline to allow this monitoring to operate optimally by mirroring European budgetary milestones at national level.

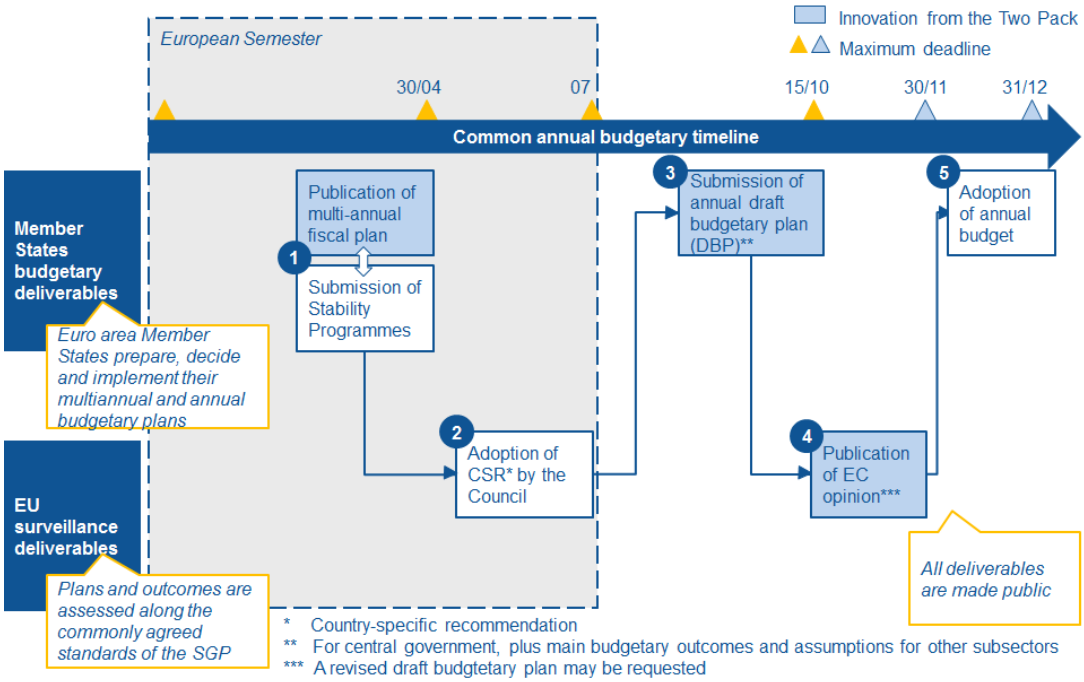
Finally, the Two Pack also introduces a new aspect to European economic coordination by placing the onus on Member States to share information on debt issuance plans. This information, which was previously only recorded at national level, will enable a monitoring of debt development at European level and increase the accountability and responsibility with which countries take their debt issuance decisions – which are so vital to the functioning of the euro area.

2.2.1. A common budgetary timeline for coordinated budgetary procedures across the Euro area

Section II.1.1 set out how the Two Pack closes the circle of monitoring at the European level for Member States of the euro area, with the new assessment of the draft budgetary plans every autumn, complementing the annual exercise of the European Semester. In order to enable this to play an optimal role in the budgetary processes of all euro area countries, the Two Pack strengthens the collective approach to fiscal policy design by defining a common budgetary timeline, spanning over the whole year. The Two Pack supports the continuity of consistent national processes in the budgetary area to smooth their interaction with this EU surveillance.

This new timeline contains the following components, as illustrated by Graph II.2.5. First, the strategic budgetary perspective for the medium-term is to be consolidated at the national level and made public in a medium-term national fiscal plan (step 1 in Graph II.2.5), which should be the basis for each Member State to draw the Stability Programme that it submits under the

Graph II.2.5: **The common budgetary timeline: interactions between the national and the European levels**



Source: Commission services

European Semester. This multiannual fiscal plan will be a key national budgetary document, whose content, format and role in the national budgetary debate will be for each Member State to define, provided that it includes at least all the information required for the Stability Programme and that it meets the essential requirements from the Directive with respect to the country's medium-term budgetary framework (MTBF). ([41]) Member States may also choose to designate their own Stability Programme as serving the function of this multiannual fiscal plan, since they have the same deadline for publication/submission (end of April).

Second, the annual perspective in terms of budgetary policy, driven by the annual budget law, is now also going to be more coordinated at the euro area level, with common milestones for the design and adoption of the budget. Accordingly, as foreseen by the Two Pack, the budget needs to be adopted, or at least set in a definitive manner, in each euro area Member State by 31 December of the previous year (step 5 in Graph II.2.5). Before adoption takes place, all Member States of the euro area need to publish their draft budget by 15 October (step 3), which forms the basis of the DBP which will be assessed at European level according to the new procedure set out in Sub-section II.2.1.1.

This common timeline, in full respect of national budgetary rules and procedures, is reinforcing ex-ante budgetary coordination within the euro area by synchronizing key steps of the national budgetary process and aligning it with the EU mechanism of budgetary surveillance. As the Two Pack entered into force on 30 May 2013, 2014 will be the first fully-fledged common budgetary cycle for all euro area Member States. ([42])

([41]) These requirements include the time horizon (minimum 3 years), content (impact of medium-term policies envisaged on revenue and expenditure, projections of main budgetary aggregates) and robustness (ensured by the use of independent forecasts) of the data included.

([42]) With the exception of those subject to a macroeconomic programme: as described in Sections II.1.2.3 and II.1.3, those countries are exempted from submitting a multiannual fiscal plan, a draft budgetary plan and a debt issuance plan. Nevertheless the pre-existing requirements contained in Chapter IV of the Directive remain and all Member States are expected to have established medium-term budgetary framework by 31 December 2013.

2.2.2. Improving the national fiscal debate: greater transparency and stronger national institutions

Budgetary transparency and independent forecasts

The Two Pack requirement to have independent macroeconomic forecasts to underpin all aforementioned budgetary documents is expected to bring a substantial improvement to the quality of national budgetary planning of all euro area countries which did not have this practice in place, by providing an unbiased assessment of the projected fiscal developments. The independence of those forecasts is guaranteed by their production or endorsement by a national independent fiscal institution, where the independence of the institution follows the pre-existing provisions of Chapter III of the Directive.

Whether the Member States choose endorsement or production of the macroeconomic forecasts by the independent body is up to them, but they will have to communicate that choice. If they select endorsement, and the independent body refuses to endorse the forecasts, the refusal should typically trigger a review of the forecasts in the light of comments issued by the independent body and a revised forecast may be submitted for assessments of the independent body, leading to a new opinion. Irrespective of the choice of having the forecasts produced or endorsed independently, Member States should have in place specific mechanisms to cope with situations in which there are different views between steps to be taken, in the case of significant deviations of assessments on the main variables/aggregates between the independent body and the Ministry of Finance on the main variables of the forecast.

Member States are not formally required to ensure a similar independence of the budgetary forecasts – i.e. the projections of the main budgetary outcomes such as the deficit or the debt level. However, they are asked to communicate whether or not their budgetary forecasts are independent.

In terms of transparency, the Two Pack requests the publication of the medium-term fiscal plan, the draft budgetary plan and the macroeconomic forecasts they are based on. The corresponding role and opinion of the national independent fiscal institution(s) has to be indicated publicly. Being part of the public domain, these elements should enable a well-informed public debate on national policy choices, which can only improve the accountability of the decision-makers, the democratic legitimacy of the budgetary process and, eventually, enhance the quality of the decisions taken.

A national independent oversight of the attainment of the budgetary objectives

In the TSCG, the euro area countries and eight other EU countries, committed to establishing a rule constraining their budget balance in structural terms – to a value equal or more stringent than their MTO under the preventive arm of the SGP – and an associated correction mechanism to be triggered in case of deviation from the target level or from the convergence path to it in their national legal order. This should be monitored by an independent fiscal institution. This commitment complements the pre-existing principle set out in the Directive, that national independent monitoring for all numerical fiscal rules be in place, irrespective of the aggregate or subsector targeted. The Two Pack extends and reinforces the role of such national independent fiscal bodies, which have gradually become a prominent feature of national fiscal frameworks.

The Two Pack sets out in EU law the definition of main features promoting the independence of such national fiscal institutions. To be considered as independent, a body needs to (i) feature a statutory regime grounded in national laws, regulations or binding administrative provisions; (ii) not take instructions; (iii) have the capacity to communicate publicly; (iv) have in place procedures for nominating members on the basis of their experience and competence; and (v) have access to adequate resources and appropriate information to carry out its given mandate. This definition is consistent with the provisions of the Directive, the TSCG and the Commission Communication COM(2012)342 on common principles on the national fiscal correction mechanism, which further details the role of such independent bodies, in connection with the fiscal compact provisions.

According to the Two Pack, these independent bodies have two major roles to play. These roles can be fulfilled by a single independent body or

different ones, depending on what is appropriate in each Member State. Independent bodies should produce or endorse the macroeconomic – and possibly budgetary – forecasts underpinning the budgetary process. Independent bodies should be given the mandate to monitor compliance with all national numerical fiscal rules in place, in the sense of Chapter III of the Directive, including the rules incorporating the MTO in the national budgetary. They are also expected to issue public assessments over the relevance of the activation of the correction mechanism in the case of significant deviations from the budgetary objective, over the conformity of the implemented correction with national rules and plans and over the relevance of using the escape clauses.

In its provisions of the role of national independent bodies, the Two Pack does not intend to replace the EU surveillance process but to create a strong national layer of monitoring of budgetary outcomes, in order to increase the national ownership and awareness of the necessity to adhere to budgetary discipline, as a means to ensure independence and sustainability of the country's finances.

2.2.3. Sharing information on the issuance of national debt

Government debt is the most visible component of sustainability, with more immediate impact than implicit liabilities such as ageing costs. As part of the increasing awareness of the need to carefully monitor debt developments, the Two Pack introduces the sharing of information on debt issuance plans by Member States. This increased transparency allows an understanding of the short-term dynamics of the Member States' debt, of which the level of deficits only gives a partial image. For this purpose, the new legislation requires that Member States report to the Commission and the Eurogroup on their national debt issuance plans, on an ex ante basis (i.e. one week before the start of each quarter and of each year), and according to an harmonised framework established by the Commission in coordination with the Member States. This is one of the elements of the TSCG that the Two Pack legislates on. Under the TSCG, the contracting parties, while committing to this ex ante reporting, explicitly foresaw that such common reporting would facilitate the coordination of debt issuance.

An understanding of the dynamics of debt renewal is necessary for the smooth functioning of the sovereign debt market. Annual and quarterly reporting on debt issuance plans by the central government for euro area Member States will be broken down between short and medium or long-term maturities, and will be complemented with general information on the overall financing needs of the central budget of each Member State. The quarterly periodicity of the reporting of issuance plans was chosen to strike the right balance between increasing the transparency and predictability of funding plans, while leaving enough flexibility for issuing policies and procedures.

The Two Pack does not place requirements on Member States beyond the reporting of their debt issuance plans.

2.3. ESTABLISHING AN EU FRAMEWORK FOR DEALING WITH THREATS TO FINANCIAL STABILITY IN EURO AREA MEMBER STATES

The second regulation of the Two Pack has been established with a number of precise objectives. First, the regulation makes Member States experiencing severe difficulties with regard to their financial stability or receiving financial assistance on a precautionary basis subject to a new form of enhanced surveillance. A Member State under enhanced surveillance has to take measures to address the sources or potential sources of difficulties. In addition, the Commission can request specific measures to implement the enhanced surveillance regime. The Commission will regularly monitor the progress made in implementing all those measures, in liaison with the ECB (European Central Bank) and the relevant European Supervisory Authorities (ESAs) and, where appropriate, the International Monetary Fund (IMF). If the assessment of progress made concludes that further measures are needed and that the financial situation of the Member State has significant adverse effects on the financial stability of the euro area, the Council has the possibility to recommend to the Member State concerned to adopt precautionary corrective measures or prepare a draft macro-economic adjustment programme.

Second, the new regulation aims to dovetail the financial assistance granted outside the framework

of the Union with the Treaty. During the crisis, new financial stability mechanisms have been established to provide financial assistance to euro area Member States. Mostly, these new mechanisms are based on intergovernmental arrangements (e.g. European Financial Stability Facility (EFSF) and European Stability Mechanism (ESM)). Against that background, the regulation aims to ensure that there is full consistency between the Union multilateral surveillance framework established by the TFEU and the possible policy conditions attached to financial assistance granted outside the Treaty framework. It sets out a clear procedure for preparing and adopting macro-economic adjustment programmes. Because of the wide-encompassing nature of those adjustment programmes, the new legislation foresees the suspension of the monitoring and reporting on the implementation of the Stability and Growth Pact, the application of the Macroeconomic Imbalance Procedure (MIP) and the monitoring under the European Semester. The aim is to ensure consistency and to avoid overlaps between these procedures and the policies and monitoring taking place in the context of the relevant macro-economic adjustment programmes.

Third, the regulation creates a post-programme surveillance structure for countries which have received financial assistance, until a minimum of 75% of the financial assistance received has been repaid. This will help keep the country concerned firmly on a safe track, to the benefit of the Member State itself and of its lenders.

2.3.1. Establishing an EU enhanced surveillance regime

The new regulation allows the Commission to make a Member State subject to enhanced surveillance in certain situations. Enhanced surveillance involves an obligation on the Member State to adopt measures to address the sources of financial instability. When developing those measures, the recommendations already addressed by the Council to that Member State should be taken into account. In addition, the Commission can request specific measures to implement the enhanced surveillance: 1) a stress test on banks to be implemented by the ECB/EBA; ([43]) 2) an assessment of the domestic financial supervisory capacity to be implemented by the ECB/EBA; 3) any information needed for the monitoring of macro-economic imbalances; 4) a comprehensive independent audit of the public accounts of all sub sectors of the general government; 5) any information available for the monitoring of the fiscal deficit; 6) access to disaggregated data on the developments of the financial sector. ([44]) In addition, Member States must also meet new reporting requirements foreseen for countries under the EDP irrespective of the existence of the latter. ([45]) The measures to address the sources of financial instability together with the specific measures to implement enhanced surveillance constitute the set of policy requirements that are linked to the enhanced surveillance regime. These policy requirements are expected to be set out in a "Letter of Intent" by the Member State (see Box II.2.3).

Regular review missions are conducted by the Commission in liaison with the ECB and the relevant European Supervisory Authorities (ESAs) and, where appropriate the IMF, to verify progress with implementation of the policy requirements by the Member State concerned. In addition, the Commission is responsible for quarterly reporting to the Economic and Financial Committee (EFC) of the Council and to the Economic and Financial Committee (ECON) of the European Parliament to communicate the findings of the reviews missions. Enhanced surveillance applies in two different situations:

- Regular enhanced surveillance: the Commission makes a euro area Member State subject to enhanced surveillance when it is facing or experiencing severe difficulties with

([43]) These activities will be undertaken by the ECB once the Single Supervisory Mechanism (SSM) enters into force and by the EBA as long as this is not the case.

([44]) This is only the case for Enhanced surveillance regime with precautionary financial assistance and not for the regular Enhanced surveillance regime. In the latter case, the disaggregated data can only be provided through the intermediation of the ECB, in its supervisory capacity, and where appropriate through the relevant ESAs.

([45]) Irrespective of the existence of an excessive deficit, the Member State subject to enhanced surveillance needs to fulfil some of the new reporting requirements foreseen for countries under EDP as set out in the other Two Pack regulation on closer budgetary monitoring

regard to financial stability. This is a situation where no financial support is provided.

- Enhanced surveillance with precautionary financial assistance: the Commission is obliged to make a euro area Member State subject to enhanced surveillance in case a Member State receives precautionary financial assistance from the ESM/EFSF under instruments such as an Enhanced Conditions Credit Line (ECCL) or a Precautionary Conditioned Credit line (PCCL) when the latter has been drawn. ([46])

The objective of precautionary financial assistance is to support sound policies and prevent crisis situations by allowing euro area Members to secure the possibility to access financial assistance before they face major difficulties with raising funds in the capital markets. Precautionary financial assistance aims at helping euro area Members whose economic conditions are still relatively sound to maintain continuous access to market financing.

There are clear policy conditions attached to the precautionary financial assistance depending on the form that the financial assistance takes. These policy conditions are outlined in the Memorandum of Understanding (MoU, see Box II.2.3) in line with the relevant ESM/EFSF guidelines on precautionary financial assistance. The MoU is negotiated with the Member State concerned by the Commission on behalf of the ESM/EFSF and in liaison with the ECB and, wherever possible, together with the IMF. In addition to the monitoring of the policy requirements mentioned above, the Commission also monitors the implementation of the policy conditions outlined in the MoU (see Box II.2.3).

The Commission will only make a Member State under a PCCL subject to enhanced surveillance when the credit line is actually drawn. A number of eligibility criteria need to be fulfilled for euro area Member States to obtain access to a PCCL. The PCCL is accessible for euro area Member States whose economic and financial situation is still fundamentally sound, while fulfilling a set of eligibility criteria including: 1) respect for the commitments under the Stability and Growth Pact. An ESM Member under EDP may still access a PCCL, provided it fully abides by the Council decisions and recommendations aimed at ensuring a smooth and accelerated correction of its excessive deficit; 2) a sustainable level of government debt; 3) respect for the commitments under the macroeconomic imbalances procedure. An ESM Member under EIP may still access a PCCL, provided it is established that it remains committed to addressing the imbalances identified by the Council; 4) a track record of access to international capital market on reasonable terms; 4) a sustainable external position; 5) absence of any bank solvency problems that would pose systemic threats to the stability of the euro area banking system. The eligibility criteria for accessing a PCCL also need to be respected by the ESM Member after the precautionary assistance is granted. Therefore, they are included as policy conditions in the MoU (see Box II.2.3).

Access to an ECCL is open to euro area Member States that do not comply with some of the eligibility criteria required for accessing the PCCL but whose general economic and financial situation remains sound. Like the PCCL, the ECCL is a credit line based on meeting a set of eligibility criteria. In addition, even if no money is drawn, also a set of corrective measures need to be taken aimed at addressing the identified weaknesses and avoiding any future problems regarding market financing while ensuring a continuous respect of the eligibility criteria which were considered met when the credit line was granted. Both the eligibility criteria and the corrective measures are included in the MoU detailing the set of policy conditions attached to the financial assistance (see Box II.2.3).

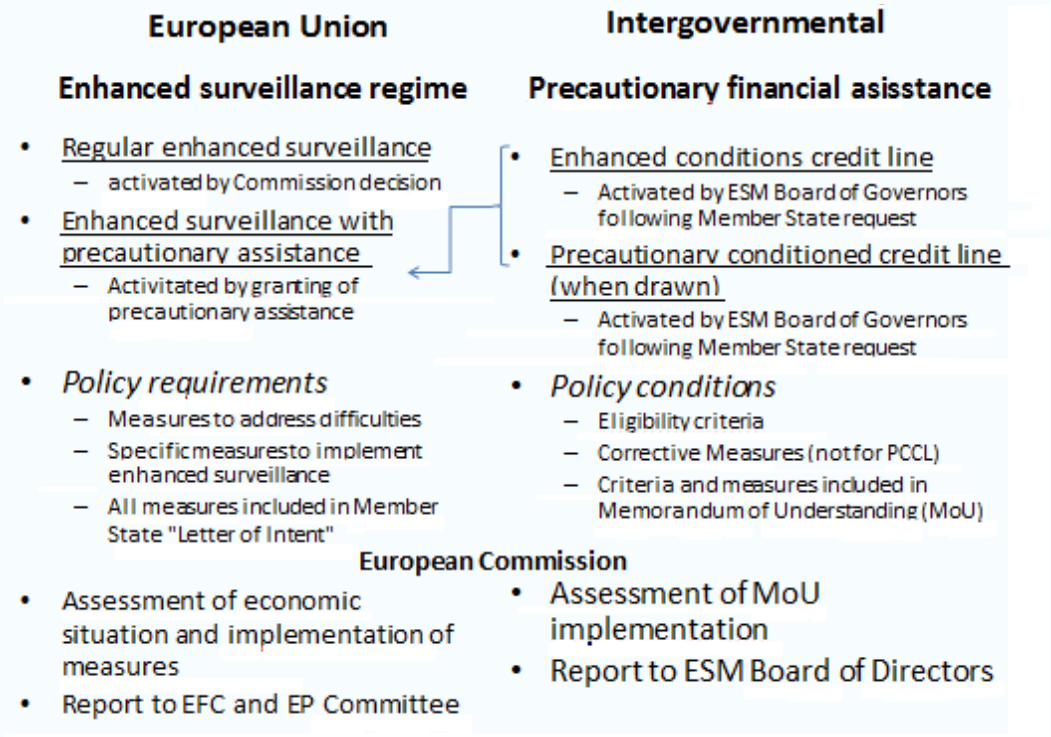
The activation of Enhanced Surveillance

As a first step, the Commission needs to provide an assessment as to whether a Member State is experiencing or threatened with serious difficulties with regard to its financial stability that are likely to have adverse spill-over effect on other euro area Member States. If this condition is fulfilled, the Commission may unilaterally decide to make the Member State subject to enhanced surveillance.

([46]) Under the ESM/EFSF financial stability mechanisms, precautionary financial assistance may be provided via a Precautionary Conditioned Credit Line (PCCL) or via an Enhanced Conditions (ECCL).

Box II.2.3: **Comparing EU and intergovernmental arrangements**

The policy requirements linked to enhanced surveillance are applied to the Member States within the EU framework while the policy conditions linked to the precautionary financial assistance are imposed in an intergovernmental context. This distinction is important because of the different implications of the Commission's monitoring role. Within the EU framework, the Commission's assessment of the overall economic situation and of the implementation of the policy requirements can lead to a recommendation to a Member State to adopt precautionary corrective measures or to prepare a draft macroeconomic adjustment programme. Within the intergovernmental framework, however, the Commission assessment of the respect of the policy conditions can lead to the termination of the financial assistance. The figure below provides an illustration for two instruments, i.e. the PCCL and the ECCL.



In case a Member State is receiving financial assistance on a precautionary basis (i.e. PCCL or ECCL), the Commission is required by the legislation to make the Member State subject to enhanced surveillance. However, in case of a PCCL, the Commission will not make the Member State subject to enhanced surveillance as long as the credit line is not drawn.

As outlined above, a Commission assessment is required as a basis for the Commission decision to make euro area Member States subject to enhanced surveillance. A number of parameters need to be investigated in this comprehensive assessment to check whether the Member State concerned is experiencing or threatened with serious economic difficulties with regard to its financial stability that are likely to have negative spill-over effects on other Member States. ([47])

([47]) When conducting this comprehensive assessment, the legislation requires the Commission explicitly to take a number of parameters into account: 1) the parameters of the alert mechanism report; 2) the latest in-depth review, where available; 3) the borrowing conditions of that Member State; 4) the repayment profile of its debt obligations; 5) the robustness of its budgetary framework;

2.3.2. Establishing an EU framework for macroeconomic adjustment programmes

When a Member State is under enhanced surveillance, the Commission will regularly monitor the progress made, in liaison with the ECB. If the assessment concludes that further measures are needed and the financial situation of the Member State has significant adverse effects on the financial stability of the euro area, the Council has the possibility to recommend to the Member State concerned to take precautionary measures or prepare a macro-economic adjustment programme.

The preparation and adoption of adjustment programmes

The new Two Pack regulation sets out a clear procedure for the preparation and adoption of a macro-economic adjustment programme. The draft programme is prepared by the Member State requesting the financial assistance in agreement with the Commission acting in liaison with the ECB and, where appropriate, with the IMF. The draft programme should be based on an assessment of the sustainability of the government debt prepared by the Commission, in liaison with the ECB, and, where possible, with the IMF. It should address the specific risks emanating from that Member State for the financial stability of the euro area and shall aim at rapidly re-establishing a sound and sustainable economic and financial situation and restoring the Member State's capacity to finance itself fully on the markets.

The draft programme prepared by the Member State requesting financial assistance within the EU framework is approved in the Council by qualified majority voting on a proposal from the Commission. Within the intergovernmental framework, the MoU outlining the policy conditions attached to the financial assistance provided in the context of the macroeconomic adjustment programme, is signed by the Commission on behalf of the EFSF/ESM with the Member State requesting financial assistance. The MoU and the Council decision on the adjustment programme need to be aligned and fully consistent. The aim is to avoid situations where a Member State would be requested to abide by policy conditions in the MoU that would deviate from its commitments under the existing EU multilateral surveillance procedures.

Monitoring adjustment programmes and non-compliance

The Commission will ensure the monitoring of the implementation of the programme in liaison with the ECB and, where appropriate, with the IMF. It will inform the Economic and Financial Committee of the Council every three months. The Member State concerned will fully cooperate with the Commission and the ECB and provide all the information that they deem necessary for the monitoring of the programme.

If the monitoring highlights significant deviations from the macroeconomic adjustment programme, the Council may decide that the Member State concerned does not comply with the policy requirements contained in the programme. This decision would have very significant effects since it would de facto trigger the interruption of the disbursements of the financial assistance of the EFSF/ESM.

A Member State subject to a macroeconomic adjustment programme experiencing insufficient administrative capacity or significant problems in the implementation of its adjustment programme can seek technical assistance from the Commission. The Commission can then establish a group of experts with Member States and other Union and/or relevant international institutions, for this purpose. Such technical assistance may include the establishment of a resident representative and supporting staff to advise authorities on the adjustment programme implementation. An example of this kind of technical assistance is the Greek Task Force that was established in the context of the Greek macroeconomic adjustment programme.

Ensuring consistency with other surveillance processes

6) the long term sustainability of its public finances; 7) the importance of the debt burden; 8) the risk of contagion from severe tensions in its financial sector on its fiscal situation or on the financial sector from other Member States.

Macro-economic adjustment programmes have a broad scope in terms of policy fields covered. They cover all policies that can be identified as likely to improve the economic and financial situation. It follows that all attention naturally focuses on the monitoring of the adjustment programme in particular because it acts as the passport to the disbursements of the financial assistance. As the macroeconomic adjustment programme normally encompasses all relevant policy advice imposed already in the context of the Stability and Growth Pact (SGP), the Macroeconomic Imbalance Procedure (MIP) and the EU semester, the new legislation avoids duplication and overburdening by suspending the reporting and monitoring on the implementation of the SGP, the application of the MIP, the monitoring under the European Semester and the other regulation of the Two-pack on fiscal issues.

Establishing a regime of post-programme surveillance

The new regulation establishes post-programme surveillance. This surveillance arrangement aims at ensuring that the beneficiary remains on the right fiscal track, thus protecting its capacity to repay its debt. It remains in place until the country has repaid 75% of its debt. This can potentially lead to a relatively long surveillance period.

The Commission will have monitoring powers and report twice a year. Where appropriate, it can propose to the Council to recommend to the Member State concerned to adopt corrective measures. It should be noted that the Commission will implement post-programme surveillance only if the financial support is financed by the EU (under European Financial Stability Mechanism) or its Member States (EFSF, ESM), but not if it comes from the IMF or third countries.

The use of reverse qualified majority voting as decision-making rule has been inserted in the legislation to take the decision to extend the duration of the post-assistance surveillance and also for the decision to adopt corrective measures. The Council, on a proposal from the Commission may extend the duration of the post-programme surveillance in case of persisting risks for the financial stability or fiscal sustainability of the Member State concerned. The proposal of the Commission is then automatically adopted unless a qualified majority of the Council decides to reject it within 10 days of the Commission adopting it. The same decision-making procedure applies when the Commission proposes the adoption of additional corrective measures.

2.4. COMPLETING THE EU BUDGETARY SURVEILLANCE PROCESS

In completing the SGP, the Two Pack is part of a drive for a stronger budgetary surveillance and a deeper integration in EMU. It builds on the requirements made in the Directive on national budgetary frameworks introduced as part of the Six Pack, by moving from a framework where Member States were required to ensure that the complied with certain minimal requirements in terms of their national arrangements for setting budgetary policy, to much stronger provisions. As discussed in the previous sections, the Two Pack is also instrumental in placing commitments made under the TSCG, signed in March 2012, into the EU legal framework.

Half a year after the signature of the TSCG, the Commission presented its Blueprint for Deep and Genuine Economic and Monetary Union on 28 November 2012, setting out both concrete priorities for immediate implementation and the short term, as well longer term strategy aims covering the next five years. ([48]) Over time, it aims to achieve economic, fiscal and banking union, by balancing any transfer of power with political integration to ensure legitimacy and accountability. It sets out the Commission's vision of the instruments and steps required to bring about a genuine EMU over time.

The Blueprint's immediate priorities for the first 6 months after its publication were the full deployment of the new provisions of the Six Pack, the adoption of the Two Pack regulations and the regulation on the Single Supervisory Mechanism for euro area banks. The Two Pack therefore marks the fulfilment of one of the immediate Blueprint policy priorities. On 20 March 2013, the Commission issued two communications: one on

([48]) http://ec.europa.eu/commission_2010-2014/president/news/archives/2012/11/pdf/blueprint_en.pdf

the ex-ante coordination of economic reforms ([49]) and one on the convergence and competitiveness instrument, ([50]) setting out the next steps in the setting up of these policies.

While these new policies will contribute to the completion of EMU, they fall outside the scope of budgetary policy. In the budgetary sphere, the Two Pack has completed the SGP insofar as the possibilities of reform that are afforded by the TFEU. The possibilities of change under Articles 121 and 126 TFEU, which underpin the original SGP, have provided most if not all the significant change that they can deliver.

Putting this new structure into full operation will be the first challenge for the coming months and years. While the Six Pack has been in operation since December 2011, some of the changes it introduced are still to enter the surveillance procedure for all countries. For example, 2013 is the first year when the ex post assessments under the preventive arm were based on SCPs submitted after the entry into force of the Six Pack. Similarly, the debt requirement – initially in its transitional form – is only now applying to countries as they exit their pre-existing EDPs. The entry into force of the Two Pack is another significant milestone which will affect the surveillance procedure, with the new monitoring provisions entering into force in the autumn with the submission and assessment of the draft budgetary plans. Ensuring the smooth and effective implementation of the new provisions will be crucial to the success of the surveillance structure in providing the right incentives for stronger public finances as the European economies emerge from the crisis.

Beyond the implementation of the most recent changes, it is clear from the Commission's Blueprint that further reform remains on the agenda. Substantive Treaty change could enable more ambitious changes, including steps towards fiscal union which could mark the agenda for the coming years.

The guiding principle would be that any steps to further mutualisation of risk must go hand-in – hand with greater fiscal discipline and integratioh. The required deeper integration of financial regulation, fiscal and economic policy and corresponding instruments must be accompanied by commensurate political integration, ensuring democratic legitimacy and accountability. On 2 July 2013 an Expert Group was established to deepen the analysis on the possible merits, risks, requirements and obstacles of partial substitution of national issuance of debt through joint issuance in the form of a redemption fund and eurobills. As stated in the Blueprint, both of these possibilities would require amending the Treaties. The groups will present a report to the Commission by March 2014.

([49]) http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:DKEY=724506:EN:NOT
([50]) http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:DKEY=724520:en:NOT

3. MEDIUM TERM OBJECTIVE (MTO)

The preventive arm of the Stability and Growth Pact (SGP) aims to ensure that Member States achieve and maintain budgetary positions that lead to strong public finances over the economic cycle. By doing so, countries will use good times to strengthen their underlying sustainability and achieve the fiscal space necessary to be enable them allow the automatic stabilisers to work and support their economies through more difficult times. The economic crisis has highlighted the need to use favourable economic conditions to avoid that consolidations be necessary in times of recession, and the weakness of the pre-2011 SGP in achieving this. As countries exit their current EDPs, the role played by the preventive arm will therefore be of paramount policy importance.

The cornerstone of the preventive arm is the country-specific medium-term objective (MTO), which corresponds to the structural budgetary position that ensures that Member States have (i) a safety margin against breaching the Treaty reference value for the deficit at times of negative output gaps; (ii) sustainable public finances; and (iii) room for budgetary manoeuvre in bad economic periods. The SGP prescribes that Member States should achieve their MTO and maintain it over the cycle – it therefore acts as an anchor for medium-term policy setting. When a significant deviation from the MTO, or from the convergence path towards it, is observed, the Member State has to remedy and to correct such a deviation.

The same concept of the MTO also plays a central role in the TSCG. While not being part of EU law as such, the inter-governmental TSGC is consistent with EU law and the fiscal compact (Title III of the TSGC) incorporates the core concepts and provisions of the SGP and reinforces it for the countries that are bound by it. The TSCG sets a more stringent lower bounds for the country specific MTOs, whose attainment must be incorporated in national legal systems and reinforced through automatic corrective mechanisms. The TSCG required the Commission to set the adjustment paths towards the MTOs. The Commission provided deadlines to meet the MTO in its proposed Country Specific Recommendations (see Annex of Part I)

This Chapter aims at providing an overall view of the concepts used in setting the MTO along with their practical applications and the related procedural aspects. The Chapter first defines the concept of MTO and explains the logic and the steps behind its computation (II.2.1). It then turns to the procedural aspect, by explaining how the MTO is used in the preventive arm of the Stability and Growth Pact. Section II.2.2 describes how, once the country specific MTOs are set, the Commission conducts its assessment of the Member States' convergence towards their MTOs, based on both the structural balance and the expenditure benchmark. Finally, the Chapter illustrates the interrelations between the EU surveillance framework and institutions.

3.1. THE DEFINITION AND COMPUTATION OF THE MEDIUM-TERM OBJECTIVE

The MTOs are defined in structural terms, meaning that they represent a cyclically-adjusted general government budget position, net of one-off and other temporary measures (see Box II.3.1 on the calculation of the structural balance). Removing one-off and temporary measures from the cyclically adjusted balance is important in order to better assess the underlying budgetary positions, as the improvement in the fiscal balances stemming from one-off or temporary measure does not necessarily imply an improvement in the inter-temporal budgetary position of a country.

According to Regulation 1466/97 ([51]) the MTOs should be set so as to:

(i) Provide a safety margin with respect to the 3% of GDP deficit limit. For each Member State, this safety margin is estimated in the form of the minimum benchmark, which takes into account past output volatility and budgetary sensitivity to output fluctuations.

(ii) Ensure sustainability or rapid progress towards sustainability. This is assessed against the

([51]) OJ L 209, 2.8.1997, page 1, available at http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CONSLEG:1997R1466:20111213:EN:PDF

Box II.3.1: Cyclically adjusted budget balance used in the EU fiscal framework

The structural balance used in EU fiscal surveillance is computed by subtracting one-off and other temporary measures from the cyclically adjusted budget balance (CAB). The CAB corresponds to the deficit/surplus ratio that would prevail if the economy was running at potential (see Mourre et al., 2013). It is computed as the difference between the actual balance (as a percentage of GDP) and an estimated cyclical component.

$$CAB_t = \frac{(R_t - G_t)}{Y_t} - \varepsilon \cdot OG_t$$

where *R* and *G* stand for the government revenue and expenditure (nominal) respectively and *Y* for nominal GDP. The cyclical component of the budget is the product of the output gap (*OG*) and the semi-elasticity (ε) of the balance-to-GDP ratio with respect to the output gap. The semi-elasticity ε corresponds to the *cyclical adjustment parameter of the budget balance* and is assumed to be constant. It is computed as the difference between the semi-elasticity of revenue and the semi-elasticity of expenditure, which can themselves be easily derived from the (constant) revenue and expenditure elasticity with respect to the output gap. It could be expressed mathematically as:

$$\varepsilon = \frac{d(\frac{B}{Y})}{\frac{dY}{Y}} = \frac{d(\frac{R}{Y})}{\frac{dY}{Y}} - \frac{d(\frac{G}{Y})}{\frac{dY}{Y}} = \left(\frac{\frac{dR}{R}}{\frac{dY}{Y}} - 1\right)\frac{R}{Y} - \left(\frac{\frac{dG}{G}}{\frac{dY}{Y}} - 1\right)\frac{G}{Y} = (\eta_R - 1)\frac{R}{Y} - (\eta_G - 1)\frac{G}{Y}$$

where η_R and η_G denote respectively the revenue and expenditure elasticity with respect to the output gap. The CAB methodology assumes that revenues are fully cyclical, while on the expenditure side only unemployment related benefits are cyclically driven.

On the revenue side, the elasticities of individual revenue items to the output gap are estimated by the OECD (personal income taxes, corporate income taxes, indirect taxes, social security contributions, non-tax revenue). They correspond to the percentage change in a particular type of revenue associated with a percentage change in output. They are then aggregated using the share of each in total revenue as weights, so as to derive the elasticity of total revenue level (in monetary amount) with respect to output. Subtracting one from the value of the revenue elasticity gives the value of the elasticity of the revenue-to-GDP ratio with respect to output. Multiplying the latter with the size of total revenue as a share of GDP yields the value of the semi-elasticity of revenue.

On the expenditure side, the OECD elasticity of unemployment-related expenditure is used and weighted with the share of unemployment-related expenditure in total expenditure (based on Eurostat data). Subtracting one from the value of the revenue elasticity gives the value of the elasticity of the expenditure-to-GDP ratio with respect to output. Multiplying the latter with the size of total public spending as a share of GDP yields the value of the semi-elasticity of expenditure. The weights (tax and spending structure, revenue/expenditure-to-GDP ratio) are computed by the European Commission as an average over the period 2002-11 and are to be updated every 6 years to reflect changes in the government receipts and spending.

The overall budgetary semi-elasticity ε, can be rewritten as:

$$\varepsilon = \varepsilon_R - \varepsilon_G = (\eta_R - 1)\frac{R}{Y} - (\eta_G - 1)\frac{G}{Y} = (\sum_{i=1}^{5} \eta_{Ri}\frac{Ri}{R} - 1)\frac{R}{Y} - (\eta_{G_U}\frac{G_U}{G} - 1)\frac{G}{Y}$$

Therefore, the necessary components to perform the calculation are the individual elasticities of five revenue categories and of unemployment expenditure with respect to the output gap (η_{Ri} and η_{G_U}) and the fixed weighting parameters (the weights of the individual revenue categories in total revenue R_i/R, the weights of the unemployment-related expenditure to total expenditure G_U/G, the total revenue of general government as a percentage of GDP R/Y as well as the total expenditure of general government as a percentage of GDP G/Y). The individual elasticities are still based on OECD estimates, for most EU countries covering the period 1985-2005. They are currently being updated to reflect changes in the revenue structure.

The budgetary semi-elasticity is averaging out to 0.53 for the EU and ranges from 0.30 to 0.61 across Member States, suggesting significant differences in the cyclicality of the budget balance. The semi-elasticity for revenue is close to zero, ranging from -0.13 to 0.04, since revenue is almost as cyclical as GDP, except for non-tax revenue. Therefore, the revenue-to-GDP ratio moves only slowly with the business cycle, especially in Member States where non-tax revenue is relatively low. In contrast, the semi-elasticity for expenditure is ranging from -0.38 to -0.67, which accounts for the larger part of the disparity in the

(Continued on the next page)

Box (continued)

budgetary semi-elasticity across Member States. Its value broadly corresponds to the share of total expenditure in GDP. This mirrors the fact that the elasticity of the expenditure-to-GDP ratio to the output gap is close to minus one. Indeed, the cyclical effect of the denominator (GDP) largely dominates the low cyclicality of expenditure in level, given the small share of unemployment-related expenditure in total expenditure

need to ensure the convergence of debt ratios towards prudent levels, with due consideration to the economic and budgetary impact of ageing populations.

(iii) In compliance with (*i*) and (*ii*), allow room for budgetary manoeuvre, in particular taking into account the needs for public investment.

The Regulation further specifies that euro area and ERM2 Member States must have an MTO that corresponds to at least -1% of GDP. Contracting Parties to the TSCG have further committed themselves to MTOs of at least -0.5% of GDP, unless their debt ratio is significantly below 60% of GDP and the risks in terms of long-term sustainability of public finances are low. In those cases, the lower limit for the structural balance is set at -1% of GDP.

The MTOs presented by the Member States in their SCPs need to comply with the requirements (*i*, *ii* and *iii*) set out above. Nevertheless, the Member States are free to set more ambitious MTOs to be pursued, when presenting their Stability and Convergence Programmes, if they feel circumstances call for it.

The methodology used to compute country specific lower bounds ensures that the requirements of the Pact are complied with in such a way to take into account both the impact of the cycle on the specific country (and the dynamics of the automatic stabilisers), and the future risks to the country's sustainability (based on debt levels and challenges posed by ageing), on top of the compliance with the -1% lower bound for euro area and ERM2 Member States.

(i) The safety margin with respect to the 3% of GDP deficit limit: the minimum benchmark. The impact of the cycle on a Member States budget depends on how large are the cyclical fluctuations typically faced by the country and on how much the budget reacts to the cycle. Thus for each Member State, the minimum value of the MTO that ensures this safety margin ("minimum benchmark") is assessed by taking into account past output volatility and budgetary sensitivity to output fluctuations. A country with greater past output volatility and a larger budgetary sensitivity will need a more demanding MTO in order to ensure that the 3% limit is not breached during a normal economic cycle. Hence automatic stabilisers can operate without risking breaching the 3% limit.

In other words, the minimum benchmark (MTO^{MB}) adjusts the 3% of GDP deficit threshold for the effect of cyclical fluctuation, based on country-specific features.

Thus, the first step is to compute what constitutes a normal cyclical fluctuation of GDP for each Member State. This is called the representative output gap (*ROG*). The calculation of the minimum benchmark is based on the computed ROG multiplied by the semi-elasticity (ε) of the budget to the output gap:

$$MTO^{MB} = -3 - \varepsilon \times ROG$$

The ROG reflects the fact that individual countries typically experience different magnitudes of economic cycles, which impact on the cyclical fluctuation of their public finances. The representative output gap is calculated in the following way, containing a country-specific and a horizontal component:

$$ROG = \frac{N_i}{(N_t + N_i)} P_{5\%}(country) + \frac{N_t}{(N_t + N_i)} P_{5\%}(EU\,27)$$

where $P_{5\%}$ (country) represents the 5% percentile of the distribution of the country-specific output gap series and $P_{5\%}$ (EU 27) the 5% percentile of output gap data for all countries. N_i and N_t stand for

Table II.3.1: **2012 update of the Minimum Benchmarks and semi-elasticities**

	Updated Minimum Benchmark	Semi-elasticities
BE	-1.5	0.55
BG	-1.8	0.32
CZ	-1.6	0.39
DK	-0.8	0.61
DE	-1.5	0.57
EE	-1.8	0.30
IE	-0.9	0.51
EL	-1.8	0.47
ES	-1.4	0.48
FR	-1.5	0.55
IT	-1.5	0.55
CY	-1.7	0.43
LV	-1.8	0.31
LT	-1.8	0.31
LU	-1.6	0.47
HU	-1.4	0.47
MT	-1.8	0.40
NL	-1.4	0.57
AT	-1.8	0.49
PL	-1.8	0.41
PT	-1.8	0.46
RO	-1.7	0.33
SI	-1.7	0.46
SK	-1.9	0.33
FI	-0.7	0.53
SE	-1.0	0.59
UK	-1.4	0.48

Source: Commission services

the number of country-specific and common annual observations available, respectively, over a period of 25 years. N_t is set at 25. The relative weights of the common and country-specific component are different across countries, due to limited availability of data before 1995 for the recently acceded Member States, which makes necessary the use of EU27 data to have long enough series (i.e. 25 years long). However, the weights will automatically converge to the same value when the length of the time series increases over time reaching and exceeding 25 years.

The percentiles are computed after outlier values are deleted. Outliers are defined as observations of the distribution for the entire sample – including all Member States – below, and above, respectively, the 2.5% and the 97.5% percentiles. Exceptionally, the country-specific series have also been trimmed of their most negative values between 2009 and 2010, as the last financial and economic crisis cannot be considered as a normal cyclical fluctuation. Thus including the high values of the output gap recorded in these years in the calculation of the ROG would bias the result, which would not reflect normal cyclical conditions only. The 2012 updated values of the minimum benchmark are set out in Table II.3.1.

ii) Sustainability or rapid progress towards sustainability. The second property of the MTO refers to medium and long-term considerations reflecting future risks to sustainability. For each Member State, a minimum value for the MTO that ensures sustainability or rapid progress to sustainability taking into account implicit liabilities and debt is computed. This is the minimum value (MTO^{ILD}) that ensures the convergence of debt ratios towards prudent levels, with due consideration to the economic and budgetary impact of ageing populations, and is computed as the sum of 3 components:

$$MTO^{ILD} = \underbrace{Balance_{debt-stabilizing\,(60\%ofGDP)}}_{(1)} + \underbrace{\alpha * AgeingCosts}_{(2)} + \underbrace{Effort_{debt-reduction}}_{(3)}$$

Component (1) represents the budgetary balance that would stabilise the debt ratio at 60% of GDP. It corresponds to the product of 60% with the forecast average nominal growth over the next 50 years as calculated by the Ageing Working Group. ([52])

Component (2) represents the budgetary adjustment that would cover a fraction of the present value of the projected increase in age-related expenditure, where α =33%.

Component (3) represents a supplementary debt-reduction effort, specific to countries with general government gross debt above 60% of GDP. It follows a continuous linear function, which ensures a supplementary effort of 0.2% of GDP when debt exceeds 60%, while requiring a supplementary effort of 1.4% of GDP when the debt ratio attains 110%.

(iii) Compliance with the -1% lower bound for euro area and ERM2 Member States. Euro area and ERM2 Member States have the additional bound captured by the $MTO^{Euro/ERM2}$ component, where $MTO^{Euro/ERM2}$ = -1% of GDP.

Once the three bounds on the MTO are computed (so as to comply with the requirements *i*, *ii* and *iii*), they are then combined to yield a country-specific lower bound for the MTO, which corresponds to the lowest MTO that fulfils all the criteria defined above:

([52]) http://ec.europa.eu/economy_finance/publications/european_economy/2012/pdf/ee-2012-2_en.pdf

$$MTO = \max(MTO^{ILD}, MTO^{MB}, MTO^{Euro/ERM2})$$

The resulting value of the MTO (up to one decimal pace) is then rounded to the most favourable ¼ of a percentage point. Exception clauses can be granted so that the MTO does not lead to a primary balance significantly above 5.5% of GDP for a sustained period of time. Regulation 1466/97 requires that the MTOs be revised every three years, thereby taking into account the latest economic and budgetary costs of ageing, as published in the Commission's triennial Ageing Report. In addition, countries undertaking structural reforms with a major impact on the sustainability of the public finances can also have their minimum MTOs revised on a case-by-case basis, in agreement with the Commission. In particular, the introduction of major pension reforms having an impact on long term fiscal sustainability could result in a minimum MTO revision. ([53])

3.2. THE ASSESSMENT OF THE CONVERGENCE PATH TOWARDS MTO

The preventive arm of the SGP provides guidance to Member States to reach and remain at their MTOs. As described in the legislation and in the Code of Conduct, the Commission conducts an assessment of Member States' budgetary plans over a three-year horizon, on the basis of the Stability and Convergence Programmes submitted to the Commission each year in April, against the requirements of the preventive arm of the SGP.

Member States that have not yet reached their MTO should pursue an appropriate annual improvement of their cyclically-adjusted budget balance, net of one-off and other temporary measures, in order to meet their MTO, with 0.5 % of GDP as a benchmark. For Member States faced with a debt level exceeding 60 % of GDP or with pronounced risks of overall debt sustainability, the Council and the Commission examines whether the annual improvement of the cyclically-adjusted budget balance, net of one-off and other temporary measures is higher than 0.5 % of GDP. Likewise, the Council and the Commission take into account whether a higher adjustment effort is made in good economic times, whereas the effort might be more limited in bad economic times. Both an ex ante (for the current year and the following year) and an ex post (previous year) assessment are conducted.

The aim of the ex ante and of the ex post assessments is different. The aim of the ex ante assessment is to alert Member States of possible deviations from the requirements and so to provide guidance for further adjustments to be implemented either for the current year through additional budgetary measures or in the following year's budget.

The aim of the ex post assessment is to determine cases of "significant deviations" for the previous year. If the Commission finds evidence of significant deviation from the MTO or the adjustment path towards it, the Commission will, in order to prevent the occurrence of an excessive deficit, address a warning to the Member State concerned. The latter is followed by a Council recommendation within one month on how to return to the adjustment path towards the MTO. In case a Member State does not act upon the recommendation, the latter recommendation can be followed by a Council decision on lack of effective action and, possibly, a revised recommendation on policy measures. ([54]) In the case of persistent non-compliance by a euro area Member State, the Council on the recommendation of the Commission will impose a sanction equal to an interest-bearing deposit of 0.2% of GDP. ([55])

Since the adoption of the Six Pack reforms in 2011, compliance with the requirement to be at the MTO or to converge towards it is assessed by the Commission based on an overall assessment of compliance with two complementary indicators: the change in the structural balance and the expenditure benchmark. The expenditure benchmark aims to prevent expenditure overruns by avoiding that public expenditure, adjusted by factors outside the direct control of the government in the short term, grows at rate above the potential

([53]) In the particular case of systemic pension reforms, Member States would have two alternatives: their minimum MTO could either be relaxed (provided the minimum value is respected), or kept unchanged. The latter would imply that a larger share of the ageing cost would be pre-funded through the reform. The choice between these alternatives would remain with Member States and therefore guarantee their ownership of the MTO revision process.

([54]) See Regulation 1175/2011, articles 6 and 9.
([55]) See Regulation 1173/2011, article 4.

growth rate of the economy in the medium run, unless such expenditure deviations are matched by discretionary revenue measures of the same amount. As those two indicators are built on different variables, they could provide different, although complementary, indications on governments' budgetary positions. ([56]) The conclusion of this assessment is further framed by the Code of Conduct, which specifies that, for a Member State that has not reached its MTO, the deviation will be considered significant if both indicators are in deviation and reach the threshold for significance or the deviation for one of the indicators reaches the threshold for significance and the overall assessment also shows limited compliance with respect to the other condition.

In this way, when both indicators give the same message (i.e. they both show compliance with the required adjustment or both indicate a significant deviation from it), their concurring message provides the straightforward conclusion of the assessment.

The overall assessment can then conclude on: compliance, 'risk of a significant deviation' or occurrence of a significant deviation. To conclude on the occurrence of a significant deviation, the Code of Conduct requires that at least one indicator points to a significant deviation from the required adjustment. These different cases are summarised in Table II.3.2.

Table II.3.2: **The scenarios of the overall assessment under the preventive arm of the SGP**

	Change in the structural balance		
Deviation from the expenditure benchmark	**Adjustment delivered**	**Deviation**	**Breach of the threshold of significance**
Benchmark respected	Compliance	Need an overall assessment (cannot lead to S.D.)	Need an overall assessment (can lead to S.D.)
Deviation	Need an overall assessment (cannot lead to S.D.)	Need an overall assessment (cannot lead to S.D.)	Need an overall assessment (can lead to S.D.)
Breach of the threshold of significance	Need an overall assessment (can lead to S.D.)	Need an overall assessment (can lead to S.D.)	Significant deviation (S.D.)

Source: Commission services

For a deviation to be considered "significant", thresholds have been set for the size of the deviation from the required adjustment. Those thresholds apply equally to deviations from the adjustment path set in structural terms and from the expenditure benchmark in terms of GDP:

– over one year, the deviation is above 0.5pp of GDP from the required adjustment.

– over two years (on average), the deviation is above 0.25pp of GDP from the required adjustment.

As those thresholds are applicable over two different time periods, the assessment should be conducted both (i) over the year under consideration and (ii) taking into account the preceding year to check the average deviation over two years. This compliance should be ensured over both time periods.

3.3. THE CALENDAR OF CONVERGENCE TOWARDS THE MTO

Title III of the TSCG, the fiscal compact, commits contracting parties to enshrining key elements of the SGP into national law. The requirements of the fiscal compact are part of a broader process initiated with the 2011 reform of the SGP (the Six Pack) to increase national ownership of the Union's fiscal surveillance framework. Accordingly, the fiscal compact requires signatory Member States to introduce a balanced budget rule with the country-specific medium-term objective (MTO) as the anchor into national law. Contracting parties are hence required to run balanced or in-surplus budgets with a lower limit of a structural deficit of 0.5% GDP, and to respect and ensure convergence towards the country-specific MTO. The balanced budget rules are to be implemented in national law through provisions of "*binding force and permanent character, preferably constitutional*".

([56]) The main differences between the changes in the structural balance and the deviations from the expenditure benchmark are related to the following elements: a) the cyclical adjustment methodology in the structural balance, which in particular leads to revenue windfalls/shortfalls on the revenue side; b) the presence of one-offs and other temporary measures; c) the volatility of potential growth rates; d) the different cyclical adjustment of unemployment expenditure; e) the smoothing of public investment and; f) interest payments and expenditure programmes matched with EU funds that are removed to calculate the expenditure benchmark. A deep analysis of the factors explaining the differences between the change in the structural balance and an expenditure benchmark-based indicator is made in Annex I.

