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Macroeconomic effects of Europe 2020: stylised scenarios

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Introduction

The Europe 2020 strategy, approved by the June European Council, presents a comprehensive approach to guide the EU out of the economic crisis, to ensure macroeconomic stability and to put in place an ambitious structural reform agenda. As a successor to the Lisbon Strategy for growth and jobs, Europe 2020 provides a framework for economic and structural policies in the EU. The strategy will bring value added and consistency to national reform processes by setting common policy targets and establishing an enhanced macro-structural surveillance.

The lessons from past experiences and economic analysis indicate that a well-designed and convincing policy agenda aimed at strengthening the supply side of the economy should be an essential part of the policy response to lead the EU out of the crisis. This can mitigate the adverse impact of the crisis on potential output of the European economies, help address the long-run implications of population ageing and also contribute to the efforts to consolidate public finances. Therefore, an essential part of this strategy is the introduction of reforms with a medium- to long-term horizon that focus on promoting the sustainability of public finances, enhancing potential growth and realising the 2020 objectives, i.e. ensuring that the EU becomes prosperous, green and fair.

Such a comprehensive reform agenda can generate significant gains in terms of additional growth and employment as well as help ensure longer-term sustainability of public finances. Using its macroeconomic model QUEST III, the Commission has explored the possible extent of these gains (for a description of the model see Ratto et al. (2009) and Roeger et al. (2008)). For this purpose, several stylised scenarios combining fiscal consolidation efforts with differentiated progress in implementing structural reforms have been constructed (more detail on this exercise can be found in Hobza and Mourre (2010)).

[1] The authors would like to acknowledge the invaluable modelling inputs and comments from Francesca D'Auria, Werner Roeger, Janos Varga and Jan in 't Veld.

Summary

An essential part of Europe 2020 consists of reforms with a medium- to long-term horizon that focus on promoting the sustainability of public finances, enhancing potential growth and realising the Europe 2020 objectives, i.e. ensuring that the EU becomes prosperous, green and fair.

Such reforms have a potential to deliver significant gains. The extent of these benefits will depend on the depth and breadth of undertaken reforms: if the EU succeeds in generating the reform momentum necessary to realise the Europe 2020 vision, the gains could reach around 7% of GDP and generate 11 mil. jobs by 2020. As the effects of reforms take time to materialise, the long-run gains would still be higher by around 1/3 to 1/2.

Clearly, such an ambitious reform scenario would mean a significant departure from the past policies, conditional on a strong political commitment and consensus on the need for change. While non-negligible, the economic benefits from partial or shallow reform would fall short of the Europe 2020 ambition.

The brief also shows that fiscal consolidation efforts are crucial to rein in public debt increases. An ambitious fiscal consolidation will not affect negatively GDP growth: it will even bring about a slight increase in GDP by 2020. Progress with structural reforms, increasing potential growth and expanding tax bases, can help significantly these efforts.

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As regards the coverage of this exercise, the QUEST III model allows to model a wide range of policies proposed to make part of the Europe 2020 strategy. The model is well suited to simulate effects of policies to enhance sustainability of public finances by proceeding with fiscal consolidation. Hence, the objective of the simulations is rather to demonstrate broad benefits that can bring some types of policy measures envisaged under Europe 2020 and the results should thus be seen as purely stylised and illustrative. The simulations do not attempt to model specific policies foreseen under the thematic pillar of Europe 2020, which groups a number of flagship initiatives focusing, for example, on policies to promote innovation, improve education outcomes, support job creation, enhance "green" content of growth, or boost competitiveness of European firms. This is because the detailed policy agendas are still to be designed and agreed, which is the task for the following months.

The simulations also assess the potential impacts of research and innovation policies aimed at increasing R&D/innovation intensity either through public spending (using tax credits or wage subsidies) or through improving framework conditions for innovation (e.g. better access to finances or reduction in market entry costs). They also include increasing educational spending and policies to upgrade skills. The scenarios also consider policies to modernise labour markets and create jobs by increasing labour participation and improving financial incentives to work (e.g. tax shifts from low- to high-skilled labour and away from labour to consumption; or reforms in unemployment benefit schemes). The policy agenda aimed at making progress in completing the single market (e.g. in the services sector) and efforts to boost industrial competitiveness are modelled through their impact on mark-ups and administrative burdens/fixed costs (reductions in overhead costs can also be due to the progress in the EU digital agenda and the simplified communication with public administrations, e.g. electronic tax receipts).

The scenarios combine different QUEST III policy simulations which can be associated with Europe 2020-type reforms to analyse the macroeconomic effects of reform packages. This is done by making differentiated stylised assumptions on the progress to be achieved in implementing reform agendas.[1]

Table 1 provides an overview of the relevant policy simulations with the QUEST III model used in this exercise.