The contracting parties which are not yet at their MTO are supposed to converge rapidly towards the MTO, according to a time-frame for such convergence proposed by the Commission. ([57]) The main innovation of the fiscal compact with respect to the SGP is that it requires the contracting parties to introduce a correction mechanism to be triggered automatically in the event of significant observed deviations from the MTO or the adjustment path towards it in their national law. The Commission issued a Communication on common principles on national fiscal correction mechanisms as requested by the TSCG in June 2012. ([58]) Within the Community framework, a significant deviation from the MTO or the adjustment path towards it will also trigger actions by the Commission and the Council. ([59])

As stated by Art. 3(1b) of the TSCG, "[…] *The Contracting Parties shall ensure rapid convergence towards their respective MTO. The time-frame for such convergence will be proposed by the European Commission taking into consideration country-specific sustainability risks*.[…]". The country-specific time-frame for convergence towards the MTO proposed by the Commission has been designed to respect the SGP rules and, in order to favour national ownership of the adjustment path towards the MTO, is based on the medium-term budgetary plans presented by the contracting parties in the 2013 update of their SCPs. The principles against which the Commission has assessed the calendars of convergence are the following:

- The contracting parties in EDP should follow a structural adjustment path which will guarantee compliance with the fiscal effort as recommended by the Council in the EDP recommendations, until the excessive deficit is corrected.

- For the contracting parties that have corrected their excessive deficit, but have not yet reached their MTO, the required fiscal effort is, centred on an annual effort of 0.5% of potential GDP ([60]) with some differentiation according to the cyclical position as well as the level of public debt and sustainability risk, in line with the SGP. Specifically, this benchmark fiscal effort is modulated according to the following criteria:

(1) Country-specific sustainability risks: the Commission examines whether the annual improvement of the structural effort is higher than 0.5% of GDP for the contracting parties faced with a debt level exceeding 60% of GDP or with pronounced medium-term risks of overall debt sustainability ([61]), as assessed by the Commission in its fiscal sustainability report. ([62])

(2) Economic situation: the assessment takes into account "whether a higher adjustment effort is made in economic good times, whereas the effort might be more limited in economic bad times."

(3) The non euro area contracting parties that are not participating in ERM-II with a debt-to-GDP ratio below 60% and with low risk of debt sustainability are not bound by the benchmark fiscal effort mentioned in (2).

(4) Following the abrogation of on-going EDPs, the contracting parties are expected to undertake a structural adjustment ensuring the respect of the debt reduction benchmark, according to the specific transition provisions in the SGP, irrespective of their position vis-à-vis their MTO.

Based on these principles and on plans submitted by the contracting parties, the country-specific deadline for convergence towards the MTO is recommended by the Council in the Country Specific Recommendation issued at the end of the 2013 European Semester (see Annex 1 in Part I).

The Commission will pursue its monitoring based on SGP rules and will therefore act as a fail-safe mechanism guaranteeing that the benchmark pace of adjustment - 0.5% of GDP annually - would be effectively delivered, ensuring continuous fiscal consolidation towards the MTO.

([57]) Title III, article 3, paragraph 1(b).
([58]) http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2012:0342:FIN:EN:PDF
([59]) See Regulation 1466/97, article 6(2) and 10(2).
([60]) Regulation 1466/97, articles 5 and 9.
([61]) The indicator retained for assessing overall debt sustainability is a medium-term 'debt compliance risk' indicator which shows the budgetary adjustment effort required, in terms of a steady improvement in the structural primary balance to be introduced until 2020, and then sustained for a decade, to bring debt ratios [61] Title III, article 3, paragraph 1(b).
([62])http://ec.europa.eu/economy_finance/publications/european_economy/2012/pdf/ee-2012-8_en.pdf

Part III

Measuring the fiscal effort

SUMMARY

Traditionally fiscal stance is measured using a so-called "top-down approach", by computing a structural or cyclically-adjusted balance ("CAB") which consists of subtracting the impact of the business cycle on the budget from the headline deficit ratio, where the impact of the cycle is found by multiplying a measure of the output gap times a standard, average elasticity. In the past this is also often been used as a measure of fiscal effort.

Despite its advantages – the relevance of its interpretation as the government deficit that prevails when GDP is at potential, the clarity of the benchmark used in the calculation and its transparency and replicability – much recent literature favours for measuring the fiscal effort the use of a bottom-up or narrative approach, based on the sum of the budgetary impact of the measures implemented by governments.

These aim at overcome the shortcomings of the top-down approach, mainly that changes in the CAB can be driven by economic developments and not necessarily by governments' actions. This is when estimating fiscal multipliers given that estimates using the CAB as a proxy for fiscal effort are biased by the endogenous relation between CAB and GDP.

The best-known factor of distortion is the presence of windfalls/shortfalls in revenues or unemployment expenditure, which are correlated with the evolution of GDP but not taken into account in the cyclical correction because of the decoupling between the evolution of the tax base and GDP. These factors can result in distorting the short-term revenue-to-GDP elasticities. Thus a loosening or strengthening of the fiscal stance as signalled by the CAB does not necessarily reflect any discretionary measures and thus not any fiscal effort.

The bottom-up approach though has its own weaknesses, which are related to the difficulty in defining the benchmark of "unchanged policy" against which assess the impact of the government actions. This benchmark is particularly difficult to measure in the case of expenditures, and the computational choices made by the national authorities are at the moment neither comparable nor transparent.

Taking into account the limitations inherent in the top-down and bottom-up approaches, Chapter III.1 proposes a mixed indicator for analytical purposes, named the discretionary fiscal effort, which consists of a "bottom-up" approach on the revenue side and an essentially top-down approach on the expenditure side.

A comparison between the Discretionary Fiscal Effort (DFE) and the CAB for the period 2004-2013 shows that the difference between the two indicators has a pro-cyclical behaviour: DFE gives a less favourable view of the orientation of fiscal policy in booms times (when revenue windfalls are high) with an opposite effect in recessions, when large revenue shortfalls show up as a consequence of the fluctuations in tax elasticities relative to GDP. This is confirmed by the focus on 2012 and 2013.

Given the role played by tax elasticities in the difference between the DFE and the SPB (Structural Primary Balance) Chapter III.2 further presents an analysis of tax elasticities and their relations with discretionary tax measures on in the EU over the period 2001-12. The analysis shows that three tax policy 'regimes' have been observed. The first before the crisis when discretionary easing of the tax burden was prevailing. This was followed by a period of countercyclical tax cuts at the onset of the crisis; and finally by the recent period of fiscal consolidation with prevailing tax hikes.

These broadly correspond to the observed differences between the primary CAB or the primary structural balance and the DFE being often positive in the first period, close to zero in the second period and very negative in the third one, thus suggesting that cyclical elasticities are playing a large role.

The analysis further shows that, while tax elasticities average at around one in the EU as a whole for the period 2001-12, indicating an evolution of tax revenues broadly in line with nominal output growth over the medium to long run, they display significant departures *in the short run* from the long-term unitary value, irrespective of whether or not discretionary measures are netted off.

This indicates that discretionary measures per se do not explain the bulk of the short-term fluctuation in gross elasticities, but that they are rather explained by other types of revenue windfalls/shortfalls thereby stressing the relevance of complementing the CAB with the DFE.

1. INTRODUCTION

In times of consolidation the way consolidation itself was traditionally measured has been challenged in the economic literature. The traditional view presented in the fiscal policy literature proposes the use of the changes of an outcome variable like the Cyclically-Adjusted Balance or Cyclically- Adjusted Primary Budget Balance (CAB, or CAPB) to GDP ratio. ([63]) Consolidation periods are then defined as periods in which the CAB-to-GDP ratio has improved by a pre-defined amount in a given number of years. This methodology comprise both academic authors (among many Alesina and Perotti,1995; Ardagna, 2004) and research pieces of work by institutions (among many Kumar, 2007; and Turrini, 2009) both when analysing consolidation and when discussing other aspects of fiscal policy (see for example IMF, 2004).

Cyclically-adjusted balances are calculated following a so-called "top-down approach". It consists of removing from headline balances the impact of the business cycle, based on standard methodologies. ([64]) When computing structural primary balances, interest payments are also removed.

Such definition of consolidation has various advantages. First, the CAB-to-GDP ratio is easily interpreted as the balance that would prevail if GDP was at potential. This information is relevant per se because it is outcome-oriented and thus it is directly relevant for sustainability analysis or for surveillance purposes, where after all the final outcome is what matters. This is why it is a core indicator of fiscal surveillance. Achieving structurally broadly balanced positions is a key commitment of countries under the preventive arm of the SGP.

Moreover, the change in the CAB measures the fiscal stance, i.e. the change in the fiscal balance that is not driven by the automatic reaction of the balance to the business cycle. This provides a gauge of the non-automatic impulse from the fiscal balance on the economy. An increase in the cyclically adjusted deficit provides an expansive impulse on the economy.

Finally, the CAB is routinely calculated by many institutions, is easily available and replicable, which allows to know (and overcome) its weaknesses.

Conceptually, however, the change in CAB-to-GDP ratio has a number of shortcomings for assessing the fiscal effort, which is the change in the balance (compared to the non-action scenario) due to clearly identified government actions. ([65]) Indeed, regarding the fiscal effort, this measure is not necessarily an accurate measure of the size of the consolidation actions pursued by governments. This has the consequence that following the tradition by Alesina and Perotti (1995) which uses the CAB-to-GDP ratio to define consolidation periods selects improvements in the CAB that are driven by economic developments and not necessarily driven by explicit action by governments. A clear distinction between the change in the CAB (the fiscal stance) and the sum of discretionary fiscal consolidation measures is also necessary when analysing the impact of fiscal policy on the economy, such as in the case of the estimate of multipliers, with estimates made using the fiscal effort being less subject to econometric bias. Moreover, the interpretation of the results needs to take account of the measure used to reflect the fiscal impulse.

In particular, on top of discretionary fiscal policy actions, changes in the CAB (and the level itself) can be driven by endogenous factors that are not fully corrected by the implemented cyclical adjustment. The best-known factor is the presence of windfall/shortfall in revenues or unemployment expenditures, loosely correlated with the evolution of GDP but not taken into account in the cyclical correction because of the decupling between the evolution of the tax base and GDP. Fluctuations in asset or housing markets, are known to generate non-permanent but long-lasting shifts in revenues that are not captured by the CAB (see among many Eschenbach and Schuknecht, 2002); but revenue windfalls and shortfalls are bound to rise with

([63]) Part of the literature defines periods of consolidation based on the changes in the debt-to-GDP ratio. For a review see among many European Commission (2010a), Part III.

([64]) The most widely methodology used is the one described in Girouard, André (2005). For the detailed calculations following the recent update of the methodology see Mourre et al. (2013).

([65]) These are on top of the technical shortcomings related to assessing the potential in real time.

changes in the composition of growth (see for example Lendvai et al., 2011) or tax bases for example VAT can be affected by the change in consumption patterns towards more or less luxury goods. Technically the presence of such revenue windfalls/shortfalls translate into actual tax elasticities relative to GDP departing from the standard ones used to calculate the cyclically-adjusted and structural balances. Bouthevillain et al. (2001) have proposed to improve on this point by cyclically adjusting major revenue and expenditure components individually.

The deviation of the output elasticities from those used in the CAB calculation – be it driven by a long-term correction like the revenues from the housing bubble or by a temporary change in consumption patterns or decoupling of the tax bases from GDP – will result in the CAB signalling a loosening of the fiscal stance, before any discretionary measures are taken into account. Accordingly, to improve the structural balance the government will have to put in place new measures large enough to more than offset underlying negative trend. ([66])

Another factor that detracts from the signalling value of the CAB-to-GDP ratio is the presence of one-off and temporary measures, which in some cases may have been implemented with the aim of presenting public finance developments in a better light. These factors can be quantitatively relevant, as shown in Guajardo et al. (2011) and indeed the EU surveillance has evolved in reaction to this risk by turning to the structural balance (i.e. the cyclically-adjusted balance minus the one offs and other temporary measures).

Other sources of difficulties in interpreting the change in the CAB-to-GDP ratio as a proxy of discretionary fiscal effort relate to the frequent and important revisions, in turn reflecting the difficulty of real time measurement of the output gap, with errors that often are correlated with cyclical developments.

The identified problems related to CABs have been taken into account in the assessment of effective action under the corrective arm of the SGP. In particular, the Commission corrects for the impact of revisions regarding the composition of economic growth – or of other windfalls/shortfalls on revenue – which reflect the differences between the expected revenue elasticity relative to GDP at the moment the recommendation is issued and the ex post observed elasticity.

In the literature the shortcomings of the change in the CAB-to-GDP ratio as a measure of fiscal effort have been raised in the context of the measurement of fiscal multipliers, where it introduces a specific bias as shown in IMF (2010) and Guajardo et al. (2011). These authors show that the results by Alesina and Perotti (1995) and by Alesina and Ardagna (1998) on the prevalence of non-Keynesian effects had been driven by the choice of the change in the CAB-to-GDP ratio to define consolidation episodes. Perotti (2011) shows that the estimates of the multipliers can be biased in presence of trend variables that are not properly taken into account in the CAB measurement.

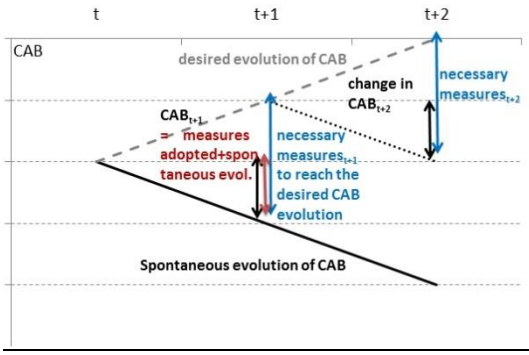
Based on this critique, de Vries et al. (2012) construct a dataset of consolidation episodes based on a different approach, named "narrative approach" or "bottom-up approach". Fiscal effort is measured as the sum of the value that government authorities have attributed to the measures in their budget at the time of adoption. Consolidation periods are then defined as periods in which the fiscal effort is above a given threshold.

The same issue had already been raised in the VAR literature aiming at estimating fiscal multipliers, where Romer and Romer (2007) and (2010) have revived the narrative approach starting from Rotemberg and Woodford (1992) and Ramey and Shapiro (1998). Accordingly, they aim at estimating fiscal multipliers by relying on fiscal shocks identified using the previously described definition of fiscal effort – i.e. by exogenous discretionary fiscal measures introduced by governments – instead of other more current methodologies for the identification of fiscal shocks. In this context, and advocating the use of narrative-type of fiscal shock also in the VAR approach, Favero and Giavazzi (2010) and Ramey (2011) argue that the narrative approach has better properties for the estimate of multipliers than traditional VAR-identified fiscal shocks.

([66]) This is illustrated in Graph III.1.1 below.

The narrative approach to measuring fiscal effort has also weaknesses. These are better understood by comparing the two approaches. The main conceptual difference between the traditional CAB-based approach and the narrative approach is that in the first case the fiscal effort is measured against the benchmark of balance at potential, while in the narrative approach the fiscal effort is measured against a benchmark of "unchanged policy", i.e. against what would have happened in absence of government intervention.

Graph III.1.1: **Change in Structural Balance versus bottom-up approach**



Source: Commission services

This is illustrated in Graph III.1.1. It considers a situation in which the economy is at potential for three years but the underlying trend in the CAB is negative. This could be because of trend changes in the composition of the tax base or because of revenue elasticities below their normal value. In this case the change in CAB will accurately signal a loosening in fiscal policy, despite no action having been taken in this sense by the government. If the government wants to shift the CAB to the desired consolidation path (dotted line), the fiscal effort it has to implement (the blue arrow) is thus larger than the corresponding observed change in the CAB. Indeed the value of the measures to be taken equals the difference between the spontaneous evolution of the CAB (i.e. the no-policy change situation) and the desired outcome. This confirms that the fiscal stance as measured by the change in the CAB can be of a different size than the underlying fiscal effort, as indicated in the narrative position.

However, the accurate assessment of the total effort crucially relies on the fact that benchmark revenues are easily identified, as a function of the evolution of tax basis. In the case of expenditures the benchmark is not so easily identified, because the evolution of many expenditures items depends on yearly legal decisions or because they have an evolution that does not depend on the economy.([67]) In the first group of expenditures it is unclear what should be the baseline defining the spontaneous evolution and thus it is not clear the meaning of policy actions of the narrative approach. In the second group of expenditures it is not clear that such a spontaneous evolution of the CAB, driven by the dynamic of entitlements in the same way the dynamic of revenues from housing drives it, is to be interpreted as a development out of the government control. ([68])

Consequently while on the revenue side an absence of measure can reasonably be equated with a neutral stance (a part for cyclical developments), this is generally not the case on the spending side. Specifically, an absence of new measures on the spending side need not imply a broadly constant expenditure ratio, even in the long-run. ([69]) Thus, one has to be careful when drawing conclusions from a bottom-up approach on the spending side, since the underlying baselines may present significant methodological differences across countries. In many such cases thus the spontaneous CAB evolution represented would rather better be interpreted as a discretionary fiscal loosening.

The second weakness in the narrative approach consists in the fact that the methodologies underlying the quantification of the measures are neither transparent nor replicable, differ across countries and in time within each country, are influenced by the cyclical position of the country

([67]) Examples of the first group are increases in government consumption or in public wages or education expenditures that depend on discretionary government choices. Examples of expenditures that have a trend mostly unrelated to the economy are pension or health entitlements.

([68]) In the case of pension expenditures it remains true that the measures taken by the government to reduce such entitlements are relevant for the estimate of the multipliers. But what is the correct quantitative estimate of this measure? The impact on the next budget year or the overall reduction in future expenditures?

([69]) In other words, the narrative approach does not consider as a relevant fiscal decision the choice of governments of non-acting. For example letting entitlements grow at an unsustainable rate is not considered as a fiscal policy decision and thus does not enter the picture of fiscal effort under the definition of the narrative approach.

Box III.1.1: **Computing the cyclically adjusted balance using short-term elasticities**

As an analytical exercise, we compute an estimation of the CAB using time-varying 'apparent' fiscal elasticities (corrected for the impact of DTM-Discretionary Tax Measures) instead of the constant elasticity. This approach is only illustrative, since it suffers from several limitations. In particular, two substantial caveats should be borne in mind. First, these empirical elasticities are those observed annually when examining the variation of revenue (net of DTM) and expenditure from a year to another. Analytically, these 'apparent' elasticities of revenue and expenditure to GDP, estimated over time, are only a proxy of the 'true' elasticities of the fiscal balance to the output gap. Second, by lack of data, the expenditure data are not corrected from discretionary spending measures, unlike for the revenue data. The apparent elasticities for expenditure are not purely endogenous but are influenced by discretionary fiscal policy. For further detail, please see Princen et al. 2013.

An illustrative CAB based on time-varying elasticities can be defined, for a given country, as:

$$\Delta CAB^{TVE} = \Delta\frac{(R_t - G_t)}{Y_t} - \Delta(\widehat{\varepsilon_t} \cdot OG_t) \quad (1)$$

with the 'apparent' semi-elasticity being determined as a function of the 'apparent' elasticities of revenue and expenditure: , where is the estimated empirical elasticity of total revenue (net of DTM) for a given country, and the estimated empirical elasticity of total spending. Following standard practice, the estimated empirical elasticities can be written as:

$$\widehat{\eta_{Rt}} = \sum_{i=1}^{5} \widehat{\eta_{Rit}} \frac{R_i}{R} = \sum_{i=1}^{5} \frac{R_{it} - DTM_{it} - R_{it-1}}{R_{it-1}} \cdot \frac{Y_{t-1}}{Y_t - Y_{t-1}} \cdot \frac{R_{it}}{R_t}$$

$$\widehat{\eta_{Gt}} = \eta_{G_U} \cdot \frac{G_{Ut-1}}{G_{t-1}} = \frac{G_{Ut} - G_{Ut-1}}{G_{t-1}} \cdot \frac{Y_{t-1}}{Y_t - Y_{t-1}}$$

where is the individual revenue for five revenue categories (personal income taxes, corporate income taxes, indirect taxes, social security contributions and non-tax revenues) , the unemployment-related expenditure and the elasticity of unemployment expenditure with respect to the output gap. The difference between the change in CAB based on time-varying elasticities (ΔCABTVE) and the change in CAB based on long-term elasticities can be expressed as:

$$\Delta CAB^{TVE} - \Delta CAB = (\varepsilon - \widehat{\varepsilon_t}) \cdot \Delta OG_t - \Delta\widehat{\varepsilon_t} \cdot OG \quad (2)$$

The term $(\varepsilon - \widehat{\varepsilon_t}) \cdot \Delta OG_t$ corresponds to the revenue shortfall/windfall effect. This effect is the most meaningful economically: this is the revenue gap/excess with respect to the long run value of the cyclical elasticity. The term $-\Delta\widehat{\varepsilon_t} \cdot OG$ corresponds to the elasticity fluctuation effect. The latter is difficult to interpret, since it captures the short-term volatility of the cyclical elasticity, which turns out to be sizeable empirically. The elasticity fluctuation effect could also be very large because it depends on the level of the output gap, not on its change. This could create some "noise", making the interpretation of the indicator delicate.

When considering long-term averages, the change in the illustrative CAB based on time-varying elasticities and the change in the standard CAB compare reasonably well (see Table III.0.1). Focussing on the 10-year average (2003-12), the gap between the two CAB measures is close to zero at the EU/euro area level and for most EU countries. This reflects the fact that the concepts are fairly consistent and, more importantly, that the short-term elasticities average out to a value fairly close to the constant long-term value computed by the OECD. The difference for some countries is explained by the elasticity fluctuation effect, which has no reason to average out to 0.

(Continued on the next page)

Box (continued)

Table III.0.1 Change in CAB based on time-varying elasticities

	Change in CAB based on time-varying semi-elasticities											Difference between change in CAB based on time-varying elasticities and change in standard CAB										
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	10Y av (03-12)	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	10Y av (03-12)
BE	0.2	-0.5	-2.4	2.5	-1.0	-0.9	-2.4	1.4	-0.3	2.3	-0.1	-0.3	0.4	-0.1	0.1	0.0	-0.3	0.0	0.3	0.1	0.9	0.1
BG	1.0	1.7	0.0	0.5	-3.3	2.7	5.4	-9.2	1.3	0.5	0.1	0.2	-0.3	0.8	-0.2	**-2.3**	**2.5**	**8.6**	**-10.5**	0.7	0.0	0.0
CZ	-0.3	2.8	-1.5	-0.4	0.3	1.0	-2.7	0.8	1.3	2.1	0.3	0.0	-0.6	0.0	0.0	-0.7	**2.2**	**-1.9**	0.1	-0.1	**1.4**	0.1
DK	0.2	1.1	1.8	0.3	-0.3	-0.4	-3.4	0.5	0.5	-2.2	-0.2	0.0	-0.2	-0.5	**1.4**	0.1	0.0	**-1.4**	0.8	0.0	0.1	0.0
DE	-0.9	1.7	0.3	1.0	1.1	-1.2	-0.5	-1.6	2.9	1.0	0.4	**-1.5**	**1.3**	-0.4	0.6	0.3	-0.9	-0.8	**1.1**	0.4	0.0	0.0
EE	1.4	0.0	-1.1	-0.3	-1.3	-6.0	9.6	-3.2	2.8	-2.5	-0.1	0.3	-0.1	-0.4	0.0	-0.4	**-2.8**	**4.5**	**-4.4**	**3.7**	-0.1	0.0
IE	1.2	1.3	-0.2	0.6	-3.2	-6.4	-2.8	-14.4	13.2	3.8	-0.7	-0.4	0.0	0.0	-0.1	0.7	-0.7	**1.6**	**2.4**	**-3.5**	-0.6	-0.1
EL	-1.5	-2.1	2.4	-1.2	-2.1	-1.9	-1.5	1.7	11.1	3.2	0.8	-0.1	0.1	0.0	0.3	-0.9	0.6	**2.8**	**-5.1**	**7.7**	-0.9	0.5
ES	0.3	0.2	1.2	0.8	-0.6	-5.2	-2.5	85.7	-90.5	3.4	-0.7	0.1	-0.1	0.0	0.0	-0.1	0.4	**2.0**	**83.9**	**-90.4**	**1.8**	-0.2
FR	-0.4	-0.1	0.7	-0.1	-0.5	0.0	-2.1	0.9	1.5	1.0	0.1	0.0	-0.2	0.0	-0.3	0.2	-0.2	-0.1	0.8	-0.1	-0.1	0.0
IT	-0.3	-0.2	-1.0	-0.8	2.1	-0.2	1.2	-0.5	-0.2	-5.1	-0.5	-0.5	0.0	0.0	**-1.1**	0.7	0.1	1.0	-0.5	-0.6	**-6.9**	-0.8
CY	-1.1	2.3	2.2	0.5	2.1	-0.9	-6.6	1.1	-1.1	2.5	0.1	0.2	-0.2	0.4	-0.4	**-1.6**	**2.4**	**-1.0**	0.2	-0.2	0.7	0.1
LV	0.4	-0.1	-0.5	-2.3	-0.6	-0.3	4.7	3.9	-5.6	1.2	0.1	0.0	-0.1	-0.2	-0.8	0.8	**1.5**	**4.5**	**2.4**	**-8.6**	0.6	0.0
LT	-1.0	-1.1	0.3	-1.4	-1.4	-1.8	2.2	-2.2	2.6	2.3	-0.1	0.0	-0.2	-0.1	-0.9	0.3	-0.3	**2.7**	**-3.9**	**2.7**	0.0	0.0
LU	-0.5	-1.6	0.8	0.9	1.3	10.8	-13.8	-0.2	0.6	-1.6	-0.3	-0.2	0.0	0.1	0.1	0.4	**9.8**	**-12.3**	0.8	0.3	-0.3	-0.1
HU	1.6	0.4	-1.8	-2.5	3.1	3.7	2.9	-4.0	11.3	-3.6	1.1	-0.1	0.1	0.0	-0.3	**-1.9**	**2.1**	0.3	**-3.6**	**3.3**	**2.7**	0.3
MT	-2.5	6.2	1.1	0.0	-0.2	-3.1	2.4	-0.7	0.6	0.3	0.4	0.0	0.5	-0.3	-0.1	-0.1	-0.2	0.3	-0.1	0.0	0.0	0.0
NL	-1.5	2.3	1.2	0.4	-1.2	0.5	-3.7	0.2	-0.5	1.0	-0.1	**-1.3**	**1.2**	-0.1	0.5	0.3	0.2	-0.4	0.1	**-1.1**	-0.3	-0.1
AT	0.6	-4.1	2.9	-0.5	-0.2	-0.7	-0.7	-0.3	1.3	-0.4	-0.2	0.7	-1.0	0.3	0.0	-0.1	-0.8	0.1	0.6	0.1	0.0	0.0
PL	-1.7	0.2	1.2	-0.6	1.0	-2.2	-1.8	-0.7	3.0	2.0	0.1	-0.5	0.0	0.0	-0.3	-0.1	-0.4	**1.1**	-0.4	0.0	-0.2	-0.1
PT	0.3	0.3	-2.4	1.5	0.6	0.1	-3.2	-2.6	4.6	2.0	0.1	-0.5	0.6	0.1	-0.3	-0.2	0.1	**2.0**	**-2.2**	**-1.3**	**1.9**	0.0
RO	-0.1	-1.1	-0.1	-3.0	-1.0	-2.6	-0.6	2.8	2.1	3.1	-0.1	0.0	0.1	-0.2	-0.9	0.0	1.0	-0.4	-0.4	1.0	0.0	0.0
SI	0.0	0.0	0.4	-0.8	-0.2	-2.1	0.4	3.6	-7.3	1.1	-0.5	0.0	0.0	-0.1	0.0	-0.1	-0.3	-0.1	**3.8**	**-6.2**	**-1.7**	-0.5
SK	5.1	0.3	-0.5	-0.8	-0.4	-0.2	-2.9	-0.7	2.6	0.1	0.3	-0.2	-0.1	0.0	0.2	-0.3	0.2	0.2	-0.4	0.0	0.0	0.0
FI	-1.1	-0.7	0.3	0.1	0.2	-1.2	-2.1	0.3	0.6	-0.7	-0.4	-0.1	0.1	-0.1	-0.2	0.6	**-1.1**	-0.3	**1.6**	-0.3	0.2	0.1
SE	0.6	0.6	0.9	0.0	0.4	0.6	-2.4	1.4	-0.6	0.0	0.2	0.1	-0.1	-0.4	0.7	-0.5	0.3	**-3.3**	**2.9**	0.4	-0.2	0.0
UK	-1.6	-0.8	-0.1	0.5	0.2	-1.9	-2.4	-0.2	1.5	2.0	-0.3	0.2	-0.6	-0.1	-0.1	0.9	-0.9	**1.7**	**-1.0**	-0.7	-0.2	-0.1
EA-17	-0.2	0.2	0.4	0.2	0.3	-1.2	-1.3	2.1	-1.1	0.6	0.0	-0.4	0.1	0.0	-0.1	0.3	-0.3	0.2	**2.6**	**-2.8**	-0.6	-0.1
EU-27	-0.4	0.1	0.4	0.0	0.2	-1.0	-1.5	4.2	-3.0	0.4	-0.1	-0.2	0.0	0.0	-0.2	0.2	-0.1	0.2	**4.5**	**-4.8**	-0.8	-0.1

Note: The change in the CAB computed for Spain for the years 2010 and 2011 is very large. This is due to the almost zero growth rate during the crisis years in Spain, which largely inflates the denominator of the revenue/expenditure elasticities and leads to an extremely high value of the semi-elasticity. The resulting CAB values are consequently very lare.

Looking at the annual changes in the CAB and in its variant, the difference becomes much larger. As indicated by the figures highlighted in bold in the right-hand panel of Table III.0.1, the difference between the change in the CAB and in its variant exceeds one pp in around 20% of the observations. Some very large numbers in the crisis years (e.g. Bulgaria, Greece, Spain, Latvia, Slovenia) are due to the very low growth which enters in the denominator of the elasticities. Therefore, when growth is at around zero, some argue that the difference in growth rate is more telling than the elasticity, which is a ratio. However, in 40% of the observations, the discrepancies are only +/-0.2 or lesser. We observe that the discrepancies are concentrated in the crisis period 2008-11 and are more marked for countries particularly affected by the economic downturn. Those discrepancies reflect diverging cyclical patterns in both revenue and GDP in some years and/or some countries. For any given level of the output gap, the larger and less synchronised the swings in revenue and GDP, the larger the gap between the time-varying and the constant elasticities.

In an attempt to better understand some possible reasons behind the volatility of the CAB variant, we identified an interesting pattern in Table III.0.1. When the deviation from the standard CAB becomes very large, the value of the CAB variant seems to also overshoot in the following year but in the opposite direction. This may suggest the importance of dynamic effects, namely the fact that tax revenue may follow the evolution of tax bases with some delays, owing to specific collection mechanisms or declaration based on past income or transactions. Using a three year moving average of the CAB reduces the discrepancies: only +/-0.2 or lesser in 60% of the observations. Clearly, adjacent elasticities seem to cancel out or average out to reasonable levels, giving some credit to the role of dynamic effects. Some very strong divergences seem to remain in some countries and/or years, even after smoothing, suggesting that the other determinants of tax elasticity fluctuations (composition of growth, tax compliance and asset price cycle) may play an important role as well.

and can be affected by the scope and the aim of the assessment and by political decisions of the governments.

Taking stock of the criticisms this Part takes the view that in order to evaluate the fiscal effort it is useful to use another indicator of the orientation of fiscal policy.

This indicator, named discretionary fiscal effort, is not a genuinely new concept; it aims at putting together the advantages of the narrative and of the traditional approach. Specifically, it includes a narrative approach relative to the revenue side and a similar-to-CAB measure on the expenditure side.

The reasons for this choice are those explained above: while on the expenditure side there are good reasons to believe that the CAB – normally a measure of fiscal stance – provides an overall correct benchmark to gauge discretionary government policy, i.e. the fiscal effort, on the revenue side the presence of underlying movements of tax bases imperfectly correlated with GDP, and the fluctuation of short-term elasticities plead for complementing the traditional CAB-based measure with a measure based on the narrative approach.

In this respect, it could be argued that the criticisms to the change in CAB related to the short-term variation in tax to GDP elasticities could be addressed by computing a CAB variant based on time-varying elasticities (see Box III.1.1). This exercise only provides a partial solution as also the short-term variations contain some statistical 'noise'. Indeed, while this exercise highlights the large impact of short-term fluctuations in tax elasticities on the annual variation in the CAB, a change in CAB computed using observed short-term elasticities turns out to be very erratic, given the magnitude of fluctuation in elasticities, the varying sign of elasticities and the fact that they seem to offset each other over a number of years Moreover it should be noted that this CAB-refinement shares a feature with the discretionary fiscal effort indicator. As the time varying elasticities are net of discretionary measures, their calculation requires an estimate of the discretionary measures, meaning that they also contain an element of bottom-up or narrative approach on the revenue side (the Discretionary Tax Measures).

Chapter III.1 provides a description of the discretionary fiscal effort indicator and compares it to the change in structural primary balances (SPB) with a breakdown of the sources of gaps between the two. It shows that it contributes to a better understanding of the evolution of the public finances and its interaction with economic developments.

Section III.1.2 applies the fiscal effort indicator to the recent and on-going consolidation episode. This highlights the relevance of the narrative approach on the revenue side in a period characterized by large fluctuation of short-term elasticities of revenues to GDP. Chapter III.3 focuses on the discretionary tax measures which are the key ingredient of the narrative approach on the revenue side, and on the behaviour of short-term elasticities around their long-term value. These are the main source of difference between the discretionary fiscal effort indicator and the change in the CAB-to-GDP ratio. Based on a longer dataset than in the previous exercise, it highlights that discretionary measures account for only a small part of the short-term fluctuations in gross apparent elasticities, thus confirming that a narrative approach on the revenue side can be a useful complement to the traditional CAB-based analysis.

2. MEASURING THE FISCAL EFFORT

2.1. A COMPLEMENTARY MEASURE OF FISCAL STANCE

As discussed in the introduction, a growing strand in the literature proposes to consider a narrative or "bottom-up" approach to assessing the fiscal stance, which consists in adding up the effects of the measures as estimated by the governments in the relevant budget documents at the time of their adoption.

This approach aims at complementing both the traditional CAB-based approach of fiscal stance and the purely narrative approach of fiscal effort by proposing a new indicator that on the one hand is a better measure of fiscal effort than the traditional straight "top-down" approach based on the change of the CAB ratio and on the other improves on the main difficulty of the pure bottom-up approach. This will provide an indicator which is useful, in identifying the moment of fiscal intervention and in analysing fiscal efforts made by governments.

Thus, in view of the weaknesses of both the top-down and the bottom-up or narrative approaches the chapter introduces and discusses a new indicator, the discretionary fiscal effort (DFE) which aims at combining the top-down and bottom-up approaches to respond to the main criticisms of the two.

In particular the DFE has the attraction of being broadly immune to the measurement uncertainties affecting the structural balance when used to assess fiscal effort, in particular on the revenue side and on unemployment expenditures that can be considered cyclical. On the other hand, by relying on a conventional approach on the expenditure side, it avoids the main shortcoming of the bottom-up approaches, namely the lack of a benchmark against which to gauge discretionary expenditure measures.

Thus under certain conditions the DFE can be a helpful indicator of the fiscal effort. This may be especially the case in periods of shifts in the composition of growth and yearly potential output.

2.2. THE DISCRETIONARY FISCAL EFFORT

The DFE is defined as:

$$DFE_t = DFE_t^R + DFE_t^G = \frac{N_t^R}{Y_t} - \frac{(\Delta E_t - pot.E_{t-1})}{Y_t} \quad (1)$$

where N^R stands for all revenue measures in nominal terms, Y_t is nominal GDP, E_t is the adjusted expenditure aggregate and *pot* is the medium-term nominal potential growth rate as used in the framework of the expenditure benchmark. It is a smoothed average of the "annual potential growth" traditionally used in surveillance and underpinning the calculation of the cyclically-adjusted balance. In turn, the adjusted expenditure aggregate is obtained as:

$$E_t = G_t - U_t^{nd} - I_t$$

where U_t^{nd} and I_t refer to non-discretionary unemployment expenditure and interest payments, respectively. The DFE also corrects for the effects of one-offs and other temporary measures. Therefore, the correction for one-offs does not lead to differences between the two indicators of the fiscal stance.

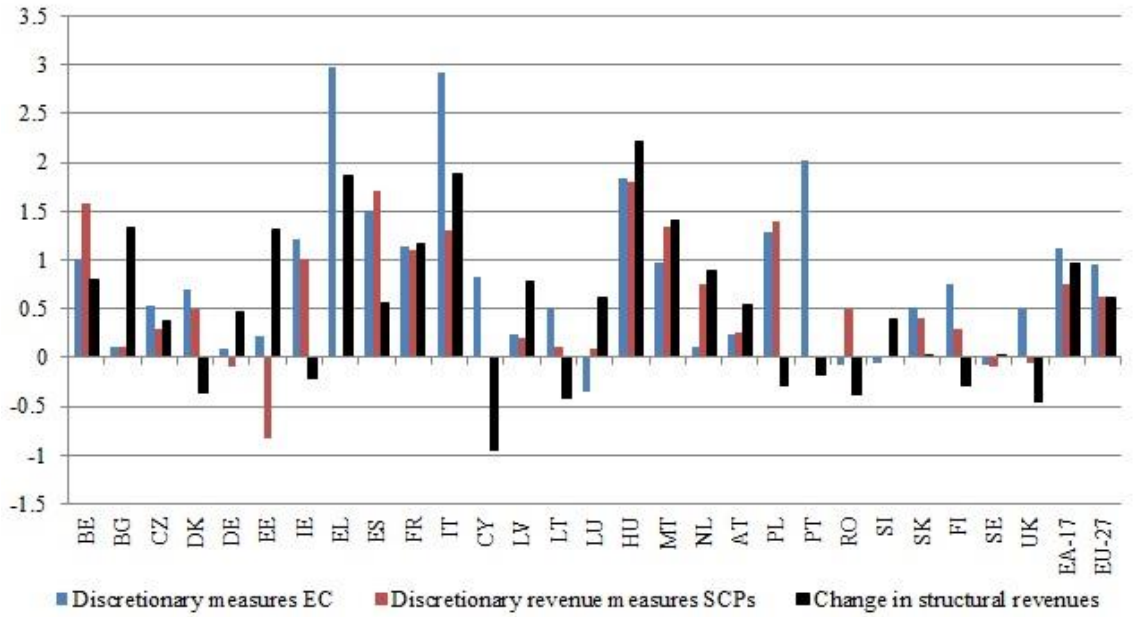
The DFE represents a mixed method for assessing the fiscal stance in the following sense:

• On the revenue side, it relies on a truly bottom-up approach, as the effort is simply computed by adding-up the effects of new tax measures in the year of interest. ([70]) This can include the incremental effect of tax measures adopted in earlier years. The main difference with the structural balance stems from the fluctuations in tax elasticities from their standard (long-term) values, which are quite large in practice (this issue is discussed in detail in Chapter III.2).

• On the expenditure side however, an essentially top-down method is kept by measuring the effort as the gap between spending and potential growth. This is because of the methodological limitations

([70]) In what follows, data until 2012 are from governmental source (the Discretionary Tax Measures database, see the next chapter) while data as from 2012 are the measures as assessed by the Commission services.

Graph III.2.1: **Discretionary revenue measures (% of GDP) in 2012**



Source: AMECO (Commission spring 2013 forecast), Stability and Convergence Programmes (2013).

noted above, but also for a more positive reason. Defined this way, the discretionary fiscal effort indicates whether policy is inducing expenditure growth above or below potential GDP growth. In particular, a neutral stance corresponds to a situation where the authorities do not aim at changing the medium-run values of the tax and expenditure to GDP ratios; that is, there is no attempt to stimulate demand above or below potential growth. ([71])

While the approach to the spending side is more conventional and closer to the structural balance methodology, two important differences must be underlined:

• First, interest payments and all non-discretionary changes in unemployment expenditure are removed from the expenditure aggregate as they are deemed to be outside the control of policymakers in the short run.

• Second, a more stable notion of potential growth is used. Specifically, potential growth is smoothed over 10 years centred on the current year, as already done when evaluating the expenditure benchmark in the EU fiscal framework. ([72]) This "reference rate" is more stable by construction than the standard measure.

These adjustments are important for getting closer to a time-invariant notion of the underlying fiscal effort. Specifically, for a given amount of expenditure measures, the evaluated fiscal stance will not be significantly affected by temporary fluctuations in activity and potential growth.

The DFE sums the efforts on the spending side and on the revenue side. It is arguably a closer reflection of the fiscal effort, i.e. of the underlying discretionary policy actions than the traditional change in the CAB ratio, especially when one registers fluctuations in revenue elasticities compared to average elasticities.

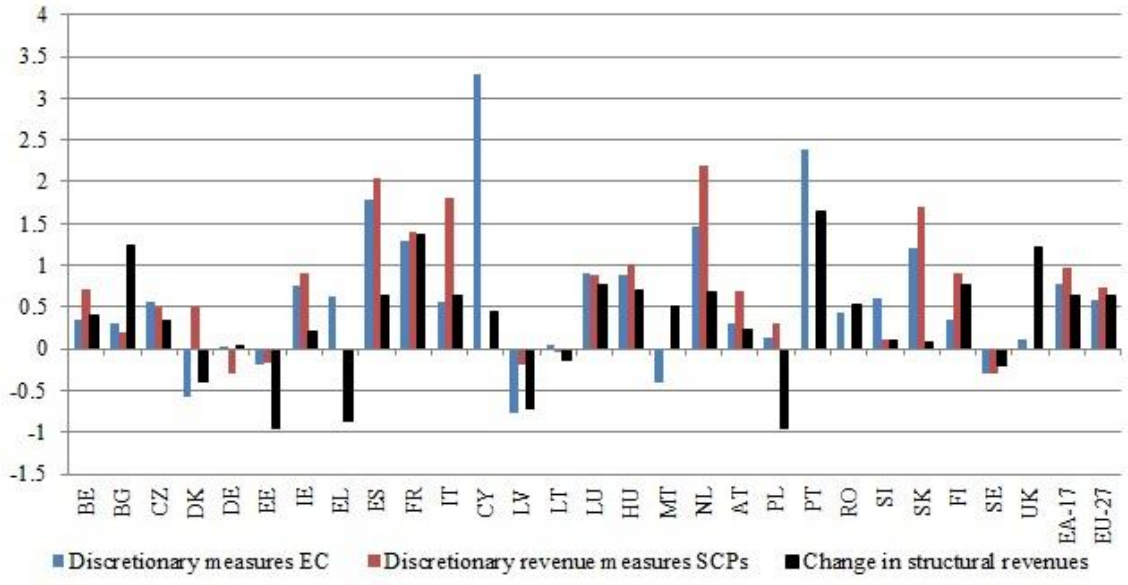
([71]) Notice that in view of the efficiency gain in the public sector, which are required to sustain the current level of services while reducing government expenditures, one could take a decreasing expenditure rtio as a benchmark.

([72]) This medium-term- potential growth rate is gauged as:

$$pot_t = \left(\left(\frac{Y^*_{t+4}}{Y^*_{t-5}}\right) - 1\right)^{1/10} * 100$$

where Y_t^* is real potential GDP in year t.

Graph III.2.2: **Discretionary revenue measures (% of GDP) in 2013**



Source: AMECO (Commission Spring 2013 forecast), Stability and Convergence Programmes (2013).

Among other potential benefits, a breakdown of the difference between the two indicators also gives insights about underlying economic developments, and may allow a more robust assessment the composition of consolidation, i.e. to what extent it is revenue or expenditure-based. The analytical decomposition of the difference between the two indicators highlights, apart from the difference concerning interest payments, the impact of revenue windfalls/shortfalls (and their equivalent for unemployment expenditure) as well as the variability of potential growth (see Box III.2.1 for the full breakdown of the gap between the two indicators).

The evidence provided in this chapter points to significant benefits from using the DFE for enriching the analysis of the fiscal effort. The DFE suffers from some weaknesses though, which partly shares with other approaches. First, it relies on estimates of the budgetary costs or savings from tax and spending measures that come with their own measurement uncertainties, particularly when the underlying data for evaluating measures is lacking or of poor quality. Related to this, the comparison of the evaluation of the measures across countries and time periods is problematic in that methodologies employed, scope and aim of the evaluation differ widely. For instance, data for discretionary revenue for the forecast years correspond to measures that are already adopted or with at least a high probability of enactment. Actually, Graphs III.2.1 and III.2.2 show that measures as reported by Member States in stability and convergence programmes (SCPs) can differ from those the Commission AMECO dataset. This can reflect notably differences in scope (the SCPs may include measures not yet sufficiently specified), and estimations of the yields of measures. Moreover, there are significant differences between the measures and the changes observed in structural revenues, which illustrates how the cyclical adjustment may, under certain circumstances, convey a misleading assessment of the sheer fiscal effort on the revenue side undertaken by the countries concerned. For instance, in 2012 and 2013 the divergences between discretionary revenue measures are highest (above 1% of GDP on average) in Ireland, Greece, Spain, Cyprus, Poland and Portugal.

Second, the DFE may retain an overly conventional approach on the spending side, although as noted this is also a feature that can be justified.

2.3. PROPERTIES OF THE DFE: AN ILLUSTRATION FOR THE PERIOD 2004-2013

This section uses the Commission 2013 Spring forecast to evaluate the DFE and compare it with the structural balance-to-GDP ratio. Given that the Commission AMECO dataset contains a series of one off and temporary measures necessary to compute the structural balance starting from the CAB, it is preferable to us the former for a comparison with the DFE. In turn, data on discretionary revenue measures for the period 2012-2013 are taken from the AMECO database. However, for the period 2004-2011 this dataset is rather incomplete, for which the Discretionary Tax Measures (DTM) database is used instead.

The first stylized fact is that the change in the structural (primary) balance yields an optimistic view of the fiscal effort in booms, while it tends to underestimate it in recessions. This is mainly due to the revenue windfalls/shortfalls (and to a lower extent to windfalls/shortfalls in unemployment expenditure) that show up as a consequence of the fluctuations in tax (and unemployment) elasticities and by construction are part of structural balances. The DFE is a more appropriate measure of fiscal effort as it appears much less exposed to these problems in that it relies on enacted measures on the revenue side and on medium-term potential growth on the expenditure side.

Table III.2.1 illustrates this aspect by comparing the change in the structural primary balance (fiscal stance) and the DFE by sub-periods. ([73]) In the boom period from 2004 until 2007 the difference between the two indicators is largely positive, indicating that the fiscal stance did not reflect entirely the fiscal effort. This is especially noticeable in Bulgaria, Estonia, Ireland, Spain, Cyprus, Latvia, Lithuania and Romania, where sizeable revenue windfalls were registered, jointly with likely overestimations of potential growth. ([74]) According to the data, these revenue windfalls were used to finance discretionary revenue reductions or expenditure increases. More moderate effects can be seen in many other countries as well, with some notable exceptions (the Czech Republic, Germany, the Netherlands, Austria and Slovakia).

Following the outbreak of the crisis in 2008, sizeable stimulus packages were adopted between 2008 and 2010. At the same time, significant revenue shortfalls (see Graph III.2.3) and large unemployment expenditure increases were registered.

These elements explain the generally negative values for the two indicators, although with considerable heterogeneity across countries. The largest differences, though negative this time, were again observed in Bulgaria, Estonia, Ireland, Spain, Cyprus, Latvia and Romania. Slovenia and Finland also registered significant differences between the two indicators but with the positive sign. Other countries display similar features though to a lesser extent. The loosest fiscal stance and fiscal effort throughout the sample are observed in 2009, when the most sizeable stimulus packages in the context of the EERP where adopted. The DFE shows that a loosening in excess of discrete expansionary measures occurred in Denmark, Spain, Cyprus, the Netherlands, Portugal, Slovakia and Finland, with a DFE around -3% GDP.

Between 2011 and 2013 ambitious consolidation packages are adopted in most Member States and accordingly both indicators unveil a tighter fiscal stance. However, against a context of severe economic slowdown the DFE suggests in general a fiscal effort larger than the implied fiscal stance. In other words, countries had to implement discretionary measures to offset the deterioration in the cyclically adjusted balance, driven for example by the erosion of tax bases. That difference is as explained previously more sizeable in the countries under closer market scrutiny and undertaking more sizeable consolidation measures.

The countries for which this difference is highest are Ireland, Greece, Spain, Cyprus, Slovenia and, to a somewhat lesser extent, Latvia, the Netherlands and Portugal. The highest tightening effort according to the DFE metric is observed in 2012 in most economies, but it is especially

([73]) The change in the structural balance is not presented to ensure a more direct comparison in that the change in interest payments is one of the main explanatory factors behind the difference between the two indicators.

([74]) Annual potential output and smoothed potential output are calculated based on ex-post data as opposed to real time data for the period until 2011. This applies to both indicators of the fiscal stance.

Table III.2.1: **The change in the structural primary balance and the DFE 2004-2013**

	Change in the structural primary balance				DFE				Difference			
	Average 2004-2007	Average 2008-2010	Average 2011-2013	Average 2004-2013	Average 2004-2007	Average 2008-2010	Average 2011-2013	Average 2004-2013	Average 2004-2007	Average 2008-2010	Average 2011-2013	Average 2004-2013
BE	-0.4	-0.8	0.3	-0.3	-0.2	-1.2	0.1	-0.4	-0.3	0.4	0.2	0.1
BG	-0.1	-0.7	0.5	-0.1	-1.5	1.7	0.7	0.1	1.4	-2.4	-0.2	-0.2
CZ	0.8	-0.3	1.0	0.5	1.1	-0.1	1.5	0.9	-0.3	-0.3	-0.5	-0.4
DK	0.3	-0.9	0.0	-0.1	-0.4	-1.1	0.1	-0.4	0.6	0.2	-0.1	0.3
DE	0.5	-0.6	0.9	0.3	0.6	-1.0	0.2	0.0	-0.1	0.4	0.6	0.3
EE	-0.5	0.1	0.3	-0.1	-1.6	2.1	-0.1	0.0	1.1	-2.0	0.5	0.0
IE	-0.6	-1.7	1.3	-0.4	-1.6	0.9	2.7	0.5	1.0	-2.6	-1.4	-0.8
EL	-0.6	0.0	3.0	0.7	#N/A	#N/A	6.1	#N/A	#N/A	#N/A	-3.1	#N/A
ES	0.2	-2.7	1.5	-0.3	-0.7	-1.3	3.6	0.4	1.0	-1.4	-2.1	-0.7
FR	0.0	-0.5	1.2	0.2	-0.4	-0.6	1.2	0.0	0.4	0.1	0.0	0.2
IT	0.5	-0.2	1.3	0.5	0.2	-0.2	1.9	0.6	0.3	0.0	-0.6	-0.1
CY	2.5	-2.9	0.8	0.4	0.6	-1.6	4.6	1.1	1.9	-1.3	-3.7	-0.7
LV	-0.5	0.7	0.5	0.2	-1.5	5.6	0.8	1.3	1.0	-5.0	-0.2	-1.2
LT	-0.5	-0.1	0.6	0.0	-2.0	0.6	1.6	-0.1	1.4	-0.7	-0.9	0.1
LU	0.2	-0.6	0.3	0.0	#N/A	#N/A	0.2	#N/A	#N/A	#N/A	0.1	#N/A
HU	0.5	0.8	0.7	0.7	#N/A	#N/A	-2.3	#N/A	#N/A	#N/A	3.0	#N/A
MT	0.6	-0.4	0.3	0.2	0.4	-0.2	-0.2	0.0	0.2	-0.2	0.6	0.2
NL	0.1	-1.1	0.6	-0.1	0.4	-0.9	1.6	0.4	-0.3	-0.2	-0.9	-0.5
AT	-0.3	-0.5	0.6	-0.1	0.0	-0.7	0.8	0.0	-0.3	0.2	-0.3	-0.1
PL	0.3	-1.6	1.7	0.1	-0.3	-1.2	2.4	0.3	0.5	-0.4	-0.7	-0.1
PT	0.5	-1.7	2.4	0.4	0.1	-1.8	3.3	0.5	0.4	0.1	-0.9	-0.1
RO	-1.1	-0.2	1.6	0.0	-2.8	1.5	2.3	0.4	1.7	-1.7	-0.7	-0.3
SI	-0.1	-0.5	1.0	0.1	-0.5	-1.4	2.3	0.1	0.3	0.9	-1.3	0.0
SK	-0.6	-1.2	1.6	-0.1	0.1	-0.8	2.1	0.4	-0.7	-0.4	-0.6	-0.5
FI	-0.2	-1.3	0.0	-0.5	-0.9	-1.7	0.2	-0.8	0.6	0.5	-0.2	0.3
SE	0.5	-0.4	-0.5	-0.1	-0.1	-0.4	-0.3	-0.3	0.6	0.0	-0.2	0.2
UK	-0.1	-1.2	1.0	-0.1	-0.5	-1.0	1.3	-0.1	0.5	-0.2	-0.3	0.0
EA-17	0.3	-0.9	1.1	0.2	0.0	-0.8	1.4	0.2	0.3	-0.1	-0.3	0.0
EU-27	0.2	-0.9	1.0	0.1	-0.1	-0.7	1.3	0.1	0.3	-0.1	-0.3	0.0

Source: AMECO (Commission Spring 2013 forecast) and Commission Services calculations.

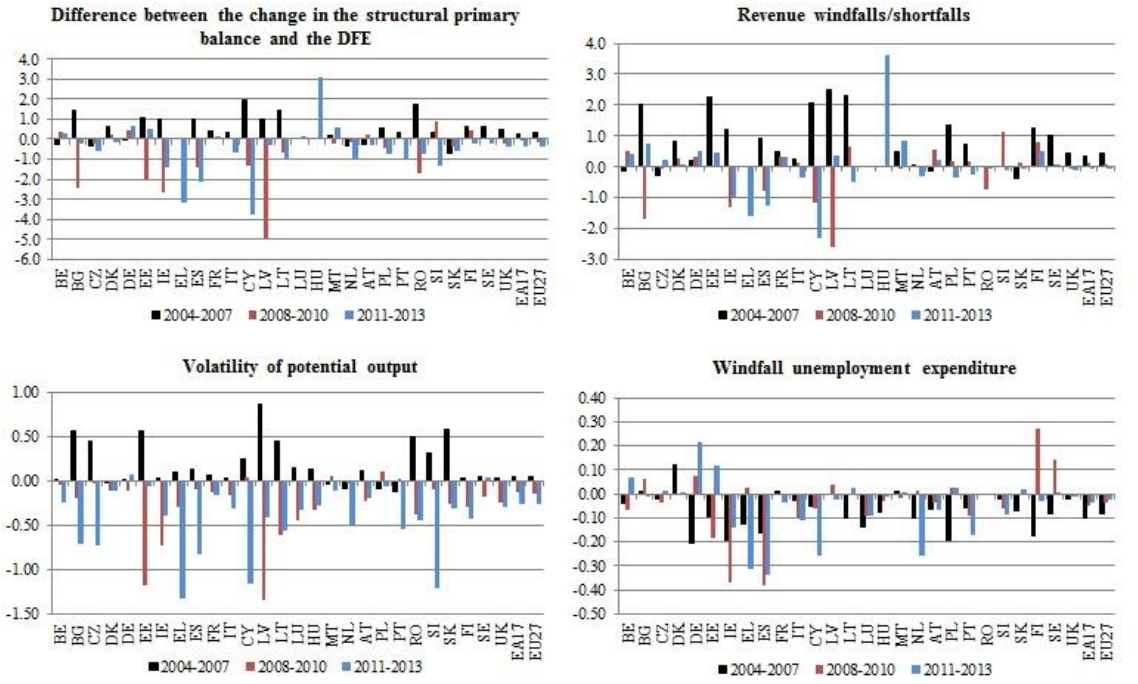
remarkable in Greece, Spain and Portugal, with a DFE above 5% of GDP.

However, Table III.2.1 also shows that the DFE and the change in the structural primary balance broadly coincide on average for the period 2004-2013 – because of the cyclical variation of short-term tax elasticities around the long-term average which implies that broadly on average fiscal effort and fiscal stance coincide – though with significant variations across countries and time periods. In principle, it would be expected that the differences between the two indicators are generally less pronounced in "normal times" than they are at the present juncture. However, this assessment should not build on the comparison with the years before the crisis. There are good reasons for not to qualify them as "normal times", but as "boom" ones in view of the overheating in some Member States and the sizeable accumulation of imbalances. These led to large revenue windfalls, the temporary nature of which was unveiled by the crisis.

Graph III.2.3 displays the contribution of the main explanatory factors of the difference between the change in the structural primary balance and the DFE by subsample. On average, positive revenue windfalls feeding the structural balance and not reflecting a true structural effort were registered annually during the expansionary phase up until 2007.

However, this picture reverts significantly as of 2008. In most cases their size diminished remarkably, with the more vulnerable countries in

Graph III.2.3: **Contributions to the difference between the change in the structural primary balance and the discretionary fiscal effort**



Source: AMECO (Commission Spring 2013 forecast) and Commission Services calculations.

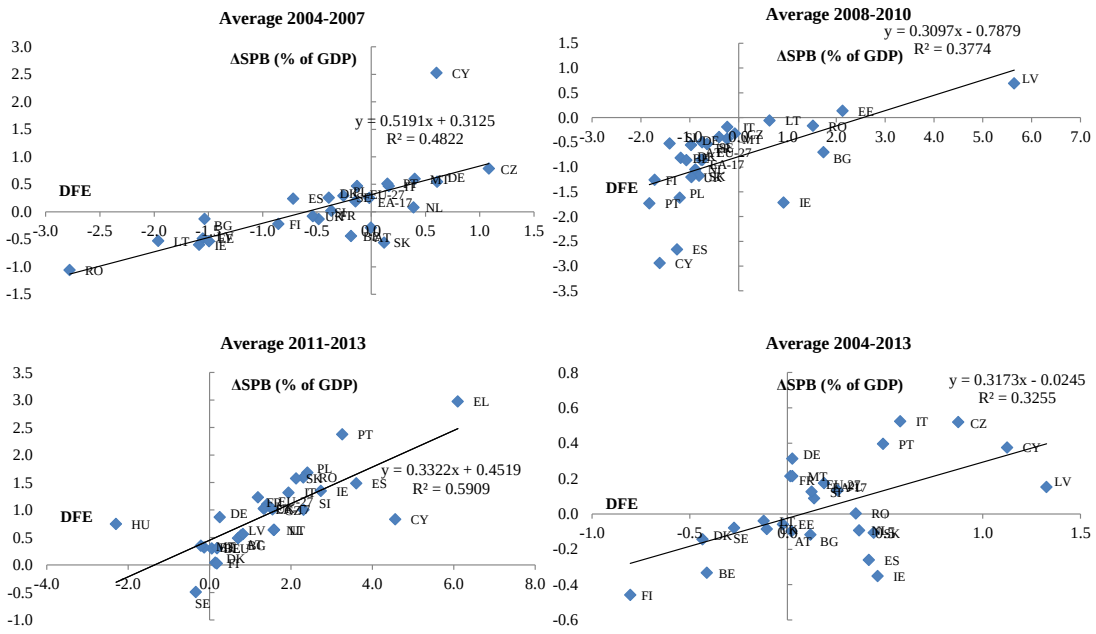
fact registering sizeable revenue shortfalls (see Graph III.2.3). For the most recent years the picture is more mixed, with some countries registering revenue windfalls while others showing the opposite.

Albeit to a lesser extent, the volatility of potential output with respect to its medium term average growth is another major factor explaining the difference between the two indicators. While its contribution is positive on average for the pre-crisis period, it turns clearly negative as of 2008. The largest negative contributions between 2008 and 2010 are registered in the Baltic countries and Ireland. However, in most of the remaining cases, the contribution of this factor is largest between 2011 and 2013, especially in Greece, Spain, Cyprus, Slovenia, and to a lesser extent, Bulgaria, the Czech Republic, Lithuania, the Netherlands and Portugal. It should be stressed, however, that the two notions of potential growth coincide on average, so that there is no inherent bias in the DFE measure.

The contribution of windfall/shortfall unemployment expenditure is not as sizeable as the former two other components. Leaving aside its size, its most remarkable feature is that it is largely negative on average in the three subsamples. However, the most negative values for this factor are registered after 2008 in Ireland, Greece, Spain, Cyprus and the Netherlands and are associated to the intense job destruction observed in these economies in recent years (beyond what would have been expected given growth developments).

The change in the structural primary balance and the DFE display a high correlation coefficient, even by the sub-samples considered in Table III.2.1. For the entire sample the simple correlation coefficient amounts to around 0.7. However, such relation is sensitive to different country groupings. Two groups have been considered: the first one comprises the countries that have accumulated the largest imbalances, peripheral economies and those that have been hit more severely by the crisis (Ireland, Spain, Italy, Cyprus, Latvia, Lithuania, Malta, Portugal, Romania, Slovenia and Slovakia and the United Kingdom); the second group gathers core economies and the Nordic countries.

Graph III.2.4: **Relationship between the change in the structural primary balance and the discretionary fiscal effort**



Source: AMECO (Commission Spring 2013 forecast) and Commission Services calculations.

The correlation between the two indicators is significantly stronger in the latter group, around 0.7, whereas in the former group it amounts to only 0.3. The time evolution of the correlation between two coefficients shows some discrepancies too. Until 2007 the correlation amounts to around 0.7 in both cases, but significant differences are observed thereafter. While in peripheral economies the correlation between the two indicators remains broadly stable between 2008 and 2010, it rises up to 0.9 for the core ones. For the period 2011-2013 the correlation in the periphery declines to 0.5, reflecting a situation in which a large discretionary tightening is needed to improve he structural balance. By contrast, in the core group the correlation between the two indicators resumes to 0.7.

Graph III.2.4 presents the relationship between the two indicators by sub-sample and for the whole period. Despite the notable exception of Cyprus in the period up to 2007, the dispersion of the two indicators with respect to the regression line is rather limited. The outbreak of the crisis in 2008 contributes to increasing such dispersion, especially between 2011 and 2013. In this period most of the countries adopt consolidation strategies but in most of them the degree of fiscal tightening shown by the DFE exceeds the change in the structural primary balance. This is especially salient in the cases of Greece, Portugal, Spain, Cyprus, and to some lower extent Ireland.

2.3.1. Fiscal stance, fiscal effort and economic conditions in 2012

Assessing the orientation of fiscal policy relative to the business cycle requires combining information on the fiscal stance and the fiscal effort with a gauge on the cyclical conditions. A rough analysis consists in plotting together a measure of fiscal effort and a measure of cyclical conditions. The "cyclical conditions" are measured by the level and the change of the output gap.

Of course, this is an oversimplification, given that economic conditions in several countries do not represent an ordinary business cycle, but a balance sheet recession after the bursting of a credit boom, associated with a break in risk assessment by markets. Moreover, as emphasised earlier in this

chapter, the output gap (potential growth) is particularly difficult to estimate under current economic conditions. In this light, one of the mentioned features of the DFE indicator was that volatility in potential growth was smoothened out.

Graphs III.2.5 to III.2.8 display fiscal effort and the fiscal stance in 2012 as measured with the discretionary fiscal effort (Graphs III.2.5 and Graphs III.2.6), and the change in the structural primary balance (Graphs III.2.7 and Graphs III.2.8) plotted against levels and changes in the output gap. Some conclusions stand out even if they have to be taken with care. Indeed, the output gap is endogenously affected by the fiscal effort made (and vice-versa). This implies that part of the observed short-term correlation between out gap and effort is induced by the necessary effort made by countries that needed to address their sustainability risk. Thus, it should be recalled that gauging fiscal policy only with respect to the output gap gives an incomplete picture as it omits other crucial factors, like the monetary policy stance and crucially the riskiness of the fiscal situation of the countries which can make a restrictive fiscal policy the best option also in presence of difficult economic conditions. In addition, the on-going reallocation of resources in presence of structural rigidities impacts on the output gap.

In particular, by 2012 public debt had risen to over 90% in the euro area. Coupled with solvency concerns for some countries, this implies that these graphs should be interpreted with caution. Countries that enter a period of heightened risk aversion with a large debt overhang inevitably face difficult choices. In a sovereign debt crisis, obviously, each quadrant in these Graphs is not equally attainable.

In many countries, the discretionary fiscal effort provides the clear picture of the choice by Member States to put their public finances back on track.

About a third of MS undergo significant consolidation to cure their fiscal imbalances as shown in Graph III.2.5 and III.2.6. When defined as the combination of an output gap below -2% of GDP and a discretionary fiscal effort exceeding 2% of GDP, this would apply to eight countries (Hungary, Slovenia, Spain, Italy, Portugal, the Czech Republic, Romania and Greece). Two countries (Ireland and Slovakia) are close to that pattern, as they combine a fairly negative output gap (between -1% and -2% of GDP) with strong fiscal tightening (above 2% of GDP improvement in the discretionary fiscal effort). These countries also feature a rapidly widening output gap (a negative change in the output gap over ½% of GDP), with the exception of Ireland where the output gap is presumed to close notably, thereby making it more debatable whether the case is one of pro-cyclical tightening.

A number of other countries also appear to take restrictive fiscal policy measures in difficult cyclical conditions, albeit to a varying extent, and sometimes with important caveats:

– Clear cases of modest to quite significant pro-cyclical tightening include Belgium, Bulgaria, Denmark, France, the Netherlands, Austria and Poland. Finland and the United Kingdom also belong to that category, using the discretionary fiscal effort as a gauge (which appears warranted given large revenue shortfalls).

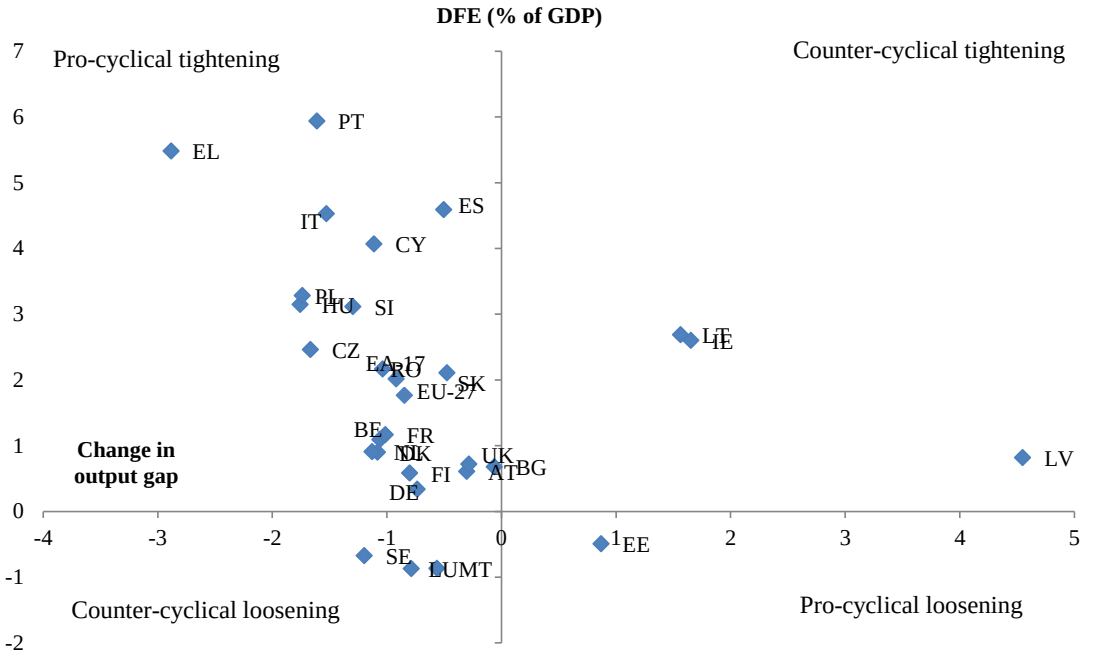
– In two countries (Lithuania and Latvia), there is also discretionary tightening ([75]) and a negative output gap, but one that is not large, and with a positive change in the output gap. In these cases it could be argued that fiscal retrenchment in fact plays a countercyclical role or at least, that the conclusion is ambiguous.

– In Germany, the discretionary fiscal effort is neutral while modest counter-cyclical loosening in fiscal effort is detected in three countries, Luxembourg, Malta and Sweden.

In almost all cases the fiscal stance as shown in Graphs III.2.7 and III.2.8 reflects the discretionary effort made by countries but only to a lower degree. This is especially the case of the countries undergoing large deleveraging process and Italy. The same phenomenon is also visible in Luxembourg, Malta and Sweden. Estonia is an exception in the sense showing the relation between CAB and DFE observed in good times: both the level and the change in the output gap are

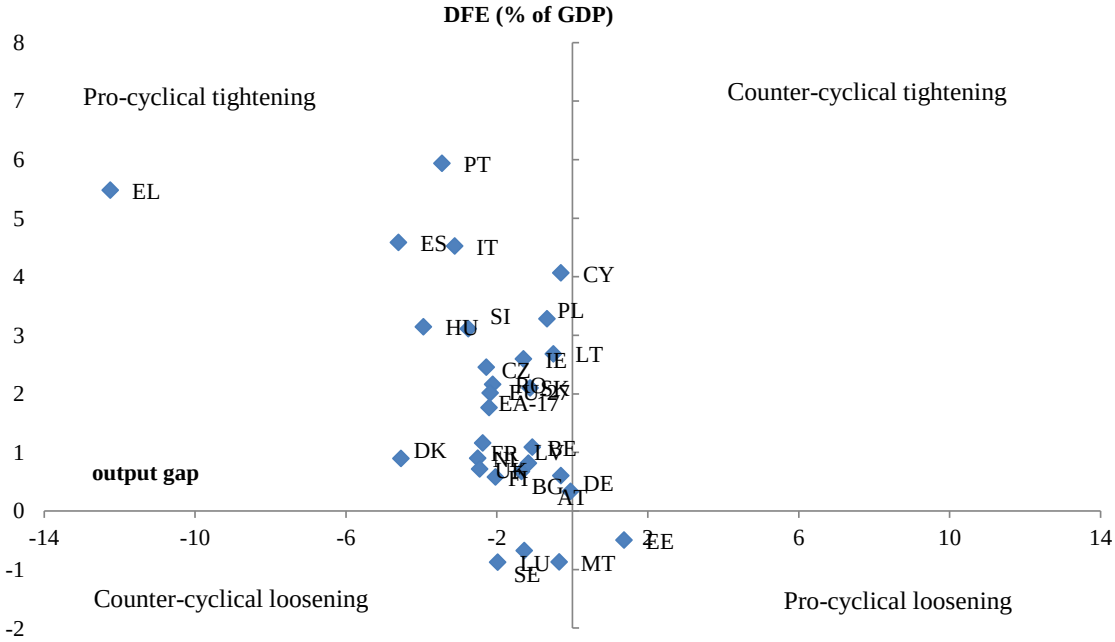
([75]) For Denmark, this is based on the discretionary fiscal effort, which, for the same reason as Finland, appears here more appropriate given a large revenue shortfall.

Graph III.2.5: **Discretionary Fiscal Effort (DFE) in 2012 against the level of the output gap**



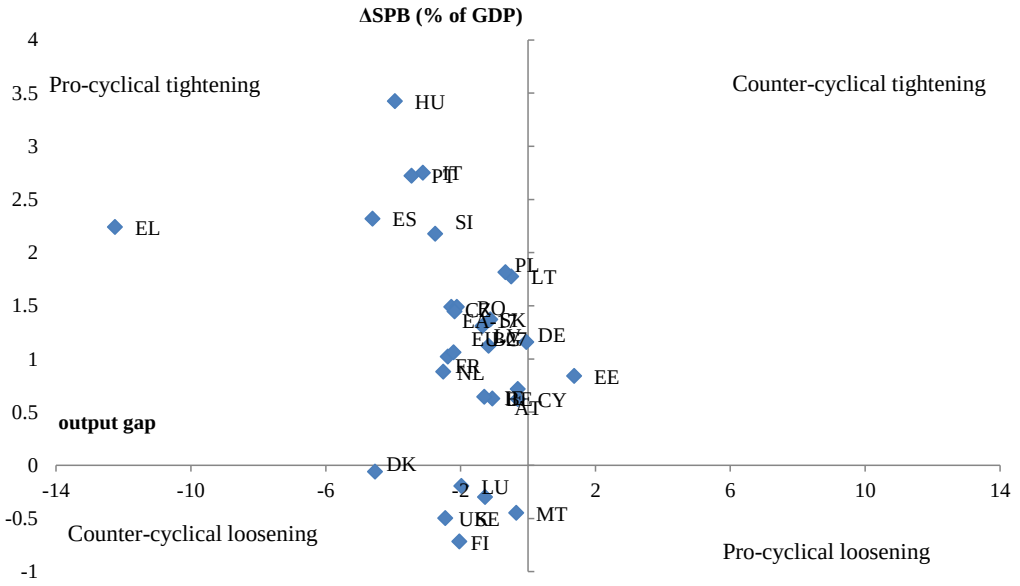
Source: AMECO (Commission Spring 2013 forecast).

Graph III.2.6: **Discretionary Fiscal Effort (DFE) in 2012 against the change in the output gap**



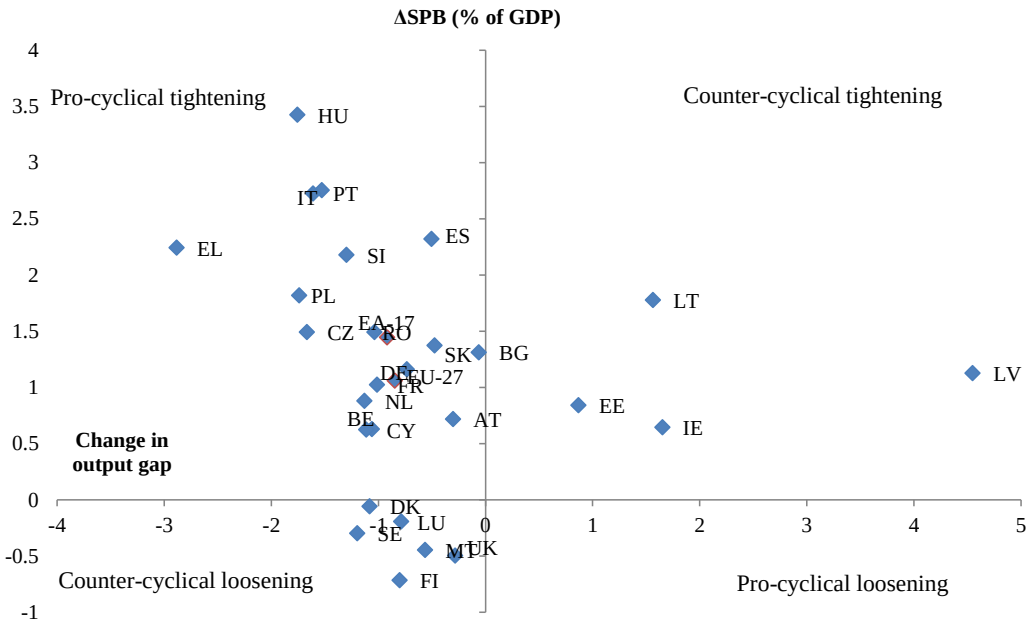
Source: AMECO (Commission Spring 2013 forecast)

Graph III.2.7: : **Change in the structural primary balance in 2012 against the level in the output gap**



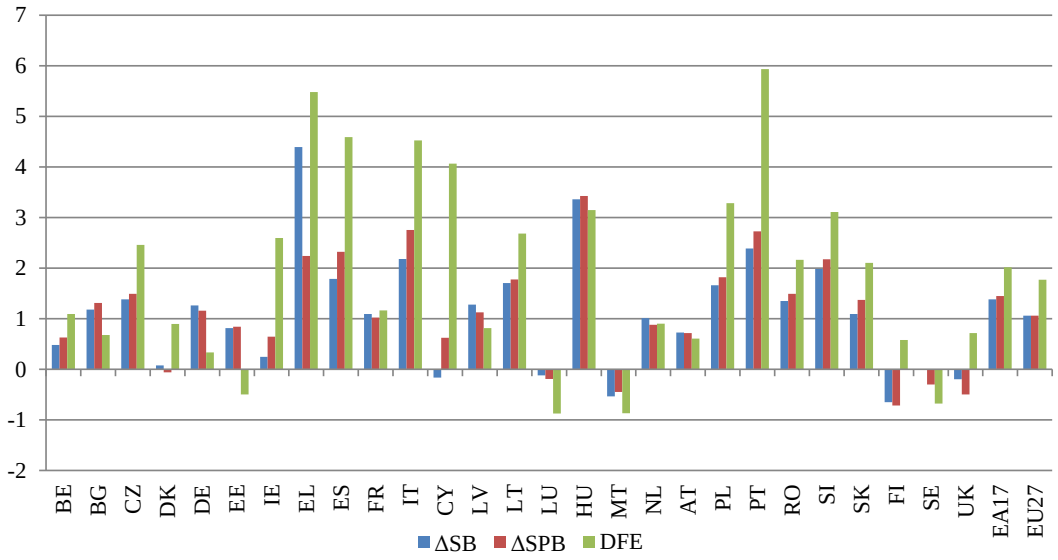
Source: AMECO (Commission Spring 2013 forecast)

Graph III.2.8: **Change in the structural primary balance in 2012 against the change in the output gap**



Source: AMECO (Commission Spring 2013 forecast)

Graph III.2.9: **Fiscal stance in 2012 according to the structural balance (ΔSB), structural primary balance (ΔSPB) and Discretionary Fiscal Effort (DFE) (% of GDP net of one-offs)**



Source: AMECO (Commission Spring 2013 forecast) and Commission Services calculations.

positive, its fiscal stance is contractionary but this is not supported by the DFE.

2.4. THE COMPARISON BETWEEN THE DFE AND THE CHANGE IN THE STRUCTURAL BALANCE: FOCUS ON 2012 AND 2013

2.4.1. Fiscal stance and fiscal effort in 2012

In 2012 a very large majority of EU countries made large fiscal efforts and had tightened fiscal stance (Graph III.2.9).In twenty countries, fiscal consolidation has taken place, in the sense that both the fiscal stance as measured by the structural (primary) balance and the discretionary fiscal effort supporting it have improved, in some cases quite significantly. Besides, in two countries that are gauged to have experienced fiscal loosening as assessed by the change in the structural balance, the discretionary fiscal effort suggests that in fact these countries implemented non-negligible consolidation measures (Finland and the United Kingdom). The further analysis of the gap between the two indicators suggest that the difference between the fiscal stance and the DFE reflects idiosyncratic revenue shortfalls in these two countries, especially large in the United Kingdom.

Moreover, for a large majority of these countries, the consolidation effort has been larger than the change in the primary structural balance.

This implies that the underlying policy retrenchment is visible by only looking at the fiscal effort. For twelve of these countries (Czech Republic, Ireland, Greece, Spain, Italy, Cyprus, Lithuania, Poland, Portugal, Slovenia, Slovakia and Finland), the discretionary effort, as indicated by DFE has exceeded the change in the structural balance by over 1% of GDP, and in several of these countries by over 2% of GDP. In Greece and Portugal, the fiscal effort has been very large (almost 6% of GDP). Cyprus, Spain and Italy also implemented very strong measures. Overall, the group broadly overlaps with that of countries most affected by the current downturn, as well as experiencing strong rebalancing of their economy.

In a few countries shown as consolidating, the discretionary fiscal effort suggests a more limited improvement than the structural balance metric. This holds notably for Germany (where the gap exceeds 0.8% of GDP), and to a lesser extent Bulgaria (with a gap of ½% of GDP), Latvia and Hungary.

Only Malta has experienced significant loosening of the fiscal stance in 2012 reflecting policy action in this sense. Luxembourg and Sweden also relaxed fiscal policy, but more modestly. Finally, only Estonia shows loosening discretionary effort together with improvement of the structural balance.

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2.4.2. A decomposition of the difference between the indicators (2012)

The discretionary fiscal effort is higher than the change in the structural balance in 2012 for two-thirds of EU countries. As already suggested, one immediately notes that this group typically includes those Member States most affected by the current recession and rebalancing. The group comprising the remaining one-third of countries tends to map Member States with a stronger recent growth momentum in relative terms.

Further analysis of the underlying reasons for the gap between indicators can be performed by breaking down the difference into four main components, as well as a small residual term capturing other factors (Graph III.2.10):

- Revenues windfalls and shortfalls (as compared with standard tax elasticities);
- Changes in interest payments;
- Windfalls or shortfalls in unemployment expenditure (as compared with standard elasticities that capture the presumed cyclicality of unemployment benefits in the structural balance calculations); and The wedge between annual potential growth and medium-term expectations of potential growth, as measured by reference rate of potential growth.

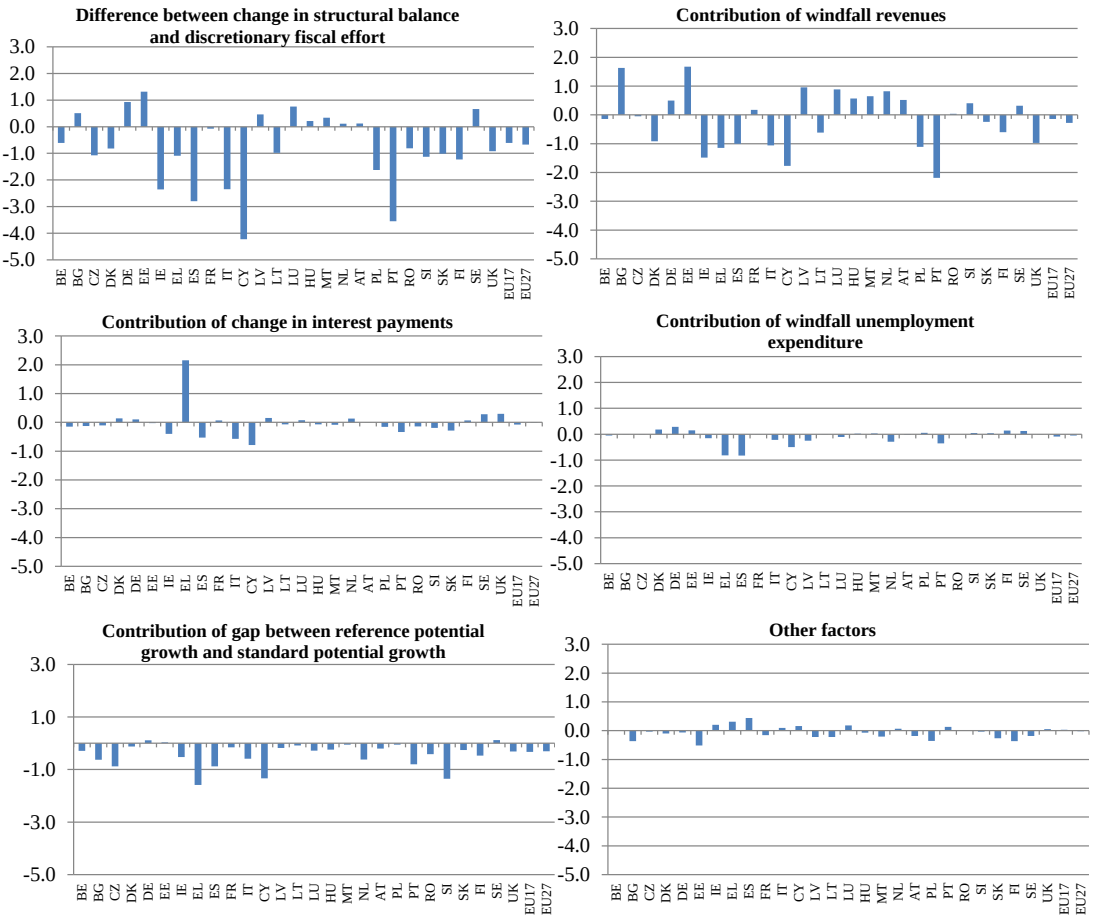
All four components contribute significantly, although the primary contributor appears to be revenues windfalls/shortfalls, followed by the potential growth wedge and then changes in interest payment. ([76])

Sizable revenues windfalls and shortfalls appear to be at play. ([77]) For example, six countries are reckoned to have experienced large windfalls, in the sense of being close to or even higher than 1% of GDP: in addition to Bulgaria, these include Estonia and Latvia as well as Luxembourg, Malta and the Netherlands. More moderate windfalls are registered elsewhere, often in Central and Eastern Europe, although with exceptions. Large revenues shortfalls (over 1% of GDP) are observed also in seven countries, including three programme countries (Ireland, Greece and Portugal), Spain, Italy, Cyprus and Poland. Revenues shortfalls but to a lesser extent (over ½ per cent of GDP) are visible also in Lithuania, the United Kingdom, Denmark and Finland (where more idiosyncratic factors likely played out). The wedge between annual potential growth and the reference rate of potential growth is most often negative, sometimes

([76]) The mean absolute value of windfalls/shortfalls in revenues is 0.8% of GDP. The figure is 0.5% of GDP for the potential growth wedge, 0.3% of GDP for the change in interest payments, and 0.2% for the windfalls/shortfalls in unemployment expenditure.

([77]) For an investigation of the factors explaining revenue windfalls and shortfalls in EU countries, see e.g. Morris et al. (2009).

Graph III.2.10: **Decomposition of the difference between the change in the structural balance and the discretionary fiscal effort in 2012**



Source: AMECO (Commission Spring 2013 forecast) and Commission Services calculations.

very significantly so. Few exceptions where this effect is (modestly) positive are Sweden and Germany. Large negative wedges (above 1% of GDP) are obtained in three countries (Greece, Cyprus, Slovenia), which are characterised by marked recession resulting in a sizable slowdown in annual potential output. Notable effects (of ½ per cent of GDP or above) are observed for seven more countries (Bulgaria, Czech Republic, Ireland, Spain, Italy, the Netherlands and Portugal).

Overall, the group of ten countries experiencing a notable or large slowdown in annual potential output, as compared with medium-term expectations, broadly coincide with those Member States severely affected by the crisis. Changes in interest payments (which do not come into the breakdown when one starts from the primary structural balance) have been significant for some countries. A notable negative contribution (i.e. an increase of interest costs exceeding ½ per cent of GDP) has affected Cyprus, Italy and Spain. In Greece, there is a strong positive effect, resulting from the debt relief measures agreed in February 2012, namely those related to the Private Sector Involvement.

The windfalls/shortfalls of unemployment expenditure, showing up as the difference between actual and elasticities in the cyclical adjustment, plays a more modest role overall.

Large shortfalls due to unemployment benefits exceeding ½ per cent of GDP have occurred in Greece, Spain. More modest ones have also been observed in Ireland, Italy, Latvia, Luxembourg, the Netherlands and Portugal. A modest windfall

Table III.2.2: **Composition of consolidation in 2012**

	2012					
	Change in the structural balance	*of which % contribution of*		**Discretionary Fiscal Effort**	*of which % contribution of*	
		revenues	expenditure		revenue	expenditure
BE	0.5	>100	<0	1.1	93.1	6.9
BG	1.2	>100	<0	0.7	15.3	84.7
CZ	1.4	27.6	72.4	2.5	21.6	78.4
DK	0.1	<0	>100	0.9	78.4	21.6
DE	1.3	36.7	63.3	0.3	29.4	70.6
EE	0.8	>100	<0	-0.5	<0	>100
IE	0.2	<0	>100	2.6	46.7	53.3
EL	4.4	42.2	57.8	5.5	54.4	45.6
ES	1.8	31.0	69.0	4.6	32.6	67.4
FR	1.1	>100	<0	1.2	97.6	2.4
IT	2.2	86.1	13.9	4.5	64.7	35.3
CY	-0.2	>100	<0	4.1	20.3	79.7
LV	1.3	61.5	38.5	0.8	29.0	71.0
LT	1.7	<0	>100	2.7	19.1	80.9
LU	-0.1	<0	>100	-0.9	39.8	60.2
HU	3.4	66.1	33.9	3.1	58.6	41.4
MT	-0.5	<0	>100	-0.9	<0	>100
NL	1.0	88.1	11.9	0.9	12.7	87.3
AT	0.7	74.7	25.3	0.6	40.6	59.4
PL	1.7	<0	>100	3.3	39.2	60.8
PT	2.4	<0	>100	5.9	34.0	66.0
RO	1.4	<0	>100	2.2	<0	>100
SI	2.0	19.7	80.3	3.1	<0	>100
SK	1.1	0.7	99.3	2.1	24.6	75.4
FI	-0.7	44.5	55.5	0.6	>100	<0
SE	0.0	<0	>100	-0.7	11.2	88.8
UK	-0.2	>100	<0	0.7	68.9	31.1

Source: AMECO (Commission Spring 2013 forecast) and Commission Services calculations.

associated with a strong labour market has benefited Germany. Modest windfalls have also been observed in the Nordic Countries and Estonia. In other countries, the effect does not exceed 0.1% of GDP.

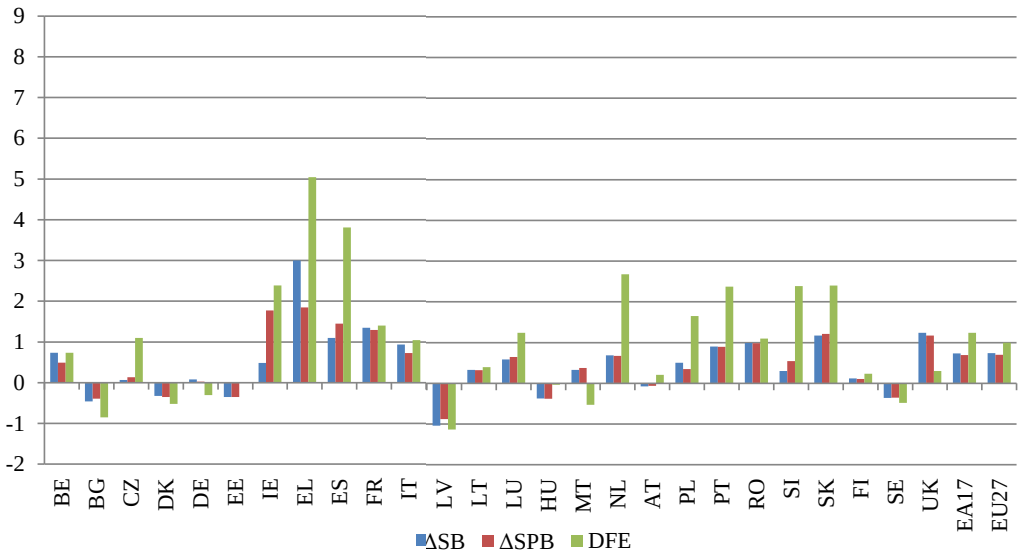
2.4.3. The composition of consolidation in 2012

The analysis of the composition of fiscal consolidation, in particular the degree to which it is expenditure-based or relying on revenues, can be made more robust by comparing the results obtained from cyclical adjustment with the DFE (Table III.2.2). For the purpose of simplicity, the analysis in this sub-section focuses on countries pursuing fiscal consolidation according to both the change in the structural balance and the discretionary fiscal effort. While difficult to summarise, the results suggest distinguishing three broad groups.

First are some countries where fiscal consolidation in 2012 appears essentially expenditure-driven as assessed both using the fiscal stance indicator divided in its revenue and expenditure components and the DFE.

This would be the case of the Czech Republic, Germany, Spain, Lithuania Romania, Slovenia and Slovakia. It is worth recalling, however, that the

Graph III.2.11: **Fiscal stance in 2013 according to the structural balance (ΔSB), structural primary balance (ΔSPB) and Discretionary Fiscal Effort (DFE) (% of GDP net of one-offs)**



Note: Cyprus is not part of the 2013 analysis because it did not submit the SCP and part of the measures for 2013 are under evaluation at the moment of publication
Source: AMECO (Commission Spring 2013 forecast).

extent of consolidation varies widely within this group, so the actual expenditure restraint is stronger in some of them.

The proportion of expenditure vs. revenues in consolidation is broadly the same according to the two indicators except for Poland and Portugal, where the DFE suggests a significant role for revenue measures, which is not reflected in the structural measure of revenues.

Second are some countries where, according to the change in the structural balance, the consolidation relies overwhelmingly on the revenue side, while the DFE approach suggests a prevailing role for the expenditure side. This applies to Member States such as Bulgaria, Cyprus, Latvia, the Netherlands and Austria.

A third group comprises countries that seem to have relied primarily on revenue measures to achieve consolidation in 2012 according to both indicators. In this situation are Belgium, Greece, France, Italy and Hungary. However, for some of these Member States (Greece and Italy) the decomposition based on the discretionary fiscal effort generally suggests a higher share of the consolidation stemming from expenditure restraint.

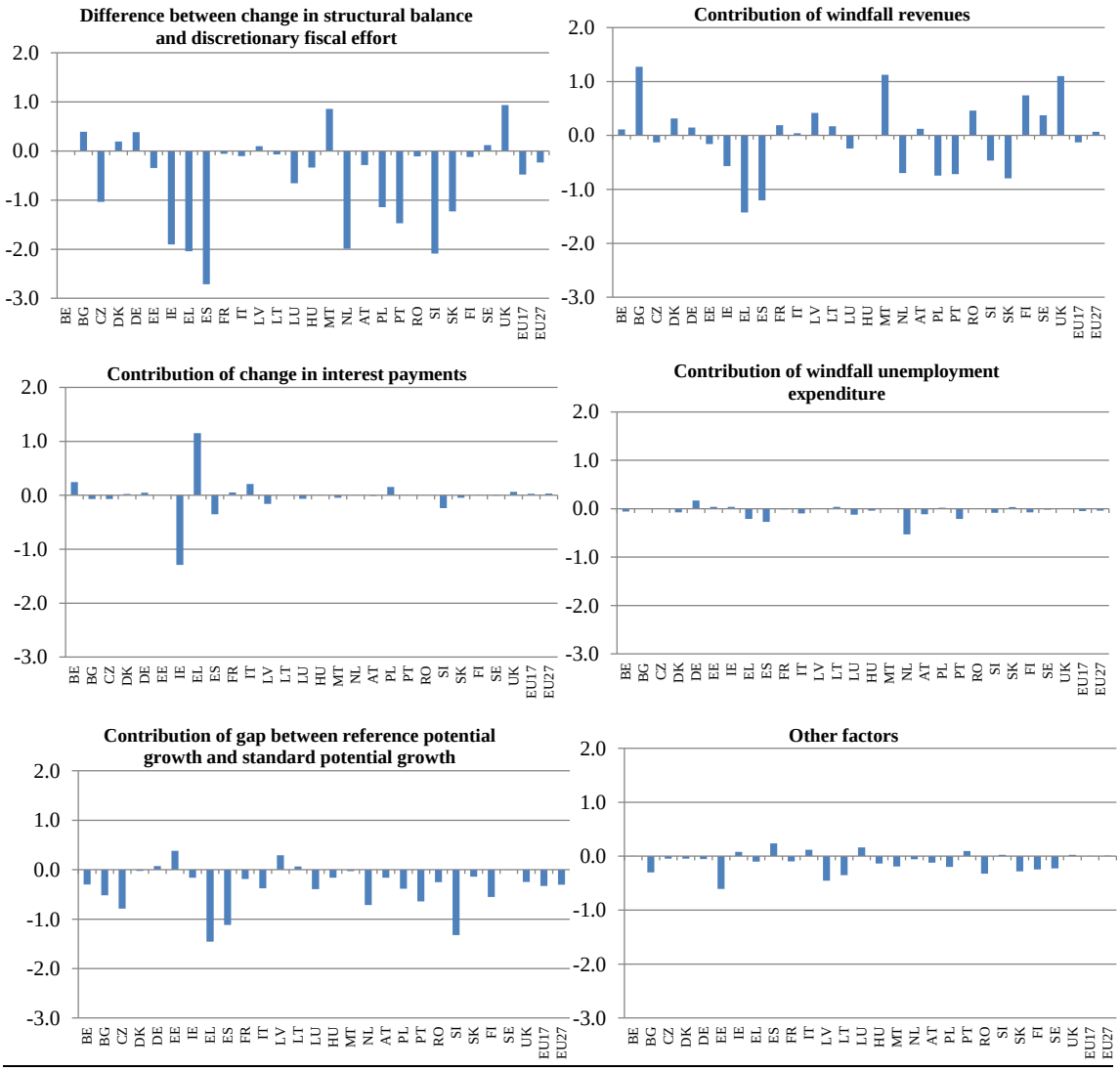
2.4.4. The fiscal stance in 2013

In 2013, according to the Commission's Spring forecast, fiscal policy would continue to be geared towards consolidation in many countries (Graph III.2.11). Fiscal consolidation is unambiguously foreseen in two-thirds of the countries (eighteen countries out of twenty-six), where both the change in the structural balance and the discretionary fiscal effort are expected to be positive.

It should be noted that, as shown in Section I.2.2, the fiscal effort is much reduced compared to 2012 given that the frontloading of fiscal retrenchment made necessary by the sovereign debt crisis allows the EU to lower the pace of adjustment.

Moreover, for a very large majority of consolidating countries, the pace of retrenchment

Graph III.2.12: **Decomposition of the difference between the change in the structural balance and the discretionary fiscal effort in 2013**



Note*:* Cyprus is not part of the 2013 analysis because it did not submit the SCP and part of the measures for 2013 are under evaluation at the moment of publication
Source: AMECO (Commission Spring 2013 forecast)

as measured by the discretionary fiscal effort exceeds that suggested by the change in the structural balance. As in 2012, this holds for most countries undergoing weak or negative growth and sustained rebalancing. The extent of fiscal consolidation would appear to be especially underestimated by using the structural balance (with a difference with the discretionary fiscal effort exceeding 1% of GDP) in ten countries (the Czech Republic, Ireland, Greece, Spain, the Netherlands, Poland, Portugal, Slovenia and Slovakia).

In Greece (above 5% of GDP) and to a lesser extent Spain (with almost 4% of GDP) the pace of consolidation as measured by the discretionary fiscal effort would be extremely large.

In a few countries, a modest fiscal relaxation appears to be in the pipeline according to both indicators (Bulgaria, Denmark, Latvia, Sweden). The situation is mixed, probably close to a broadly neutral stance in the remaining four countries (which, on top of Estonia, Malta and Austria, includes Germany).

Box III.2.1: **Breakdown of the difference between the change in the Structural Balance and the DFE**

The structural balance ([1]) is the cyclically-adjusted balance corrected for one-offs and other temporary measures:

$$SB_t = BAL_t - \left[(\rho_0^r - 1)\frac{R_0}{Y_0} - (\rho_0^g - 1)\frac{G_0}{Y_0}\right] OG_t$$

where BAL_t is the headline budget balance as a percentage of GDP (corrected for one-offs and other temporary measures) R refers to total revenues, G to total expenditure and ρ_0^r and ρ_0^g are the cyclical revenue and expenditure elasticities. ([2]) It is worth noting that the weights used to calculate the cyclical budgetary semi-elasticity are time invariant and obtained as the 10-average average of tax-revenues and expenditure-to-GDP ratios between 2002 and 2011 (denoted by the subscript 0). Hence, $\varepsilon = (\rho_0^r - 1)\frac{R_0}{Y_0} - (\rho_0^g - 1)\frac{G_0}{Y_0}$ is the semi-elasticity of the budget balance to the output gap.
As equation (2) shows the change in the structural balance (ΔSB) can be decomposed into a contribution from the revenue side (ΔSBR) and a contribution from the expenditure side (ΔSBG) based on the changes in the cyclically-adjusted revenues and expenditure, respectively. The revenue contribution can be expressed as:

$$\Delta SB_t^R = \frac{R_t}{Y_t} - \frac{R_{t-1}}{Y_{t-1}} - (\rho_0^r - 1)\frac{R_0}{Y_0}(OG_t - OG_{t-1})$$

or equivalently

$$\Delta SB_t^R = \frac{R_t}{Y_t} - \frac{R_{t-1}}{Y_{t-1}} - (\rho_0^r - 1)\frac{R_0}{Y_0}(y_t - y_t^*) \qquad (3)$$

where y_t and y_t^* denote the actual and potential GDP growth rates, respectively.

At the same time, the two measures are conceptually consistent. Over a smooth path of the economy where tax and spending elasticities stay in line with standard elasticities and in the absence of major shocks weighing on potential growth, the two measures would be essentially similar. However, they may offer a contrasted picture in the event of significant shocks.

The revenue side

The revenue contribution to the difference between ΔSB and the *DFE* is the difference between expression (3) and $\frac{N_t^R}{Y_t}$:

$$\Delta SB_t^R - DEF_t^R = \left(\frac{R_t}{Y_t} - \frac{R_{t-1}}{Y_{t-1}} - \frac{N_t^R}{Y_t}\right) - (\rho_0^r - 1)\frac{R_0}{Y_0}(y_t - y_t^*) \qquad (4)$$

The observed output elasticity of revenues (net of discretionary measures is defined as: $\rho_t^r = \frac{(R_t - N_t^R - R_{t-1})/R_{t-1}}{(Y_t - Y_{t-1})/Y_{t-1}}$

And rearranging this expression leads to $\left(\frac{R_t}{Y_t} - \frac{R_{t-1}}{Y_{t-1}} - \frac{N_t^R}{Y_t}\right) = (\rho_t^r - 1)y\frac{R_{t-1}}{Y_{t-1}}$

([1]) Starting from here and in the remaining, we make the usual assumption that the output gap is sufficiently small that terms of second order can be neglected as compared to first-order terms.
([2]) These elasticities are reported in Table III.4 in the Annex.

(Continued on the next page)

Box (continued)

This expression can be plugged into (4) and rearranging yields the following decomposition for the difference between ΔSB and the *DFE* on the revenue side:

$$\Delta SB_t^R - DEF_t^R = (\rho_t^r - \rho_0^r) y \frac{R_0}{Y_0} + (\rho_0^r - 1) y_t^* \frac{R_0}{Y_0} + (\rho_t^r - 1) y_t \left(\frac{R_{t-1}}{Y_{t-1}} - \frac{R_0}{Y_0} \right) \quad (5)$$

The three terms in (5) have a clear economic meaning. The first term in the right hand side is an approximate measure of revenue windfalls/shortfalls ([3]) which show up as a difference between the actual and average elasticities. The second term reflects the trend increase/decrease in the revenue-to-GDP ratio linked to potential growth, which is only captured by the SB approach. The last term stems from the used of fixed weights in the standard calculation of the cyclical component of revenues. Insofar as the revenue-to-GDP ratio does not deviate significantly from its average value, this third term will be small as compared with the other two ones.

The expenditure side

In turn, the contribution of public expenditure to the difference between ΔSB and the *DFE* is:

$$\Delta SB_t^g - DEF_t^G = -\left(\frac{G_t}{Y_t} - \frac{G_{t-1}}{Y_{t-1}} \right) + \left(\rho_0^g - 1 \right) \frac{G_0}{Y_0} (y_t - y_t^*) + \frac{G_t - I_t - U_t}{Y_t} - (1 + pot) \frac{G_{t-1} - I_{t-1} - U_{t-1}}{Y_t} \quad (6)$$

Notice that in (6) total unemployment expenditure, instead of non-discretionary unemployment expenditure is deducted. By rearranging terms (6) can be written as:

$$\Delta SB_t^g - DEF_t^G = (y - pot) \frac{G_{t-1}}{Y_{t-1}} + \left(\rho_0^g - 1 \right) \frac{G_0}{Y_0} (y_t - y_t^*) - \Delta \frac{I_t}{Y_t} - \frac{\Delta U_t}{Y_t} - (y_t - pot) \frac{I_{t-1} + U_{t-1}}{Y_{t-1}} \quad (7)$$

On the other hand, the cyclical unemployment expenditure elasticity is estimated as a regression between the change in unemployment expenditure over total public expenditure and the difference between actual and potential growth. Hence, the observed elasticity can be equated with:

$$\rho_t^g = \frac{(U_t - U_{t-1})/G_{t-1}}{y_t - y_t^*}$$

and substituting in (7) for the change in unemployment and assuming that the term $\rho_t^g (y_t - y_t^*) \frac{G_{t-1}}{Y_t}$ is at first order equivalent to $\rho_t^g (y_t - y_t^*) \frac{G_{t-1}}{Y_{t-1}}$ the following expression after some algebraic manipulation is obtained:

$$\Delta SB_t^g - DEF_t^G = \left(\rho_0^g - \rho_t^g \right) \frac{G_0}{Y_0} (y_t - y_t^*) + (y_t^* - pot) \frac{G_{t-1}}{Y_{t-1}} - \Delta \frac{I_t}{Y_t} + (1 - \rho_t^g)(y_t - y_t^*) \left(\frac{G_{t-1}}{Y_{t-1}} - \frac{G_0}{Y_0} \right) - (y_t - pot) \frac{I_{t-1} + U_{t-1}}{Y_{t-1}} \quad (8)$$

As in the case of revenues, the different terms in equation (8) have a clear economic interpretation. The first term on the right hand side reflects the "windfalls/shortfalls" in unemployment expenditure. The second stems from the variability of potential growth. The third one merely shows the effect of the increase in interest payment expenditure.

Such source of difference between both indicators is overcome by the use of the change in the cyclically adjusted primary balance (ΔSPB), instead of ΔSB. The fourth term shows up as due to the deviation of expenditure ratios with respect to the fixed weights used in the SB methodology. Finally, the fifth term only reflects the excess trend projection of interest and unemployment expenditure with respect to the medium-term potential growth rate. The last two terms are deemed to be small when compared to the other 3 ones.

([3]) See Morris et al. (2009) for a more precise definition of revenue windfalls/shortfalls.

A decomposition of the difference between the indicators (2013)

The difference between the two indicators of fiscal stance can be broken down into its main components, as done for 2012 (Graph III.2.12). Overall, the difference remains large, although a bit lower on average than in 2012. The latter point may reflect the fact that forecasts can only partially anticipate movements in tax or spending elasticities beyond standard cyclical responses. Correspondingly, the role of windfall/shortfall in revenues and in unemployment expenditure is slightly less pronounced than in 2012, while the part played by the potential growth remains broadly as significant. ([78])

Some substantial revenue shortfalls are anticipated, along with a few positive windfalls. Large revenues shortfalls (over 1% of GDP) are expected in Greece and Spain, and notable ones (exceeding ½ per cent of GDP) in six other countries (Ireland, the Netherlands, Poland, Portugal, Slovenia and Slovakia). Except for the cases of the Netherlands and Poland, revenue shortfalls are associated with countries strongly affected by the crisis and rebalancing pressures, although less strikingly so than in 2012, at least at this stage where forecasts remain highly uncertain. Notable positive revenue windfalls are also expected, notably in Bulgaria, Malta and the United Kingdom, but these do not seem to reflect an obvious common feature.

Contributions reflecting the volatility of potential growth are very similar to those observed in 2012 (as could be expected), with a large majority of negative contributions. These remain highest in countries in recession and/or having experienced a strong adjustment in recent years (most significantly in Greece, Spain and Slovenia). Limited positive contributions are obtained in a few countries.

Increases in interest payments (which are not included into the breakdown based on the primary structural balance) would be important in some countries. This concerns in particular Ireland (where they rise by over 1¼ per cent of GDP). More moderate increases are expected elsewhere, notably in Spain and Slovenia. Belgium, Greece and Italy would conversely benefit from some declines in interest charges.

With exceptions, changes in unemployment expenditure beyond standard cyclical elasticities are not expected to play a significant role in explaining differences between indicators of fiscal stance, at least at this stage of forecast. Non-negligible changes in unemployment expenditure beyond traditional cyclical elasticities are nevertheless foreseen in Greece, Spain, the Netherlands and Portugal.

2.4.5 The composition of consolidation in 2013

Like in the case of 2012, Table III.2.3 shows the consolidation effort undertaken by Member States in 2013 and the contribution of revenues and expenditures to the overall adjustment. Again, this section only focuses on countries that consolidate according to both indicators.

The adjustment in 2013 would be mainly expenditure-based in Ireland, Greece, Lithuania, Poland and Slovenia, for which the expenditure-revenue proportions with the two indicators broadly coincide.

Other consolidating countries would rely on a mix of revenue-based and expenditure-based consolidation, such as in Belgium, Spain, Italy and Romania. In these cases except Italy, the expenditure side plays a more prominent role when the DFE is used.

The adjustment is mostly revenue-based in the Czech Republic, France, Luxembourg, the Netherlands, Portugal and Finland, most of the adjustment would be achieved by revenue measures, although in the Czech Republic, Luxembourg and the Netherlands the DFE shows some significant contribution from expenditures.

Finally, in Slovakia and the United Kingdom the DFE offers a totally different picture from the change in the structural balance: in the former case the DFE reveals a balanced composition of the adjustment as opposed to the expenditure-based consolidation shown by the change in the structural balance; in the latter, the DFE unveils an adjustment that turns out to be mainly expenditure

([78]) The mean absolute value of windfalls/shortfalls in revenues is 0.6% of GDP. The figure is 0.5% of GDP for the potential growth wedge, 0.2% of GDP for the change in interest payments, and 0.1% for the windfalls/shortfalls in unemployment expenditure.

Table III.2.3: **Composition of consolidation in 2013**

	2013					
		of which % contribution of			*of which % contribution*	
	Change in the structural balance	revenues	expenditure	**Discretionary Fiscal Effort**	revenue	expenditure
BE	**0.7**	52.5	47.5	**0.7**	47.7	52.3
BG	**-0.5**	<0	>100	**-0.9**	<0	>100
CZ	**0.1**	>100	<0	**1.1**	51.2	48.8
DK	**-0.3**	>100	<0	**-0.5**	>100	<0
DE	**0.1**	42.8	57.2	**-0.3**	<0	>100
EE	**-0.4**	>100	<0	**0.0**	>100	<0
IE	**0.5**	44.7	55.3	**2.4**	32.0	68.0
EL	**3.0**	<0	>100	**5.0**	12.6	87.4
ES	**1.1**	58.8	41.2	**3.8**	46.8	53.2
FR	**1.3**	>100	<0	**1.4**	92.4	7.6
IT	**0.9**	68.5	31.5	**1.0**	53.3	46.7
LV	**-1.0**	68.9	31.1	**-1.1**	67.1	32.9
LT	**0.3**	<0	>100	**0.4**	10.4	89.6
LU	**0.6**	>100	<0	**1.2**	72.6	27.4
HU	**-0.4**	<0	>100	**0.0**	<0	>100
MT	**0.3**	>100	<0	**-0.5**	75.3	24.7
NL	**0.7**	97.4	2.6	**2.7**	54.5	45.5
AT	**-0.1**	<0	>100	**0.2**	>100	<0
PL	**0.5**	<0	>100	**1.6**	7.7	92.3
PT	**0.9**	>100	<0	**2.4**	>100	<0
RO	**1.0**	54.6	45.4	**1.1**	39.5	60.5
SI	**0.3**	35.2	64.8	**2.4**	25.3	74.7
SK	**1.2**	6.9	93.1	**2.4**	50.6	49.4
FI	**0.1**	>100	<0	**0.2**	>100	<0
SE	**-0.4**	53.5	46.5	**-0.5**	60.5	39.5
UK	**1.2**	97.9	2.1	**0.3**	38.5	61.5

Note: Cyprus is not part of the 2013 analysis because it did not submit the SCP and part of the measures for 2013 are under evaluation at the moment of publication
Source: AMECO (Commission Spring 2013 forecast) and Commission Services calculations.

-based, whereas the change in the structural balance shows just the opposite message.

2.5. CONCLUSIONS

The comparison between the change in the structural primary balance and the DFE suggests that in general the fiscal stance indicator is larger than the effort indicator (and thus yields a more optimistic view of discretionary fiscal policy in booms, while it tends to underestimate fiscal effort in recessions). The analysis shows that the main reason for this difference are revenue windfalls/shortfalls (and to a lower extent to windfalls/shortfalls in unemployment expenditure) that show up as a consequence of the fluctuations in tax (and unemployment) elasticities and by construction are included in the change of structural balances, but not in the DFE. Relying on enacted measures on the revenue side and on medium-term potential growth on the expenditure side, the DFE seems to yield a more precise indication of fiscal effort when economies are undergoing deep economic changes, large changes in interest payments, or sharp revisions in potential

Box III.2.2: **Measuring fiscal effort: the example of Latvia**

Difficulties in measuring fiscal consolidation can be illustrated on the example of Latvia as a Member State that had implemented very profound and wide-ranging fiscal consolidation. Particularly interesting in this context is year 2009, when the Latvian economy contracted by more than 18%, reflecting even higher contraction in the domestic demand and a reversal from a double-digit current account deficit in 2008 to surplus in 2009, which was accompanied by very substantial downward adjustment in private and public wages and other profound changes in the economy. At the same time, this was also a period when most radical fiscal consolidation measures were put in place. Given that Latvia benefitted at that time from the international financial assistance programme, the details of these measures are well documented .

The difference between self-reported fiscal consolidation based on the "narrative approach" and the change in the cyclically-adjusted primary balance as estimated by the European Commission reaches almost 9 percentage points in 2009, while it is smaller in following years (see Table X). Possible explanations to this difference are discussed in more detail below (for more detailed analysis, as well as the discussion on the macroeconomic impact of fiscal consolidation in Latvia, see European Commission (2012b)).

Table III.1.2

	2008	2009	2010	2011	2012
Change in cyclically-adjusted primary balance, % of GDP, EC 2013 spring forecast	-1.4	0.7	1.1	2.9	0.8
Self-reported fisal consolidation according to bottom-up approach, % of GDP, 2013 convergence programme	0.5	9.5	4.0	2.3	0.7

Given the profound changes that took place in the Latvian economy in the adjustment phase, variation between tax bases can offer the most obvious source of difference. The methodology in Lendvai et al (2011) bases the analysis on the absorption cycle rather than output cycle, given that indirect taxes are influenced rather by the former, and helps in explaining 1¾ percentage points of the difference. It is also clear from short-term elasticities that the tax behaviour – especially on the side of indirect taxes – was very severely affected by the crisis in Latvia, since the impact of substantial measures put in place from January 2009 on the side of VAT (increasing the standard rate from 18% to 21% and the reduced rate from 5% to 10%) and other indirect taxes, with an estimated impact of 2½ percentage points of GDP, was entirely offset by the falling short-term elasticity. On the side of labour taxes, the standard approach disregards sharp shifts in distribution between compensation of employees and gross operational profits that took place between 2008 and 2009 due to nominal wage cuts, possibly explaining another 1–1½ percentage point of the difference.

At the same time, the impact of crisis on expenditure might have been underestimated by the standard methodology. Traditionally, only unemployment benefits are considered to be cyclically driven; however, partly as the duration and coverage of unemployment benefits is rather limited in Latvia, other social outlays increased noticeably as well, likely due to behavioural incentives, possibly explaining another ½ percentage points of the difference. The crisis also revealed underlying problems in several public companies and banks, triggering various forms of loss recognition with the impact on government's accounts and respectively top-down estimate; however, only limited part of these losses can be considered truly "exceptional" or "one-off" in the sense of EU budgetary surveillance (i.e. deducted from the structural balance). The estimate by the

(Continued on the next page)

growth – that are ill-captured by standard estimates of cyclical tax and spending elasticities.

Box (continued)

Latvian authorities quoted above does not cover these losses – and large part of such losses is unlikely to have been captured by any bottom-up estimate, since it does not involve any policy action but simply a statistical loss recognition; this could explain another ½ percentage point of the difference.

Finally, a following example related to pensions demonstrates the inherent differences between top-down and bottom-up approached. Expenditure related to old-age pensions increased by 20% in Latvia in 2009, compared with 2008 (Eurostat, COFOG data), resulting in almost 3 percentage points of GDP increase. This increase was a result of two main factors: firstly, change in policy (increase in bonus payments) from 1 January 2009, responsible for approximately one-third of the increase, and, secondly, the lagged impact of high wage and price growth of boom years on pension indexation implemented in particular in late 2008, which was responsible for approximately two-thirds of the increase. Whereas the first factor should have been captured by the bottom-up estimate (but wasn't in case of self-reported estimate quoted above), the second does not in fact constitute a policy change. On the other hand, freezing pension indexation in the course of 2009 is included in the bottom-up estimate.

The implications for the recent years are then straightforward: the DFE shows that, in the present context, in many cases the changes in structural balance do not fully reflect the actual consolidation effort. This issue is especially relevant in Member States that are most affected by the current downturn. Conversely, during the booming years that preceded the crisis, the structural balance tended to overestimate the progress on fiscal consolidation.

In general, the discretionary fiscal effort has the same sign of the change in the structural balance for 2012 and 2013. This notwithstanding, the DFE is large than the change in the structural primary balance. In this connection, the degree of pro-cyclicality differs somewhat across Member States, being more pronounced in the countries undertaking more sizeable fiscal efforts and, at the same time, more severely affected by the crisis.

3. DISCRETIONARY MEASURES AND CYCLICAL ELASTICITIES

The previous chapter presented the DFE, a new indicator of discretionary fiscal effort based partly on narrative revenue measures and partly on a conventional approach to the evolution of expenditures. The present chapter discusses discretionary tax measures (DTM), which form the bulk of discretionary revenue measures with the aim to analyse their relevance and pattern within the EU since the adoption of the euro and their impact on the observed elasticity of tax revenues to GDP, a crucial variable in determining the CAB-to-GDP ratio.

A DTM can be broadly defined as any legislative or administrative change in policy that has an impact on tax revenue, whether it is already finally adopted or only likely to be implemented. The availability of sound estimates of DTM is paramount for an appropriate assessment of the government fiscal stance. ([79])

Accurate data on DTM thus allow for better interpreting the annual development in the CAB and the structural budget balance, which are the other key indicators used in fiscal surveillance (Larch and Turrini, 2009; Mourre et al., 2013). ([80]) Those indicators could be affected by the short-term movements in tax elasticities, particularly during major economic booms and downturns. These movements could be substantially influenced in turn by DTM. Existing country-level evidence (Duchene and Levy, 2003; Wolswijk, 2007) shows that data on DTM play a role in explaining short-term variations in tax elasticities. This was confirmed by cross-country comparisons carried out over a EU country sample (Barrios and Fargnoli, 2010). Therefore, net tax elasticities should be considered when examining short-term fluctuation in tax elasticities, since they reflect the effect of the (endogenous) evolution of tax bases and abstract, to a large extent, from policy-induced (i.e. exogenous / discretionary) measures affecting tax yields.

In such context, the Output Gap Working Group (OGWG) of the Economic Policy Committee (EPC) is collecting and analysing data on DTM every year, by submitting to Member States an annual questionnaire. The questionnaire submitted to the OGWG is consistent with the information that EU Member States have to communicate to the European Commission in the context of the submission of their Stability and Convergence Programmes (SCPs). ([81]) However, its main purpose is analytical with a view to sharing a better understanding of DTM pattern over time (see Barrios and Fargnoli, 2010) for the design of the first OGWG questionnaire) and to more precisely assess tax revenue elasticities with respect to GDP. As discretionary tax policy is widely used by governments, discretionary measures are expected to amount to a sizable share of GDP, which could – at least in part – affect the short-term pattern of tax elasticities.

This chapter provides updated evidence of the size, composition and cyclicality of DTM in the EU over the period 2001-12. It shows that, while their average magnitude is fairly limited over a long period with the discretionary tax cuts being offset by discretionary tax hikes, they can be non-negligible at any given point in time. It also finds that discretionary measures do not follow a clear cyclical pattern across countries and depend on

([79]) This holds not only in the theoretical discussion on the appropriateness of the narrative approach. It is also relevant for fiscal surveillance as, the reformed Stability and Growth Pact (SGP) envisages a specific role for discretionary revenue measures both in the preventive and in the corrective arm. In the preventive arm, the growth path of expenditure is assessed in conjunction with the effect of discretionary revenue measures within the expenditure benchmark. In the corrective arm, effective action is assessed also on the basis of the budgetary impact of discretionary revenue measures communicated by Member States. For countries which are subject to the excessive deficit procedure (EDP), the reform of the SGP furthermore envisages that the reports submitted following recommendations under Article 126(7) and notices under Article 126(9) include targets for the government revenue and for the related discretionary measures consistent with the Council's recommendations and notices.

([80]) They are the traditional indicators adopted by the SGP to approximate the discretionary component of the changes in the budget balance. The annual improvement in the structural balance (i.e. CAB net of the impact of one-off and temporary measures) is used both to assess progress toward the Medium-Term Objective of budgetary policy (MTO) in the preventive arm of the SGP (Regulation 1466/97) and to establish the annual budgetary targets in the Excessive Deficit Procedure (EDP) (Regulation 1467/97). Recent updates in the CAB methodology can be found in Mourre et al. (2013).

([81]) Information reported is more detailed than in SCPs and presented as historical time series back to the early 2000s, extended by recent forecast. As of its 2013 issue, the questionnaire will be filled by Member States at the same time as the Stability and Convergence Programmes, that is, in April of each year and no later than the end of April. It should be noted that the data is only covering DTM, excluding non-tax revenue and public expenditure.

policy regimes. Based on those findings, the chapter analyses the impact of DTM on short-term tax elasticities and examines the fluctuations of gross and net elasticities in the short-term. ([82])

3.1. DATA ON DISCRETIONARY TAX MEASURES

Since mid-2008, DTM data, whose impact represents at least 0.05 (pp) of GDP and this over the full range of years concerned by the measure, are annually reported by the EU Member States and gathered together in a dataset. In order to analyse a sufficiently long time span and to include as many Member States as possible, the period 2001-12 was taken as sample period. ([83])

Data for three broad revenue categories - direct taxes, indirect taxes and social security contributions - were reported for most EU Member States. For a limited set of countries - Greece, Italy, Lithuania, Slovenia and Slovakia - social security data were not available. For half of EU countries, data on DTM were recorded on an accrual basis consistent with ESA 95 (European System of National and Regional Accounts), others reported data on a cash basis. ([84]) Moreover, estimates of DTM are usually made ex-ante with only few countries undertaking ex-post revisions (e.g. Estonia, Spain, Ireland, Lithuania, Latvia, Poland, and Slovakia).

Regarding 2012 – the last year in the series used here – discretionary measures, only measures known in sufficient detail at the time of the reporting and very likely to be concretely implemented were reported. Member States were asked to report following the logic of the no-policy change assumption used in the EU forecast framework. This 'baseline scenario' reflects the measures adopted or approved, including past or recurrent government's practices, but also the planned measures, with high probability of being eventually implemented and coming into force. This assumption aims at enhancing cross-country consistency, as (ideally) the same DTM impact is reported for the same economic event, regardless of the institutional arrangements prevailing at the country level (e.g. in terms of government decision or legislation).

For analytical purposes the DTM data from the Commission 2012 Autumn forecast were combined with macro-economic data. Combining these information allows assessing the size and composition of DTM as a percentage of GDP.

3.2. SIZE AND COMPOSITION OF DISCRETIONARY TAX MEASURES

In order to evaluate the size and importance of DTM, we express them as a share of GDP and compute an average across years and countries. Although values can be quite large for individual years or countries, the average share of DTM is almost nil (less than 0.1% of GDP) in the EU as a whole over the period 2001-12. This – at first sight surprising – result can be explained by three observations.

- First, as country business cycles are not fully synchronised and political cycles differ, discretionary tax hikes in one country tend to be offset by discretionary tax cuts in another country, in any given year. Evidence of varying DTM patterns across countries are provided in Graph III.3.1, which plots the total DTM for each Member State and year. A quite large dispersion across Member States can be observed. ([85])

- A second element explaining the small average share of DTM is that positive and negative DTM tend to cancel out over the business cycle. Evidence is reported in Graph III.3.2,

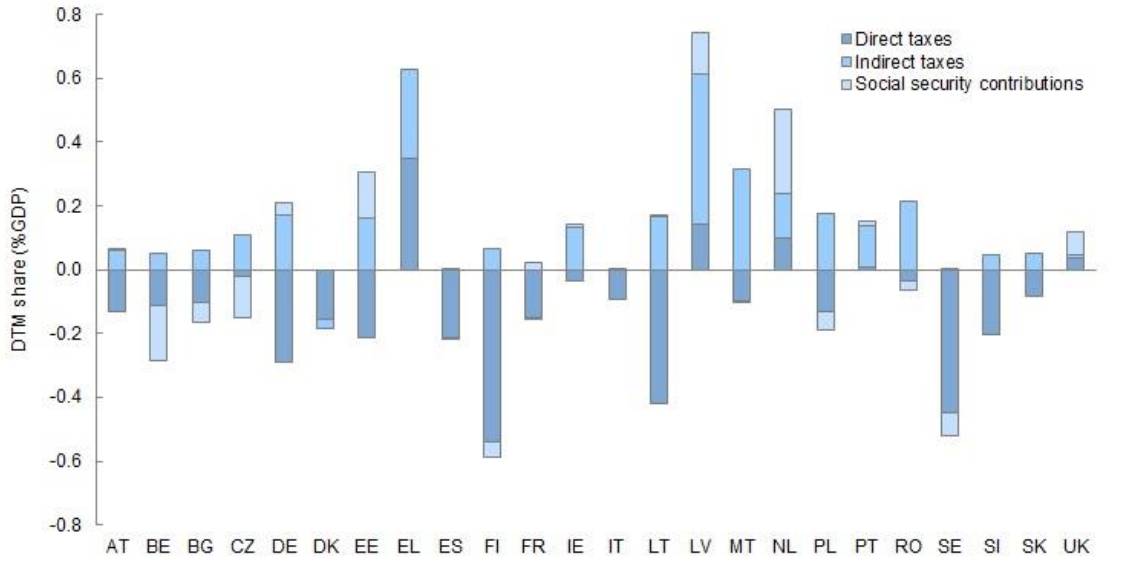
([82]) The definition of elasticity in this context is provided in Box II.3.1. Gross elasticity refers to the percentage change of revenues to changes in GDP computing the total amount of revenues. Net elasticity is computed by netting revenues from the amount of discretionary revenues. See also below.

([83]) 20 out of 27 EU Member States reported at least 10 out of 12 years of the sample period. Of the remaining countries, four reported more than half of the sample period (i.e. Bulgaria, Estonia, Greece and Romania) and were included in the analysis. For three countries (i.e. Cyprus, Hungary and Luxembourg) the data covered a too short time span to be considered for analytical purposes.

([84]) The accrual principle records revenues when they are earned and records expenses when they are incurred. The cash principle records revenue when cash is received and records expenses when cash is paid. A few Member States (i.e. Austria, Cyprus, Hungary, Lithuania and Poland) reported data on a mixed cash/accrual basis.

([85]) As 2008 values for Spain, 2009-10 values for Latvia and 2011-12 values for Greece are considerably larger than the other country-year observations, they were not represented within this graph.

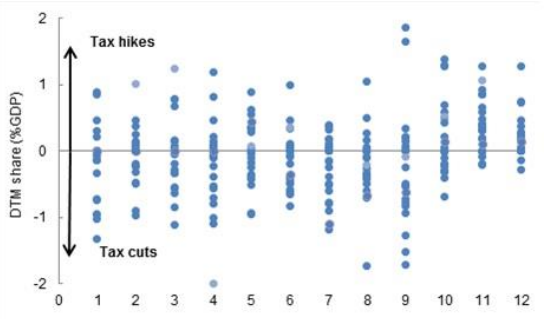
Graph III.3.1: **Composition of discretionary tax measures (% of GDP)**



Source: Commission services

which provides an analysis by country of DTM. At the same time, the average size of discretionary measures over the whole period differs considerably among countries, as they range from -0.5% of GDP (tax cuts) in Finland to 0.7% of GDP (tax increases) in Latvia. More than half of the countries display an average share of DTM below zero, reflecting tax cuts.

Graph III.3.2: **Variation of discretionary tax measures across countries**



Source: Commission services

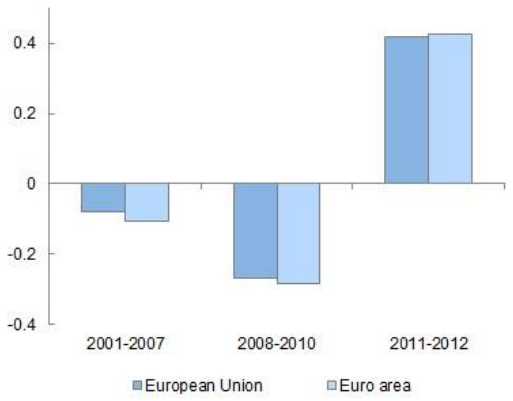
- A third reason for the small average share of DTM is the composition of DTM: within each country compensating shifts among tax categories seem to be a common pattern. Based on Graph III.3.2, it can be observed that discretionary tax cuts are mainly accounted for by direct taxes. In a considerable number of countries (Austria, Belgium, Bulgaria, the Czech Republic, Germany, Estonia, Finland, Ireland, Lithuania, Malta, Poland, Romania, Slovenia and Slovakia) the discretionary cuts of direct taxes are (partially) compensated by discretionary increases of indirect taxes, presumably as part of a growth-friendly tax shift.

As those three observations entail as many offsetting patterns (compensation across countries, across years and across tax categories), the small share of DTM seems less surprising. This is also consistent with a much larger average gross share of DTM (0.4% of GDP in the EU). DTM may therefore still play a relevant role in explaining the variation in short-term elasticities of tax revenues to GDP. Before studying the impact of DTM on short-term tax elasticities, the next section analyses the cyclicality of DTM and aims at determining whether a cyclical pattern can be observed.

3.3. CYCLICALITY OF DISCRETIONARY TAX MEASURES

The relationship between discretionary policy and the business cycle is far from obvious. Unlike the cyclical component of the budget balance, the cyclical pattern of discretionary policy is not the result of an automatic process stabilising business

Graph III.3.3: **Average discretionary tax measures over time (total levies)**



Source: Commission services

cycle fluctuations, but the result of the reaction function of the government, which is not predetermined theoretically. When examining the issue empirically, different elements matter: the methodology used to identify discretionary policies but also the moment when discretionary policy is observed. Cimadomo (2008) estimates the "policy reaction functions" of the government, ([86]) i.e. its fiscal behaviour in times of upturns or slowdowns, based on revised estimates of revenue and expenditure measures to study the nature of discretionary fiscal policy. He finds that it depends on the perspective from which the fiscal stance is assessed: when using ex-post data it seems to be pro-cyclical, when using ex-ante data, the fiscal stance appears to be counter-cyclical. Based on data on legislated revenue changes provided by the National Central Banks of EU Member States, Agnello and Cimadomo (2009) find that, by and large, legislated changes in taxes and social security contributions responded in a strongly pro-cyclical manner to the business cycle, (while cyclical adjustment methods point to a-cyclicality). Using 2000-08 data on DTM, Barrios and Fargnoli (2010) also find evidence of pro-cyclical fiscal policy.

Our dataset allows analysing discretionary policy from the revenue side over the period 2001-12 and hence covers the financial crisis period 2008-10, as well as the period following the crisis. It, therefore, enables us to observe three distinct policy regimes, which – as will be observed – will all three have a distinct fiscal nature. For each of the periods, Graph III.3.3 shows the average size of the total DTM, expressed as percentage of GDP. The weighted averages of the EU and the euro area are reported for the three policy regimes.

- A *pre-crisis regime* (2001-07), characterised by a booming economy, the convergence of spreads and the creation of macroeconomic and financial imbalances, with a positive output gap in both the EU (1.4%) and the euro area (0.9%) on average. During this period, DTM mainly consisted of tax cuts (i.e. entailing lower revenues), providing evidence of mildly pro-cyclical tax policy. This 'benign neglect' was common in good fiscal times, when countries felt they could afford tax cuts, partly because of tax windfalls from booming asset prices.

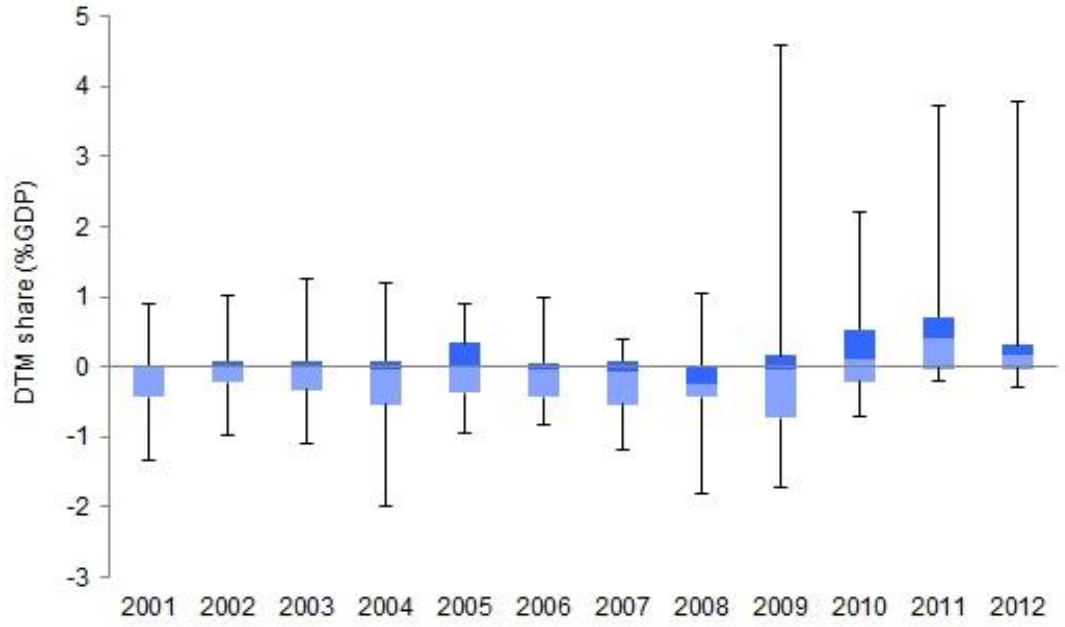
- A *crisis regime* (2008-10), characterised by the crisis in the financial sector with a negative output gap in both the EU (-1.3%) and the euro area (-1.6%) on average. The crisis regime consisted of large stimulus measures implemented in face of a deep economic recession, including tax cuts and was therefore largely counter-cyclical.

- A consolidation regime (2011-12), characterised by the rise of the sovereign debt crisis. The balance-sheet recession displays a negative output gap in both the EU (-2.4%) and the euro area (-2.8%). During the consolidation period, characterised by the debt crisis and the lack of fiscal space, EU Member States engaged in tax hikes, as a way to consolidate their public finances and as a response to the debt crisis and the loss of confidence in the financial markets.

These shifts may be even stronger when looking at the largest countries of the euro area. In the pre-crisis period, France, Germany, Italy and Spain used DTM in a pro-cyclical way, as was the case for the euro area as a whole. Discretionary tax cuts were limited and amounted from -0.1% to approximately -0.2% of GDP. Over the period 2008-10, France, Germany (almost -0.4% of GDP) and in particular Spain (more than -0.6% of GDP) substantially increased their tax cuts compared to other euro area countries. Italy, however, reduced

([86]) Policy reaction functions relate a policy indicator to the output gap and other explanatory variables.

Graph III.3.4: **Discretionary tax measures over time (total levies)**

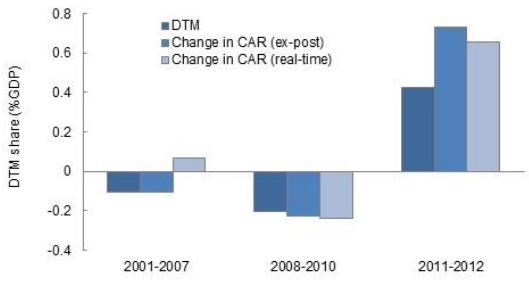


Source: Commission services

its tax cuts over that same period. In the 2011-12 period, France used marked discretionary tax hikes for consolidation purposes (0.5% of GDP), whereas DTM in Germany were rather limited (0.3% of GDP) compared to the euro area average. Based on those observations, it seems that cyclicality is only a weak determinant of DTM and that the use of DTM is mainly related to shifts in policy regimes, caused by changes in the economic context. It should be reminded that this analysis of pro-cyclicality only looks at the tax side, while the expenditure side considerably matters when assessing the global pro-cyclicality of fiscal policy.

When representing DTM using box-plots across years to explore the cyclical pattern of discretionary policy, similar observations are made (Graph III.3.4). The lower and upper quartiles of DTM form the bottom and top of the boxes. The horizontal line within the boxes indicates the median total DTM and the ends of the whiskers represent the maximum and minimum DTM values for each year. Three periods can be identified. A first period regroups the years for which the median DTM is approximately zero (2001-07), a second period clusters the years with a negative or zero median (2008-10) and a third period regroups the years with a positive DTM median (2011-12).

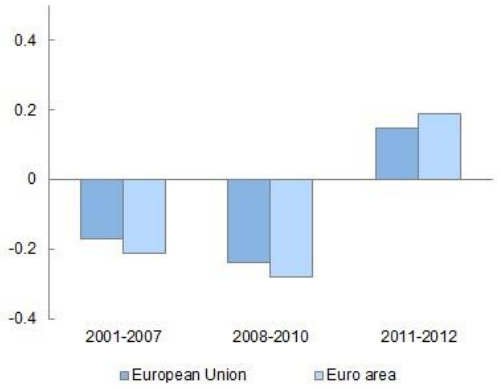
Graph III.3.5: **Aggregated discretionary tax measures versus the change in the cyclically adjusted balance in the euro area**



Source: Commission services

As aggregating DTM is a way to measure consolidation efforts on the tax side, Graph III.3.5 compares the sum of DTM with the change in the cyclically adjusted revenue (using the COM 2012 Autumn forecast) computed using both real time output gap and ex post output gap. As in times of large shocks the top-down approach of estimating the annual change in the cyclically adjusted revenue does not always give an accurate reflection of the discretionary fiscal efforts on the revenue side, consolidation efforts are also measured by adding up all the individually defined discretionary measures. It is the approach that

Graph III.3.6: **Discretionary tax measures over time (direct taxes)**



Source: Commission services

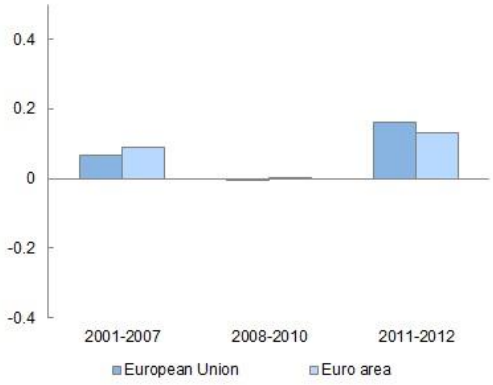
underlies the DFE measure of fiscal stance presented in the previous chapter. Graph III.3.5 shows that both approaches indicate the same trend. Aggregate DTM and cyclical adjusted revenues are very close for the pre-crisis and the start of the crisis (although real-time data shows a different picture, i.e. tax increase, in the pre-crisis period). In the consolidation period, the cyclical-adjusted revenues, both real-time and ex post, suggest a stronger tax increase than DTM data.

Those differences could be explained by the different benchmark used by the two approaches: the benchmark underlying the cyclically-adjusted revenue corresponds to the nominal revenue increasing at the same pace as potential output, while the bottom-up benchmark is the development of the nominal budget balance in absence of new policy actions.

Graph III.3.6 and Graph III.3.7 show the regime shifts by tax category. In the pre-crisis period (2001-07), direct tax breaks were the prevailing pattern. They were partly financed by the tax shift toward indirect taxation, in particular consumption taxes. Over the period 2008-10, direct tax cuts averaged at around ¼ pp of GDP in both the euro area and the EU, while the trend increase of indirect taxes came to a halt presumably to avoid further depressing consumption in a period of strong contraction of the economic activity. In the 2011-12 period, consolidation measures in the form of discretionary tax hikes can be observed for both direct and indirect taxes. The reversal of the policy regime, however, is more evident for direct taxes.

To sum up, the use of DTM is mainly related to shifts in policy regimes, caused by changes in the economic context, rather than to the business cycle. While small pro-cyclical tax cuts were observed during the pre-crisis period (2001-07), larger counter-cyclical tax breaks were adopted during the crisis period (2008-10), as part of the stimulus package. During the consolidation period (2011-12), characterised by the debt crisis and the lack of fiscal space, EU Member States have engaged in pro-cyclical tax hikes, as a way to consolidate their public finances. Moreover, the analysis showed that discretionary tax cuts are mainly accounted for by direct taxes. In half of the countries, those cuts are partially compensated by discretionary increases of indirect taxes as part of a shift towards more growth-friendly tax bases.

Graph III.3.7: **Discretionary tax measures over time (indirect taxes)**



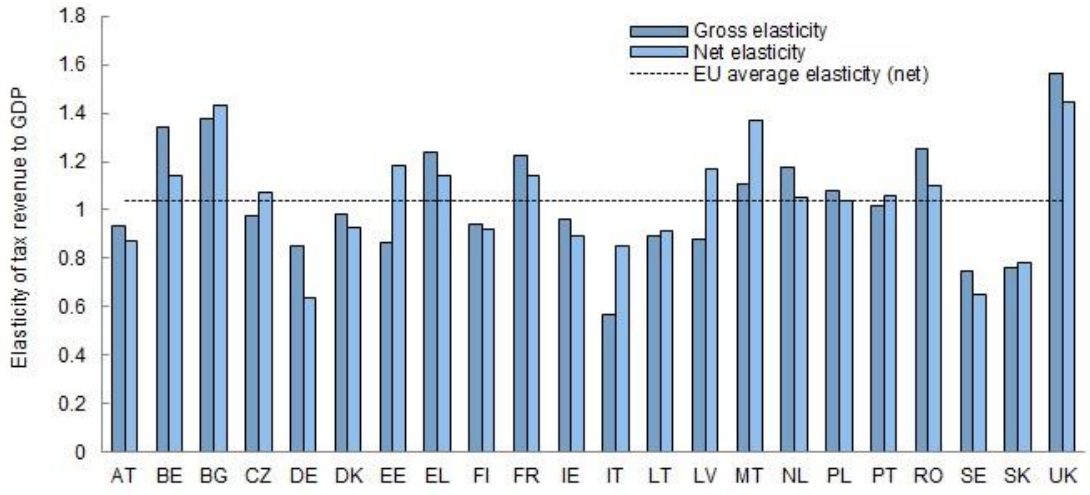
Source: Commission services

3.4. IMPACT OF DISCRETIONARY TAX MEASURES ON SHORT-TERM TAX ELASTICITIES

Revenue elasticities are standard parameters used to measure the sensitivity of tax revenues to their respective tax base. Three different concepts of revenue elasticities are currently used:

- *the elasticity of revenue with respect to the output gap*. This corresponds to the percentage change in revenue level induced by an output

Graph III.3.8: **Gross and net tax elasticities (average total levies 2001-2012)**



Source: Commission services

gap of 1%. It can be decomposed into two components: the elasticity of revenues to their base and the elasticity of the revenue base to the output gap. This is the concept defined by the OECD and used by the European Commission in the fiscal surveillance framework, in particular for the computation of the cyclically adjusted budget balance (CAB). The elasticity of revenue with respect to the output gap is one component of the semi-elasticity used to directly derive the CAB from the output gap and the budget balance. The fiscal semi-elasticity corresponds to the change in budget-to-GDP ratio induced by an output gap of 1% (see Box II.3.1). It should be noted that the elasticity of revenue with respect to the output gap takes into account non-tax revenue, which is considered to be little influenced by the business cycle.

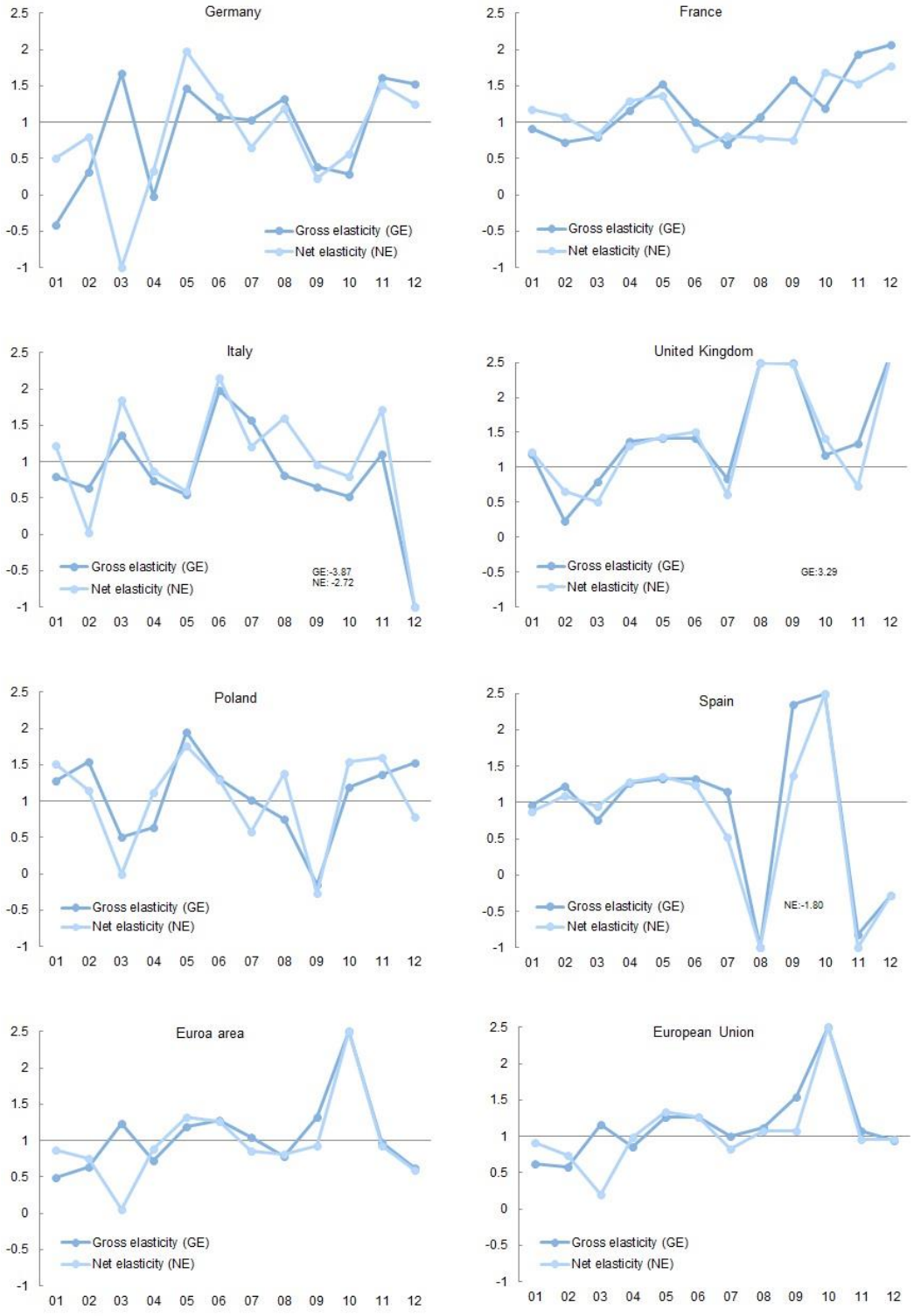
- *the elasticity of tax revenues with respect to their tax bases*. Appropriate tax bases for personal income taxes, corporate income taxes, indirect taxes and social security contributions are the total wage bill, profits, total consumption and total compensation respectively.

- *the elasticity of tax revenue with respect to GDP*. This hybrid concept, used in this chapter and proposed by Barrios and Fargnoli (2010), turns out to be close to the OECD concept in practice, although not identical. Choosing the same tax base for each tax category, i.e. nominal GDP, to compute tax elasticities, allows comparing across different tax categories. Tax elasticities have therefore been computed by dividing the annual growth of the revenue series (both gross and net) by the nominal GDP annual growth rate.

As DTM may considerably bias the fiscal stance, short-term elasticities based on tax revenue purged from DTM come closer to the 'true' value of the short-term elasticities. Specifically, a discretionary tax hike (break) will *ceteris paribus* tend to increase (decrease) the observed gross revenue elasticity. Therefore, net tax elasticities should in principle only reflect the endogenous effect of the evolution of tax bases and abstract, to a large extent, from the exogenous effect of discretionary policy measures affecting tax yields.

Graph III.3.8 compares tax elasticities gross and net of DTM for total levies and for each country. For the EU as a whole, both gross and net elasticities are very close to unity for the period 2001-12, indicating an evolution of tax revenue in line with nominal output growth. As tax elasticities for Slovenia (2.8) and Spain (5.1) are considerably larger than for other countries, they were not represented on the graph. Graph III.3.8 also highlights a differentiated picture across countries, partly related to the composition of GDP growth.

Graph III.3.9: **Gross and net tax elasticities (total levies) for selected countries**



Source: Commission services

Countries characterised by gross and net elasticities below one often tend to display relatively more buoyant dynamics for exports, which are typically tax poor, compared to domestic demand, which is more tax rich. Below-one elasticities are exhibited by Austria, Germany, Denmark, Finland, Ireland, Italy, Lithuania, Sweden and Slovakia. On the other side, gross and net elasticities well exceed one in more domestic demand oriented economies or countries which have experienced an overheating on domestic demand over the past decade. Above-one elasticities are exhibited by Belgium, Bulgaria, Greece, France, Spain, Malta, Romania, Slovenia and the United Kingdom and to a lesser extent the Netherlands, Poland and Portugal.

Although net elasticities are lower than gross elasticities on average over the period 2001-12, several Member States have net elasticities that are higher than gross elasticities (Bulgaria, the Czech Republic, Estonia, Italy, Lithuania, Latvia, Malta, Portugal and Slovakia). This corresponds to discretionary tax increases, as long as the denominator (i.e. nominal GDP growth) is positive. Indeed, for any given output growth, the discretionary tax increase is included in the computation of the gross elasticity while it is excluded from the net elasticity. ([87])

Analysing gross and net short-term tax elasticities over time allows comparing short-term elasticities with the long-term assumption. Graph III.3.9 plots the evolution of short-term tax elasticities in selected countries. Both gross and net elasticities are displayed. ([88])

While time-varying elasticities hover around a long run value of one, they may depart from it significantly in the short term, as shown by Graph III.3.9. The discrepancy between short- and long-term elasticities is only in few cases mostly accounted for by the effect of discretionary measures. If the difference between long- and short-term elasticities were mainly due to the effect of DTM, a disconnection between gross and net elasticities would be observed, with the latter approximating the OECD (constant) elasticity benchmark. This however cannot be detected in Graph III.3.9 as the original revenues series for gross tax elasticities and the corrected series for net tax elasticities are highly correlated. Still, the impact of discretionary measures on the tax elasticity can be large in certain countries/years, yielding substantial discrepancies between net and gross elasticities in these cases. Overall, for the majority of the countries considered here, DTM do not alter significantly the value of gross vis-à-vis net elasticities, with net elasticities remaining fairly volatile.

Hence, the cyclical pattern of short-term elasticities, even net of discretionary measures, seems irregular and not to follow a common pattern across countries. The discrepancy between short-term and long-term tax elasticities may largely be the result of cyclical fluctuations during downturns and upswings, which are outside the control of the government. These fluctuations could be explained by four factors.

- *Composition effect of growth*: The actual development of individual tax bases does not always follow that of GDP but, rather, a component of GDP with its own trend. For instance, the share of consumption in GDP may fluctuate according to whether growth is driven by exports, generating relatively smaller tax revenue, or internal demand, generating relatively larger tax revenue. The same is true for the share of wages in GDP. Spain is a case in point, as, thanks to internal demand, the country enjoyed revenue windfalls during the period 2001-07, but was faced with a sharp reduction in tax revenue from 2008 on. In addition, macroeconomic variables are only an imperfect proxy for individual tax bases. Actual tax bases are defined by the tax law (tax code), which may be complex and allow for various special tax regimes. For instance, during downturns consumption may shift towards basic goods and generate less VAT revenue.

- *Asset price cycle effects*: Some taxes, such as housing transaction taxes, are linked to the asset cycle (equity or housing), which can differ strongly from GDP cycle. This effect is

([87]) A discretionary tax cut (both pro-cyclical and counter-cyclical) yields a net tax elasticity higher than gross elasticity.

([88]) At the aggregate level, the OECD/EU Commission (constant) elasticity relates the annual percentage change in total revenues to the output gap, not to nominal GDP growth.

Box III.3.1: **Correcting tax revenue for the impact of discretionary tax measures**

A straightforward way to filter tax revenues from their policy-driven component would be to subtract the annual amount of DTM from the corresponding tax revenue figure. This simple approach, however, implicitly neglects the dynamic effects of tax law changes, which naturally make the assessment of tax revenue for a given year dependent on previous' year tax policy decisions. The correction of tax revenue series for the impact of discretionary measures has therefore to consider all years where these measures are expected to operate. This is done through the so-called 'proportional adjustment method', used by Barth and Hemphil (2000) and Barrios and Fargnoli (2010).

This method consists in correcting previous tax revenue to reflect how it would have looked like if the current year's tax system had been in place from the first year on. The intuition behind this method is to back-cast the series by 'adding' from the very first year on all the discretionary measures taken at a later stage. This 'addition' is done by imputing the weight of DTM (in total taxes) in a given year to all previous years in cascade. This backward proportional adjustment allows for 'neutralising' the impact of various DTM when considering tax developments over time. The adjusted series obtained are thus 'cleaned' from DTM effects and only reflect the evolution of non-discretionary revenue.

Specifically, if year t is taken as the current year, are the discretionary measures in year t and is the tax revenue in year t, the method assumes that the DTM in the current year are nil (i.e.) and therefore that the adjusted tax revenue for year t. The adjusted tax revenue of year j is then computed as follows.

$$A_j = T_j * \prod_{k=j+1}^{t} \left(\frac{T_k}{T_k - DTM_k}\right) \text{ for all } j < t$$

The formula makes clear that the variation in adjusted tax revenue (*net* tax revenue) between t-1 and t will be larger/smaller than the variation of unadjusted tax revenue (*gross* tax revenue) when DTM_t is smaller/larger than zero. Filtering the impact of policy-driven measures, the method helps to compare tax revenue across the years and allows the calculation of revenue elasticities net of the effect of discretionary measures

also related to the fact that GDP could be imperfect approximation of tax bases. In Ireland, for instance, the boom in construction and renovation activity pushed prices and transactions up and generated considerable tax revenue in the early 2000's. The burst of the housing bubble at the end of the same decade resulted in revenue shortfalls.

- *Dynamic effects*: Tax revenue may follow the evolution of tax bases with some delays, owing to specific collection mechanisms or declaration based on past income or transactions. Under the personal income tax system of many Member States (where there is no withholding tax), for instance, taxes are collected with a one-year time lag, as income needs to be declared one year after it has been earned. For corporate income tax purposes, tax losses can in some countries be carried-forward (e.g. Belgium, the Czech Republic, Greece) or backward (e.g. the Netherlands, the United Kingdom) for several years. Also value-added tax is collected with a few weeks delay, which may make a substantial difference especially in times of consumption peaks, like the Christmas season.

- *Tax compliance effects*: In bad times, due to liquidity constraint effects, more economic agents may underreport their income or go to the shadow economy (see Sancak et al., 2010). The increase in bankruptcy may increase further the revenue losses for corporate income tax.

An important implication of these various sources of fluctuation is that, particularly during major economic booms and downturns, policy makers may need to look beyond simple, long-run revenue elasticities and incorporate into their analysis these effects.

The constant (long-term) individual tax elasticities, which are estimated by the OECD for each main tax category, are used in particular to compute the CAB, i.e. the budget-balance-to-GDP ratio that would prevail if the economy was at potential. Therefore, it may be insightful to compute the CAB based on time-varying elasticities, netted out of DTM, and to compare it with the value of the CAB (see Box III.0).

3.5. CONCLUSIONS

This Chapter analysed the size, composition and cyclicality of discretionary tax measures (DTM), as well as their impact on tax elasticities in the EU over the period 2001-12, using a new database developed by the Output Gap Working Group.

Several noteworthy results emerge regarding the size and composition of DTM. On average over the period 2001-12, the share of DTM is almost nil (less than 0.1% of GDP) in the EU as a whole, largely because DTM cancel out over the period 2001-12 and differ widely across countries, ranging from -0.5% (tax cuts) to 0.7% of GDP (tax increases). When measured in absolute values, the share of DTM is larger, amounting to 0.4% of GDP in the EU.

On the relationship between discretionary measures and the business cycle, several findings can be highlighted:

– The use of DTM is mainly related to shifts in policy regimes, caused by changes in the economic context. While small pro-cyclical tax cuts were observed during the pre-crisis period (2001-07), larger counter-cyclical tax breaks were adopted during the crisis period (2008-10), as part of the stimulus package. During the consolidation period (2011-12), characterised by the debt crisis and the lack of fiscal space, EU Member States have engaged in pro-cyclical tax hikes, as a way to consolidate their public finances. Overall, the business cycle is only a weak determinant of DTM.

– Discretionary tax cuts are mainly accounted for by direct taxes. In half of the countries, those cuts are partially compensated by discretionary increases of indirect taxes, particularly in VAT, as part of a shift towards more growth-friendly tax bases.

DTM affect the short-term pattern of tax elasticities. Several results emerge when examining the impact of DTM on tax elasticities:

– Both gross and net elasticities average at around one in the EU as a whole for the period 2001-12, indicating an evolution of tax revenues broadly in line with nominal output growth over the medium run.

– Although net elasticities are not so different from gross elasticities on average, large discrepancies are seen between gross and net tax elasticities in some countries.

– Both net and gross tax elasticities display significant departures in the short run from the long-term elasticity assumption. Therefore, discretionary measures do not seem to explain the bulk of the short-term fluctuation in gross elasticities.

4. CONCLUSIONS

The traditional top-down indicator of the fiscal stance is discussed in the recent literature in relation to its limitations when used as a measure of fiscal effort. Proposals in the literature go in the direction of using bottom-up or narrative approach for the fiscal effort, based on the sum of the budgetary impact of the measures implemented by governments.

Taking also into account the limitations inherent in the narrative approach, the part has illustrated the use of a mixed indicator, the discretionary fiscal effort, which consists of a "bottom-up" approach on the revenue side, while on the expenditure side centres on the gap between the growth of actual expenditure (net of interest payments and unemployment benefits) and medium-term growth.

As expected, looking at the 2004-2013 period the DFE provides a less favourable view of the fiscal stance in booms with respect to the CAB. This highlights the reliance of the CAB on revenue windfalls in booms with an opposite effect in recessions, when large revenue shortfalls show up as a consequence of the fluctuations in tax elasticities. This is confirmed by the focus on 2012, where – if the DFE conveys the same broad message about the orientation of fiscal policies when compared to the CAB – it however implies a significantly higher degree of fiscal retrenchment.

Given that the largest difference between two indicators stems from the revenue side, Chapter III.3 further presents an analysis of discretionary tax measures, as well as their impact on tax elasticities in the EU over the period 2001-12. It highlights three tax policy 'regimes': one of prevailing discretionary easing of the tax burden before the crisis; a policy of aggressive tax cuts at the onset of the crisis; and prevailing tax hikes in the subsequent consolidation phase.

These broadly correspond to the observed differences between the SPB and the DFE, which are often positive in the first period, close to zero in the second period and very negative in the third one, thus suggesting that cyclical elasticities are playing a large role in explaining the difference between the two indicators.

The analysis further shows that, while tax elasticities average at around one in the EU as a whole for the period 2001-12, indicating an evolution of tax revenues broadly in line with nominal output growth over the medium to long run, they display significant departures *in the short run* from the long-term unitary value, irrespective of whether or not discretionary measures are netted off. Therefore, discretionary measures do not seem to explain the bulk of the short-term fluctuation in gross elasticities.

The DFE indicator seems therefore a good complement to existing indicators of fiscal stance when analysing fiscal effort.

ANNEX 1

Table III.A1.1: **Semi-elasticities used in the calculation of the CAB**

	Elasticities		Weights		Semi-elasticities		
	revenues	expenditure	revenues	expenditure	revenues	expenditure	Budget balance
BE	0.9	-0.1	49.0	50.7	0.0	-0.6	0.6
BG	0.8	0.0	37.8	38.1	-0.1	-0.4	0.3
CZ	0.9	0.0	39.9	43.8	-0.1	-0.4	0.4
DK	0.9	-0.2	55.8	54.3	-0.1	-0.7	0.6
DE	0.9	-0.3	44.0	46.5	0.0	-0.6	0.6
EE	0.7	-0.1	37.6	37.0	-0.1	-0.4	0.3
IE	1.0	-0.2	35.2	41.1	0.0	-0.5	0.5
EL	0.9	-0.1	39.9	48.1	0.0	-0.5	0.5
ES	1.0	-0.2	38.1	41.1	0.0	-0.5	0.5
FR	0.9	-0.1	49.9	54.1	-0.1	-0.6	0.5
IT	1.1	0.0	45.1	48.8	0.0	-0.5	0.5
CY	1.0	0.0	40.3	43.5	0.0	-0.5	0.4
LV	0.7	-0.1	35.1	38.3	-0.1	-0.4	0.3
LT	0.8	0.0	32.9	36.1	-0.1	-0.4	0.3
LU	1.1	-0.1	41.9	41.1	0.0	-0.4	0.5
HU	0.9	0.0	45.0	50.3	-0.1	-0.5	0.5
MT	0.9	0.0	39.5	43.7	-0.1	-0.5	0.4
NL	0.9	-0.3	45.2	47.4	-0.1	-0.6	0.6
AT	0.9	-0.1	48.5	50.8	-0.1	-0.6	0.5
PL	0.8	-0.1	38.8	43.8	-0.1	-0.5	0.4
PT	0.9	-0.1	41.1	46.4	0.0	-0.5	0.5
RO	0.8	0.0	33.0	36.8	-0.1	-0.4	0.3
SI	0.9	-0.1	43.5	46.5	0.0	-0.5	0.5
SK	0.8	-0.1	34.2	38.6	-0.1	-0.4	0.3
FI	0.8	-0.3	53.1	51.1	-0.1	-0.7	0.5
SE	0.8	-0.3	54.0	53.1	-0.1	-0.7	0.6
UK	1.0	0.0	40.4	45.6	0.0	-0.5	0.5

Source: Commission services

Part IV

Public expenditure on health: its growing importance, drivers and policy reforms to curb growth

SUMMARY

The title of Chapter IV is "Public expenditure on health: its growing importance, drivers and policy reforms to curb growth".

Firstly, the Chapter discusses the growing importance of public health care expenditure (HCE) both as a share of total government outlays and GDP. Past developments of HCE are reviewed with a double focus on historical trends and the more recent evolution since the 2008-2009 economic recession.

In the EU, public spending on health gradually increased from 5.7% of GDP in 1980 to about 8% in 2010. This upward trend in the HCE-to-GDP ratio includes periods of faster and slower growth, showing a pattern of staggered increase over time. Although within a general upward trend, expenditure levels differ substantially across countries, measured either in per capita nominal terms (PPS adjusted) or as a share of GDP.

Following the 2008-2009 recession, when the HCE-to-GDP ratio went up in a large majority of EU Member States, largely reflecting unchecked growth in expenditure levels combined with a contraction of nominal GDP, 2010 shows a reduction in the HCE-to-GDP ratio, which is not only due to a return to GDP growth, but also to some containment in spending.

Although being too early to draw definite conclusions, most EU Member States have recently introduced reforms that are mainly focused on generating immediate savings, possibly not paying enough attention to medium and longer term goals, such as improving the efficiency and quality of health expenditure. In this context, the average decline in 2010 across the EU of expenditure on health promotion and disease prevention – while generating short term savings – could turn out to be counterproductive if average health status eventually deteriorates, bringing with it a rise in future health spending.

Secondly, the part evaluates spending on key areas of public provision of health services and their role in the dynamics of total expenditure growth across the EU. Traditionally, hospital care takes the highest share in spending (approximately 41%), followed by ambulatory care (25%), and pharmaceuticals (14%). Over time, these shares have remained nearly unchanged across the EU, despite the much stated consensus among researchers and policy makers that moving health care out of the resource intensive hospital sector towards more cost-effective primary and ambulatory care services, and providing a bigger role for disease prevention and health promotion can improve the value for money of public health care funding. An example of the failure in shifting significantly resources across major spending areas to improve overall efficiency is that despite the substantial decrease in the capacity of hospital beds in recent years, the expenditure share of hospital care has not declined though.

Thirdly, drawing on health care research, the Chapter reviews empirical findings regarding the main drivers of HCE. Overall, empirical studies show that demographic factors, such as population ageing, have had a second order impact on expenditure growth compared with other drivers, such as income, technology, relative prices, and policies and institutional settings.

Based on the health literature, an econometric model is estimated to explain past trends of HCE and make long term projections. The model specification retained fits well with the European Policy Committee-European Commission (EPC-EC) methodology to project long term age related costs, because the macroeconomic variables needed to project future public health expenditure are available in the long term age related projections of the EPC-EC.

Three scenarios for the HCE-to-GDP ratio up to 2060 are presented and then results are compared with other projections, such as from the OECD, IMF, and the EPC-EC 2012 Ageing Report. Overall, the projection scenarios based on the PFR 2013 methodology are by in large equivalent to OECD's corresponding ones, and IMF's, but are significantly above the EPC-EC long term health projections carried out in the framework of the 2012 Ageing Report, basically because the latter do not consider residual growth or a time drift accounting for the effect of omitted variables, such policies and the institutional setting.

Projections carried out under the PFR 2013 methodology represent an acute reminder of the need to proceed with the efforts to curb HCE growth and improve the efficiency of health

systems. In fact, in the absence of additional control measures, projection outcomes suggest on average a near doubling of the HCE-to-GDP ratio across the EU between 2010 and 2060.

Fourthly, a taxonomy of recently implemented health reforms is presented, suggesting that reforms are mainly focused on generating savings and improving the financing side. Few EU Member States have been active in structural reforms directed at generating efficiency gains. However, as laid out in the analysis, there seems to be ample scope for further reforms improving the performance of health care systems and their long term financial sustainability.

Concluding, since the 2008-2009 crisis the focus of reforms has been on generating savings and improving the financing side, with few reforms aiming at improving the value for money of public health care. Emergency measures on the financing and cost-saving side may be a necessary condition to improve the fiscal positions of government in times of economic crisis. However, they are not a sufficient condition for securing long term sustainable improvements in the value for money of public health care services.

In view of future fiscal challenges related to rising health care costs, EU Member States will have to strengthen reform efforts in the coming years, and broaden their scope to cover also efficiency and quality issues.

1. INTRODUCTION

This part studies the growing importance of public spending on health. It describes past and recent trends in public health spending, compares it with other items of public spending and looks in more detail at the evolution of health spending during the years of the economic crisis (Chapter IV.1). It then explains which areas of healthcare provision, such as hospital and ambulatory care, may be responsible for the observed increase in expenditure. It further discusses the underlying demographic and non-demographic drivers of health expenditure growth. This prepares the ground for projecting future levels of spending (Chapter IV.2). Using econometric methods, the role of demographic and non-demographic drivers of health expenditure is analysed, and long-run projections of health expenditure up to 2060 are presented. Finally, given the current and future fiscal pressures, health policy reforms are discussed, which could improve the fiscal sustainability and the performance of health care systems (Chapter IV.3). Further, an attempt is made to assess whether and to what extent health care policy reforms implemented in recent years, notably as a response to the economic crisis, can be expected to increase the efficiency and cost-effectiveness in the health sector and to control future health expenditure growth. Chapter IV.4 concludes.

2. THE EVOLUTION OF HEALTH EXPENDITURE

2.1. THE EVOLUTION OF HEALTH EXPENDITURE

2.1.1. Past and recent trends in health expenditure

Total (public and private) expenditure on health in the EU absorbs a significant and growing share of Member States' resources, having grown from an average of about 7.1% of GDP in 1980 to 10.3% in 2010. ([89]), ([90]) Public expenditure on health reached an EU average of about 7.8% of GDP in 2011, having increased from about 5.7% in 1980. ([91]) In almost all EU Member States, public expenditure on health covers a large majority of total expenditure, averaging 77% in the EU in 2010. Private expenditure often has a supplementary character, concentrated on treatments that are not considered to be necessary for saving human life (dentistry, plastic surgery, etc.). and on some pharmaceutical goods. The share of private expenditure on total expenditure has increased from roughly 20% in 1980 to about 23% in 2010.

Table IV.2.1 shows significant differences in expenditure across EU Member States. Looking at the latest data available (2009-2012), the share of public expenditure on health as percentage of GDP ranged from 3.3% in Cyprus to over 9.4% in Denmark. Generally, expenditure on health is significantly lower in the Member States that accessed the EU after 2004, although the observed differences between countries may be narrowing.

While public expenditure on health, both as a share of GDP and in per capita terms, have risen markedly over the past decades (Table IV.2.1 and Graph IV.2.1) different periods can be identified with regards to the evolution of expenditure-to-GDP ratios. A first period comprises the 1960s and 1970s when public expenditure on health as a percentage of GDP grew particularly fast because many Member States substantially increased the share of the population covered by publicly funded health services and goods either via national health services or compulsory social health insurance schemes. This coverage extension was complemented in the following decades with continued progress in medical knowledge and technology resulting in new or improved treatment possibilities, and which may have contributed to the recent general upward increase in health expenditure.

A second period refers to the 1980s, when expenditure growth slowed down, as a result of increasing efforts of budgetary consolidation, together with levelling off effects due to the near completion process of broadening the coverage of health systems. This resulted in the near stabilisation of the public health expenditure-to-GDP ratio in the second half of the 1980s up to 1990, when the upward trend in the expenditure ratio picked up again. Between the late 1990s and the early 2000s, the rise in the expenditure ratio slowed down again, but was then followed by another period of increase, albeit at a slower pace. Since 2000, two periods can be distinguished for the public expenditure-to-GDP ratio: a fairly stable period in the first half of the decade, followed by an accelerated increase from 2006 up to 2009. In both 2010 and 2011, the expenditure-to-GDP ratio has decreased.

A closer look at annual nominal growth rates for the EU as a whole during the last decade reveals (Graph IV.2.2) that both total (public and private) and public expenditure on health grew faster than prices (using the GDP deflator, see also Graph IV.2.4) and also faster or largely in line with nominal GDP up to 2007. While the pace of health expenditure growth decelerated in 2008 and 2009,

([89]) The OECD definition of expenditure on health is used. This defines total expenditure on health as the sum of expenditure on activities that – through application of medical, paramedical, and nursing knowledge and technology – has the goals of: promoting health and preventing disease; curing illness and reducing premature mortality; caring for persons affected by chronic illness who require nursing care; caring for persons with health impairments, disability, and handicaps who require nursing care; assisting patients to die with dignity; providing and administering public health; providing and administering health programmes, health insurance and other funding arrangements.

([90]) The terms health spending, health expenditure or expenditure on health are used interchangeably in this report.

([91]) Note that data on health expenditure used in this contribution comes from international datasets: EUROSTAT, OECD health data and WHO health for all. For all countries with the exception of Ireland, Greece, Malta, United Kingdom and Italy (the latter up to 2009), expenditure data in this section are based on the so-called System of Health accounts and the joint EUROSTAT/OECD/WHO questionnaire.

Table IV.2.1: **Past trends in total and public expenditure on health in EU Member States 1980-2012**

	Total (public and private) expenditure on health as %of GDP										Public expenditure on health as %of GDP										
	1980	1990	2000	2006	2007	2008	2009	2010	2011	2012	1980	1990	2000	2006	2007	2008	2009	2010	2011	2012	
BE	6.3	7.2	9.0	9.6	9.7	10.1	10.9	10.5	:	:	:	:	6.1	7.1	7.0	7.5	8.1	7.9	8.0	:	BE
BG	:	5.2	6.1	7.2	7.3	7.3	:	:	:	:	:	5.2	3.7	4.1	4.2	4.2	:	:	:	:	BG
CZ	:	4.7	6.5	7.0	6.8	7.1	8.2	7.5	7.5	:	:	4.4	5.7	5.8	5.6	5.6	6.7	6.2	6.3	:	CZ
DK	8.9	8.3	8.3	9.6	9.8	9.9	11.5	11.1	:	:	7.9	6.9	7.3	8.4	8.4	8.6	9.8	9.4	:	:	DK
DE	8.4	8.3	10.3	10.6	10.4	10.5	11.6	11.6	11.3	:	6.6	6.3	8.3	8.1	8.0	8.2	9.0	8.9	8.7	:	DE
EE	:	:	5.3	5.1	5.4	6.1	7.0	6.3	5.9	:	:	:	4.1	3.7	3.9	4.7	5.3	5.0	4.7	:	EE
IE	8.3	6.1	6.3	7.5	7.5	8.7	9.9	9.2	8.9	:	6.7	4.3	4.6	5.7	5.9	6.7	7.3	6.5	6.0	:	IE
EL	5.9	6.6	7.9	9.7	9.7	9.7	10.6	10.2	9.1	:	3.3	3.6	4.8	6.0	5.9	6.1	7.0	6.4	5.9	:	EL
ES	5.3	6.5	7.2	8.4	8.5	9.0	9.5	9.6	9.3	:	4.2	5.1	5.2	6.0	6.1	6.5	7.2	7.1	6.8	:	ES
FR	7.0	8.4	10.1	11.0	11.0	11.2	11.9	11.6	11.6	:	5.6	6.4	8.0	8.7	8.7	8.4	9.0	9.0	8.9	:	FR
IT	:	7.7	8.1	9.0	8.7	9.1	9.3	9.3	9.2	9.2	:	6.1	5.8	6.9	6.6	7.0	7.4	7.4	7.2	7.2	IT
CY	2.8	4.5	5.7	6.3	6.0	5.8	:	:	:	:	1.5	1.8	2.4	3.1	2.9	3.0	3.3	3.3	:	:	CY
LV	2.1	2.5	6.0	6.8	6.2	6.5	6.8	:	:	:	:	2.5	3.2	4.3	4.2	4.1	:	:	:	:	LV
LT	:	3.3	6.5	6.2	6.2	6.6	7.5	7.0	:	:	:	3.0	4.5	4.3	4.6	4.8	5.6	:	:	:	LT
LU	5.2	5.4	5.8	7.7	7.1	6.8	:	:	:	:	4.8	5.0	6.4	6.6	6.0	5.7	6.9	:	:	:	LU
HU	:	:	7.0	8.1	7.4	7.3	7.5	7.8	7.9	7.8	:	:	5.1	5.8	5.2	5.0	5.1	5.2	5.1	:	HU
MT	:	:	6.8	8.4	8.7	8.3	8.5	8.7	9.7	:	:	:	4.9	6.4	5.8	5.8	5.5	5.7	:	:	MT
NL	7.4	8.0	8.0	9.7	9.7	9.9	12.0	12.0	11.9	:	5.1	5.4	5.0	7.4	7.3	7.4	:	:	:	:	NL
AT	7.4	8.3	9.9	10.3	10.3	10.5	11.1	11.0	10.8	:	5.1	6.1	7.6	7.7	7.8	8.0	8.5	8.4	8.2	:	AT
PL	:	4.8	5.5	6.2	6.4	7.0	7.4	7.0	6.9	:	:	4.4	3.9	4.3	4.5	4.9	5.2	5.0	4.8	:	PL
PT	5.3	5.9	8.8	9.9	10.0	10.2	10.8	10.7	10.2	:	3.3	3.7	6.2	6.7	6.7	6.7	7.2	7.1	6.7	:	PT
RO	:	2.9	5.2	5.1	5.2	5.4	5.7	:	:	:	:	2.9	3.6	4.1	4.3	4.5	4.5	:	:	:	RO
SI	4.4	5.6	8.3	8.2	7.8	8.3	9.3	9.0	8.9	8.8	4.4	5.6	6.1	6.0	5.6	6.1	6.8	6.6	6.5	6.4	SI
SK	:	:	5.5	7.3	7.7	7.8	9.1	9.0	7.9	:	:	:	4.9	5.0	5.2	5.4	6.0	5.8	5.6	:	SK
FI	6.3	7.7	7.2	8.3	8.2	8.4	9.1	8.9	9.0	9.1	5.0	6.3	5.1	6.2	6.0	6.2	6.9	7.2	6.8	6.9	FI
SE	8.9	8.2	8.2	9.1	8.9	9.2	10.0	9.6	9.5	:	8.2	7.4	6.9	7.3	7.3	7.5	8.1	7.7	7.7	:	SE
UK	5.6	5.9	7.0	8.5	8.4	8.7	9.8	9.6	9.4	:	5.0	4.9	5.5	6.9	6.9	7.2	8.2	8.0	7.8	:	UK
EU27	**7.1**	**7.3**	**8.6**	**9.4**	**9.3**	**9.6**	**10.5**	**10.4**	**10.2**	**:**	**5.7**	**5.8**	**6.6**	**7.2**	**7.2**	**7.3**	**8.1**	**8.0**	**7.8**	**:**	**EU27**
EU15	7.1	7.4	8.7	9.6	9.5	9.8	10.7	10.6	10.4	:	5.7	5.8	6.7	7.4	7.3	7.6	8.3	8.1	7.9	:	EU15
EU12	2.8	4.4	6.0	6.6	6.6	6.9	7.5	7.5	7.3	:	1.5	4.0	4.4	4.8	4.7	5.0	5.4	5.4	5.3	:	EU12

Note: §Total and public expenditure on health follows the OECD definition (also used by Eurostat and WHO for those Member States that use the system of health accounts (SHA)) and as such it includes expenditure on: Services of curative care + Services of rehabilitative care + Services of long-term nursing care + Ancillary services to health care + Medical goods dispensed to out-patients + Services of prevention and public health + Health administration and health insurance + Expenditure on services not allocated by function + Investment (gross capital formation) in health. Note that the figures on Germany cover the country before and after reunification, thus causing a break in the series, which should be taken into account when interpreting the results over time.

Source: OECD health data, Eurostat data and WHO Health for All database for health expenditure data. Eurostat data for public (government) expenditure using COFOG. EU and EA averages are weighted averages by either GDP or public expenditure where relevant and calculated by Commission Services

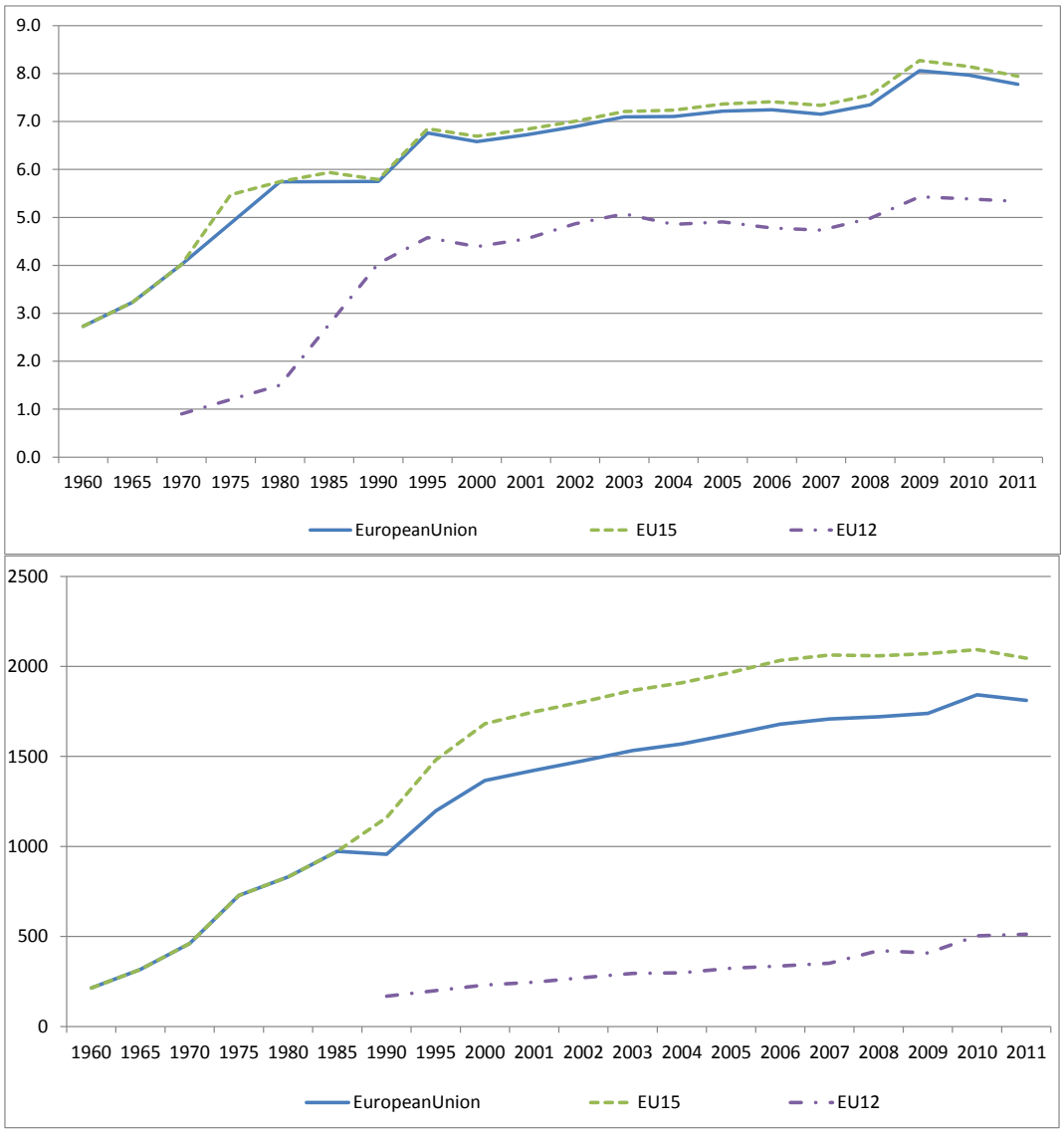
it remained far above inflation and nominal GDP growth, which turned negative in 2009. In 2010 and 2011, following the economic crisis of 2009, health expenditure grew at a slower pace than nominal GDP.

The overall relative low nominal increases in expenditure in 2010 and 2011 have contributed in addition to inflation and population growth to negative per capita real growth rates in public health expenditure in several Member States: Ireland, Greece, Portugal, Spain, United Kingdom, Estonia, Slovenia and Italy (Graph IV.2.3). At the EU level, the real growth rate of per capita public considerably slowed down in 2010 and turned negative in 2011, after having averaged 2.2% between 2003 and 2009. This decrease in expenditure seems especially large in those Member States with relatively high increases in nominal expenditure levels just prior to the crisis i.e. between 2003 and 2009. Thus, to a certain extent, growth rates in 2010 and 2011 may have rebalanced growth rates in previous years: Member States with high growth rates in 2003-2009 reverting towards low growth rates in 2010 and 2011, and vice versa.

Graph IV.2.4 shows that real public expenditure on health not only increased faster than real GDP and prices for most of the period1996 to 2011, but also grew faster than total government expenditure, (whose annual real growth rates, though positive, were mostly below real GDP growth rates). Exceptions are the years 2001 and 2010, when total government expenditure rose faster than public expenditure on health. As a consequence, the share of public health in government expenditure has risen from 12.3% in 1996 (11.5% in 1980) to almost 15% in 2011 (Graph IV.2.5).

Between 1996 and 2011, most categories of government expenditure (e.g. education, environment, and social protection) retained roughly constant shares in total expenditure. The rising share of health expenditure was partly compensated by a reduced share of general public

Graph IV.2.1: **Evolution of public expenditure on health as a share of GDP and as real expenditure per capita in the EU, 1960 - 2011**



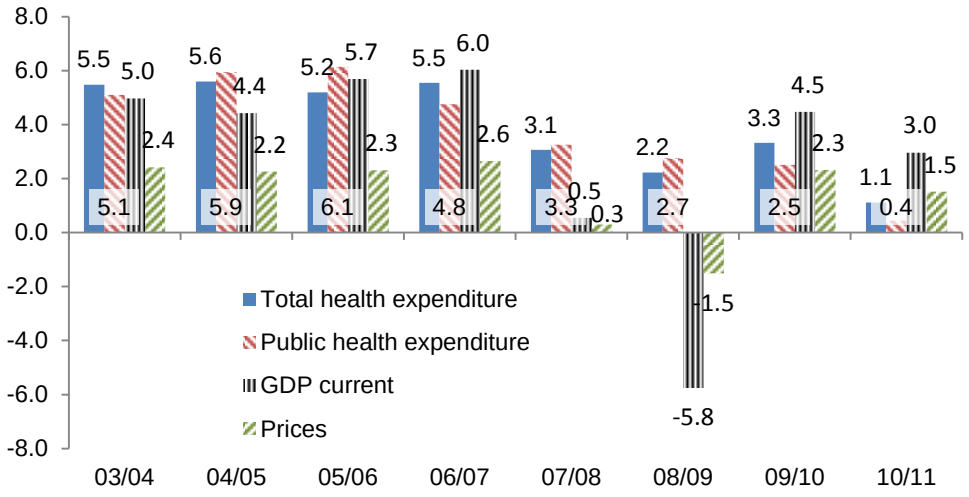
Note: The methodology used to compute health expenditure has changed over time so that there are breaks in the time series used to compute the graphs above. The most recent methodological change is the move to the OECD System of Health Accounts (SHA), a methodology introduced in 2000. Moreover, EU Member States are at varying stages in the process of implementing the SHA. As for the EU15, the geographic coverage also changed over time due to the reunification of Germany.
Source: Commission services; calculations based on Eurostat, OECD and WHO health data.

services. Public expenditure on public expenditure on health is now the second highest expenditure share with about 15%, after social protection has over time kept the highest public expenditure share with about 40%.

2.2. THE IMPACT OF THE CURRENT ECONOMIC CRISIS: A CLOSER LOOK

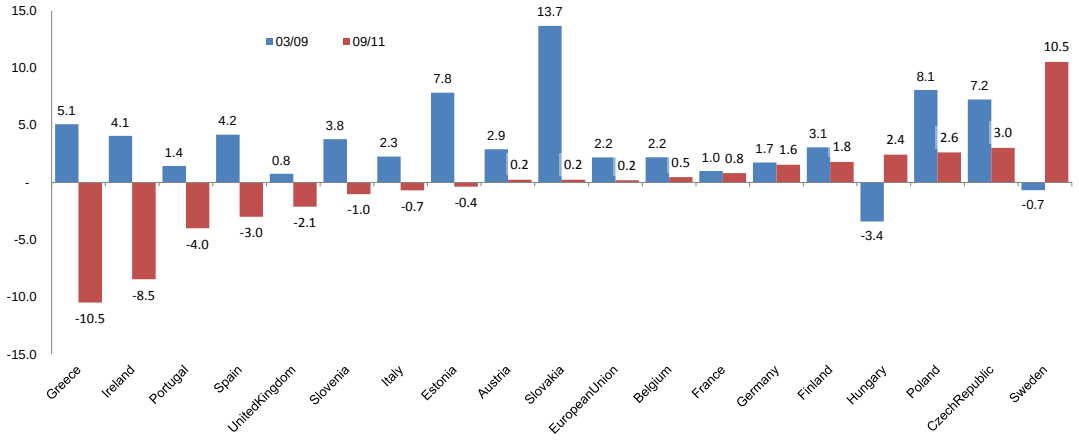
To understand the impact of the recent economic crisis, it is important to note that trends observed in

Graph IV.2.2: **Annual average growth rates in nominal total and public health expenditure in EU27, 2003 – 2011**



(1) See Table IV.2.1 for missing values
Source: Commission services calculations based on Eurostat, OECD and WHO health data.

Graph IV.2.3: **Annual average growth rates in real public health expenditure per capita, 2003-2009 and 2009-2011**



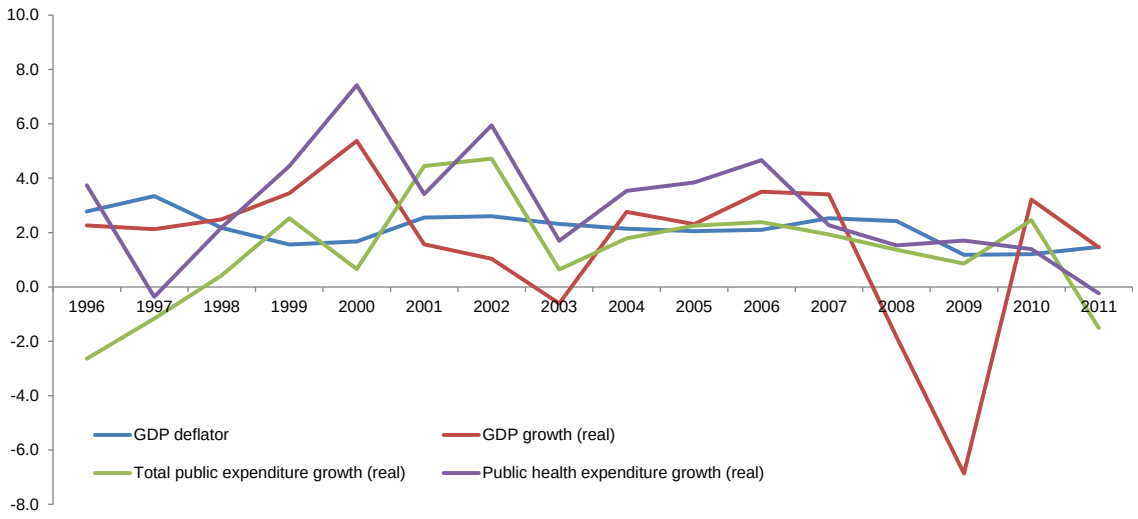
(1) Only for Member States with available data in 2003/2011.
Source: Commission services calculations based on Eurostat, OECD and WHO health data.

the expenditure-to-GDP ratio can be the result of fluctuations in any of its components, i.e. health expenditure or GDP. For example, the increase in public health expenditure as a percentage of GDP observed in the early 2000s was partly due to the economic slowdown observed at that time.

Likewise, the 2008-2009 increase in the expenditure-to-GDP ratios in the EU is strongly related to the economic downturn when GDP growth slowed down in 2008, and in some Member States even became negative in 2009.

In addition, some Member States maintained or even increased expenditure on health as part of their economic recovery programmes. In 2008, economic developments drove up the public health expenditure-to-GDP (HE-to-GDP) ratio in the EU by 0.1 pp. This reflects increases in many Member States (Table IV.2.1). The exceptions are Bulgaria, the Czech Republic, Malta and Portugal, where the HE-to-GDP ratio remained constant, and France, Latvia, Luxembourg and Hungary where the HE-to-GDP ratio marginally decreased. In Member States where GDP contracted in 2008, the

Graph IV.2.4: **Annual real growth rates of total government expenditure, public expenditure on health and GDP, 1996-2011**



Source: Commission services

increase in the HE-to-GDP ratio ranged between 0.2-0.4 p.p. in Denmark, Italy, Sweden and the United Kingdom to 0.8 p.p. in Ireland and Estonia (Table IV.2.1).

In 2009, GDP growth rates turned negative in most EU Member States (see Graph IV.2.6). For many Member States there was no immediate change in health policy to curb expenditure. Despite negative GDP growth rates, many Member States continued to register increases in health expenditure. In another group of Member States, expenditure was reduced though by less than the fall in GDP (see Member States with thick blue bars below the zero line see Graph IV.2.6).

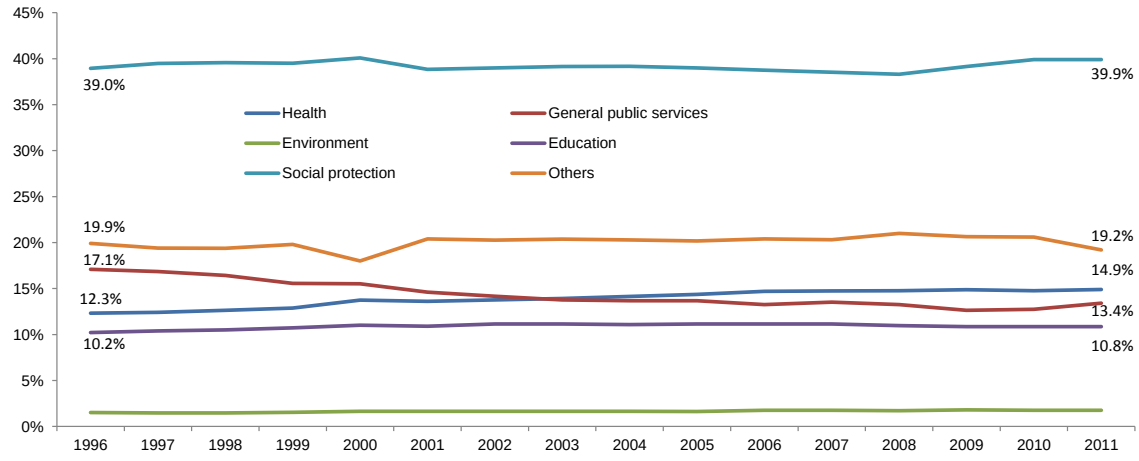
As a result, from 2008 to 2009, the HE-to-GDP ratio increased in all Member States for which there are data available, and in many cases by a considerable margin. The exceptions are the Netherlands and Romania, where the expenditure ratio remained constant, and Malta where it decreased by 0.3 p.p. (Table IV.2.1). Increases in the HE-to-GDP ratio ranged from 0.3 p.p. in Cyprus to over 1.0 p.p. in the United Kingdom, the Czech Republic, Luxembourg and Denmark (Table IV.2.1).

The economic crisis of 2009 was followed by a period of budgetary adjustment associated with the need to reduce large government deficits (and the accumulation of government debt) and to put public finances on sustainable paths. Consequently, in many EU Member States constraints have been placed on various areas of public policy, affecting both the provision and funding of health goods and services in the short to the medium term.

As part of this process, and since 2010, many Member States have undertaken or planned reforms aimed at adapting the financing and generating savings through efficiency gains (see Section IV.3.2). Several Member States (see Member States with red thick bars below the zero line in Graph IV.2.7) appear to have been successful in reducing expenditure growth in health. This contributed to the observed reduction in the HE-to-GDP ratio in 2010 and 2011 (as well as in per capita health expenditure in 2011 as shown above). In Greece and Ireland, a decrease in nominal expenditure levels was registered in 2010 and 2011; although in these Member States - as shown above – such reduction had been preceded by an above average growth in expenditure levels in previous years.

In some other Member States, which registered GDP growth in 2010 commonly after large contractions in 2009 (e.g. Sweden, Poland, the United Kingdom, Malta, Hungary, Estonia and Lithuania), this was accompanied by rises in health expenditure, though at a slower pace than GDP

Graph IV.2.5: **The shares of health and other public expenditure categories within total government expenditure, 1996-2011**



Note: category "Others" is the sum of spending on defence, order and safety, economic affairs and housing and recreation, culture and religion.
Source: Commission services calculations based on Ameco and Cofog data.

growth (see Member States with the red thick bars above the zero growth line in Graph IV.2.6). As a result, the HE-to-GDP ratio decreased in all Member States except France, Italy and Cyprus where it remained constant and in Malta, Hungary and Finland where it increased (Graph IV.2.7). In 2011, as GDP growth exceeded the nominal growth in health expenditure, HE-to-GDP ratios declined further in most Member States with available data, except for Belgium and the Czech Republic.

Note that the impact of the economic crisis on the HE-to-GDP ratio cannot yet be fully assessed given the lag in data availability for 2012. Comparable international databases (OECD, Eurostat, WHO) report expenditure data normally with a two-year lag from the current year, i.e. most recent data for most EU Member States refer to either 2010 or 2011.

2.3. AREAS CONTRIBUTING TO GROWTH IN HEALTH EXPENDITURE

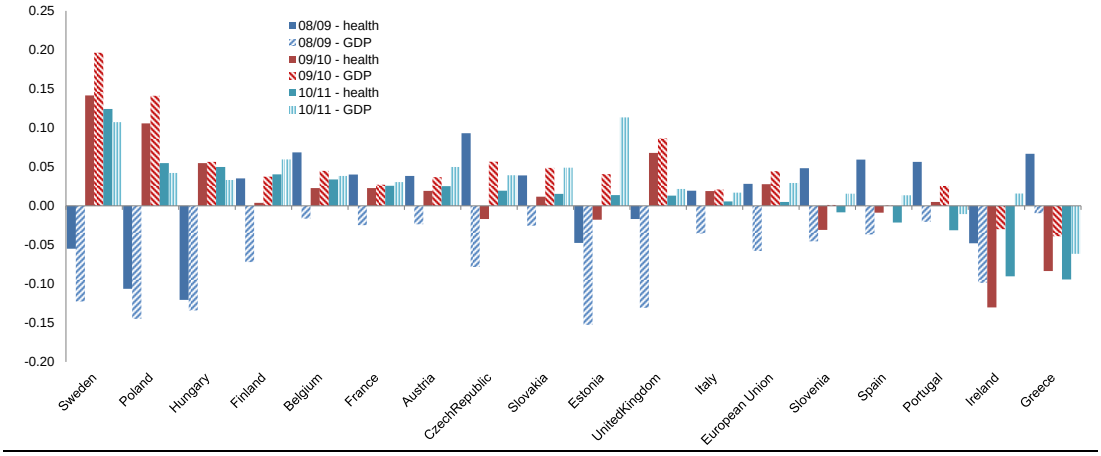
It is now useful to assess whether the increase in total health expenditure shown in section IV.2.2 is uniform across the different categories of health expenditures or if it is concentrated in only a few. This analysis serves different purposes. Firstly, it can help revealing the priority areas of recent public policy action on health expenditure. Secondly, it allows discussing/identifying potential areas for implementing policies that could generate efficiency gains. The analysis carried out in this section complements the assessment of the main expenditure drivers done in Chapter IV.2. Thirdly, it allows discussing to what extent reforms undertaken in the wake of the economic crisis, and discussed at length in section 3 of this Chapter, can indeed be expected to substantially improve the value for money of public health funding.

Traditionally, hospital care takes the highest share in spending (approximately 41%), followed by ambulatory care ([92]) (25%), pharmaceuticals ([93])

([92]) Ambulatory care may refer to primary and secondary care. Primary care is generally understood as work of physicians, which are the initial point of consultation for patients in a health system (usually general practitioners). Secondary care refers to work by medical specialists (e.g. cardiologists, urologists). Primary care is usually to a much greater extent provided outside of the hospital system than secondary care. This section focuses on primary care.

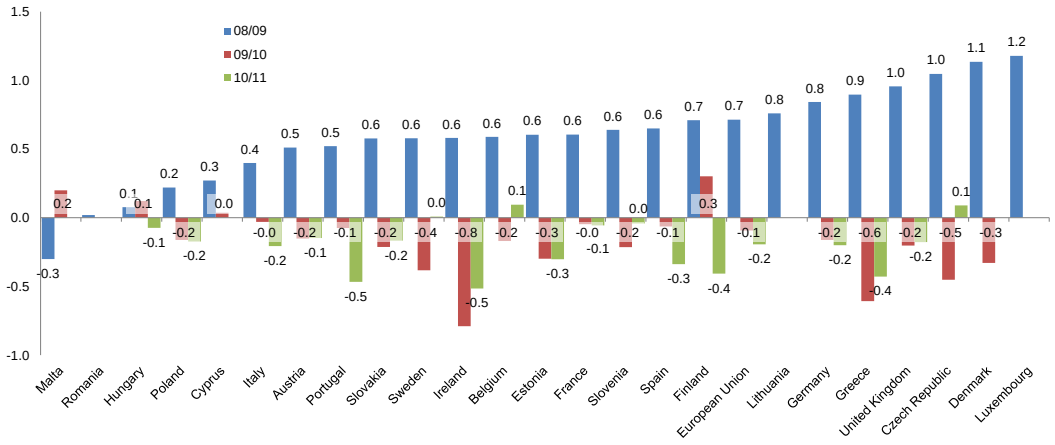
([93]) Pharmaceuticals include extemporaneous medicinal preparations, originator and generic medicines, serums and vaccines, vitamins and minerals and oral contraceptives. Pharmaceuticals are consumed in the inpatient (mostly hospitals) and outpatient (mostly pharmacies) sector. However, comparable cross-country data on pharmaceutical spending is not available for the inpatient sector for most of the EU Member States. Consequently, most of the data refers to expenditure on pharmaceuticals taken in outpatient settings (i.e. not during hospitalisation). Pharmaceutical spending, as described here, corresponds to System of Health Accounts category HC51:" Pharmaceuticals and other medical non-durables".

Graph IV.2.6: **Annual average nominal growth rates in public health expenditure and GDP, 2008-2009, 2009-2010 and 2010-2011**



(1) Only for Member States with available data in 2008-2011.
Source: Commission services calculations based on Eurostat, OECD and WHO health data.

Graph IV.2.7: **Changes in public health expenditure to GDP ratio in pp. of GDP, 2008-2009, 2009-2010 and 2010-2011**



Source: OECD health data 2013, Eurostat data and WHO Health for All database for health expenditure data. EU averages are weighted averages and calculated by Commission Services.

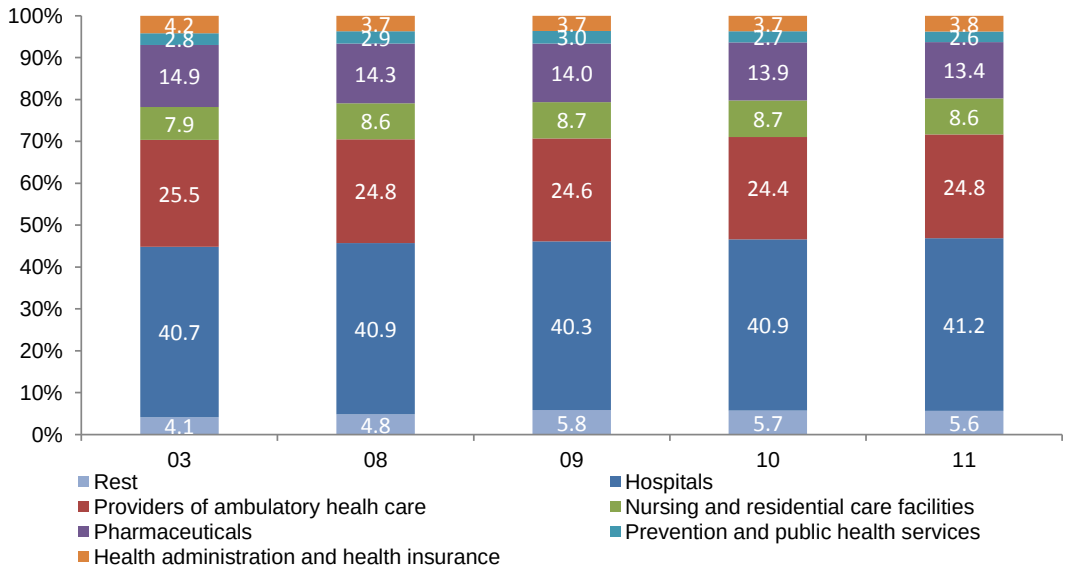
(14%), nursing and residential care (9%), health administration and insurance (4%) and prevention and public health services (3%).

Over time, these shares have changed slightly at the EU level, either increasing (nursing and residential care), remaining constant (hospitals and prevention) or decreasing (health administration, ambulatory care and pharmaceuticals) (Graph IV.2.8).

Graph IV.2.9 shows that between 2003 and 2011, public health expenditure grew differently across major areas.

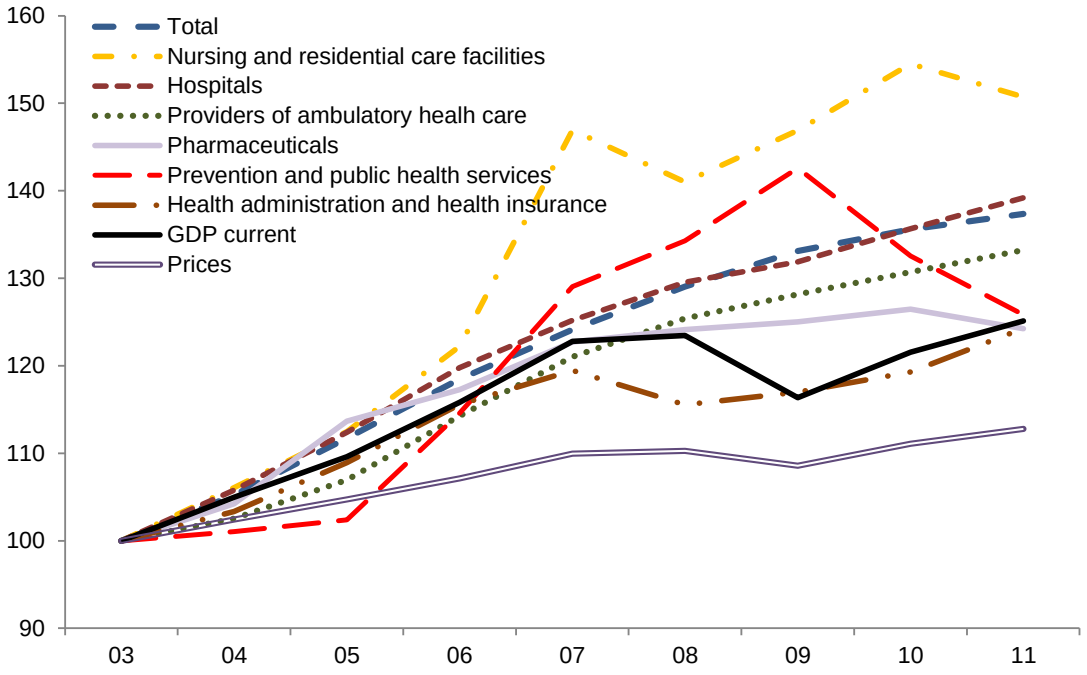
Public expenditure on nursing and residential care facilities has seen the highest increase of around 50% between 2003 and 2011. This reflects the growing supply of nursing care services and facilities, due to the growing demand of the aged

Graph IV.2.8: **Distribution of public health expenditure by areas in the EU, 2003 to 2011**



Source: OECD health data 2013, Eurostat data and WHO Health for All database for health expenditure data. EU averages are weighted averages and calculated by Commission Services.

Graph IV.2.9: **Evolution of public health expenditure by main areas (2003 = 100) in the EU, 2003-2011**



(1)The graph shows the evolution by "indexing" the expenditure (in current prices) in each year to that of 2003. The graphs again show that total and public expenditure on health have increased faster than GDP and prices throughout the decade
Source: OECD health data 2013, Eurostat and WHO Health for All database for health expenditure data. EU averages are weighted averages and calculated by Commission Service

population for long-term care services having increased faster than total public expenditure on health (37%). Expenditure on the area of ambulatory care shows a steady increase over time, but in line with the increase in total public expenditure on health. Expenditure on disease prevention, health promotion and public health services has also grown fast until 2009, before 2010 also due to expenditure taken to address the pandemic flu outbreak, but has seen a substantial decrease since 2010. Pharmaceutical spending was growing at a slower pace than total expenditure since 2006, and has stabilised in 2011. Finally, expenditure on health administration and insurance was the item that has increased proportionally less with expenditure levels in 2010 more or less at the same level of 2007 and small increase only in 2011.

Graph IV.2.8 shows that hospital care accounts for about 40% of total expenditure, followed by ambulatory care and pharmaceutics with around 25% and 14%, respectively. A breakdown of total expenditure growth between 2003 and 2011 suggests that hospital care was the main area of expenditure growth, ([94]) due to its relative size in total expenditure and its growth rate, which has been higher than total expenditure growth: Hospital care accounts for 37% of expenditure growth, followed by ambulatory care (30%), nursing and residential care (15%), spending on pharmaceuticals (10%), health administration (5%) and health prevention (3%).

The above analysis suggests that the expenditure share of hospital care has not reduced its importance in terms of total expenditure in the first decade of the 21st century. However, this masks significant changes in the provision of health services over time (Box IV.2.1), such as the decreasing number of acute care beds, the shortening in the average length of stay of hospital inpatients, and the rising amount of day case discharges from hospitals.

Still, all these changes did not translate into substantial shifts in expenditure shares across the various health expenditure areas. This is despite the much stated consensus among researchers and policy makers that moving health care out of the resource intensive hospital sector towards more cost-effective primary and ambulatory care services, and providing a bigger role for disease prevention and health promotion can improve the value for money of public health funding (European Commission-EPC, 2010b).

Based on this analysis, it is reasonable to assume that modes of provision of health services have not changed in line with best practices advocated in the economic literature i.e. the policy focus has not changed substantially. Or else, that significant changes in the provision have effectively taken place, but have largely been offset by rising costs due to technological progress and low productivity growth in the health sector. The analysis indicates that there remains ample scope for further reforms, such as reducing the focus on hospital care, incentivising the provision of primary care and stronger focus on services of disease prevention and health promotion. It will be important to understand if reform measures undertaken during or in the aftermath of the economic crisis target these areas.

2.4. EXPLAINING THE UNDERLYING DRIVERS OF HEALTH EXPENDITURE

As discussed above, during most of the second half and especially the last decades of the 20th century, public health expenditure grew faster than national income in all EU Member States. Within this general trend, spending levels between countries vary substantially, measured either in per capita nominal terms (adjusted for PPS) or as a share of GDP (Section IV.2.1). Many studies have attempted to explain the underlying drivers of the growth in health expenditure for the purpose of explaining cross-country differences in expenditure patterns and in order to project future expenditure levels (Chapter IV.2). Drawing on health research, the following discussion summarises the hypotheses and empirical findings that have been put forward to explain expenditure growth.

It is common in the literature to differentiate between demographic (population size, age structure, and health status) and non-demographic factors (income, health technology, relative prices, and institutional settings and policies).

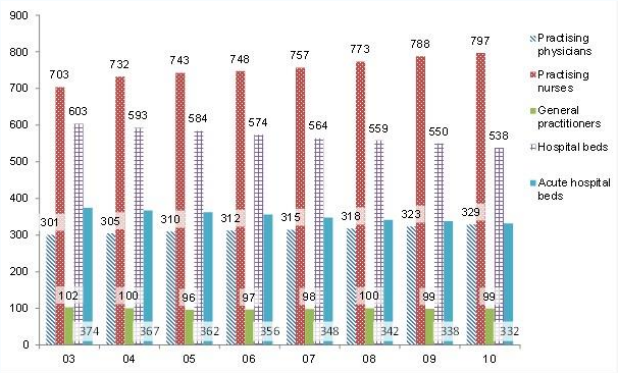
([94]) Although the share of one-day surgery went up.

Box IV.2.1: **The changing landscape of public health provision.**

The evolution of health expenditure is naturally linked to the use of resources, such as capital and labour. Being a highly labour-intensive sector, the number of practicing nurses and physicians in the EU has increased constantly since 2003, reaching 797 nurses and 329 physicians per 100 000 inhabitants in the EU (Graph IV.2.10). At the same time, the number of general practitioners (GPs) has slightly decreased since 2003 from 102 to 99 GPs per 100 000 inhabitants. This may to a certain degree reflect the growing degree in medical specialization, accentuating the need for specialists rather than generalists. However, GPs constitute an important element of every health system, figuring as gatekeepers to further levels of care and being a key element of cost-effective health provision (See section IV.3.1). Insufficient availability of GPs may drive up costs in other parts of health systems, such as in ambulatory specialist or inpatient hospital care (European Commission-EPC 2010).

The number of all hospital beds, i.e. including curative (acute), psychiatric and long-term care beds, has been decreasing over time, reaching an average of 538 beds per 100 000 inhabitants in the EU (Graph IV.2.10). The decrease is to a large degree due to the decreasing number of acute hospital beds from 374 to 332 beds per 100 000 inhabitants. Despite the substantial decrease in the capacity of hospital beds, the share of expenditure on hospitals has not been reduced. This shows that policy reforms focusing on reducing hospital bed capacity are clearly not sufficient to induce a shift in the use of total resources between the main health expenditure areas.

Graph IV.2.10: **Physicians, nurses and hospital beds per 100 000 inhabitants in the EU, 2003 to 2010**



(1) EU averages are weighted averages and calculated by Commission Services.

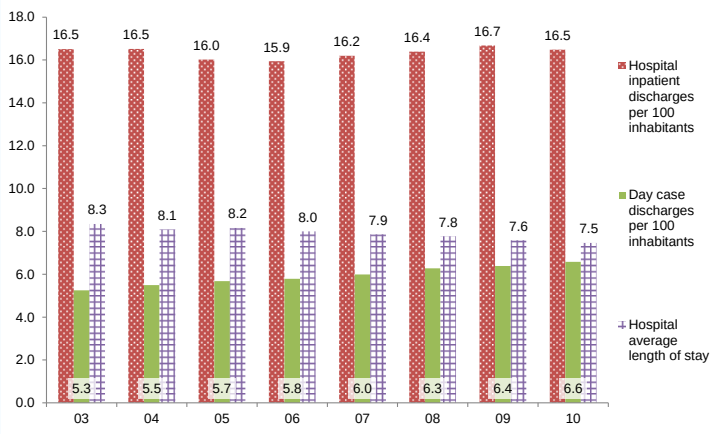
Source: OECD health data 2010, Eurostat data and WHO Health for All database for health expenditure data.

While the number of beds decreased, the output of hospitals increased at the same time, mainly with the rising amount of day case discharges from 5.3 to 6.6 discharges per 100 inhabitants from 2003 to 2010 (Graph IV.2.11). More day case discharges became feasible mainly due to changes in medical technology, allowing for a faster recovery of patients and allowing for shorter stays at the hospitals, but were also related to changes in payment systems for hospitals services, incentivising shorter lengths of stay. This has helped containing the increase in inpatient discharges, which have remained relatively stable at around 16.5 discharges per 100 inhabitants. Medical progress and changes in payment systems have reduced the average length of stay in acute care hospitals from 7.6 to 6.3 days per patient throughout 2003 to 2010 (reported only, without graph). This translates into the reduction of the average length of stay in all types of hospitals, which went down from 8.3 to 7.5 days per patient in the same time period.

(Continued on the next page)

Box (continued)

Graph IV.2.11: **Hospital discharges and average length of stay in hospitals in the EU, 2003 to 2010**



(1) EU averages are weighted averages and calculated by Commission Services

Source: OECD health data 2012, Eurostat data and WHO Health for All database for health expenditure data.

Demographic factors

Population size and age structure

Expenditure on health naturally depends on the number of people in need of health care. This is determined by factors such as population size and the age composition. Expenditure is perceived to increase considerably at older ages, as elderly people often require costly medical treatment due to multi-morbidities and chronic illnesses. Improvements in life-expectancy may therefore lead to increases in health expenditure if not accompanied by improvements in health status.

Health status

However, the relation between life-expectancy and health expenditures is more complex, because it is also influenced by proximity to death. According to the "red herring" hypothesis (Zweifel et al., 1999), age and health expenditure are not related once remaining lifetime (proximity to death) is taken into account. Zweifel et al. (1999) show that the effect of age on health costs is not relevant during the entire last two years of life, but only at the proximity of death does health expenditure rises significantly. Therefore, improvements in life-expectancy due to decreases in mortality rates may even reduce expenditure on health. Empirical studies have partially confirmed this hypothesis. ([95]) When controlling for proximity to death, age per se plays a less important role in explaining health expenditure increases. The extent to which living longer leads to higher costs seems to depend largely on the health status of the population. If rising longevity goes hand in hand with better health at older ages, health needs will decline and this may drive down health expenditure (Rechel et. al. 2009). Three competing hypotheses have been proposed for the interaction between changes in life-expectancy and the health status. According to the "expansion of morbidity hypothesis", reductions in mortality rates are counterbalanced by rises in morbidity and disability rates (Olshansky et al., 1991). The "compression of morbidity hypothesis" claims that bad health episodes are shortened and occur later in life (Fries, 1989). The "dynamic equilibrium theory" suggests that decreases in mortality rates and in the

([95]) For an overview of the literature see Karlsson and Klohn (2011).

prevalence of chronic diseases are broadly offset by an increase in the duration of diseases and in the incidence of long term disability rates (Manton, 1982). There is so far no empirical consensus on which of these three hypotheses is better equipped to explain health expenditure developments. ([96])

Non-demographic factors

Income

Income is another key determinant of health costs (Gerdtham and Jönsson, 2000). A priori, it is unclear whether health expenditure is an inferior, a normal or a superior good, i.e. it is the income elasticity of health demand lower, equal or higher than one? As in the EU a high share of health expenditure is covered by public health insurance schemes, the individual income elasticity of demand is low. At the same time, increases in insurance coverage have strengthened the link between national income and aggregate demand for health services, through the implicit softening of budgetary constraints. In fact, income elasticity tends to increase with the level of aggregation of the data, implying that health expenditure could be both "an individual necessity and a national luxury" (Getzen, 2000). Maisonneuve and Martins (2006) suggest that the high income elasticities (above one) often found in macro studies may result from the failure to control for price and quality effects in econometric analysis. More recent studies, tackling some methodological drawbacks of previous ones (e.g. related to omitted variables and/or endogeneity bias), estimate income elasticities of health demand of around one or below (Azizi et al., 2005; Acemoglu et al., 2009). ([97]) Estimates of income elasticities provided in Chapter IV.2 confirm this finding.

Relative prices

Baumol's (1967) seminal "unbalanced growth model" provides a simple but compelling explanation for the observable rise in health expenditure in the last decades. This model assumes divergent productivity growth trends between "stagnant" (personal) services and a "progressive" sector (e.g. manufacturing and agriculture). Due to technological constrains (e.g. difficulty in automating processes), productivity growth is largely confined to the "progressive" sector. Assuming that wages grow at the same rate in the "stagnant" and "progressive" sectors of the economy, then unit labour costs and prices in the "stagnant" sector will rise relative to those in the "progressive" sector. What will happen to the demand for "stagnant" sector products depends on their price elasticity. If it is high, such activities will tend to disappear (e.g. craftsmanship), but if those products are a necessity with low price elasticities (e.g. health, education), its expenditure-to-GDP ratio will trend upwards (Hartwig, 2011; Baumol, 2012).

Using US data, Nordhaus (2008) confirmed Baumol's hypothesis of a "cost-price disease" due to slow productivity growth in labour intensive sectors, namely industries with relatively low productivity growth ("stagnant industries") show percentage-point for percentage-point higher growth in relative prices. Using a panel of 19 OECD countries, Hartwig (2008) finds robust evidence in favour of Baumol's hypothesis that health expenditure is driven by wage increases in excess of productivity growth in the whole economy.

Technological advances in medical treatments

In the past decades, health expenditure has been growing much faster than what would be expected from changes in demography and income. Many studies claim that the gap is filled by technologic advances in the health sector. Innovations in medical technology allow for expanding health care to previously untreated medical conditions and are believed to be a major driver of health expenditure. Smith et al. (2009) suggest that between 27% to 48% of health expenditure since 1960 is explained by innovations in medical technology. Earlier studies estimated that about 50% to 75% of increases in total expenditure were driven by technology (Newhouse, 1992; Cutler, 1995; Okunade and Murthy, 2002; and Maisonneuve and Martins, 2006).

Cutler (2004) argues that technological advances in medical sciences have generated both far-reaching advances in longevity and a rapid rise in costs. Chandra and Skinner (2011) attempt to better understand the links between technological

([96]) See for e.g. the Global Forum for Health Research (2008).
([97]) For a review of the literature on income elasticity estimates see Annex 3 in Maisonneuve and Martins (2013).

progress in health and its impact on costs and the effectiveness of treatments. They rank general categories of treatments according to their contribution to health productivity, defined as the improvement in health outcome per cost. Within a model framework, they propose the following typology for the productivity of medical technology: firstly, highly cost-effective innovations with little chance of overuse, such as anti-retroviral therapy for HIV; secondly, treatments highly effective for some but not for all (e.g. stents); and thirdly, "grey area" treatments with uncertain clinical value such as ICU days among chronically ill patients.

Regulations

Another important dimension of public health expenditure is the regulatory settings and policies on the provision and financing of health care. Regulations may set budgetary constraints, define the extent of public health coverage, and provide behavioural rules and incentives for providers and payers aimed at the financial or medical quality of outcomes. Jenkner et al. (2010) suggest that reliance on market mechanisms ([98]) and the stringency of budgetary caps on expenditure are negatively related to growth in public expenditure on health, while intensity of regulations and degree of centralisation are positively related to growth in public health expenditure.

Summing-up

Overall, empirical studies show that demographic factors, such as population ageing, have had a positive impact on expenditure growth, but rather of a second order, when compared with other drivers, such as income, technology, relative prices and institutional settings. A major example of the importance of non-demographic factors is the expansion of population coverage of health insurance schemes, which by now has largely been completed in most EU Member States.

Chapter IV.2 provides further empirical estimates of the relative importance of non-demographic versus demographic factors in explaining expenditure growth. These estimates are later used to project expenditure growth in a long term perspective up to 2060, indicating a mounting fiscal pressure from projected future increases in the HE-to-GDP ratios and the resulting need for cost-containment policies.

In summary, a rising share in the public HE-to-GDP ratio is observed over time. A general upward trend in the HE-to-GDP ratio includes periods of faster and slower growth, showing a staggered increase over time (Section IV.2.1). Although being too early to draw definite conclusions, an "pause" in a rising trend is observed in the follow-up to the economic crisis, albeit differing across Member States. Following 2008 and 2009, where the HE-to-GDP ratio went up for a great majority of countries, 2010 shows a reduction in the expenditure ratio which is not only due to the GDP expansion but also to some containment in health expenditure growth (Section IV.2.2). ([99])

Such increases in the expenditure share of HE have been accompanied by a rise in the fiscal burden. Given limited government resources, health may have already crowded out significantly other government outlays (Section IV.2.1). Given the bleak prospects implied in the projections for future public HE-to-GDP ratios (see Chapter IV.4), this raises important issues as to how public expenditure on health will be financed and/or whether other public expenditure trade-offs will need to be made, *inter alia*, involving the adequate provision of health services and goods both in terms of quantity and quality.

Notably, (past) expenditure trends driven by growing demand do not appear to have mainly resulted from demographic changes. Instead, they appear to have largely been driven by policies enlarging the coverage by public health insurance schemes of the population, by technological trends,

([98]) In Jenkner et al. (2010), "market mechanisms" is a factor score resulting from a principal component analysis of 20 qualitative policies and institutions indicators presented in Joumard et al. (2010). The "market mechanisms" factor score is mainly characterised by the following indexes: i) "private provision" of health (breakdown of physicians and hospital services according to their nature i.e. public or private); ii) "user information" (on quality and prices of various health services); iii) "choice of insurers" (in case of multiple insurers: the ability of people to choose their insurer); and iv) "insurer levers" (insurers' ability to modulate the benefit basket).

([99]) For a number of countries, 2010 may also be seen as a rebalancing year, when expenditure levels are corrected downwards after the high growth rates of previous years.

by low productivity growth in a highly labour intensive sector, and by the overall regulatory framework.

During the period 2003-2011, health expenditure shares by main category remained relatively stable. In fact, as shown, hospital care continuously takes the highest share in expenditure, followed by ambulatory care, pharmaceuticals, nursing and residential care, health administration and insurance, and prevention and public health services (Section IV.2.3). Noticeably, hospital care remains the largest share of total expenditure on health, while growth in hospitals' expenditure has been the second highest during the last decade, although some positive developments have occurred such as the rise in one-day surgeries. This is so despite the acknowledgement by the research community, as well as policy makers, that the expenditure share of hospital care in total health should be reduced. This suggests that further reforms are necessary in this area in order to curb future expenditure growth.

In order to improve on the existing regulatory framework and curb future expenditure growth, it is important to understand which drivers of public health expenditure identified in the literature (Section IV.2.4) – population size and structure, health status, income, relative prices, technology, and regulatory settings and policies – play a major role in the observed expenditure patterns. The next section attempts to address this issue.

3. TESTING HYPOTHESES ON THE DRIVERS OF HEALTH EXPENDITURE AND PROJECTING PUBLIC EXPENDITURE IN THE LONG RUN

The previous section, which described major past and recent trends in public expenditure on health, the impact of the recent economic crisis and the evolution of expenditure by main category, raises a number of important questions. Will the observed long term trends continue unchecked in the future? And why are there such large differences in per capita levels and in growth rates of health expenditure across Member States? What are the main factors driving growth rates in health expenditure?

In an attempt to answer these questions, this section addresses - in a statistical/econometric perspective - the issue of expenditure drivers i.e. what explains expenditure growth and what may happen to public expenditure on health in the future. ([100])

Firstly, the analysis estimates regressions with total public HE as the dependent variable to obtain income and price elasticities of health expenditure. These elasticities are later used to project future HE-to-GDP ratios. The choice of total public HE as dependent variable reflects the "practical" nature of our problem: we want to build a methodological framework to project long term total public HE. The regression specification retained fits well with the EPC-EC methodology to project age related costs (DG ECFIN-EPC(AWG), 2012), because the macroeconomic variables needed to project future total public HE are available in the long term age related projections. ([101])

Secondly, we carry out a typical accounting analysis or breakdown of total public HE over the last 25 years in its main drivers (Mainsonneuve and Martins, 2013). For such breakdown, we prefer using more consensual/central values for the income and price elasticities in the empirical literature. This type of analysis disentangles between demographic (age structure of the population), and non-demographic drivers of total public expenditure on health, such as income and relative prices (i.e. Baumol's "cost-price disease"), although leaving a large residual component unexplained, reflecting omitted variables, such as technology and policy regulations.

Thirdly, the analysis presents another type of regression to explain the drivers of health expenditure in a more theoretical perspective, following Baumol's "unbalanced growth model". ([102]) Specifically, we use Hartwig's (2008) methodology to test empirically the main implication of Baumol's "unbalanced growth model", namely that health expenditure is driven by wage increases in excess of productivity growth in the whole economy.

3.1. DATA

Data on public health expenditure are primarily taken from the System of Health Accounts (SHA) as provided by the OECD and Eurostat, and supplemented by national data sources. ([103]) The dataset covers the 27 EU Member States and Norway. For some Member States, data series are available since the mid-1970s, ([104]) although time coverage is unbalanced across countries.

The following variables are used in all estimated regressions. The relative price index for health

([100]) Based on Medeiros and Schwierz (2013), "Estimating the drivers of public health expenditure in the European Union: Baumol's 'cost-disease' revisited", forthcoming.

([101]) IMF and OECD have adopted similar work streams: Jenkner E., Karpowicz I., Kashiwase K., Shang B., Soto M., Tyson J., (2010), and Maisonneuve C. and Martins J. (2006, 2013), respectively.

([102]) In this second type of regression, we use current instead of total (current and capital) expenditure, because capital investment does not play a role in Baumol's model; and total expenditure instead of public, because we are now interested in analysing overall expenditure determinants not in making projections of public health expenditure.

([103]) Public expenditure on health is defined by the "core" functional components of health (SHA categories HC.1 – HC.9), including capital investment in health (HC.R.1).

([104]) Data for 11 countries are available since the mid-1970s, namely for Austria, Germany, Denmark, Spain, Finland, Luxembourg, the Netherlands, Norway, Portugal, Sweden, and the United Kingdom.
Data used in the econometric analysis were collected between November 2012 and January 2013. Therefore, data for 2011 are not included, as the data update was too late to rerun calculations. However, this is not expected to change significantly the results. Recall that regressions were also estimated excluding the most recent years to check for the overall robustness of results.

services ($p \equiv \frac{p_h}{p_y}$) is the ratio of the health price deflator P_h over the GDP deflator (P_y). Nominal public health expenditure and nominal GDP are deflated using, respectively, the health price index and the GDP deflator with base year 2005, and then converted for the same year using purchasing parity standards (PPS). ([105]) GDP data (real and nominal), wages and CPI indexes, and PPS are all taken from the European Commission Ameco database, and population data from Eurostat.

Given the strong evidence suggesting that relative prices of health services have been increasing on a regular basis, it is important to include information on health prices in the regression specifications. Maisonneuve and Martins (2013) use the value-added deflator in the Health and Social Work sectors, taken from the OECD STAN database. Unfortunately for the purpose of this analysis, the geographical coverage of the STAN database is very limited. ([106])

Elk et al. (2009) methodology to construct a price index for health services using macro data for wages and prices (the overall consumer price index), is applied in the following way:

$$P_h = W^{\phi} * CPI^{1-\phi} \qquad (1)$$

where the price of health services (P_h is a weighted average of wages for the whole economy (W) and overall consumer prices (CPI). The latter is used because the health sub-component of Eurostat's HCPI is only available since 1996. The weights (ϕ) are country specific and are calculated using national accounts input-output tables.

$$\phi = \frac{W + {}^{2}/_{3} * IC}{X} \qquad (2)$$

where IC and X are total intermediate consumption and total production, respectively, in the Human Health Activities sector of national accounts data (Eurostat). Thus, the weight is defined as the compensation for employees in the health sector plus the estimated compensation for employees in the intermediate consumption part (using for the latter an estimated wage share of 2/3) divided by total production.

The proxy price indices for health services built using (1) and (2) closely follow those taken from the OECD STAN database (Medeiros and Schwierz, 2013).

Estimating income and price elasticities of public health expenditure

Panel regressions are primarily run using data in growth rates and assuming country fixed-effects. Initially, an attempt was made to run the regressions mainly in levels instead, requiring the existence of a co-integration relationship. However, co-integration tests were inconclusive, depending on the variables considered and on the inclusion or not of a deterministic time trend in the co-integration test. Moreover, results regarding the existence of a steady state for the HE-to-GDP ratio depended on co-integration (see Box IV.3.1). Therefore, in order to make sure that results are not spurious, regressions are run using data in growth rates (Jenkner et al., 2010).

Assuming that variables are first order integrated, ([107]) panel regressions can be estimated in first differences (i.e. growth rates).

$$\Delta \log h_{i,t} = \alpha + \mu_i + D_{85} + a * \Delta \log x_{i,t} + b * \Delta \log y_{i,t} + c * \Delta \log p_{i,t} + \varepsilon_{i,t} \qquad (3)$$

where Δ is the first difference operator (i.e. $\Delta z_t = z_t - z_{t-1}$)

Equation (3) ([108]) assumes that real per capita growth in public health expenditure ($h_{i,t}$, deflated

([105]) The same procedure was followed in Gerdtham et al. (1995) and Barros (1998). For example, the dependent variable (real per capita health expenditure) is valued at constant 2005 prices (in national currency units using P_h as deflator) and then converted in PPS for 2005.

([106]) Using the OECD STAN database, health prices indices can be obtained for only 13 European countries: Austria, Belgium, the Czech Republic, Germany, Denmark, Finland, France, Hungary, Italy, the Netherlands, Norway, Sweden, and Slovenia.

([107]) Medeiros and Schwierz (2013) present a series of unit root tests (both country-specific and panel) for HE, GDP and relative prices. Overall, the evidence seems to support the unit root hypothesis (i.e. series are generally non-stationary in levels). Given that nobody ever suggested that these series could be second order integrated or higher, running regressions in growth rates (i.e. in first differences) is sufficient to avoid obtaining spurious results.

([108]) For practical/feasibility reasons, the reduced form equation (3) ignores two-way causation effects between economic growth and heath. Within a neo-classical growth model,

Table IV.3.1: **Common income (η) and price elasticities (γ) estimates**

	Growth rate equations no co-integration				Level equations co-integration		
	OLS	OLS	IV	IV	OLS	IV	IV
	(1)	(2)	(3)	(4)	(5)	(6)	(6a)
	All observations	Excl. 10% more influential	All observations	Excl. 10% more influential	All observations	All observations	All observations excl. 2009 & 2010
Income elast. (η)	0.20 *	0.20 **	0.77	0.96 ***	0.51 (0.57)	0.66 (0.75)	0.64 (0.73)
Price elast. (γ)	-0.32 *	-0.14	-0.62 ***	-0.48 *	-0.24 (-0.33)	-0.41 (-0.51)	-0.36 (-0.47)
legend: * p<0.05; ** p<0.01; *** p<0.001							

(1) In columns 5 to 6a, there are two values in each cell. The first refers to the model in levels without demographic variables; the second (in parenthesis) refers to the corresponding model including two demographic variables, namely the young and old age population ratios.
Source: Own calculations based on SHA and national data.

using health services prices P_h) is a function of a common growth rate across all countries (α); a country-specific growth rate differential (i.e. country-fixed effects μ_i) a period dummy (D85), signalling a common shift in the growth rate after 1985; real per capita GDP growth rate ($y_{i,t}$, deflated using the GDP deflator P_y); relative price of health services ($p_{i,t}$); and a population composition effect ($x_{i,t}$). ([109]) The common growth rate (α) and country-fixed effects (μ_i) capture time-invariant factors, such as institutional settings, and national idiosyncrasies.

Given the specification of the regressions in first differences of logarithmic variables, two elasticities are directly obtained from the estimates: i) a common income elasticity ($\eta \equiv \tilde{b}$); and ii) a common price elasticity ($\gamma \equiv \tilde{c}$), ([110]) which are later used in the projections.

Note that in order to test the robustness of the results, a number of regressions were estimated. Firstly, regressions are estimated using both ordinary least squares (OLS) and instrumental variables (IV). ([111]) Secondly, regressions are estimated including or not the 10% more influential observations in the panel. ([112]) Thirdly, regressions are also estimated in levels either including or not demographic variables.

Table IV.3.1 presents estimates of these two elasticities, resulting from a number of regression specifications (see Annex, Tables IV.A1.1 and A1.2).

Income elasticity (η) estimates are mostly below one, while those obtained using IV are significantly higher than using OLS. Overall, results are in line with recent income elasticity estimates of health expenditure. ([113]) For example, Maisonneuve and Martins (2013) suggest an income elasticity of health expenditure centred around 0.8 (revising downwards their previous unitary estimate made in 2006), while Acemoglu et al. (2009), using carefully designed econometric techniques to identify causality effects of income on health expenditure, and using data for the Southern United States, find an income elasticity below unit (0.72 with an upper interval value of

Barro (1996a) proposes a framework that considers the interaction between health and economic growth, obtaining positive synergies. Better health tends in various ways to enhance economic growth, whereas economic advance encourages further the accumulation of health capital. Using a panel of around 100 countries from 1960 to 1990, Barro (1996b) finds strong support for the general notion of conditional convergence, including a positive impact of life-expectancy on the GDP growth rate. Overall, empirical results suggest a significantly positive effect on growth from initial human capital in the form of (better) health.

([109]) Two variables are used to capture demographic composition effects: i) the fraction of the population below 16 (young population ratio); and ii) the fraction of the population above 65 (old population ratio).

([110]) Note that a tilde over a parameter means an estimated value.

([111]) IV may alleviate the problem of potential endogeneity of the income variable (y), using as instruments its lagged values, whereas relative prices (p) are assumed to be exogenous, because the proxy variable being used (based on wages in the whole economic and CPI inflation) can be treated as an exogenous regressor. Adequate instruments for the relative prices variable were not found.

([112]) The 10% more influential observations are identified using Cook's measure of distance, which is a statistic of the effect of one observation simultaneously on all regression coefficients. Eliminating the most influential observations is an attempt to exclude outliers.

([113]) See Appendix 3 in Maisonneuve and Martins (2013) for a review of recent literature on income elasticity estimates.

Table IV.3.2: **Breakdown of public health expenditure growth (a), 1985-2010 (b) Annual averages in percentage**

	Period	Number of observations	alth spendi	Age effect	Income effect (c)	Price effect (d)	Residual
			(1)	(2)	(3)	(4)	(5)=(1)-(2)-(3)-(4)
BE	1996-2010	14	1.7	0.1	1.0	-0.3	0.9
BG	1992-2007	16	-0.1	0.1	2.1	-0.6	-1.7
CZ	1994-2010	14	0.4	0.1	1.8	-0.9	-0.6
DK	1985-2010	26	1.0	0.1	0.9	-0.5	0.6
DE	1993-2010	18	1.5	0.3	0.8	-0.2	0.6
EE	1996-2010	15	0.6	0.1	3.5	-1.4	-1.5
IE	1996-2010	15	3.3	-0.1	2.5	-0.9	1.8
EL	1988-2010	23	2.8	0.2	1.3	-0.3	1.7
ES	1985-2010	25	3.1	0.1	1.4	-0.3	1.9
FR	1991-2010	19	1.2	0.1	0.7	-0.3	0.7
IT	1989-2010	22	1.8	0.2	0.6	-0.1	1.0
CY	1996-2011	16	4.5	0.0	0.8	-0.4	4.1
LV	1992-2008	14	2.0	0.2	1.1	-0.8	1.5
LT	1996-2009	12	3.9	0.2	3.1	-2.0	2.5
LU	1985-2009	23	2.2	0.0	2.3	-0.8	0.7
HU	1993-2010	17	-0.5	0.1	1.6	-0.5	-1.6
MT	1996-2009	14	3.0	0.2	1.3	-0.7	2.2
NL	1985-2009	24	2.9	0.1	1.3	-0.3	1.7
NO	1985-2011	25	2.2	0.0	1.2	-0.3	1.3
AT	1985-2009	25	2.4	0.1	1.3	-0.4	1.4
PL	1993-2010	17	2.3	0.1	3.2	-0.9	0.0
PT	1996-2010	14	2.2	0.2	0.9	-0.4	1.5
RO	2000-2009	10	2.8	0.1	3.4	-1.9	1.3
SI	1993-2010	18	1.4	0.3	2.2	-0.5	-0.7
SK	1996-2010	15	1.9	0.0	2.9	-1.1	0.1
FI	1985-2011	25	1.7	0.2	1.3	-0.7	0.9
SE	1994-2010	17	1.2	0.0	1.6	-0.6	0.1
UK	1994-2010	16	3.2	0.0	1.4	-0.5	2.3
Non-weighted avg./tot		509	2.0	0.1	1.7	-0.7	0.9
% of total				5.4	83.9	-32.4	43.2
Weighted average			2.0	0.1	1.2	-0.4	1.1
% of total				7.0	59.0	-18.2	52.1

Source: Own calculations based on SHA and national data

1.13). In the breakdown exercise of total pubic HE presented in Table IV.3.2, the stylised values used for the income and price elasticities are 0.7 and -0.4, respectively.

The estimates for the price elasticity ([114]) (γ) are correctly signed and lower than 1 (in absolute value) as expected (i.e. inelastic demand), while those obtained using IV are significantly higher (in absolute value) than those obtained using OLS. Price elasticity estimates around -0.4 are similar to those obtained in other empirical studies (e.g. Maisonneuve and Martins, 2013).

Breakdown of total public HE in its main drivers: the minor role of ageing

Table IV.3.2 presents a breakdown of total public HE growth into different drivers for the period 1985-2010. In line with estimates in the empirical literature, the income and price elasticities are set to 0.7 and -0.4, respectively, while demographic effects are determined using estimates from equation (3). ([115]) The results suggest that since

([114]) Medeiros and Schwierz (2013) accept the null hypothesis of equivalence between the estimated regression and an alternative specification where the relative prices variable is split into two variables: health prices and the GDP deflator. Under this equivalence, the price elasticity estimate of HE equals the relative prices estimate.

([115]) The OLS regression 1 in Annex, Table IV.A1.1, is used. According to these estimates: a 1% increase in the fraction of the population below 16 ("young population ratio") increases real per capita public HE by 0.08%; while a 1%

1985 changes in demographic composition played a minor role in driving up total public HE. ([116]) Using weighted averages, (see last row of Table IV.3.2) the rise in per capita income explains about 59% of the total increase in expenditure, price effects dampened expenditure by 18%, demographic composition effects accounted for an increase of just 7%, ([117]) while residual effects account for around 52%. The decomposition supports the hypothesis outlined in Chapter IV.1 that past trends in expenditure were mainly driven by non-demographic factors, including income and price effects. Note the importance of residuals largely due to omitted variables, such as technologic innovations in the medical field and policy regulations.

Testing Baumol's "unbalanced growth model"

In this section, Hartwig's (2008) methodology is used to test empirically the main implication of Baumol's "unbalanced growth model", namely that current total (public and private) health expenditure is driven by wage increases in excess of productivity growth in the whole economy.

Current instead of total (current and capital) HE is used, because the difference between the two – capital investment – does not play a role in Baumol's model. Also note that both public and private expenditure are used, whereas in the estimation of price and income elasticities and projection sections, the dependent variable is public total HE. The different focus reflects the fact that public total expenditure is used to make projections, whereas now expenditure drivers are discussed from a more theoretical perspective.

Baumol (1967) developed a simple neo-classical growth model that can be used to rationalise the rapid and persistent rise in current total (public and private) HE in recent decades and assess future developments. The main implication of Baumol's model is that current total expenditure is driven by wage increases in excess of productivity growth. Using variables expressed in growth rates, current total (public and private) HE is regressed on real per capita income and a variable which is the difference between wage and productivity growth for the whole economy.

Baumol's "unbalanced growth model" would be consistent with a statistical significant coefficient of around one for the "Baumol" regressor: $(\widehat{W_t} - \widehat{lp_t})$ which is the difference between the growth rates of nominal wages per employee and labour productivity for the whole economy (Hartwig, 2008) ([118]).

The following linear regression is estimated (for a derivation see Box IV.3.2):

$$\widehat{H_{i,t}} = a * \left(\widehat{W_{i,t}} - \widehat{lp_{i,t}}\right) + b * \hat{y}_{i,t} + \varepsilon_{i,t} \quad (4)$$

where $\widehat{H_{i,t}}$ is the growth rate of nominal current per capita HE; $\widehat{W_{i,t}}$ the growth rate of nominal wages per employee; $\widehat{lp_{i,t}}$ is the growth rate of labour productivity in the whole economy; $\hat{y}_{i,t}$ denotes the growth rate of real per capita GDP; and $\varepsilon_{i,t}$ is a stochastic variable.

Table IV.3.3 summarises estimation results for equation (4), using three estimations. ([119]) In all cases, and similarly to Hartwig (2008), strong support is found in the data for the Baumol's "unbalanced growth model". As predicted, the value of the estimated "Baumol" coefficient is (statistically) close to one, remaining largely stable across specifications. Note also the high significance of the real per capita GDP regressor. Until recently, the latter variable had emerged in the literature as the only uncontroversial explanatory variable in health expenditure regressions, using cross-section or longitudinal country data (Gerdtham and Jönsson, 2000).

increase in the fraction of the population above 65 ("old population ratio") increases real per capita public HE by 0.2%.

([116]) In order to capture the demographic structure of the population, the average age of the population was also tried as a regressor, but was not retained. For data availability and logistic reasons, no attempt was made to calculate a proxy for the fraction of the population in the proximity of death.

([117]) Note that this reflects historical developments not representing a projection of future developments. In the 2012 EPC-EC Ageing Report, the impact of ageing on health expenditure up to 2060 is calculated using specific age profiles by country and gender.

([118]) This basically assumes that relative outputs between health services and "progressive" sectors are constant, and that health prices are a mark-up over costs (see Box IV.3.2).

([119]) Namely, an OLS, a cross-section fixed-effects, and a time fixed-effects.

Overall, it can be concluded that developments in current total (public and private) HE in European countries since 1960s are in line with Baumol's theory of "unbalanced growth". Wage increases in excess of productivity growth are a statistical significant explanatory variable of (nominal) HE growth. This finding is robust to the inclusion of (real) GDP as an additional explanatory variable.

Table IV.3.3: **The "Baumol variable" unsplit and per capita real GDP as drivers of the nominal growth rate of current per capita health expenditure (log differences)**

Regressions	OLS	Cross-section fixed-effects	Time period fixed-effects
Variables			
Constant	0.02356***	0.02770***	0.02370***
Baumol var.= dlog(wspe)-dlog(prod)	1.04048***	0.98814***	0.96907***
dlog(GDPrpc)	0.68223***	0.62080***	0.83058***
Number of observations	607	607	607
R squared adjusted	0.67878	0.59139	0.56109
Root mean squared error	0.03992	0.0394	0.03765
Wald test (p-value) a)	0.1812	0.7241	0.388
legend: * p<0.05; ** p<0.01; *** p<0.001			

(1) dlog(wspe)= log difference of wages and salaries per employee in the whole economy, dlog(prod)= log difference of labour productivity (real GDP per employee) in the whole economy, and dlog(GDPrpc) = log difference of real per capita GDP.
a) Tests the null hypothesis that the coefficient of the Baumol variable is one.
Source: OECD Health Database and Ameco Database.

The three major results derived from the econometric analysis are: i) in a historical perspective, breakdowns of public HE growth using stylised values (derived from the empirical literature) for the income and price elasticities show that demographic factors played a minor role in explaining total growth; ii) the strong rise in relative prices of health services in the past half century is linked to lower or stagnant productivity growth in that sector; and iii) combined with a relatively inelastic demand, a rise in relative prices of health services generates a trend increase in the HE-to-GDP ratio.

Long term projections for the total public health expenditure-to-GDP ratio (HE-to-GDP)

The results of the econometric analysis on the determinants of HE growth are used to calculate long term projections (up to 2060) for the HE-to-GDP ratio. Equation (3) estimated in growth rates (see Annex, regression 4 in Table IV.A1.1) is used for the projections.

The exogenous variables used are taken from (an updated version) of the 2012 Ageing Report, notably real GDP, labour productivity and demographic variables.

In the projection formula (see Box IV.3.3) relative prices of health services are proxied using labour productivity. Note also the important role played in the projections by a deterministic time trend, largely reflecting the impact of omitted variables. ([120])

A major advantage of using growth rate estimates is that the impact of demographic composition can be considered. This among the factors determining HE growth allows the estimation of demographic effects, whereas in level equations, demographic variables are not part of the co-integration vector. There are also a number of technical advantages in using equations in growth rates: i) first, co-integration tests are inconclusive (see Box IV.3.1); and ii) a formulation in growth rates is compatible with the existence of a constant steady-state for the HE-to-GDP ratio.

The model specification used to estimate total public health expenditure fits well with the European Policy Committee-European Commission (EPC-EC) methodology to project long term age related costs (DG ECFIN-EPC(AWG), 2012), because the macroeconomic variables needed to project future public health expenditure are available in the long term age related projections, namely real GDP, GDP prices, wages, labour productivity, and demographic variables.

Calibration and results

Estimates of equation (3) in growth rates (see Annex, regression 4 in Table IV.A1.1) are used for the income and price elasticities. Note that instead of using the country-specific time drift $\psi_i \equiv \alpha + \mu_i + D_{85}$, a common time drift (ψ_i) is used, calculated as the non-weighted average over the 28 countries considered in the analysis (EU27 and Norway; regression 4, Table IV.A1.1 in Annex), thereby correcting for the excessive

([120]) In order to make reasonable (i.e. within plausible bounds) projections, some kind of a priory judgment is still needed about the relevance of historical trends for determining future values of the time drift (ψ_t), and future values for the pass-through of productivity gains into relative price increases (ϕ_i).

Box IV.3.1: **Co integration and the health care expenditure to GDP ratio (HCE to GDP)**

Running regressions in levels requires co-integration of expenditure and income variables.

In case variables are co-integrated, the following long term relationship can be estimated:

$$\log h_{i,t} = \alpha_0 + \alpha * t + \mu_i * t + D_{85} * t + a * \log x_{i,t} + b * \log y_{i,t} + c * \log p_{i,t} + EC_{i,t} \quad \text{(i)}$$

with $EC_{i,t}$ being the error correction term which is assumed to be stationary.

The corresponding error correction model (ECM) is:

$$\Delta \log h_{i,t} = c + \beta_1 * \Delta \log x_{i,t} + \beta_2 * \Delta \log y_{i,t} + \beta_3 * \Delta \log p_{i,t} + \delta * EC_{i,t-1} \quad \text{(ii)}$$

In the ECM equation (ii), the crucial parameter to be estimated is δ, which should be negative, giving the speed of convergence of deviations of per capita health care expenditure to long term values.

Estimates of the (lagged) error correction term are significantly negative (see Annex, Table A3), indicating that per capita health care expenditure deviations from their long term values are corrected each year by about 20% i.e. expenditure deviations take about 5 years on average to converge to their long term ratios.

Ultimately, level regressions are used as a kind of "sensitivity test" to results obtained using growth rate regressions. The main reasons are: i) panel co-integration tests are inconclusive; and ii) assuming co-integration has the unpalatable implication that the HCE-to-GDP ratio does not appear to have a steady-state.

Using Westerlund's (2007) panel co-integration test, it is found that co-integration of $h_{i,t}$,$p_{i,t}$, and $y_{i,t}$ depends critical on adding or not a deterministic trend to the co-integration relationship. The three variables are found to be co-integrated only when a deterministic trend is not considered. However, even in the no deterministic trend case, adding a fourth variable, representing the composition of the population, would lead us also to reject co-integration.

Furthermore, stationarity of the HCE-to-GDP ratio crucially depends on existence of a co-integration relationship (Medeiros and Schwierz, 2013). We estimate that co-integration implies an annual time drift of 1.4% in the HCE-to-GDP, whereas no co-integration (with the regression estimated in growth rates) implies a constant ratio.

Box IV.3.2: **A simplified version of Baumol's "unbalanced growth model"**

Following Baumol (1967) and Hartwig (2008), let us assume that labour productivity in the "stagnant" sector (i) stays constant, while it grows at the constant rate *r* in the "progressive" sector (ii).

$$Y_{1t} = aL_{1t} \qquad \text{(i)}$$

$$Y_{2t} = bL_{2t}e^{rt} \qquad \text{(ii)}$$

where Y_{1t} and Y_{2t} are output levels in the two sectors at time *t*, L_{1t} and L_{2t} are the quantities of labour employed, and *a* and *b* are constants.

Wages are equal across the two sectors and grow in line with labour productivity in the "progressive" sector:

$$W_t = We^{rt} \qquad \text{(iii)}$$

with *W* being some constant.

Relative costs per unit of output (the "stagnant" over the "progressive" sectors) is given by:

$$\frac{C_1}{C_2} \equiv \frac{\frac{W_t L_{1t}}{Y_{1t}}}{\frac{W_t L_{2t}}{Y_{2t}}} = \frac{\frac{W_t L_{1t}}{aL_{1t}}}{\frac{W_t L_{2t}}{bL_{2t}e^{rt}}} = \frac{be^{rt}}{a} \qquad \text{(iv)}$$

where C_1 and C_2 represent costs per unit of output.

Over time ($t \to \infty$), relative costs (iv) tend to infinity. Consequently, under "normal" circumstances (i.e. prices set as a mark-up over costs), and with an elastic demand, *there is a tendency for outputs of the "stagnant" sector to decline and perhaps, ultimately, to vanish* (Baumol, 1967, p. 418).

However, parts of the "stagnant" sector produce necessities, such as education and health care, for which the price elasticity is very low.

As an illustration, Baumol (1967) considers the case where despite the change in their relative costs and prices, the magnitude of the relative outputs of the two sectors is kept constant (e.g. through government subsidies):

$$\left(\frac{b}{a}\right)\frac{Y_{1t}}{Y_{2t}} = \frac{L_{1t}}{L_{2t}e^{rt}} = K \qquad \text{(v)}$$

with K being some constant.

Let $L_t = L_{1t} + L_{2t}$ be total employment, then it follows:

(Continued on the next page)

Box (continued)

$$L_{1t} = (L_t - L_{1t})Ke^{rt} \quad \leftrightarrow \quad L_{1t} = \frac{L_t Ke^{rt}}{1 + Ke^{rt}} \tag{vi}$$

$$L_{2t} = L_t - L_{1t} = \frac{L_t}{1 + Ke^{rt}} \tag{vii}$$

According to (vi) and (vii), over time ($t \to \infty$), L_{1t} tends to L_t, and L_{2t} to zero.

In the "unbalanced growth model", if the ratio of outputs of the two sectors is kept constant, an ever larger share of labour must move to the "stagnant" sector, while the amount of labour in the "progressive" sector will gradually tend to zero.

After presenting a simplified version of Baumol's "unbalanced growth model", we will now derive an expression for the nominal growth rate of current total per capita HE, which can be tested in a regression.

Using a supply-side approach, (i) and (iii) can be used to express nominal current total HE as:

$$\mathrm{HE_t} = \gamma \mathrm{W_t} \mathrm{L_{1t}} \tag{viii}$$

with γ being the mark-up of prices over costs. Equation (viii) can be re-arranged as:

$$\mathrm{H_t} \equiv \frac{\mathrm{HE_t}}{\mathrm{P_t}} = \gamma \frac{\mathrm{W_t}}{\frac{\mathrm{GDP_t}/\mathrm{P_y}}{\mathrm{L_t}}} \frac{\mathrm{GDP_t}/\mathrm{P_y}}{\mathrm{P_t}} \frac{\mathrm{L_{1t}}}{\mathrm{L_t}} = \gamma \frac{\mathrm{W_t}}{\mathrm{lp_t}} \mathrm{y_t} \frac{\mathrm{L_{1t}}}{\mathrm{L_t}} \tag{viiia}$$

with H_t being nominal current total per capita HE; P_t population; GDP_t nominal GDP; P_y the GDP deflator; $lp_t \equiv \frac{GDP_t/P_y}{L_t}$ labour productivity; and $y_t \equiv \frac{GDP_t/P_y}{P_t}$ real per capita GDP.

Differentiating the logarithm of (viiia):

$$\mathrm{dlog(H_t)} = \mathrm{dlog(W_t)} - \mathrm{dlog(lp_t)} + \mathrm{dlog(y_t)} + \mathrm{dlog(L_{1t})} - \mathrm{dlog(L_t)} \tag{viiib}$$

Or expressed in growth rates:

$$\widehat{H_t} = \widehat{W_t} - \widehat{lp_t} + \widehat{y_t} + \widehat{L_{1t}} - \widehat{L_t} \tag{viiic}$$

According to (vi), over time ($t \to \infty$), L_{1t} tends to L_t, thereby $\widehat{L_{1t}} \approx \widehat{L_t}$

Consequently, equation (viiic) can be approximated as: $\widehat{H_t} \approx \widehat{W_t} - \widehat{lp_t} + \widehat{y_t}$ (ix)

(Continued on the next page)

Box (continued)

Equation (ix) suggests that the growth rate of nominal current total per capita HE can be broken down into the sum of the Baumol variable ($\widehat{W}_t - \widehat{lp}_t$), where $\widehat{W}_t$ and $\widehat{lp}_t$ represent the nominal growth rate in wages per employee and productivity growth in the whole economy, respectively, and the growth rate of real per capita income ($\hat{y}_t$).

However, an important point should be made here. Note that per capita GDP (y_t) and labour productivity ($\mathrm{lp_t}$) are linked by the identity:

$$\mathrm{y_t} \equiv \mathrm{lp_t} * (1 - \mathrm{ur_t}) * \mathrm{ar_t} \qquad \text{(x)}$$

where labour market variables, respectively, the unemployment (ur) and activity (ar) rates are present.

Taking the first difference of the logarithm, equation (x) can be expressed in growth rates as:

$$\hat{y}_t - \widehat{lp}_t \approx \widehat{ar}_t - \Delta ur_t \qquad \text{(xi)}$$

Identity (xi) implies that regression (ix) can be estimated only if the term $\widehat{ar}_t - \Delta ur_t$ changes over time.

amplitude of country-specific estimates in order not to extrapolate country-specific idiosyncrasies over a long period. ([121]) ϕ_i is the weight of labour costs in total health expenditure. In the projections, it is assumed that there is a marginal improvement in the pass-through of productivity gains to relative price increases, specifically, ϕ_i is reduced by 10% in the entire projection period over historical values. This reduction is a proxy for limited/sporadic reductions in the labour content of production (technological progress) in the health sector. ([122])

Exogenous variables for population by single age, real GDP, GDP prices, and labour productivity are taken from DG ECFIN's Winter 2013 economic forecasts and a March 2013 update of the 2012 Ageing Report for the period up to 2060. ([123])

Equation (iii) in Box IV.3.3 subsumes three alternative scenarios for a common time drift (ψ_t) between 2010 and 2060: i) constant ("cost-pressure"); ii) linear decreasing to zero ("linear cost-containment"); and iii) geometric decreasing to a very low value ("geometric cost-containment "). ([124])

The cost-pressure scenario sets a common time drift at the annual value of 0.59 p.p. during the entire projection period, which together with other demographic and non-demographic effects yields a considerable increase in the projected public HE-to-GDP ratio from 6.5% in 2010 to 11.7% in 2060 (non-weighted average of the EU27, Table IV.3.4). Two cost-containment scenarios are calculated as well. One assumes the linear reduction in the time drift from 0.59 p.p. in 2010 to zero in 2060, and another assumes a geometric

([121]) A necessary condition for the stationarity of the HE-to-GDP ratio (iii, in Box IV.3.3) is for the time drift to be "forced" to converge to zero over time ($\lim_{t\to\infty} \psi_t = 0$), or less constraining, for the HE-to-GDP ratio to be bounded away from implausible high values. This eventually requires dampening the positive time drift, which requires making arbitrary assumptions (Maisonneuve and Martins, 2013). The time drift is likely to decrease in future relatively to historical trends, reflecting, inter alia, completion of the process of broadening insurance coverage of health systems, but it is likely to "converge" to a strictly positive value as the time drift includes technological progress in the health sector. The trajectory assumed for ψ_t during the projection period has a significant impact on the results.

([122]) This could be interpreted as a reduction in the labour content of intermediate goods consumption in the health sector.

([123]) Taking into account a few pension peer reviews endorsed by the EPC until April 2013.

([124]) In the "geometric cost-containment" scenario, the common drift is assumed to decline from 0.59% in 2010 to 1% of 0.59% in 2060. In their cost-containment scenario, Maisonneuve and Martins (2013) also assume that the common "residuals" converges (linearly) from 1.7% in 2010 to 0% in 2060.

Box IV.3.3: **Derivation of the formula for the projection of HCE to GDP ratios**

Dividing health services prices (equation 1): $P_h = W^{\phi} * CPI^{1-\phi}$ by the GDP deflator (p_y), we obtain an expression for relative prices: $p \equiv \frac{P_h}{p_y} = \left(\frac{W}{p_y}\right)^{\phi} * \left(\frac{CPI}{p_y}\right)^{1-\phi}$. Assuming that CPI and GDP inflation are identical, we can express the growth rate of relative prices as:

$$\hat{p} = \phi * \widehat{\left(\frac{W}{P_y}\right)} \qquad \text{(i)}$$

where a hat over a variable means a growth rate (i.e. the first difference of the logarithm).

Furthermore, assuming that real wages ($\frac{W}{p_y}$)are proportional to labour productivity (lp), it follows that:

$$\hat{p}_{i,t} \approx \phi_i * \widehat{lp}_{i,t} \qquad \text{(ii)}$$

In line with Baumol's "unbalanced growth theory", equation (ii) states that relative prices of health services grow proportionally with (overall) labour productivity, implicitly assuming that there is limited labour productivity growth in the health sector. Note that the factor of proportionality is country-specific (ϕ_i), reflecting the fraction of labour costs in total costs in the human health sector of national accounts data.

Equation 3 can be rewritten as the HCE-to-GDP ratio ($Z_{i,t}$):

$$\Delta \log Z_{i,t} \equiv \Delta \log \frac{h_{i,t} * p_{i,t}}{y_{i,t}} \approx \psi_t + (b-1) * \Delta \log y_{i,t} + (1+c) * \Delta \log p_{i,t} + a * \Delta \log x_{i,t} \qquad \text{(iii)}$$

Using (ii) and the definition of elasticities into (iii):

$$\hat{Z}_{i,t} \approx \psi_t + (\eta - 1) * \hat{y}_{i,t} + (1+\gamma) * \phi_i * \widehat{lp}_{i,t} + a * \hat{x}_{i,t} \qquad \text{(iv)}$$

recall that $\psi_t \equiv \alpha + \mu_i + D_{85}$ is a common time drift; η and γ are the income and price elasticities, respectively.

Equation (iv) links changes in the HCE-to-GDP ratio to a common time drift: ψ_t; a country-specific income effect: $(\eta - 1) * \hat{y}_{i,t}$; a labour productivity/Baumol effect: $(1+\gamma) * \phi_i * \widehat{lp}_{i,t}$; and changes in demographic composition: $a * \hat{x}_{i,t}$.

Furthermore, per capita GDP (y) and labour productivity (lp) are linked by the identity:

$$y_{i,t} \equiv lp_{i,t} * (1 - ur_{i,t}) * ar_{i,t} \qquad \text{(va)}$$

where labour market variables, respectively, the unemployment (ur) and activity rates (ar) are present.

Box (continued)

Taking the first difference of the logarithm, equation (va) can be expressed in growth rates as:

$$\hat{y}_{i,t} \approx \widehat{lp}_{i,t} - \Delta ur_{i,t} + \widehat{ar}_{i,t} \qquad \text{(vb)}$$

Equations (iv) and (vb) indicate that both per capita GDP (or labour productivity), together with labour market variables (both the unemployment and activity rates), drive the dynamics of the HE-to-GDP ratio.

Table IV.3.4: **Projections of the public health expenditure-to-GDP ratio**

	2010	2060		
		Cost-pressure scenario, constant	Cost-containment scenario, linear	Cost-containment scenario, geometric
		(1)	(2)	(3)
BE	8.0	13.8	11.9	10.9
BG	4.3	8.8	7.5	6.9
CZ	6.3	12.3	10.6	9.7
DK	9.5	13.8	14.5	13.3
DE	8.9	15.2	13.1	12.0
EE	5.0	10.5	9.0	8.3
IE	6.4	11.8	10.1	9.3
EL	6.1	9.4	8.1	7.5
ES	7.1	12.0	11.9	9.4
FR	9.0	15.1	12.9	11.9
IT	7.4	12.2	10.5	9.7
CY	3.3	5.8	4.9	4.5
LV	4.0	8.5	7.3	6.7
LT	5.5	11.5	9.9	9.1
LU	6.5	11.3	9.7	8.9
HU	5.0	9.1	7.8	7.2
MT	8.0	10.7	9.2	8.4
NL	7.4	12.9	11.1	10.2
AT	8.4	14.6	12.6	11.5
PL	5.0	9.2	7.9	7.2
PT	7.1	11.9	10.2	9.4
RO	4.4	8.2	7.0	6.5
SI	6.6	12.5	10.7	9.9
SK	5.8	11.3	9.7	8.9
FI	8.0	12.3	10.5	9.7
SE	7.7	14.4	12.4	11.4
UK	8.0	14.6	12.5	11.5
EU15 a)	7.6	13.2	11.4	10.4
EU27 a)	6.5	11.7	10.1	9.3

Source: Own calculations based on estimates of equation 3 (regression 4 in Table IV.A1.1), using "exogenous" variables from DG ECFIN's Winter 2013 economic forecasts and a March 2013 update of the 2012 Ageing Report.
a) Non-weighted average

(i.e. accelerated) reduction in the time drift from 0.59 p.p. in 2010 to 1% of 0.59 p.p. in 2060 (or 10% of 0.59 p.p. by 2035). Even in the scenario that projects an accelerated reduction in the common time drift, the public HE-to-GDP ratio is still expected to increase by just under 3 p.p. of GDP from 6.5% in 2010 to 9.3% in 2060 (non-weighted average of the EU27). ([125])

As a whole, projections shown in Table IV.3.4 represent an acute reminder of the need to proceed with the efforts to curb HE growth and improve the efficiency of health systems. In fact, in the absence of additional control measures (i.e. in the "cost-pressure" scenario), projection outcomes suggest on average increase of 80% in the HE-to-GDP ratio across the EU between 2010 and 2060.

Comparison with other projections

Table IV.3.5 presents an adaptation of Table 4.3 of Maisonneuve and Martins (2013), describing major aspects of the different projection "technologies", namely the demographic assumptions ("Health ageing"), and non-demographic drivers, such as income, price elasticity and a time drift/residual growth component. ([126]) Covering these "fields" of analysis, Table IV.3.5 compares a few long term projections of the HE-to-GDP ratio, coming from the EPC-EC (2), the IMF (1), the OECD (2), and the PFR 2013 (2).

As a consequence of different assumptions, the EPC-EC projections (both baseline and risk scenarios) are the lowest, largely because they do not consider a time drift (or residual growth). In the IMF projections, the assumption of a low income elasticity is broadly offset by considering country-specific residual growth. IMF projects an increase of 4.5 p.p. in the public HE-to-GDP ratio for the EU15 between 2010 and 2050, largely exceeding EPC-EC projected increases of only 1.0 p.p. and 1.5 p.p., in the baseline and risk scenarios, respectively. Although being difficult to compare to OECD projections (as IMF projections end in 2050), IMF results seem to lie in between OECD's cost-containment and cost-pressure scenarios.

([125]) It should be recalled that all three scenarios presented in Table IV.3.4 assume a 10% reduction in the labour productivity/relative prices pass-through parameter (ϕ_i) due to the assumption of limited/sporadic labour savings in the health sector.

([126]) In this Chapter, see Box IV.3.4 for a brief overview of different projection methodologies.

Table IV.3.5: **Public expenditure on health: a comparison of different projections**

	PFR 2013 (Cost-containment geometric scenario)	PFR 2013 (Cost-pressure constant scenario)	EC-AWG (Reference scenario)	EC-AWG (Risk scenario)	OECD (Cost-containment scenario)	OECD (Cost-pressure scenario)	IMF
Methodology	Econometric model (regression in first differences)	Econometric model (regression in first differences)	Accounting framework	Accounting framework & econometric model (regression in first differences)			Econometric model (regression in first differences)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Health ageing	Effect of two demographic variables (younger than 16 and older than 64)	Effect of two demographic variables (younger than 16 and older than 64)	1 year gain in life expectancy= 1/2 year in good health	1 year gain in life expectancy= 1/2 year in good health	1 year gain in life expectancy= 1 year in good health	1 year gain in life expectancy= 1 year in good health	1 year gain in life expectancy= 1/2 year in good health
Income elasticity	0.96	0.96	1.1 in 2010 → 1 in 2060 (incudes other non-demographic factors)	1.3 in 2010 → 1 in 2060 (incudes other non-demographic factors)	0.8	0.8	0.3
Price elasticity	-0.48	-0.48	---	---	---	---	---
Time drift / Residual growth	Common time drift 0.59% in 2010 → 1%*0.59% in 2060	Common time drift 0.59% kept constant over the projection period	---	---	Common residual 1.7% in 2010 → 0% in 2060	Common residual 1.7% kept constant over the projection period	Country specific residual kept constant over the projection period
Results (Selected EU countries)	in pp of GDP change 2060-2010 (in parenthesis pp change from 2050-2010)						in pp of GDP change 2050-2010
France	2.9 (2.5)	6.1 (4.8)	0.0 (0.0)	0.0 (0.0)	2.2	6.1	2.6
Germany	3.1 (2.5)	6.3 (4.7)	0.0 (0.0)	0.0 (0.0)	2.3	6.2	1.5
Italy	2.3 (1.9)	4.8 (3.7)	0.0 (0.0)	0.0 (0.0)	2.6	6.4	1.1
Netherlands	2.7 (2.3)	5.4 (4.2)	0.0 (0.0)	0.0 (0.0)	2.4	6.3	4.9
Spain	2.3 (2.0)	4.9 (3.7)	0.0 (0.0)	0.0 (0.0)	2.8	6.7	3.5
United Kingdom	3.5 (2.9)	6.6 (5.0)	0.0 (0.0)	0.0 (0.0)	2.0	5.9	8.2
EU15 a)	2.8 (2.4)	5.6 (4.3)	0.0 (0.0)	0.0 (0.0)	2.4	6.2	4.5
EU27 a)	2.8 (2.3)	5.2 (4.0)	1.2 (1.1)	1.7 (1.7)	---	---	---

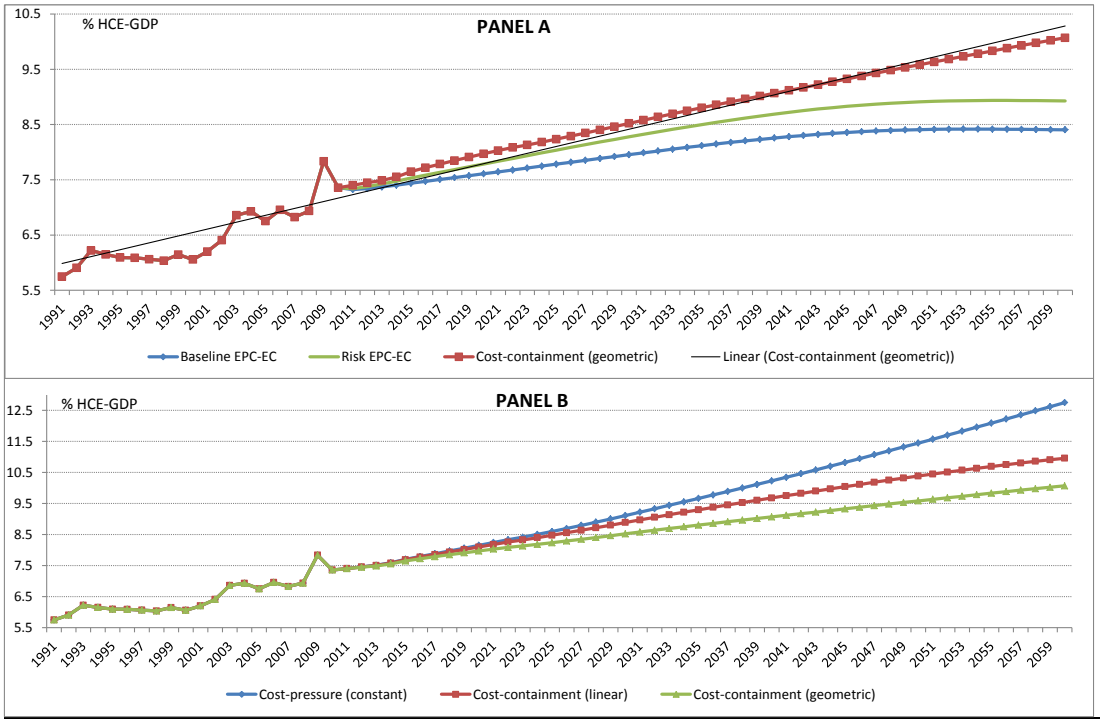
Source: Commission services (based on Table 4.3 from Maisonneuve and Martins, 2013).

Applying the methodology developed in this chapter, the cost-pressure scenario projects a slightly lower variation in the HE-to-GDP ratio than OECD's corresponding one (a variation of+5.6 p.p. versus +6.2 p.p. in the period 2010-2060 for the EU15), whereas the reverse occurs for the cost-containment scenario (a variation of +2.8 p.p. versus +2.4 p.p. in the period 2010-2060 for the EU15). Overall, the projection scenarios based on the PFR 2013 methodology are by in large equivalent to OECD's corresponding ones (Table IV.3.5). However, it should be acknowledged that the methodology developed in this Chapter uses econometric estimates of population composition effects on per capita expenditure to calculate ageing costs, whereas all other methodologies use age profile estimates of HE, together with an assumption on the impact of rises in life-expectancy on the duration of periods in good health.

Graph IV.3.1 presents a number of HE-to-GDP projections for an aggregate of EU Member States. ([127]) Panel A presents the cost-containment (geometric) scenario and the t wo EPC-EC health scenarios (baseline and risk) included in the 2012 Ageing Report - European Commission (DG ECFIN)-EPC (AWG) (2012b). A linear trend, derived from the cost-containment scenario, is also included to facilitate interpretation of results. Graph IV.3.1 (Panel A) suggests that the cost-containment scenario largely follows a linear extrapolation of actual data, although a negative gap emerges at the end of the projection period. Conversely, the two EPC-EC scenarios are clearly below this "mechanical" linear extrapolation of historical trends, largely reflecting the absence of a

([127]) The non-weighted average of 11 EU Member States for which sufficiently long series are available (Austria, Germany, Denmark, Greece, Spain, Finland, France, Italy, Luxembourg, Latvia, and the Netherlands).

Graph IV.3.1: **Projections of the health expenditure to GDP ratio for a selected group of countries**



(1) Projections based on regression 4 estimates (see Annex, Table IV.A1.1), and an update of the 2012 Ageing Report.
Source: a) Non-weighted average of Austria, Germany, Denmark, Greece, Spain, Finland, France, Italy, Luxembourg, Latvia, and the Netherlands

time drift (or residual growth). Panel B presents the three scenarios calculated using the PFR 2013 methodology.

A considerable degree of uncertainty surrounds the exercise of making long term projections for health expenditure, and this is not only because small annual errors - if not centred around zero – accumulate into large discrepancies. ([128]) Uncertainty reflects a multitude of common problems in the health empirical research area, such as omitted variables, ([129]) unbalanced datasets, the role of technical progress, model misspecification; all potentially yielding biased and inefficient estimates, thereby contributing to large residuals or a remaining unexplained large and positive time drift in health expenditure.

Nevertheless, the approach proposed here using econometric techniques is able to generate sensible future projections based on past trends, with results being in line with the existing literature, namely pointing towards a rising fiscal challenge of public HE. Also, the analysis implicitly considers other factors, besides ageing, income and relative prices to explain (future) HE developments, although these factors remain bundled in country-fixed effects and in a deterministic time drift. Nevertheless, the important lesson to be drawn from this analysis is that, to a considerable extent, health expenditure growth remains a policy parameter, in the sense that policy reform can affect outcomes.

Concluding, this chapter suggests that policy reforms aimed at curbing expenditure growth should attempt improving the regulatory/ institutional setting to ensure a more cost-effective use of resources and notably through the use of technology. ([130]) Section IV.2 suggested that an important expenditure category is hospital care,

([128]) For example, a 1 p.p. difference in projections by 2060 (i.e. over 50 years) corresponds to an annual systemic error of just 0.02 p.p..

([129]) Especially those related to policies and the institutional framework.

([130]) One potential further research question could focus on whether those countries having set up systematic health-technology assessment frameworks in the past decade have achieved a more cost-effective use of resources, leading to a slowdown of expenditure growth on health.

whose importance has not diminished despite policy proposals to move primary care from hospital to ambulatory treatment. Therefore, it is important to see if recent reforms and notably those implemented in the aftermath of the crisis are addressing the most significant challenges. The next section attempts to evaluate recent health policy reforms and provide guidance to policy makers towards concrete policies which may help curb expenditure growth in the various areas of health provision.

Box IV.3.4: **Different strategies to project the non-demographic component of public HE**

- ***IMF: Jenkner et al. (2010) and Clements et al. (2012)***
  - Projections of non-demographic and non-income related health expenditure equal estimates of excess cost growth of public health expenditure. Excess cost growth (C) is defined as the excess of growth in real per capita health expenditures over the growth in real per capita GDP, after controlling for the effect of demographic change. Jenkner et al. (2010) estimate a panel regression with country fixed-effects.
  - The following model specification is used:

$$\Delta\log h_{i,t} = \alpha + \mu_i + a * \Delta\log x_{i,t} + b * \Delta\log y_{i,t} + \varepsilon_{i;t} \quad \text{(i)}$$

  - Country-specific excess cost growth (C) estimates are calculated as:

$$\widetilde{C_1} = \frac{\sum \frac{\widetilde{\Delta h_{i,t,}}|_{\Delta x_{i,t}=0}}{\widetilde{h_{i,t,}}|_{\Delta x_{i,t}=0}} - \sum \frac{\Delta y_{i,t}}{y_{i,t}}}{T_i} \approx \frac{\sum \Delta\widetilde{\log h}_{i,t}|_{\Delta x_{i,t}=0} - \sum \Delta\log y_{i,t}}{T_i} = \tilde{\alpha} + \tilde{\mu_i} + (\tilde{b} - 1) * \frac{\sum \Delta\log y_{i,t}}{T_i} \quad \text{(ii)}$$

  - with a tilde denoting estimates, and T_i the number of years of data available for country *i*. (C) equals the difference between the (geometric) average growth rate of estimated real per capita public health expenditure, after controlling for the impact of demographic composition, minus the (geometric) average growth rate of real per capita GDP.
  - Equation (3) estimated in this chapter differs from equation (i) by the inclusion of a relative price variable (p) and a time dummy (D_{85}). The excess cost growth equation (ii) becomes:

$$\tilde{c_i} = \tilde{\alpha} + \tilde{\mu_i} + (\tilde{b} - 1) * \frac{\sum \Delta\log y_{i,t}}{T_i} + \widetilde{D_{85}} + (1 + \tilde{c}) * \frac{\sum \Delta\log p_{i,t}}{T_i} \quad \text{(iia)}$$

  - Table A4 in Annex presents estimates of excess cost growth (C) for a number of regressions estimated in this chapter both in growth rates and in levels. Although displaying large differences across countries, estimates of excess cost growth (C) vary from 1.0% to 1.6% (weighted average), which is in line with results reported in Jenkner et al. (2010), which estimated a weighted average of 1.3% for advanced economies.
  - Summarising, Jenkner et al. (2010) equate non-demographic and non-income related HE growth to country-specific excess cost growth (C) estimates, keeping them unchanged at estimated/historical values during the entire projection period (i.e. up to 2050).

- ***OECD: Maisonneuve and Martins (2006 and 2013)***

(Continued on the next page)

Box (continued)

- Overall, demographic drivers explain relatively little of past developments in health spending; therefore, non-demographic drivers must play an important role, namely income growth and a residual growth component.
- Based on the most recent findings from the empirical literature, an income elasticity of 0.8 is used. This represents a downward revision from the unitary elasticity used in Maisonneuve and Martins (2006).
- The unexplained expenditure residual is derived using a growth accounting framework, which identifies past average growth of health expenditures due to age and income effects (assuming a given value for the income elasticity).
- In order to interpret this residual, an econometric equation is also estimated, incorporating explicitly the effects of prices and a proxy for quality/technological progress.
- The following panel regression, with country fixed-effects is estimated:

$$\log\left(\frac{he}{N}\right) = \alpha_c + \theta * \log(Demo) + \beta * \log\left(\frac{P}{P_Y}\right) + \gamma * log(Q) + \varepsilon * log\left(\frac{Y}{N}\right) + \tau * T + u \quad \text{(iii)}$$

- where α_c correspond to country fixed-effects; *he* denotes health volumes (deflated for price and quality); *Demo* is the demographic effect captured by the average age of the population; *P* are health prices; P_Y is the GDP deflator; *Q* is a quality/technology index for health services; *N* is total population; *T* is a deterministic time trend; and *u* is a randomly distributed residual.
- Using estimates of regression (iii), the overall effect of relative prices and technology is estimated to have increased HE by 0.8% per year. Estimates suggest that the residual expenditure is also driven by other factors, such as changes in policy and institutions which are loosely captured by a time trend, accounting for 0.9% of the increase in health expenditure per year. On average in the OECD area, these estimates suggest that residual growth has increased HE by a total of around 1.7% (i.e. 0.8%+0.9%) per year.
- The estimated total expenditure residual of 1.7% in the OECD area compares with an expenditure residual of 2% obtained using the accounting framework, therefore 0.3% remains unexplained. As a consequence, the projections use 1.7% as the starting value for residual expenditure growth.
- The health expenditure residual component is projected as a whole. Furthermore, a common residual growth is assumed for all countries in order not to extrapolate country-specific idiosyncrasies over a long period, namely country-fixed effects.
- Maisonneuve and Martins (2013) present two main projection scenarios: i) a "cost-containment scenario" assuming that some policy action is taken to curb expenditure pressures, thereby allowing for a gradual reduction in the average residual growth from 1.7% in the starting period to 0% in 2060; and ii) a "cost-pressure scenario" where the average residual growth is assumed to remain constant at a growth rate of 1.7% over the projection period.

(Continued on the next page)

Box (continued)

- ***EPC-EC: European Commission (DG ECFIN)-EPC (AWG) (2011) and European Commission (DG ECFIN)-EPC (AWG) (2012a)***
  - The joint work carried out by the European Policy Committee (Ageing Working Group) and the European Commission (DG ECFIN) on long term age related expenditure acknowledges the significant role played by non-demographic drivers of health expenditure.
  - In the 2012 Ageing Report (AR), the following panel equation was estimated in order to identify non-demographic effects:

$$\Delta \log h_{i,t} = \alpha + \mu_i + D_{85} + a * \log x_{i,t} + b * \Delta \log y_{i,t} + \varepsilon_{i,t} \quad \text{(iv)}$$

  - Note that equation (iv) ignores a number of important explanatory variables, namely relative prices. This is likely to bias upward the income elasticity estimate, which will capture effects due to omitted variables.
  - The main two long term health expenditure projection scenarios included in the 2012 AR consider non-demographic effects. Non-demographic effects are introduced using a common across all EU Member States income elasticity above unit. In the reference scenario the income elasticity decreases from 1.1 in 2010 (the starting period of the projection) to 1 in 2060, whereas in the risk scenario it decreases from 1.3 in 2010 to 1.0 in 2060.

- ***PFR (2013): Medeiros and Schwierz (2013)***
  - Long term health projections presented in this chapter are based on the estimation of equation (3) in growth rates:

$$\Delta \log h_{i,t} = \alpha + \mu_i + D_{85} + a * \Delta \log x_{i,t} + b * \Delta \log y_{i,t} + c * \Delta \log p_{i,t} + \varepsilon_{i,t} \quad \text{(v)}$$

or

$$\Delta \log h_{i,t} = \psi_t + a * \Delta \log x_{i,t} + b * \Delta \log y_{i,t} + c * \Delta \log p_{i,t} + \varepsilon_{i,t} \quad \text{(va)}$$

where $\psi_t \equiv \alpha + \mu_i + D_{85}$ is a common time drift. Given the large country heterogeneity, a country-specific time drift is replace by a common time drift that can be changed (i.e. reduced) over time. Note that projections depend on the arbitrary assumptions made on the trajectory of the common time drift (ψ_t).

  - Moreover, note that the macroeconomic variables needed to project future public HE are already available in the EPC-EC methodology to project age related future expenditure (DG ECFIN-EPC(AWG), 2012), namely real GDP, GDP prices, wages, labour productivity, and demographic variables. Using equation (va) to project future public HE is fully consistent with the EPC-EC methodology, potentially strengthening the overall coherence of the projections carried out in the tri-annual Ageing Report exercises.

4. CONTROLLING HEALTH EXPENDITURE GROWTH

4.1. IMPROVING THE PERFORMANCE OF HEALTH SYSTEMS: SOME CONSIDERATIONS

Past and projected future trends of rising public expenditure on health, as estimated in Chapter IV.3, put pressure to improve the performance of health systems in order to reduce costs (savings) and to improve cost-effectiveness (better health outcomes for the same costs). The fact that a considerable part of expenditure growth remains unexplained, as part of "residual growth", stresses the relevance of regulatory settings of health systems in containing expenditure growth. Health systems are complex structures, involving multiple institutional setups for the financing and provision of services, and are built on contractual arrangements involving numerous of economic agents. Therefore, it is difficult to draw general conclusions on the absolute strength and weaknesses of specific characteristics of health systems. Consequently, it is a challenging task to evaluate which reforms may in general improve the value for money of public expenditure on health, possibly contributing to curbing the growth of future health expenditure.

However, some directions for reforms leading to improved system performance and fiscal sustainability of health expenditure can be identified (European Commission-EPC, 2010). These measures include: providing a sustainable financing system; redesigning the public health insurance package so as to incentivise the cost-effective use of treatments; increasing hospital efficiency; improving access to primary care and reducing unnecessary use of specialist and hospital care; increasing value for money in pharmaceutical expenditure by better regulatory policies; increasing the focus on measures of health promotion and disease prevention; improving data collection and information channels to support performance improvements; and using health technology assessments for evaluating the value for money of medical goods and services.

Improving the sustainability of the financing basis of health systems can be achieved in a number of ways. One key aspect is to improve the adaptability, predictability and robustness of the health budget in times of economic crisis. This may be achieved in a number of ways, such as by raising contribution rates and ceilings to social health insurance, broadening the revenue base, including new taxes, enforcing revenue collection and introducing automatic stabilisers through state budget transfers.

Second, health-system performance may be improved by changing the breadth (Who is covered?), scope (Which services are covered?) and depth (What are the user charges?) of public health coverage. ([131]) Access to free public health services may be adapted according to income or disease-related criteria; the publicly reimbursed benefits package may be changed based on objective criteria, including cost-effectiveness; user charges, i.e. private co-payments for using public health services, ([132]) may be changed according to access to care, efficiency and effectiveness considerations.

Depending on the exact design of the measures, they may be expected to improve or worsen the value for money of public expenditure on health: targeted-user charges to incentivise the use of cost-effective medical goods, such as generic pharmaceuticals, and services, aiming at directing users to cost-effective medical services; the redesign of the benefits package excluding (cost-) ineffective medical goods and services; and protective measures for vulnerable groups will have a positive impact. On the contrary, reducing the breadth, scope and depth of coverage may lead to increased future costs, if it results in postponing medically necessary treatment and/or worsening of health status, shifting treatment to more costly levels of care, such as to emergency hospital care, which is delivered free of cost for users in most EU Member States.

Third, improving the performance of health systems may be achieved by moving expenditure

([131]) World Health Report (2010), "Health systems financing – the path to universal coverage," available at http://www.who.int/whr/2010/en/index.html

([132]) Where treatment alternatives for treating a specific condition exist, cost-sharing is often used as a disincentive for consuming cost-ineffective services or medical products, such as pharmaceuticals. However, patients often cannot judge on the benefits of specific treatments of medical products. Delisting from the publicly reimbursed benefits package may therefore be a clearer signal for patients instead of cost-sharing.

towards particular areas of health provision. In this respect, the main areas are hospital care, ambulatory care, preventive care and pharmaceutical expenditure. As described in Chapter IV.2, expenditure growth on hospital care largely drove total public health expenditure during the last decade.

A first area for improvement is hospital care. A common problem in many EU Member States is that their health systems tend to be centred on hospital care, creating excessive costs. In this regard, the faster increase in hospital care spending compared to total public health expenditure is problematic. It shows that the often debated health reforms aiming at moving from hospital-centric health systems towards a provision of services based at lower levels of care, such as primary care services, have not yet fully materialised. Consequently, cost-efficiency gains may be achieved through additional reductions in excessive hospital bed capacity (OECD 2012), reduction in hospital costs – as some countries seem to provide more cost-efficient hospital care than others or further shifting of hospital inpatient cases towards ambulatory care, which has been achieved to a varying degree across countries. ([133])

A second area for improvement is ambulatory care. Member States with strong sectors of ambulatory care have been shown to be successful in improving health outcomes and reducing costs. Strengthening access to primary care may avoid higher costs to be paid at a higher level of care later on. If Member States wish to encourage the use of primary care as a means to ensure the cost-effective provision of services, then measures have to be implemented to guarantee sufficient numbers and the good geographic distribution of trained and practising primary care physicians and nurses. Relatively low numbers of general practitioners vis-à-vis specialists may result in long-waiting times for primary care consultations. This makes patients seek more expensive consultations with specialists and emergency care units when that is not necessary (i.e. in the presence of common illnesses), rendering referral systems from primary to secondary care less effective as they are bypassed by patients. This may result in additional costs, for example, through unnecessary consultations and (duplicated) medical tests, as well as through unnecessary health infections associated with hospital stays.

A third important area for potential improvements is related to expenditure on pharmaceuticals. Demand for pharmaceuticals has been growing constantly in the past decades, driven often by medical innovation, and the benefits of pharmaceutical consumption have been reportedly to be significant. However, these benefits come at an increasing direct cost (Chapter IV.2). Pharmaceutical markets in the EU are heavily regulated. The different policies are related to pricing, reimbursement, market entry and expenditure, as well as targeted at specific agents such as distributors, physicians and patients. ([134]) Policy makers are growing more aware that, by regulating pharmaceutical markets correctly, efficiency gains can be achieved without compromising the quality of care.

A fourth expenditure area is related to health promotion and disease prevention. As discussed in Chapter IV.2, this expenditure area has experienced a reduction in expenditure levels in 2010. This is so despite the fact that the share of expenditure on health prevention is relatively low, accounting for less than 3% of total public expenditure on health care. There is a wide consensus that many policies of health promotion and disease prevention are cost-effective and may contribute to increasing longevity and health (OECD, 2010). ([135]) In particular, specific fiscal measures such as raising taxes on tobacco, alcohol, and food and drinks containing high levels of fat and/or sugar seem to be particularly cost-effective (WHO 2011, OECD 2010). Given the burden of chronic diseases in the EU, and the fact that they are associated with unhealthy life-styles, health

([133]) There are further important dimensions of possible inefficiencies of hospital care, which are not discussed here due to missing quantitative data to be explored in the analysis. For a broader discussion of this topic, see: http://ec.europa.eu/economy_finance/publications/occasional_paper/2010/pdf/ocp74_en.pdf

([134]) For policies in this area see: European Commission (DG ECFIN) (2012), "Cost-containment policies in public pharmaceutical spending in the EU", European Economy, Economic Papers: 461: http://ec.europa.eu/economy_finance/publications/economic_paper/2012/ecp461_en.htm

([135]) It is interesting to note that shifting budgets raises ethical questions: More preventive care for today's young population may downsize acute care for today's elderly. Thus, care may become cost-effective, but not in the same patient groups.

promotion and disease prevention can help reduce future expenditure in health by limiting the incidence of diseases associated with risk factors, such as obesity, smoking and alcohol consumption.

Additional measures aiming at improving the performance of the health system are: i) health-technology assessments of the cost-effectiveness of medical goods and services, eventually to reduce or fully withdraw public funding for inefficient procedures/treatments; and ii) investments in e-health to improve health systems through better data management, communication and control. As discussed in the "Joint Report on Health Systems", prepared by the European Commission (ECFIN) and the Economic Policy Committee (Ageing Working Group), ([136]) many countries have still ample scope for improvements in these two areas.

Concluding, due to the complexity of health systems no general toolbox for improving health system performance is available. Still, based on general considerations and drawing from country-specific experiences, different guidelines for potential improvements in various areas of health provision can be derived. This serves as a basis for the evaluation carried out in the next section, dealing with the conditions under which recent health reforms can be expected to improve fiscal sustainability of public health provision.

4.2. RECENT HEALTH REFORMS

As presented in Chapter IV.2, HE-to-GDP ratios fluctuated widely from 2008 to 2011, partly driven by cyclical conditions. In response to the economic crisis, many countries pursued health-policy reforms to deal with short-term budgetary pressures, and to improve the medium-to long-term fiscal sustainability of public expenditure on health. This section lists measures taken by EU Member States and carries out a preliminary qualitative assessment of reform outcomes.

The WHO has collected country data on health system responses to the current crisis up to January 2013. ([137]) Preliminary findings of this study show that many EU Member States have responded to the challenges posed by the economic crisis to their health systems by adapting the financing and/or expenditure parameters, as well as, by trying to improve the performance of the system to generate more outputs for the same amount of resources (Table IV.4.1).

Many EU Member States took measures to maintain the level of public funding for health, as increasing unemployment (thus decreasing revenues from payroll taxes) made it difficult to meet expenditure commitments. Therefore, social contribution rates or contribution ceilings have been raised (e.g. the Netherlands, Bulgaria); revenue base for calculating contributions was broadened (e.g. Greece, Portugal, France); revenue collection was strengthened (Hungary); transfers from the state budget were increased (e.g. Germany, Hungary, Lithuania); taxes have been reallocated or earmarked for health (e.g. France, Italy); automatic stabilisers, such as health insurance fund reserves and countercyclical components for government budget transfers were introduced (e.g. the Czech Republic, Estonia, Slovenia).

Contrary to more common type of responses, Germany and Hungary reduced contributions to health insurance schemes to ease pressure on the labour market; Finland and Slovakia decreased state budget allocations to health.

Besides financing issues, EU Member States attempted to reduce expenditure by changing the coverage of public health systems. Access to free public health services was removed for people without permanent resident status (the Czech Republic, Spain) or became income tested (Cyprus, Ireland); the publicly reimbursed benefits package was reduced (e.g. Estonia, Hungary, Lithuania); and user charges, i.e. private co-payments for using public health services, have been increased (e.g. Cyprus, Estonia, Greece, Italy, Latvia). Again and contrary to the common trend of narrowing the coverage of health systems, some Member States instead broadened coverage to the

([136]) Available at: http://ec.europa.eu/economy_finance/publications/occasional_paper/2010/op74_en.htm

([137]) WHO (2013), "Health, health systems and economic crisis in Europe: impact and policy implications," available at: http://www.euro.who.int/__data/assets/pdf_file/0011/186932/Health-and-economic-crisis-in-Europe4.pdf

Table IV.4.1: **Public health policy responses to economic crisis**

Adjusting financing		Country
	Increased contributions to public health insurance system	Netherlands, Bulgaria, Czech Republic, Greece, Portugal, Romania, Slovenia, France, Hungary
	Decreased contributions to public health insurance system	Germany, Hungary
	Increased transfers from state budget	Germany, Hungary, Lithuania, Romania, Slovakia
	Decreased transfers from state budget	Finland, Slovakia
	Reallocated or introduced new taxes	France, Italy, Hungary
	Improved automatic stabilisers	Czech Republic, Estonia, Slovenia, Lithuania, Slovakia
Changing health coverage		
	Reduced population coverage	Czech Republic, Spain, Cyprus, Ireland
	Increased population coverage	Estonia, Greece
	Changed benefits package	Expanding: Belgium, Bulgaria, Italy, Latvia, Netherlands Reducing: Estonia, Hungary, Lithuania, Romania, Netherlands, Ireland, Slovenia
	Changed user charges	Increased: Cyprus, Estonia, Greece, Italy, Latvia, Portugal, Czech Republic, France, Ireland, Slovenia, Spain, Denmark Decreased for vulnerable groups: Greece, Ireland, Portugal, Slovakia, Spain, Latvia, Belgium, France
Generating savings		
	Limited the increase of, freezed or reduced salaries and fees	Belgium, Cyprus, France, Greece, Ireland, Latvia, Lithuania, Portugal, Romania, Slovenia, Spain, Germany, United Kingdom, Denmark, Italy, Slovenia
	Reduced health worker benefits	Cyprus, Estonia, Portugal, Slovenia, Sweden, United Kingdom
	Increased cost containment in hospital spending	Bulgaria, Czech Republic, Denmark, Estonia, France, Ireland, Lithuania, Romania, Slovenia, Latvia
	Increased control of procurement of pharmaceuticals and medical goods	Bulgaria, Czech Republic, Greece, Slovakia, United Kingdom Improved coordination of care: Hungary, United Kingdom
	Strengthened pharmaceutical policy	23 EU Member States
	Reduced capital investments	Romania, United Kingdom, Bulgaria
Improving efficiency		
	Strengthened access to primary care	France, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, United Kingdom
	Developed strategy for quality	United Kingdom
	Expanded use of clinical guidelines	Belgium, Cyprus, Portugal
	Expanded use of HTA	Spain, Cyprus
	Invested in e-health	Czech Republic, Romania
	Took steps to improve population health via health promotion	Belgium, Greece, Hungary, Lithuania, Malta, United Kingdom
	Increased "sin taxes"	e.g.: Bulgaria, Cyprus, Denmark, Estonia, France, Hungary, Portugal, Slovenia, Spain

Source: WHO (2013), " Health, health systems and economic crisis in Europe: impact and policy implications"; European Commission services.
Note: Demark has withdrawn in the meantime the "sin tax" on saturated fat, after introduction in 2011.

long- term unemployed (Greece), added new items on the benefits package (e.g. Belgium, Bulgaria) and decreased user charges, particularly for vulnerable groups (e.g. Greece, Ireland, Portugal, Slovakia).

A third set of measures aims at realising some input cost savings. 15 EU Member States have limited the increase of, freezed or reduced salaries and fees paid to health workers, as wage costs constitute a considerable share of total budgets. However, historical experience suggests that curbing wage cost growth in the health sector below economic wide trends is not feasible over the medium- long-term, because wage policy in the health sector has to remain competitive to attract (young) professionals.

In a number of EU Member States, working hours in the health sector have been increased, while pension entitlements have been reduced (e.g. Estonia, Portugal, Slovenia); similarly, measures curbing hospital expenditure, which is the most important public health expenditure area, inter alia, through lowering services prices or tightening budget constraints were introduced in at least ten EU Member States.

In addition, control of public procurement of medical goods, including pharmaceuticals was fostered (e.g. Bulgaria, the Czech Republic, the

United Kingdom); ([138]) a total of 89 cost-containment measures in pharmaceutical policies were undertaken or planned in 23 EU Member States (Vogler et al., 2011); ([139]) capital investment has also been reduced or postponed (e.g. Romania, the United Kingdom, Bulgaria).

A final set of measures aimed directly at efficiency improvements. ([140]) As discussed in the previous Section, these are important structural measures which can contribute to improving the performance of health systems in terms of increases in efficiency and cost-effectiveness. In this regard, the following measures have been undertaken: access to primary care services was improved (e.g. Greece, Ireland, Italy); a strategy to deal with budget pressure via better quality is being developed (the United Kingdom); evidence-based clinical guidelines to streamline medical pathways towards better quality of care have been expanded ([141]) (Belgium, Cyprus, Portugal); measures of health promotion and disease prevention have been introduced (e.g. Lithuania, Malta, the United Kingdom); the use of health-technology assessments (HTA) has been expanded (Spain, Cyprus); investments in e-health have been made (the Czech Republic, Romania); and taxes on unhealthy goods (so called "sin taxes"), such as alcohol, tobacco, sugary drinks, have been introduced (e.g. Denmark, Estonia, France).

Overall, the implemented or planned reform measures show a broad spectrum of adaptation strategies in the areas of financing, expenditure and health system performance. In terms of the quantity of measures undertaken, the focus was clearly on generating savings and reducing expenditure commitments, such as through increasing user charges (reducing the public share in health care expenditure) and reducing labour input costs and purchasing prices of medical goods and services. A second core area of reforms is targeted to adjust financing systems, in order to secure a level of funding that better matches expenditure commitments in the short-term and is financial sustainable in the medium- to long-term.

A third area deals with measures to increase efficiency. Apparently, only a few EU Member States have undertaken reforms in this area, whereas it would be desirable to put a stronger emphasis on quality improvements of health expenditure. Notably, the average decrease in 2010 and 2011 in the EU of expenditure on health promotion and disease prevention – while generating short term savings – could turn out to be a myopic decision if average health status deteriorate, bringing with it a rise in future health expenditure.

Summing up, a taxonomy of recently implemented measures suggests that reforms observed in the EU are mainly focused on generating savings and improving the financing side. Few EU Member States have been active in structural reforms directed at generating efficiency gains. However, as laid out in the previous section, there seems to be ample scope for further reforms improving the performance of health systems and their financial sustainability. In view of future fiscal challenges related to rising health costs, EU Member States will have to strengthen reform efforts in the coming years, and broaden their scope to cover also efficiency and quality issues.

([138]) E.g., centralised procurement procedures for medical goods may generate savings by achieving lower prices from the bidder.

([139]) A better design of pharmaceutical policies has led to considerable savings in pharmaceutical expenditure in the past and may generate further savings under the current reforms (Carone et al., 2012).

([140]) Broadly, efficiency describes a relation between input and output. Effectiveness relates the input or output to the final policy objective (or the outcome). The effectiveness concept refers the use of public resources for achieving a given set of objectives and corresponds to the popular notion of value for money. See Annex 2 of: http://europa.eu/epc/pdf/joint_healthcare_report_en.pdf

([141]) Clinical guidelines are recommendations on the adequate treatment and care of patients. They are based on the best available evidence and are supposed to reduce undesirable variation in medical practice in order to improve the quality of care.

Box IV.4.1: **Health reforms in France**

The current crisis had a significant impact on the government budget as a whole and on the deficit of the healthcare system in particular. The deficit of the main public health insurance scheme ('Caisse nationale d'assurance maladie des travailleurs salariés' or Cnamts) rose from EUR 4.4 billion in 2008 to 11.6 billion in 2010 (around 0.6% of GDP) due to the fall in contributions engendered by labour market developments while healthcare expenditure continued to increase. The deficit has since been reduced thanks to additional revenue and, to a lesser extent, triggered by expenditure savings, which helped contain spending subject to an annual target ('objectif national des dépenses d'assurance maladie' or ONDAM). The 2013 deficit of the Cnamts is currently expected to be around 0.25% of GDP. ([1])

Additional revenue for the healthcare system has been generated through broadening the tax base, increasing levies and creating new ones as part of successive consolidation packages. A number of social security exemptions such as those that apply to low wages or to overtime work have been reduced or abolished. Social levies on capital income and gains and on real estate gains have been raised. A new 2% levy on non-wage income such as that stemming from employee savings schemes has been created in 2009 and since then increased to 20%. Higher taxation of supplementary health insurance schemes has generated additional revenue. Finally, excise duties on tobacco and alcohol have been raised and a new tax on soft drinks with excessive sugar has been introduced.

The range of services and share of service cost covered was somewhat reduced. The benefits package changed at the margin, with drugs deemed of insufficient medical value no longer reimbursed. User charges were increased as part of the annual savings backing the ONDAM spending norm. Main measures included increasing a daily lump-sum payment for hospital care, introducing a similar one for pharmaceuticals, paramedical services and transport, reducing the reimbursement rate of some drugs and medical devices and lowering the maximum amount of sickness benefits. Yet, supplementary health insurance schemes have been encouraged for low incomes by extending free cover.

Additional savings have been achieved through adapting provider payment and strengthening pharmaceutical policy. Base wages of civil servants have been frozen across all sub-sectors of general government since 2010, which has helped reduce deficits in the hospital sector. Tariffs for a number of health services (radiology, lab tests, hospital care) have been frequently lowered over the last few years. In addition, containing spending on pharmaceuticals has long been an important policy direction in France. In particular, lower prices for publicly purchased or reimbursed pharmaceuticals and medical devices have been negotiated in recent years. Policies to achieve greater use of generic drugs (now available for most chronic conditions) have also been ramped up.

Faced with fewer financial resources, the challenge for the French health system has also been to maintain universal access to high quality healthcare by generating efficiency gains. Primary care has been prioritised as it provides a wide range of vital services including prevention, timely detection of disease and disease management while avoiding use of more expensive services. In particular, financial incentives have been introduced to shift from inpatient to day-case surgery for cases that do not necessitate acute care. In addition to attempts to shift care out of hospitals, steps to enhance efficiency have included: encouraging cost-effective patterns of use in outpatient care, introducing and/or expanding use of practice guidelines and care protocols as well as launching a new, performance-based contract for general practitioners concerning preventive care and chronic disease control and a drug prescription. Despite likely (short-term) savings, it is too early to assess the effects of such strategies on the performance of the health system as a whole.

([1]) Rapport à la Commission des comptes de la sécurité sociale, June 2013, available at: http://www.securite-sociale.fr/Comptes-de-la-Securite-sociale-resultats-2012-previsions-2013.

5. CONCLUSIONS

Public expenditure on health absorbs a significant and growing share of economic resources. Most EU Member States are expected to face strong and growing expenditure pressures on their health systems in the coming decades. As the literature demonstrates the demographic component related to spending pressures on health is relatively small, and is importantly related to other non-demographic drivers, such as the institutional setup of health systems, technological progress and the labour intensive nature of the health sector. As shown in Chapter IV.3, while there is a degree of uncertainty regarding the exact point estimates of future public expenditure on health, most empirical studies coincide on the result that the HE-to-GDP ratio is projected to increase considerably in most EU Member States.

At the same time, the recent worsening of fiscal positions and increases in government debt make fiscal sustainability an acute policy challenge, as it has become more difficult for Member States to maintain sustainable public finances (European Commission, 2012b). Whilst spending on health can contribute to better health, which by itself adds to economic prosperity and well-being through higher labour market participation, productivity, and quality of life, it also crowds out resources available for other policy targets, inter alia, education, R&D, and poverty reduction. This report suggests that the increase in public expenditure on health has been partially offset by a reduction in other expenditure outlays. This underlines the need to increase efforts to decelerate the growth of expenditure on health, notably by curbing the sources of expenditure pressure and improving regulatory frameworks so as to improve the value for money of health services provision.

Chapter IV.4 shows that in the wake of the crisis, many EU Member States have undertaken reforms to curb expenditure pressure. In general, the responses to the financial and economic crisis varied across Member States in Europe. Responses depended on the severity of the crisis itself, but also on the fiscal challenge associated with current and projected future expenditure levels and the need to address particular inefficiencies in health systems. Most of the reform measures undertaken or planned during the economic crisis aimed at adapting financing, generating savings and reducing expenditure commitments. Few measures directly targeted efficiency concerns.

While the latest data from 2010 and 2011 confirm the slowdown of the growth of public expenditure on health, it is too early to assess the effects of measures taken in the wake of the crisis to curb health expenditure trends. Only in a few years it will be possible to assess whether the fall in the HE-to-GDP ratio registered in 2010 and 2011 in many EU Member States is representative of a new trend. Also in order to evaluate the implications of the health policy responses to the crisis, country-specific analysis are needed which place the reforms in a particular national context, taking into consideration country-specific idiosyncrasies.

As discussed in Chapter IV.4, many of the policy reforms adapting the financing of health systems are expected to have positive effects over the economic cycle on the stability of the health budget i.e. financing gaps become less influenced by cyclical conditions. This will help meeting expenditure commitments during economic downturns. Still, in terms of financing there may be a limit in what can be achieved from the revenue side, especially in countries where the overall tax burden on the economy is already high and/or social contributions are high.

It is difficult to evaluate the impact of the cost-saving measures as much depends on their actual design and the fact that they may have an impact on health system performance in the short as well as in the medium and long run. Reducing input costs may also generate savings in the longer term, if they are supported by appropriate financial incentives, which might strengthen the competition of health care providers, aim at improvements in quality and in the overall cost structure of health care. They may lead to the needed consolidation of health markets, inter alia, by reducing excessive hospital bed capacity. They may also lead to immediate and much needed savings and thus improve the fiscal positions of governments. At the same time, budgetary cuts may in some cases imply a postponement of necessary investment, resulting in a gradual deterioration of health infrastructure and higher financing needs in the future.

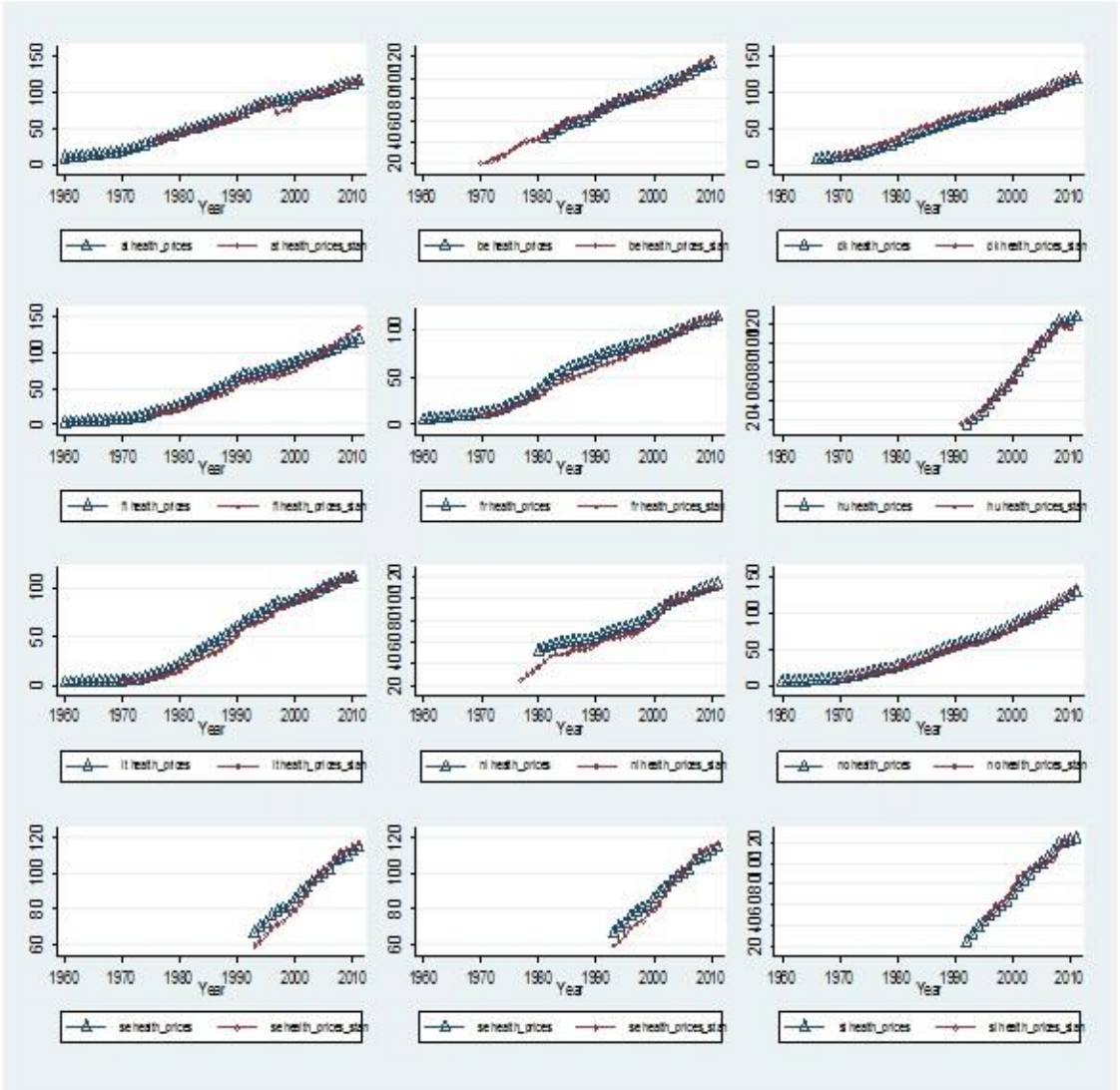
The focus of reforms on generating savings and improving the financing side indicates that there remains scope for further reforms aiming at improving the value for money of public health services. Emergency measures on the financing and cost-saving side may be necessary condition to improve the fiscal positions of government in times of economic crisis. However, they are not a sufficient condition for inducing sustainable improvements in the value for money of public health services.

Few EU Member States have recently implemented measures with a direct impact on efficiency, which would be paramount to increase the overall performance of health systems. In fact, ambitious reforms are needed to turn health systems towards more cost-effective primary and ambulatory care services, as well as towards a bigger role of disease prevention and health promotion. These can be expected to substantially improve the performance of health systems. However, the bulk of measures taken so far during the crisis are mainly aimed at improving the fiscal sustainability of public expenditure on health, also in view of projected future expenditure increases. They seem insufficient to improve the performance of health systems. For example, financing measures alone seem unable to rebalance public expenditure away from hospital care, towards ambulatory care services, disease prevention and health promotion.

In conclusion, there remains ample scope for further reforms improving the performance of health systems and improving their fiscal sustainability. In view of the future fiscal challenges, EU Member States are likely to have to broaden reform efforts towards measures more directly affecting the efficiency and effectiveness of health systems.

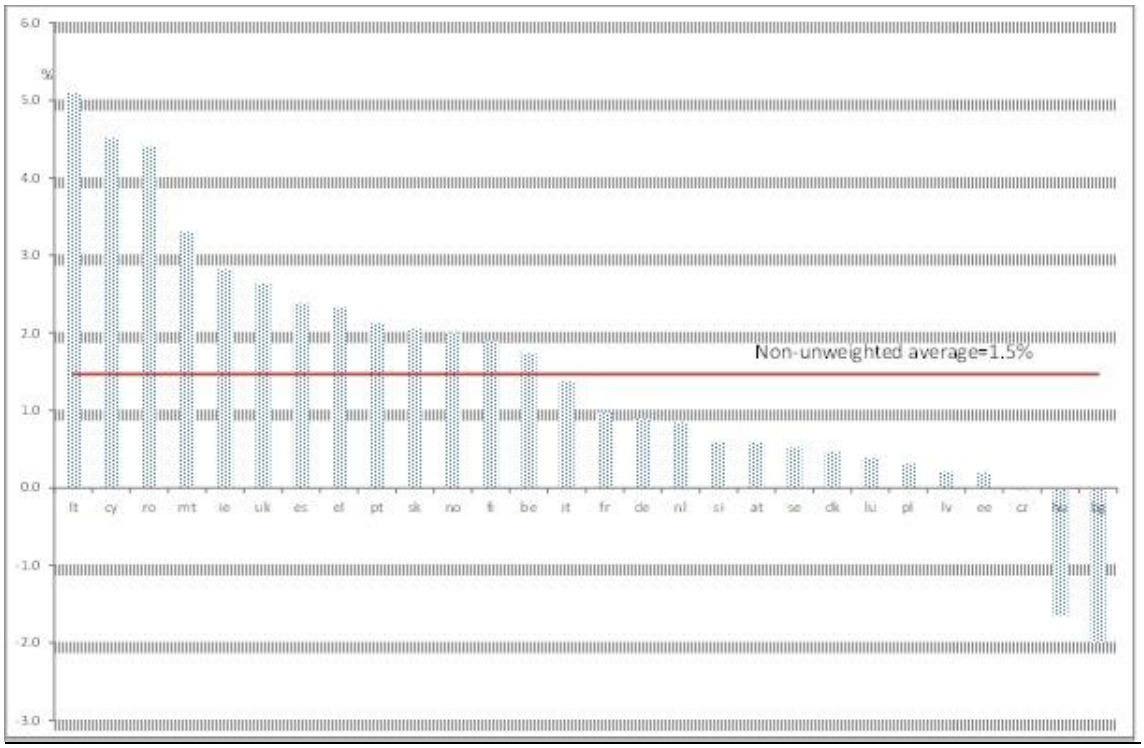
ANNEX 1

Graph IV.A1.1: **Comparing health prices indices (index 2005=100).**
OECD STAN versus a proxy based on aggregate Ameco data and input-output national accounts data (Eurostat)



Source: : OECD STAN database, DG ECIN Ameco, and Eurostat

Graph IV.A1.2: **Excess cost growth (C)**



Source: Own calculations based on estimates of regressions 4 (Table IV.A1.1).

Table IV.A1.1: **Regression estimates of real per capita public HCE (variables in levels)**

Regressions	OLS	OLS	IV	IV	IV
	(1)	(2)	(3)	(4)	(4a)
Variables	All observations	excl. 10% more influential	All observations	excl. 10% more influential	excl. 10% more influential and 2009 and 2010
Constant	0.030***	0.019***	0.025**	0.01	0.006
Dummy 1985	-0.012	-0.008	-0.012*	-0.008	-0.007
Per capita GDP (income elast.)	0.204*	0.204**	0.775	0.961***	0.838**
Relative prices (price elast.)	-0.325*	-0.144	-0.616***	-0.478*	-0.279*
Young population ratio	0.083	0.059	0.545	0.455*	0.413
Old population ratio	0.2	0.217	0.319	0.183	0.348
Country fixed effects					
be	-0.003	0.010**	-0.002	0.013***	0.011**
bg	-0.021***	-0.022***	-0.028***	-0.033***	-0.031***
cy	0.027***	0.020***	0.039***	0.037***	0.036***
cz	-0.013**	-0.016**	-0.008	-0.014**	-0.021***
de	-0.007	-0.001	-0.004	0.006	0.001
dk	-0.011***	-0.009***	-0.008*	-0.003	-0.002
ee	-0.012*	-0.003	-0.016*	-0.013*	-0.022*
el	0.006	0.013*	0.01	0.019**	0.021***
es	0.008*	0.013***	0.012	0.019***	0.019***
fi	0.005	0.006**	0.006	0.009**	0.007***
fr	-0.007	-0.001	-0.004	0.005	0.004
hu	-0.025***	-0.030***	-0.022***	-0.024***	-0.033***
ie	0.016***	0.025***	0.012*	0.016***	0.025**
it	-0.004	0.002	0.001	0.011	0.01
lt	0.025***	0.023***	0.029***	0.025***	0.006
lu	0.001	-0.002	-0.003	-0.007***	-0.009***
lv	0.003	-0.004	0.013	-0.021**	-0.01
mt	0.011	0.014*	0.016	0.023**	0.023***
nl	0.003	0.001	0.004	0.004	0.007
no	0.012***	0.018***	0.009***	0.015***	0.017***
pl	0.002	-0.001	-0.001	-0.008	-0.005
pt	0.002	0.007	0.007	0.015**	0.015**
ro	0.015**	-0.004	0.015**	0.009	-0.009
se	-0.007*	-0.002	-0.007**	-0.003	-0.002
si	-0.01	-0.003	-0.013*	-0.003	-0.003
sk	0.001	0.010*	0.002	0.007	0.013
uk	0.013***	0.018***	0.014***	0.020***	0.018***
Number of observations	620	563	614	557	513
R squared adjusted	0.032	0.089	.	.	0.008
Wald test (p-value) a)	0.1584	0.1015	0.049*	0.0122*	0.2855
legend: * p<0.05; ** p<0.01; *** p<0.001					

(1) The country dummy for Austria was (arbitrarily) set to zero in all regressions for collinearity reasons.
a) Tests the null hypothesis (H0) of equivalence between the estimated regression and an alternative specification where the relative prices variable is replaced by two variables: health prices and the GDP deflator (results for the latter regression are not shown).
Source: Own calculations based on SHA and national data.

Table IV.A1.2: **Estimation of the error correction model (for regressions with variables in levels)**

Regressions	OLS	IV	IV
	(5)	(6)	(6a)
			excl. 2009
Variables			and 2010
Constant	-3.8e+01**	-3.1e+01*	-3.1e+01*
Per capita GDP (income elast.)	0.50689	0.66491**	0.63600*
Relative prices (price elast.)	-0.24469	-0.40918	-0.35823
Year	0.01786***	0.01599***	0.01587**
Year * dummy 1985	-0.00002	-0.00002	-0.00002
Country fixed efects			
Year * be	-0.00004	-0.00003	-0.00003
Year * bg	-0.00059**	-0.00050**	-0.00052**
Year * cy	-0.00062***	-0.00059***	-0.00060***
Year * cz	-0.00023**	-0.00019**	-0.00019*
Year * de	0.00004	0.00004*	0.00005*
Year * dk	0.00011***	0.00010***	0.00011***
Year * ee	-0.00046***	-0.00039***	-0.00040**
Year * el	-0.00030***	-0.00027***	-0.00028***
Year * es	-0.00023***	-0.00020***	-0.00021***
Year * fi	-0.00015***	-0.00014***	-0.00014***
Year * fr	0.00004	0.00005*	0.00005*
Year * hu	-0.00032**	-0.00026**	-0.00025*
Year * ie	-0.00017***	-0.00017***	-0.00017***
Year * it	-0.00014***	-0.00012***	-0.00013***
Year * lt	-0.00046***	-0.00039**	-0.00040**
Year * lu	0.00012	0.00007	0.00009
Year * lv	-0.00057***	-0.00049***	-0.00050**
Year * mt	-0.00029***	-0.00024***	-0.00025***
Year * nl	-0.00010***	-0.00010***	-0.00010***
Year * no	-0.00003	-0.00004	-0.00004
Year * pl	-0.00050***	-0.00042***	-0.00044**
Year * pt	-0.00020**	-0.00017**	-0.00017*
Year * ro	-0.00063***	-0.00053**	-0.00054**
Year * se	-0.00002	-0.00001	-0.00001
Year * si	-0.00018**	-0.00015*	-0.00015*
Year * sk	-0.00037**	-0.00031**	-0.00031**
Year * uk	-0.00011***	-0.00010***	-0.00011***
Number of observations	671	665	615
R squared adjusted	0.96433	0.96593	0.96536
Wald test (p-value) a)	0.9608	0.7341	0.7295
legend: * p<0.05; ** p<0.01; *** p<0.001			

(1) The country dummy for Austria was (arbitrarily) set to zero in all regressions for collinearity reasons.
a) Tests the null hypothesis (H0) of equivalence between the estimated regression and an alternative specification where the relative prices variable is replaced by two variables: health prices and the GDP deflator (results for the latter regression are not shown).
Source: Own calculations based on SHA and national data

Table IV.A1.3: **Estimation of the error correction model (for regressions with variables in levels)**

Regressions	OLS	OLS	OLS
	(7)	(8)	(8a)
			excl. 2009
Variables			and 2010
Constant	0.03424***	0.03351***	0.03427***
Dummy 1985	-0.01197	-0.01054	-0.00986
(Lagged) Error Correction (EC)	-0.17081***	-0.17787***	-0.17200***
Per capita GDP	0.17841*	0.18971**	0.16455
Relative prices	-0.27145*	-0.28657**	-0.28644**
Country fixed effects			
be	0.00537	0.00453	0.0041
bg	-0.02373***	-0.01967***	-0.02057***
cy	0.02202***	0.02110***	0.02813***
cz	-0.01251**	-0.01327**	-0.01686**
de	-0.00916*	-0.00990*	-0.01360**
dk	-0.01380***	-0.01413***	-0.01559***
ee	-0.01408*	-0.01494*	-0.01177
el	0.00653	0.00591	0.00938*
es	0.00495**	0.00363*	0.00410*
fi	-0.00008	-0.00147*	-0.00079
fr	-0.00123	-0.00204	-0.0026
hu	-0.02541***	-0.02615***	-0.02706***
ie	0.01137*	0.01025*	0.02393***
it	-0.00539	-0.0063	-0.00646
lt	0.02112**	0.02031**	0.02102*
lu	0.00219	0.00183	0.00018
lv	0.00346	0.00297	0.00189
mt	0.00953*	0.00682	0.01002*
nl	-0.00157	-0.00222	-0.00098
no	0.00748***	0.00577***	0.00635***
pl	0.00201	0.00128	0.00156
pt	0.00965*	0.00876*	0.01053*
ro	0.01051	0.00994	0.01444
se	-0.00984*	-0.01062*	-0.01123*
si	-0.00998*	-0.01089*	-0.00936*
sk	-0.00308	-0.00378	-0.00207
uk	0.00366	0.00273	0.00134
Number of observations	638	638	588
R squared adjusted	0.15121	0.16406	0.159

legend: * p<0.05; ** p<0.01; *** p<0.001

(1) The country dummy for Austria was (arbitrarily) excluded from all regressions for collinearity reasons.
Source: Own calculations based on SHA and national data

Table IV.A1.4: **Estimates of excess cost growth (C) Annual averages in percentage**

	Growth rate equations				Level equations		
	no co-integration				co-integration		
	OLS	OLS	IV	IV	OLS	IV	IV
	(1)	(2)	(3)	(4)	(5)	(6)	(6a)
	All observations	Excl. 10% more influential	All observations	Excl. 10% more influential	All observations	All observations	All observations excl. 2009 and 2010
at	1.1	0.5	1.2	0.6	1.6 (1.4)	1.6 (1.4)	1.5 (1.3)
be	0.9	1.6	1.0	1.7	1.5 (1.4)	1.5 (1.3)	1.4 (1.2)
bg	-1.6	1.3	-2.3	-2.0	1.4 (1.3)	1.4 (1.3)	1.4 (1.3)
cy	4.3	3.6	5.3	4.5	1.7 (1.5)	1.6 (1.4)	1.2 (1.1)
cz	0.0	-0.9	0.7	0.0	2.1 (1.8)	2.0 (1.7)	1.9 (1.7)
de	0.5	0.4	0.7	0.9	1.8 (1.6)	1.6 (1.4)	1.6 (1.4)
dk	0.5	0.3	0.6	0.5	2.1 (1.9)	1.9 (1.7)	1.9 (1.7)
ee	-0.9	-0.7	-0.1	0.2	2.2 (1.9)	2.1 (2.0)	2.0 (1.9)
el	1.6	1.6	2.2	2.3	1.6 (1.4)	1.5 (1.3)	1.4 (1.2)
es	1.6	1.5	2.2	2.4	1.3 (1.1)	1.3 (1.2)	1.1 (1.0)
fi	2.0	1.7	2.1	1.9	2.0 (1.8)	1.8 (1.6)	1.8 (1.6)
fr	0.8	0.8	0.9	1.0	1.8 (1.6)	1.7 (1.4)	1.6 (1.4)
hu	-1.5	-2.3	-0.9	-1.7	1.6 (1.4)	1.6 (1.4)	1.6 (1.4)
ie	2.0	2.4	2.5	2.8	1.4 (1.2)	1.5 (1.4)	1.1 (1.1)
it	0.9	0.9	1.3	1.4	1.5 (1.3)	1.4 (1.2)	1.3 (1.1)
lt	4.2	4.1	5.0	5.1	3.1 (2.8)	2.9 (2.6)	2.9 (2.6)
lu	0.7	0.0	1.0	0.4	1.7 (1.5)	1.7 (1.6)	1.6 (1.5)
lv	2.2	-0.8	2.9	0.2	2.9 (2.6)	2.6 (2.2)	2.6 (2.2)
mt	2.6	2.9	3.0	3.3	2.1 (1.9)	2.0 (1.7)	1.9 (1.7)
nl	1.1	0.4	1.5	0.8	1.4 (1.2)	1.4 (1.2)	1.2 (1.1)
no	2.1	2.1	2.0	2.0	1.5 (1.3)	1.5 (1.3)	1.3 (1.1)
pl	0.0	-0.8	1.0	0.3	1.2 (1.1)	1.3 (1.3)	1.3 (1.2)
pt	1.7	1.6	2.0	2.1	1.8 (1.6)	1.7 (1.5)	1.5 (1.3)
ro	2.7	3.7	3.5	4.4	2.9 (2.5)	2.7 (2.4)	3.0 (2.7)
se	0.3	0.3	0.5	0.5	1.8 (1.6)	1.7 (1.5)	1.7 (1.5)
si	-0.9	-0.3	-0.3	0.6	1.2 (1.1)	1.3 (1.2)	1.0 (1.0)
sk	0.5	1.0	1.6	2.0	1.9 (1.7)	1.9 (1.7)	1.6 (1.5)
uk	2.4	2.4	2.7	2.6	1.6 (1.4)	1.6 (1.4)	1.4 (1.3)
Non-weighted avg.	1.1	1.0	1.6	1.5	1.8 (1.6)	1.7 (1.5)	1.6 (1.5)
Trimmed non-weighted avg. a)	1.1	1.1	1.6	1.2	1.7 (1.5)	1.6 (1.4)	1.6 (1.4)
Weighted average	1.1	1.0	1.4	1.4	1.6 (1.5)	1.6 (1.4)	1.5 (1.3)
Standard deviation	1.5	1.5	1.6	1.7	0.5 (0.4)	0.4 (0.3)	0.5 (0.4)

(1) a) Non-weighted average of the values within ± 1 standard deviation.
Note: In columns 5 to 6a, there are two values in each cell. The first refers to the model in levels without demographic variables, the second (in parenthesis) refers to the corresponding model including two demographic variables, namely the young and old age population ratios.
Source: Own calculations based on SHA and national data.

Part V

Resources

1. ABBREVIATIONS AND SYMBOLS USED

Member States

BE	Belgium
BG	Bulgaria
CZ	Czech Republic
DK	Denmark
DE	Germany
EE	Estonia
EI	Ireland
EL	Greece
ES	Spain
FR	France
IT	Italy
CY	Cyprus
LV	Latvia
LT	Lithuania
LU	Luxembourg
HU	Hungary
MT	Malta
NL	The Netherlands
AT	Austria
PL	Poland
PT	Portugal
RO	Romania
SI	Slovenia
SK	Slovakia
FI	Finland

SE Sweden

UK United Kingdom

EA Euro area

EU European Union

EU-27 European Union, 27 Member States

EA-17 European Area, 17 Member States

Other

AMECO Macro-economic database of the European Commission

AWG Ageing Working Group

BoP Balance of Payment

CAB Cyclically Adjusted Budget Balance

CAP Corrective Action Plan

CAPB Cyclically-adjusted primary balance

CPI Consumer Prices Index

COFOG Classification of the functions of government

COM Commission

CSR Country-Specific Recommendations

DBP Draft Budgetary Plan

DFE Discretionary Fiscal Effort

DG ECFIN Directorate-General Economic and Financial Affairs

DTM Discretionary Tax Measures

EBA European Banking Authority

ECCL Enhanced Conditions Credit Line

ECB European Central Bank

ECM Error Correction Model

ECON Council and to the Economic and Financial Committee

EDP Excessive Deficit Procedure

EERP European Economic Recovery Plan

EFC Economic and Financial Committee

EFSF European Financial Stability Facility

EMU Economic and Monetary Union

EPC Economic Policy Committee

EPP Economic Partnership Programme

ERM2 Exchange Rate Mechanism 2

ESA European Supervisory Authorities

ESA (95) European System of National and Regional Accounts

ESM European Stability mechanism

EU European Union

GDP Gross Domestic Product

GP General Practitioner

HCE Health Care Expenditure

HTA Health-Technology Assessments

IMF International Monetary Fund

IV Instrumental Variables

LTC Long-term budgetary Cost of Ageing

MIP Macroeconomic Imbalance Procedure

MoU Memorandum of Understanding

MTBF Medium-Term Budgetary Framework

MTO Medium-Term budgetary Objective

NAWRU Non-accelerating Wage Rate of Unemployment

NRP National Reform Programme

OECD Organisation of Economic Co-operation and Development

OG Output Gap

OGWG Output Gap Working Group

OLS	Ordinary Least Squares
PCCL	Precautionary Conditioned Credit line
PFR	Public Finance Report
PSI	Private Sector Involvement
pp	Percentage Points
R&D	Research and development
ROG	Representative Output Gap
SB	Structural Balance
SCPs	Stability and convergence programmes
SGP	Stability and Growth Pact
SHA	System of Health Accounts
SPB	Structural primary balances
SSM	Single Supervisory Mechanism
TSCG	Treaty on Stability Coordination and Governance
TFEU	Treaty on the Functioning of European Union (TFEU)
VAR	Vector Autoregressive
VAT	Value added tax
WHO	World Health Organization

2. GLOSSARY

Automatic stabilisers Features of the tax and spending regime which react automatically to the economic cycle and reduce its fluctuations. As a result, the budget balance in percent of GDP tends to improve in years of high growth, and deteriorate during economic slowdowns.

Broad Economic Policy Guidelines (BEPGs) Annual guidelines for the economic and budgetary policies of the Member States. They are prepared by the Commission and adopted by the Council of Ministers responsible for Economic and Financial Affairs (ECOFIN).

Budget balance The balance between total public expenditure and revenue in a specific year, with a positive balance indicating a surplus and a negative balance indicating a deficit. For the monitoring of Member State budgetary positions, the EU uses general government aggregates. See also structural budget balance, primary budget balance, and primary structural balance.

Budgetary rules Rules and procedures through which policy-makers decide on the size and the allocation of public expenditure as well as on its financing through taxation and borrowing.

Budgetary sensitivity The variation in the budget balance in percentage of GDP brought about by a change in the output gap. In the EU, it is estimated to be 0.5 on average.

Candidate countries Countries that wish to accede to the EU. Besides the accession countries, they include Croatia and Turkey.

Close-to-balance requirement A requirement contained in the 'old' Stability and Growth Pact, according to which Member States should, over the medium term, achieve an overall budget balance close to balance or in surplus; was replaced by country-specific medium-term budgetary objectives in the reformed Stability and Growth Pact.

Code of Conduct Policy document endorsed by the ECOFIN Council of 11 October 2005 setting down the specifications on the implementation of the Stability and Growth Pact and the format and content of the stability and convergence programmes.

COFOG (Classification of the Functions of Government) A statistical nomenclature used to break down general government expenditure into its different functions including general public services, defence, public order and safety, economic affairs, environmental protection, housing and community amenities, health, recreation, culture and religion, education and social protection.

Composite indicator A compilation of several indicators into a single index reflecting the different dimensions of a measured concept.

Convergence programmes Medium-term budgetary and monetary strategies presented by Member States that have not yet adopted the euro. They are updated annually, according to the provisions of the Stability and Growth Pact. Prior to the third phase of EMU, convergence programmes were issued on a voluntary basis and used by the Commission in its assessment of the progress made in preparing for the euro. See also stability programmes.

Crowding-out effects Offsetting effects on output due to changes in interest rates and exchange rates triggered by a loosening or tightening of fiscal policy.

Cyclical component of budget balance That part of the change in the budget balance that follows automatically from the cyclical conditions of the economy, due to the reaction of public revenue and expenditure to changes in the output gap. See automatic stabilisers, tax smoothing and structural budget balance.

Cyclically-adjusted budget balance See structural budget balance.

Demand and supply shocks Disturbances that affect the economy on the demand side (e.g. changes in private consumption or exports) or on the supply side (e.g. changes in commodity prices or technological innovations). They can impact on the economy either on a temporary or permanent basis.

Direct fiscal costs (gross, net) of a financial crisis The direct gross costs are the fiscal outlays in support of the financial sector that increase the

level of public debt. They encompass, for example, recapitalisation, purchase of troubled bank assets, pay-out to depositors, liquidity support, payment when guarantees are called and subsidies. The direct net costs are the direct gross cost net of recovery payments, such as through the sale of acquired assets or returns on assets. Thus, the net direct fiscal costs reflect the permanent increase in public debt.

Direct taxes Taxes that are levied directly on personal or corporate incomes and property.

Discretionary fiscal policy Change in the budget balance and in its components under the control of government. It is usually measured as the residual of the change in the balance after the exclusion of the budgetary impact of automatic stabilisers. See also fiscal stance.

Early-warning mechanism Part of the preventive elements of the Stability and Growth Pact. It is activated when there is significant divergence from the budgetary targets set down in a stability or convergence programme.

Economic and Financial Committee (EFC) Formerly the Monetary Committee, the EFC is a Committee of the Council of the European Union set up by Article 114 of the. Its main task is to prepare and discuss (ECOFIN) Council decisions with regard to economic and financial matters.

Economic Policy Committee (EPC) Group of senior government officials whose main task is to prepare discussions of the (ECOFIN) Council on structural policies. It plays an important role in the preparation of the Broad Economic Policy Guidelines, and it is active on policies related to labour markets, methods to calculate cyclically-adjusted budget balances and ageing populations.

Effective tax rate The ratio of broad categories of tax revenue (labour income, capital income, consumption) to their respective tax bases.

Effectiveness The same concept as efficiency except that it links input to outcomes rather than outputs.

Efficiency Can be defined in several ways, either as the ratio of outputs to inputs or as the distance to a production possibility frontier (see also Free Disposable Hull analysis, Data Envelope analysis, stochastic frontier analysis). Cost efficiency measures the link between monetary inputs (funds) and outputs; technical efficiency measures the link between technical inputs and outputs. Output efficiency indicates by how much the output can be increased for a given input; input efficiency indicates by how much the input can be reduced for a given input.

Emergency Liquidity Assistance (equivalent to lender-of-last- resort) The most traditional tool available to a central bank for dealing with financial instability. It includes both the provision of liquidity to the financial system as a whole through market operations, as well as emergency lending to individual banks. Not all liquidity injections aimed at preventing the spread of a liquidity problem relate to a crisis, as central banks routinely offer liquidity against specified collateral requirements in order to support the orderly functioning of markets.

ESA95 / ESA79 European accounting standards for the reporting of economic data by the Member States to the EU. As of 2000, ESA95 has replaced the earlier ESA79 standard with regard to the comparison and analysis of national public finance data.

European Financial Stability Facility is a company owned by Euro Area Member States created following the decisions taken in May 2010 by the Council. EFSF is able to issue bonds guaranteed by EAMS for up to € 440 billion for on-lending to EAMS in difficulty, subject to conditions negotiated with the European Commission in liaison with the European Central Bank and International Monetary Fund and to be approved by the Eurogroup. EFSF has been assigned the best possible credit rating; AAA by Standard & Poor's and Fitch Ratings, Aaa by Moody's.

European semester New governance architecture approved by the Member States in September 2010. It means that the EU and the euro zone will coordinate ex ante their budgetary and economic policies, in line with both the Stability and Growth Pact and the Europe 2020 strategy. Based on previous discussions on Commission's Annual Growth Survey, each summer, the European Council and the Council of ministers will provide

policy advice before Member States finalise their draft budgets.

Excessive Deficit Procedure (EDP) A procedure according to which the Commission and the Council monitor the development of national budget balances and public debt in order to assess and/or correct the risk of an excessive deficit in each Member State. Its application has been further clarified in the Stability and Growth Pact. See also stability programmes and Stability and Growth Pact.

Expenditure rules A subset of fiscal rules that target (a subset of) public expenditure.

Fiscal consolidation An improvement in the budget balance through measures of discretionary fiscal policy, either specified by the amount of the improvement or the period over which the improvement continues.

Fiscal decentralisation The transfer of authority and responsibility for public functions from the central government to intermediate and local governments or to the market.

Fiscal federalism A subfield of public finance that investigates the fiscal relations across levels of government.

Fiscal governance Comprises all rules, regulations and procedures that impact on how the budget and its components are being prepared. The terms fiscal governance and fiscal frameworks are used interchangeably in the report.

Fiscal impulse The estimated effect of fiscal policy on GDP. It is not a model-free measure and it is usually calculated by simulating an econometric model. The estimates presented in the present report are obtained by using the Commission services' QUEST model.

Fiscal institutions Independent public bodies, other than the central bank, which prepare macroeconomic and budgetary forecasts, monitor the fiscal performance and/or advice the government on fiscal policy issues.

Fiscal rule A permanent constraint on fiscal policy, expressed in terms of a summary indicator of fiscal performance, such as the government budget deficit, borrowing, debt, or a major component thereof. See also budgetary rule, expenditure rules.

Fiscal stance A measure of the effect of discretionary fiscal policy. In this report, it is defined as the change in the primary structural budget balance relative to the preceding period. When the change is positive (negative) the fiscal stance is said to be expansionary (restrictive).

General government As used by the EU in its process of budgetary surveillance under the Stability and Growth Pact and the excessive deficit procedure, the general government sector covers national government, regional and local government, as well as social security funds. Public enterprises are excluded, as are transfers to and from the EU Budget.

Government budget constraint A basic condition applying to the public finances, according to which total public expenditure in any one year must be financed by taxation, government borrowing, or changes in the monetary base. In the context of EMU, the ability of governments to finance spending through money issuance is prohibited. See also stock-flow adjustment, sustainability.

Government contingent liabilities Obligations for the government that are subject to the realization of specific uncertain and discrete future events. For instance, the guarantees granted by governments to the debt of private corporations bonds issued by enterprise are contingent liabilities, since the government obligation to pay depend on the non-ability of the original debtor to honour its own obligations.

Government implicit liabilities Government obligations that are very likely to arise in the future in spite of the absence of backing contracts or law. The government may have a potential future obligation as a result of legitimate expectations generated by past practice or as a result of the pressure by interest groups. Most implicit liabilities are contingent, i.e., depend upon the occurrence of uncertain future events.

Growth accounting A technique based on a production function approach where total GDP (or national income) growth is decomposed into the various production factors and a non-explained

part which is the total factor productivity change, also often termed the Solow residual.

Indirect taxation Taxes that are levied during the production stage, and not on the income and property arising from economic production processes. Prominent examples of indirect taxation are the value added tax (VAT), excise duties, import levies, energy and other environmental taxes.

Integrated guidelines A general policy instrument for coordinating EU-wide and Member States economic structural reforms embedded in the Lisbon strategy and which main aim is to boost economic growth and job creation in the EU.

Interest burden General government interest payments on public debt as a share of GDP.

Lisbon Strategy for Growth and Jobs Partnership between the EU and Member States for growth and more and better jobs. Originally approved in 2000, the Lisbon Strategy was revamped in 2005. Based on the Integrated Guidelines (merger of the broad economic policy guidelines and the employment guidelines, dealing with macro-economic, micro-economic and employment issues) for the period 2005-2008, Member States drew up three-year national reform programmes at the end of 2005. They reported on the implementation of the national reform programmes for the first time in autumn 2006. The Commission analyses and summarises these reports in an EU Annual Progress Report each year, in time for the Spring European Council.

Loss Given Default The loss incurred if an obligor defaults.

Maastricht reference values for public debt and deficits Respectively, a 60 % general government debt-to-GDP ratio and a 3 % general government deficit-to-GDP ratio. These thresholds are defined in a protocol to the Maastricht Treaty on European Union. See also Excessive Deficit Procedure.

Maturity structure of public debt The profile of total debt in terms of when it is due to be paid back. Interest rate changes affect the budget balance directly to the extent that the general government sector has debt with a relatively short maturity structure. Long maturities reduce the sensitivity of the budget balance to changes in the prevailing interest rate. See also public debt.

Medium-term budgetary framework An institutional fiscal device that lets policy-makers extend the horizon for fiscal policy making beyond the annual budgetary calendar (typically 3-5 years). Targets can be adjusted under medium-term budgetary frameworks (MTBF) either on an annul basis (flexible frameworks) or only at the end of the MTBF horizon (fixed frameworks).

Medium-term budgetary objective (MTO) According to the reformed Stability and Growth Pact, stability programmes and convergence programmes present a medium-term objective for the budgetary position. It is country-specific to take into account the diversity of economic and budgetary positions and developments as well as of fiscal risks to the sustainability of public finances, and is defined in structural terms (see structural balance).

Minimum benchmarks The lowest value of the structural budget balance that provides a safety margin against the risk of breaching the Maastricht reference value for the deficit during normal cyclical fluctuations. The minimum benchmarks are estimated by the European Commission. They do not cater for other risks such as unexpected budgetary developments and interest rate shocks. They are a lower bound for the 'medium-term budgetary objectives (MTO).

Monetary Conditions Index (MCI) An indicator combining the change in real short-term interest rate and in the real effective exchange rate to gauge the degree of easing or tightening of monetary policy.

Mundell-Fleming model Macroeconomic model of an open economy which embodies the main Keynesian hypotheses (price rigidity, liquidity preference). In spite of its shortcomings, it remains useful in short-term economic policy analysis.

NAIRU Non-Accelerating Inflation Rate of Unemployment.

Non-Keynesian effects Supply-side and expectations effects which reverse the sign of traditional Keynesian multipliers. Hence, if non-

Keynesian effects dominate, fiscal consolidation would be expansionary.

One-off and temporary measures Government transactions having a transitory budgetary effect that does not lead to a sustained change in the budgetary position. See also structural balance.

Outcome indicator Measures the ultimate results (outcomes) of policy choices (e.g. education attainment, healthy life years, economic growth).

Output costs from a financial crisis This is the gap between the hypothetical output development without a crisis and the actual output realised against the back of the crisis. Various methods are available to calculate output losses, in particular either using the trend GDP growth or the level of GDP as a benchmark.

Output gap The difference between actual output and estimated potential output at any particular point in time. See also cyclical component of budget balance.

Output indicator Measures the technical results (outputs) of policy choices (e.g. number of university graduates, number of patents, life expectancy).

Performance-based budgeting A budgeting technique that links budget appropriations to performance (outcomes, results) rather than focusing on input controls. In practice, performance-informed budgeting is more common which basis decisions on budgetary allocation on performance information without establishing a formal link.

Policy-mix The overall stance of fiscal and monetary policy. The policy-mix may consist of various combinations of expansionary and restrictive policies, with a given fiscal stance being either supported or offset by monetary policy.

Potential GDP The level of real GDP in a given year that is consistent with a stable rate of inflation. If actual output rises above its potential level, then constraints on capacity begin to bind and inflationary pressures build; if output falls below potential, then resources are lying idle and inflationary pressures abate. See also production function method and output gap.

Pre-accession Economic Programmes (PEPs) Annual programmes submitted by candidate countries which set the framework for economic policies The PEPs consist of a review of recent economic developments, a detailed macroeconomic framework, a discussion of public finance issues and an outline of the structural reform agenda.

Pre-accession Fiscal Surveillance Framework (PFSF) Framework for budgetary surveillance of candidate countries in the run up to accession. It closely approximates the policy co-ordination and surveillance mechanisms at EU level.

Primary budget balance The budget balance net of interest payments on general government debt.

Primary structural budget balance The structural budget balance net of interest payments.

Principal components A statistical technique used to reduce multidimensional data sets to lower dimensions for analysis. This technique provides a compression of a set of high dimensional vectors (or variables) into a set of lower dimensional vectors (or variables) and then reconstructing the original set summarizing the information into a limited number of values.

Pro-cyclical fiscal policy A fiscal stance which amplifies the economic cycle by increasing the structural primary deficit during an economic upturn, or by decreasing it in a downturn. A neutral fiscal policy keeps the cyclically-adjusted budget balance unchanged over the economic cycle but lets the automatic stabilisers work. See also tax-smoothing.

Production function approach A method to estimate the level of potential output of an economy based on available labour inputs, the capital stock and their level of efficiency. Potential output is used to estimate the output gap, a key input in the estimation of cyclical component of the budget.

Public debt Consolidated gross debt for the general government sector. It includes the total nominal value of all debt owed by public institutions in the Member State, except that part of the debt which is owed to other public institutions in the same Member State.

Public goods Goods and services that are consumed jointly by several economic agents and for which there is no effective pricing mechanism that would allow private provision through the market.

Public investment The component of total public expenditure through which governments increase and improve the stock of capital employed in the production of the goods and services they provide.

Public-private partnerships (PPP) Agreements that transfer investment projects to the private sector that traditionally have been executed or financed by the public sector. To qualify as a PPP, the project should concern a public function, involve the general government as the principal purchaser, be financed from non-public sources and engage a corporation outside the general government as the principal operator that provides significant inputs in the design and conception of the project and bears a relevant amount of the risk.

Quality of public finances Comprises all arrangements and operations of fiscal policy that support the macroeconomic goals of fiscal policy, in particular economic growth.

Quasi-fiscal activities Activities promoting public policy goals carried out by non-government units.

QUEST The macroeconomic model of the EU Member States plus the US and Japan developed by the Directorate-General for Economic and Financial Affairs of the European Commission.

Recently acceded Member States Countries that became members of the EU in May 2004 and include Cyprus, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia and Slovenia. Two additional countries, Romania and Bulgaria joined in January 2007.

Ricardian equivalence Under fairly restrictive theoretical assumptions on the consumer's behaviour (inter alia infinite horizon for decision making), the impact of fiscal policy does not depend on whether it is financed by tax increases or by a widening deficit. The basic reasoning behind this statement dates back to Ricardo and was revisited by Robert Barro in the 1970s.

Sensitivity analysis An econometric or statistical simulation designed to test the robustness of an estimated economic relationship or projection, given various changes in the underlying assumptions.

Significant divergence A sizeable excess of the budget balance over the targets laid out in the stability or convergence programmes, that triggers the Early warning procedure of the Stability and Growth Pact.

Size of the public sector Typically measured as the ratio of public expenditure to nominal GDP.

'Snow-ball' effect The self-reinforcing effect of public debt accumulation or decumulation arising from a positive or negative differential between the interest rate paid on public debt and the growth rate of the national economy. See also government budget constraint.

Social security contributions (SSC) Mandatory contributions paid by employers and employees to a social insurance scheme to cover for pension, health care and other welfare provisions.

Sovereign bond spread The difference between risk premiums imposed by financial markets on sovereign bonds for different states. Higher risk premiums can largely stem from (i) the debt service ratio, also reflecting the countries' ability to raise their taxes for a given level of GDP, (ii) the fiscal track record, (iii) expected future deficits, and (iv) the degree of risk aversion.

Stability and Growth Pact (SGP) Approved in 1997 and reformed in 2005, the SGP clarifies the provisions of the Maastricht Treaty regarding the surveillance of Member State budgetary policies and the monitoring of budget deficits during the third phase of EMU. The SGP consists of two Council Regulations setting out legally binding provisions to be followed by the European Institutions and the Member States and two Resolutions of the European Council in Amsterdam (June 1997). See also Excessive Deficit Procedure.

Stability programmes Medium-term budgetary strategies presented by those Member States that have already adopted the euro. They are updated annually, according to the provisions of the

Stability and Growth Pact. See also Convergence programmes.

Stock-flow adjustment The stock-flow adjustment (also known as the debt-deficit adjustment) ensures consistency between the net borrowing (flow) and the variation in the stock of gross debt. It includes the accumulation of financial assets, changes in the value of debt denominated in foreign currency, and remaining statistical adjustments.

Structural budget balance The actual budget balance net of the cyclical component and one-off and other temporary measures. The structural balance gives a measure of the underlying trend in the budget balance. See also primary structural budget balance.

Sustainability A combination of budget deficits and debt that ensure that the latter does not grow without bound. While conceptually intuitive, an agreed operational definition of sustainability has proven difficult to achieve.

Tax elasticity A parameter measuring the relative change in tax revenues with respect to a relative change in GDP. The tax elasticity is an input to the budgetary sensitivity.

Tax gaps Measure used in the assessment of the sustainability of public finances. They measure the difference between the current tax ratio and the constant tax ratio over a given projection period to achieve a predetermined level of debt at the end of that projection period.

Tax smoothing The idea that tax rates should be kept stable in order to minimise the distortionary effects of taxation, while leaving it for the automatic stabilisers to smooth the economic cycle. It is also referred to as neutral discretionary fiscal policy. See also cyclical component of fiscal policy.

Tax wedge The deviation from equilibrium price/quantity as a result of a taxation, which results in consumers paying more, and suppliers receiving less. When referring to labour tax wedge more specifically, the tax wedge is usually regarded as the difference between the difference between the salary costs of an average worker to their employer and the amount of net income that the worker receives in return, the difference being represented by taxes including personal income taxes and compulsory social security contributions.

Total factor productivity Represents the share of total output not explained by the level of inputs (labour, capital or primary product). It is generally considered as a measure of overall productive efficiency.

Welfare state Range of policies designed to provide insurance against unemployment, sickness and risks associated with old age.

3. REFERENCES

Acemoglu, D., A. Finkelstein and M. Notowidigdo (2009). "Income and Health Spending: Evidence from Oil Price Shocks", Harvard University, *mimeo*.

Agnello L. and J. Cimadomo (2009). "Discretionary Fiscal Policies over the Cycle: New Evidence based on the ESCB Disaggregated Approach", *ECB Working Paper*, No.1118.

Alesina, A. and R. Perotti (1995). "Fiscal expansions and fiscal adjustments in OECD countries", *NBER Working Paper*, No. W5214.

Alesina, A. and R. Perotti (1996). "Fiscal adjustment in the OECD countries: composition and macroeconomic effects", *NBER Working Paper*, No. 5730.

Alesina, A. and S. Ardagna (1998). "Tales of fiscal adjustment", *Economic Policy*, 13 (27), pp. 487–545.

Ardagna, S. (2004). "Fiscal stabilisations: when do they work and why?", *European Economic Review*, 48 (5), pp.1047–1074.

Azizi, K. and C. Pereira (2005). "Comparaison internationale des dépenses de santé : une analyse des évolutions dans sept pays, 1970-2002", DREES, *Dossier Solidarité et Santé*, Vol. 1.

Barro R. (1996a), "Health and economic growth", *Harvard University, manuscript*.

Barro R. (1996b), "Determinants of economic growth: a cross-country empirical study", *NBER Working Paper No. 5698*.

Barrios, S., Langedijk, S. and L. Pench, (2010). "EU fiscal consolidation after the financial crisis. Lessons from past experiences", *European Economy Economic Papers*, No. 418 (available at http://ec.europa.eu/economy_finance/publications/economic_paper/2010/ecp418_en.htm)

Barrios, S. and R. Fargnoli (2010). "Discretionary measures and tax revenues in the run-up to the financial crisis", *European Commission Economic Papers*, No. 419.

Barros P. (1998). "The black box of health care expenditure growth determinants", *Health Economics*, 7, 553-554.

Barth, R. and W. Hemphill (2000). *Financial programming and policy. The case of Turkey*, IMF Institute.

Baumol W. (1967). "Macroeconomics of unbalanced growth: the anatomy of urban crisis", *American Economic Review*, 57(3), pp. 415-426.

Baumol W. (2012). *The cost disease – why computers get cheaper and health care doesn't*, Yale University Press.

Beetsma, R. and M. Giuliodori (2008). "On the relationship between fiscal plans in the European Union: An empirical analysis based on real-time data", *Journal of Comparative Economics*, 36 (2), pp. 221-242.

Bouthevillain, C. , Courthimann P., Van den Dool G., Hernández de Cos, P., Langenus, G., Mohr, M., Momigliano, S. and Tujula, M. (2001). "Cyclically adjusted budget Balances: an alternative Approach", *ECB Working Paper Series*, NO. 77.

Carone, G., Schwierz, C. and A. Xavier (2012). "Cost-containment policies in public pharmaceutical spending in the EU", *European Economy*, *Economic Paper*, No. 461.

Chandra A. and Skinner J. (2011), "Technology growth and expenditure growth in health care", *NBER Working Paper No. 16953*.

Cimadomo, J. (2008). "Fiscal policy in real time", *ECB Working Paper*, No. 919.

Cutler, D. (1995), *Technology, Health Costs and the NIH*, Cambridge MA: Harvard University and NBER.

Duchene, S. and D. Levy (2003). "Solde structurel et effort structurel: un essaie d'évaluation de la composante discrétionnaire de la politique budgétaire", *Analyses Economiques*, 18, Ministère de L'Economie, des Finances et de l'Industrie, France.

Dybczak K. and B. Przywara (2010). "The role of technology in health care expenditure in the EU", *European Economy, Economic Papers*, No. 400.

Elk R., Mot, E. and P. Franses (2009). "Modelling health care expenditures – overview of the literature and evidence from a panel time series model", *CPB Discussion Paper*.

Eschenbach F. and L. Schuknecht (2002). "Fiscal balances and asset prices", *ECB Working Paper*, No. 141

European Commission (2006). "Public Finances in the EMU", *European Economy*, No. 4/2006.

European Commission (2007). Directorate-General for Economic and Financial Affairs, 'Public finances in EMU — 2007", *European Economy*, No. 3/2007 (available at http://ec.europa.eu/economy_finance/publications/publication338_en.pdf).

European Commission (DG ECFIN) (2010a). "Public finances in EMU — 2010", *European Economy*, No. 3/2009, (available at http://ec.europa.eu/economy_finance/publications/european_economy/2010/pdf/ee-2010-4_en.pdf).

European Commission (DG ECFIN)-EPC (AWG) (2010b). "Joint Report on Health Systems", *European Economy, Occasional Papers*, No. 74. (available at: http://ec.europa.eu/economy_finance/publications/occasional_paper/2010/pdf/ocp74_en.pdf)

European Commission (2012a). "The assessment of effective action in the context of the excessive deficit procedure", *mimeo*.

European Commission (DG ECFIN)-EPC (AWG) (2012b). "The 2012 Ageing Report – Economic and budgetary projections for the 27 EU Member States (2010-2060)", *European Economy*, No. 2/2012.

European Commission (2012c). *Fiscal Sustainability Report 2012*, (available at: http://ec.europa.eu/economy_finance/publications/european_economy/2012/fiscal-sustainability-report_en.htm)

European Commission (2013a). " The two-pack on economic governance: Establishing an EU framework for dealing with threats to financial stability in euro area member states", *European Economy, Occasional Papers*, No. 147. (available at:http://ec.europa.eu/economy_finance/publications/occasional_paper/2013/pdf/ocp147_en.pdf).

European Commission (2013b). *President Barroso, in agreement with Vice-President Rehn, launches Expert Group on debt redemption fund and eurobills*. (available at: http://europa.eu/rapid/press-release_MEMO-13-635_en.htm#PR_metaPressRelease_bottom)

Favero, C.A. and F. Giavazzi (2010). "Reconciling VAR-based and Narrative Measures of the Tax-Multiplier," *CEPR Discussion Papers*, No. 7769.

Fries, J.F. (1989). "The compression of morbidity: near or far?", *Milbank Memorial Fund Quarterly*, 67(2), pp. 208-232.

Gerdtham U. and M. Lothgren (2000). "On stationarity and cointegration of international expenditure and GDP", *Journal of Health Economics*, 19(4), pp. 461-475.

Getzen T. (2000). "Health care is an individual necessity and a national luxury: applying multilevel decision models to the analysis of health care expenditure", *Journal of Health Economics*, 19, pp. 259-270.

Girouard, N. and C. André (2005). "Measuring cyclically adjusted budget balances for the OECD countries", *OECD Economics Department Working Papers*, No. 434.

Global Forum for Health Research (2008). *Monitoring Financial Flows for Health Research 2008: Prioritizing research for health equity*.

Guajardo, J., Leigh, D. and A. Pescatori, (2011) "Expansionary Austerity: New International Evidence", *IMF Working Paper*, No. 11/158

Guyon, T. and S. Sorbe (2009). *Solde structurel et effort structurel: vers une décomposition par sous-secteur des administrations publiques*, Documents de travail de la Direction générale du trésor et de la politique économique, France, 13.

Guichard, S., Kennedy, M., Wurzel, E. and C. André (2007). "What promotes fiscal consolidation", O*ECD Economic Department Working Paper*, No.553.

Hagen von, J., Hughes Hallett, A. and R. Strauch (2002). "Budgetary consolidation in Europe: quality, economic conditions and persistence", *Journal of the Japanese and International Economies*, 16(4), pp. 512–535.

Hartwig J. (2008). "What drives health care expenditure? – Baumol's model of 'unbalanced growth' revisited", *Journal of Health Economics*, 27, pp. 603-623.

Hartwig J. (2011). "Can Baumol's model of unbalanced growth contribute to explaining the secular rise in health care expenditure? An alternative test", *Applied Economics*, 43, pp.173-184.

Herwartz H. and B. Theilen (2002). "The determinants of health care expenditure: testing pooling restrictions in small samples", *Journal of Health Economics*, 12, pp. 113-124.

International Monetary Fund (2004). *World Economic Outlook*, September 2004.

International Monetary Fund, (2010). *World Economic Outlook*, Chapter 3, October 2010.

Jenkner, E., Karpowicz, I., Kashiwase, K., Shang, B., Soto, M. and J. Tyson (2010). "Macro-Fiscal implications of health care reform in advanced and emerging economies", *IMF manuscript*.

Joumard, I., André, C., and C. Nicq (2008). "Health status determinants: lifestyle, environment, health care resources and efficiency", *OECD Economics Department Working Papers*, No. 627.

Joumard I., André C., and Nicq C. (2010), "Health care systems: efficiency and institutions", *OECD Economics Department Working Papers*, No. 769.

Karlsson, M., and F. Klohn (2011). "Some notes on how to catch a red herring. Ageing, time-to-death & care costs for older people in Sweden", *Darmstadt discussion papers in economics*, Darmstadt Technical University, Department of Business Administration, Economics and Law, Institute of Economics (VWL).

Kumar, M., Leigh, D. and A. Plekhanov, (2007). "Fiscal Adjustments: Determinants and Macroeconomic Consequences", *IMF Working Paper*, No. 07/178.

Larch, M. and A. Turrini (2009) 'The cyclically-adjusted budget balance in EU fiscal policy making: A love at first sight turned into a mature relationship', *European Economy, Economic Papers*, No. 374. (available at: http://ec.europa.eu/economy_finance/publications/publication14644_en.pdf)

Lendvai J., Moulin, L. and A. Turrini, (2011) "From CAB to CAAB? Correcting Indicators of Structural Fiscal Positions for Current Account Imbalances", *European Economy Economic Papers*, No. 442. (available at: http://ec.europa.eu/economy_finance/publications/economic_paper/2011/pdf/ecp442_en.pdf)

Lipszyc, B., Sail, E., and A. Xavier (2012)." Long-term care: need, use and expenditure in the EU-27", *European Economy*, Economic Papers, No. 469. (available at: http://ec.europa.eu/economy_finance/publications/economic_paper/2012/ecp469_en.htm)

Maisonneuve C. and J. Martins (2006). "The drivers of public expenditure on health and long-term care: an integrated approach", *OECD Economic Studies*, No. 43.

Maisonneuve C. and J. Martins (2013). "A projection method of public Health and Long-Term Care expenditures", *manuscript*.

Manton, K.G. (1982). "Changing concepts of morbidity and mortality in the elderly population", *Milbank Memorial Fund Quarterly*, 60, pp. 183-244.

Medeiros J. and C. Schwierz (2013). "Estimating the drivers of public health care expenditure in the European Union: Baumol's "cost-disease" revisited, *forthcoming*.

Mourre, G., Isbasoiu, G., Paternoster, D. and M. Salto (2013). " The cyclically-adjusted budget balance used in the EU fiscal framework: an

update" *European Economy, Economic Papers*, No.478. (available at:http://ec.europa.eu/economy_finance/publications/economic_paper/2013/ecp478_en.htm)

McDermott, C. and R. Westcott (1996). "An empirical analysis of fiscal adjustments", *IMF Staff Papers*, 43(4), pp. 725–753.

Morris, R., Rodrigues Braz, C., de Castro, F., Jonk, S., Kremer, J., Linehan, S., Marino, M. R., Schalck, C., and O. Tkacevs (2009). "Explaining government revenue windfalls and shortfalls: an analysis of the revenue data for selected EU countries", *ECB Working Paper Series*, No. 1114, November.

Mourre, G., Isbasoiu, G. M., Paternoster, D., and M. Salto (2013). "The cyclically adjusted budget balance used in the EU fiscal framework: an update", *European Economy, Economic Papers*, 478.

Nordhaus W. (2008). "Baumol's diseases: a macroeconomic perspective", *The B.E. Journal of Macroeconomics*, 8 (1), pp. 1935-1690.

OECD (2010). *Obesity and the Economics of Prevention: Fit not Fat*, (available at: http://www.oecd.org/health/health-systems/obesityandtheeconomicsofpreventionfitnotfat.htm).

OECD (2012). *OECD Health Data 2012 – Statistics and Indicators for 40 Countries*, Paris, available at: http://www.oecd.org/health/health-systems/oecdhealthdata2012.htm

Olshansky, S.J., Rudberg, M.A., Carnes, B.A., Cassel, C.K. and J.A. Brody (1991). "Trading off longer life for worsening health", *Journal of Ageing and Health*, 3(2), pp. 194-216.

Perotti R., (2011). "The `austerity myth': gain without pain?", *NBER Working Paper*, No. 17571.

Ramey, V. and M.D. Shapiro (1998). "Costly Capital Reallocation and the Effects of Government Spending", *Carnegie Rochester Conference Series on Public Policy*, 48, pp. 145-194.

Ramey, V.A. (2011). "Identifying Government Spending Shocks: It's all in the Timing", *The Quarterly Journal of Economics*, 126(1), pp. 1-50.

Rechel, B., Doyle, Y., Grundy, E. and M. McKee (2009). "How can health systems respond to population ageing?", European Observatory on Health Systems and Policies, *Policy Brief 10*.

Romer, C. and D.H. Romer (2007). "The macroeconomic effects of tax changes: estimates based on a new measure of fiscal shocks", *NBER Working Paper*, No. 13264.

Romer, C. and D.H. Romer (2010). "The Macroeconomic Effects of Tax Changes: Estimates Based on a New Measure of Fiscal Shocks," *American Economic Review*, 100, pp. 763-801

Rotemberg, J. and M. Woodford (1992). "Oligopolistic Pricing and the Effects of Aggregate Demand on Economic Activity," *Journal of Political Economy*, 100(6), pp. 1153-1207.

Sancak, C., Velloso, R. and J. Xing (2010). "Tax Revenue Response to the Business Cycle", IMF *Working Paper*, 71.

Turrini A. (2008). Fiscal policy and the cycle in the Euro Area: The role of government revenue and expenditure, *European Economy Economic Papers* No 323, (available at:http://ec.europa.eu/economy_finance/publications/publication12600_en.pdf).

Vogler, S. (2011). "Pharmaceutical policies in response to the financial crisis – results from policy monitoring in the EU", *Southern Medical Review*, 4(2), pp. 22-32.

Westerlund J. (2007). "Testing for error correction in panel data", *Oxford Bulletin of Economics and Statistic*, 69 (6), pp. 709-748.

WHO (2011). "Prevention and control of NCDs: Priorities for investment", *Discussion paper*, (available at: http://www.who.int/nmh/publications/who_bestbuys_to_prevent_ncds.pdf).

Wolswijk, G. (2007). "Short- and long-run elasticities. The case of the Netherlands", *ECB Working Paper*, No. 763.

Zweifel, P., Felder, S., and M. Meiers (1999). "Ageing of population and health care expenditure: a red herring?", *Health Economics*, 8(6), pp. 485-496.

4. USEFUL INTERNET LINKS

European Union

European Commission	ec.europa.eu
Directorate-General for Economic and Financial Affairs	ec.europa.eu/economy_finance/index_en.htm
Eurostat	epp.eurostat.ec.europa.eu
European Council	consilium.europa.eu
European Parliament	www.europarl.europa.eu

Economics and Finance Ministries

Belgium	www.treasury.fgov.be/interthes	Ministère des Finances - Ministerie van Financen
Bulgaria	www.minfin.bg	Ministry of Finance
Czech Republic	www.mfcr.cz	Ministry of Finance
Denmark	www.fm.dk	Ministry of Finance
Germany	www.bundesfinanzministerium.de	Bundesministerium der Finanzen
Estonia	www.fin.ee	Ministry of Finance
Ireland	www.irlgov.ie/finance	Department of Finance
Greece	www.mnec.gr/en/	Ministry of Economy and Finance
Spain	www.mineco.es/	Ministerio de Economía y Hacienda
France	www.finances.gouv.fr	Ministère Économie, Finances et l'Industrie
Italy	www.tesoro.it	Ministero dell'Economia e delle Finanze
Cyprus	www.mof.gov.cy	Ministry of Finance
Latvia	www.fm.gov.lv	Ministry of Finance
Lithuania	www.finmin.lt	Ministry of Finance
Luxembourg	www.etat.lu/FI	Ministère des Finances

Hungary	www.p-m.hu	Ministry of Finance
Malta	finance.gov.mt	Ministry of Finance and Economic Affairs
Netherlands	www.minfin.nl	Ministerie van Financien
Austria	www.bmf.gv.at	Bundesministerium für Finanzen
Poland	www.mofnet.gov.pl	Ministry of Finance
Portugal	www.min-financas.pt	Ministério das Finanças
Romania	www.mfinante.ro	Ministry of Finance
Slovenia	www.gov.si/mf	Ministry of Finance
Slovak Republic	www.finance.gov.sk	Ministry of Finance
Finland	www.vn.fi/vm	Ministry of Finance
Sweden	finans.regeringen.se	Finansdepartementet
United Kingdom	www.hm-treasury.gov.uk	Her Majesty's Treasury

Central Banks

European Union	www.ecb.int	European Central Bank
Belgium	www.nbb.be	Banque Nationale de Belgique / Nationale Bank van België
Bulgaria	www.bnb.bg	Bulgarian National Bank
Czech Republic	www.cnb.cz	Czech National Bank
Denmark	www.nationalbanken.dk	Danmarks Nationalbank
Germany	www.bundesbank.de	Deutsche Bundesbank
Estonia	www.eestipank.info	Eesti Pank
Ireland	www.centralbank.ie	Central Bank of Ireland
Greece	www.bankofgreece.gr	Bank of Greece
Spain	www.bde.es	Banco de España
France	www.banque-france.fr	Banque de France

Italy	www.bancaditalia.it	Banca d'Italia
Cyprus	www.centralbank.gov.cy	Central Bank of Cyprus
Latvia	www.bank.lv	Bank of Latvia
Lithuania	www.lb.lt	Lietuvos Bankas
Luxembourg	www.bcl.lu	Banque Centrale du Luxembourg
Hungary	www.mnb.hu	National Bank of Hungary
Malta	www.centralbankmalta.com	Central Bank of Malta
Netherlands	www.dnb.nl	De Nederlandsche Bank
Austria	www.oenb.at	Oestereichische Nationalbank
Poland	www.nbp.pl	Narodowy Bank Polski
Portugal	www.bportugal.pt	Banco de Portugal
Romania	www.bnro.ro	National Bank of Romania
Slovenia	www.bsi.si	Bank of Slovenia
Slovak Republic	www.nbs.sk	National Bank of Slovakia
Finland	www.bof.fi	Suomen Pankki
Sweden	www.riksbank.com	Sveriges Riksbank
United Kingdom	www.bankofengland.co.uk	Bank of England

EU fiscal surveillance framework

Stability and Growth Pact:

ec.europa.eu/economy_finance/sg_pact_fiscal_policy/index_en.htm?cs_mid=570

Excessive deficit procedure:

ec.europa.eu/economy_finance/sg_pact_fiscal_policy/fiscal_policy554_en.htm

Early warning mechanism:

http://ec.europa.eu/economy_finance/sg_pact_fiscal_policy/fiscal_policy1075_en.htm

Stability and convergence programmes:

ec.europa.eu/economy_finance/sg_pact_fiscal_policy/fiscal_policy528_en.htm

Sustainability of public finances:

http://ec.europa.eu/economy_finance/sg_pact_fiscal_policy/fiscal_policy546_en.htm

Quality of public finances

http://ec.europa.eu/economy_finance/publications/publication_summary12186_en.htm

http://ec.europa.eu/economy_finance/epc/epc_publications_en.htm#Quality%20of%20public%20finances

Lisbon Strategy for Growth and Jobs

http://ec.europa.eu/growthandjobs/index_en.htm

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