Table 1: Structural reform simulations used in the scenarios

Policy areas	QUEST III policy simulations
Labour markets	• wage mark up reductions • reduction in the benefit replacement rate • tax shift from labour to VAT • tax shift from low-skilled to high-skilled labour
Product markets	• reduction of the final goods market mark-up • reduction in firms' administrative burdens (overhead labour)
Knowledge and innovation	• tax-credit R&D subsidy • wage subsidy for R&D personnel • reduction of intangible capital costs • reduction in entry barriers in (R&D intensive) intermediate goods sector • increasing education spending

Source: Roeger et al (2008); and Varga and in 't Veld (2009).

It should be underlined that the scenarios do not capture all types of policies foreseen under Europe 2020. This is in part due to the fact that relevant mechanisms are not embedded in the model or that the potential effects of some of the foreseen actions would be too speculative at this juncture. The omitted policies, for example, are initiatives to fight poverty and social exclusion, policies to increase broadband coverage or the quality aspects of public spending on R&D or education. Also, not all relevant dimensions of the flexicurity agenda are fully integrated in the simulations.

The presented scenarios also do not explicitly include effect of policies to achieve the climate change targets. Nevertheless, the impact of measures to reduce carbon emissions can be assessed on the basis of recent modelling work in DG ECFIN (see Conte et al., 2010). The results of this work indicate that the negative impact on output of measures to meet the carbon emission targets (either through the

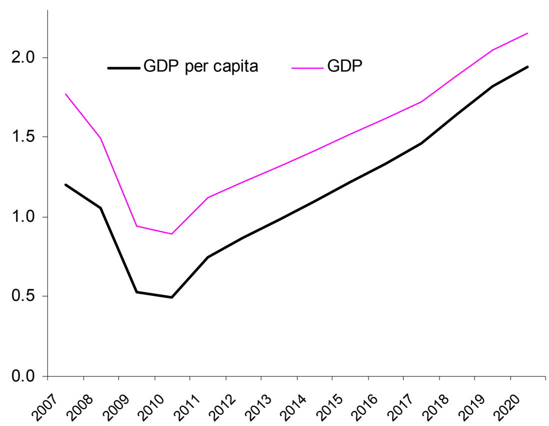
[1] The structural reform simulations that were used as input into this exercise were published in Roeger et al. (2008). Effects of increases in education spending are based on Varga and in't Veld (2009). The effects of fiscal consolidation are based on simulations presented in the 2010 Public Finances in EMU Report (European Commission, 2010).

imposition of carbon taxes or the emission trading scheme) can be mitigated/eliminated if appropriate policies are adopted, i.e. the tax revenues are effectively used for lowering the tax burden on labour and increasing general/"green" R&D.

Europe 2020 scenarios

The starting point – the baseline scenario – embeds the adverse impact of the crisis on potential output and assumes an increase in financing cost due to a protracted resolution of financial sector troubles. This so-called "lost decade" scenario is based on the long-run projections from the 2009 Ageing Report (European Commission, 2009) taking into account the latest economic developments (presented in the ECFIN 2010 spring forecast). In addition, it contains a fiscal adjustment of 0.5% of GDP every year until the Medium Term Objectives (MTO) are reached, which is the minimum speed of consolidation that the Stability and Growth Pact (SGP) recommends. Graph 1 shows the developments of the main economic variables in the baseline scenario.

Graph 1: **Baseline scenario - annual growth rate of cyclically-adjusted GDP**



To demonstrate the broad benefits of Europe 2020 actions, four additional reform scenarios were built. The scenarios differ in their breadth (some consider a narrower range of reforms than others) as well as the depth of reforms (the degree of progress varies across scenarios). As regards structural reforms, they combine assumptions on the degree of progress in meeting some of the headline targets (3% R&D expenditure and 75% employment rate for 20-64 old) with assumptions on progress on some of the policy variables (measured as closing a certain part of the performance gap with the three best-performing EU countries).

- **Ambitious fiscal consolidation** – a fiscal policy scenario which considers a stronger fiscal consolidation of 1% of GDP annually (i.e. 0.5 p.p. more than in the baseline).[2]

- **Limited structural reform** – this scenario presents a rather bleak picture as regards reform progress. Due to the constrained budgetary resources, attempts at pursuing structural reform are assumed to be very uneven across Member States, with generally non-existent support for far-reaching measures. It assumes that reform efforts focus on measures with no budgetary costs (e.g. increasing competition, reducing administrative burden or limited budget-neutral tax reforms) which generally succeed in closing 1/10 of the gaps with EU best performers.

- **Medium structural reform** – this scenario assumes that reform has gained momentum across most of the EU and important progress will be achieved across the policy areas. It builds in important increases in knowledge-oriented expenditures as well as important reforms in product and labour markets (generally assuming 1/3 reduction in the gaps with the best performers).

- **Advanced structural reform** – this scenario presents a picture of a very advanced reform across the board, realising fully the ambition of Europe 2020 strategy in terms of the employment and R&D targets. It generally assumes a 1/2 reduction in the gaps with the best performers which, for example, means reductions in mark-ups or in risk premia on intangible capital to the US levels.

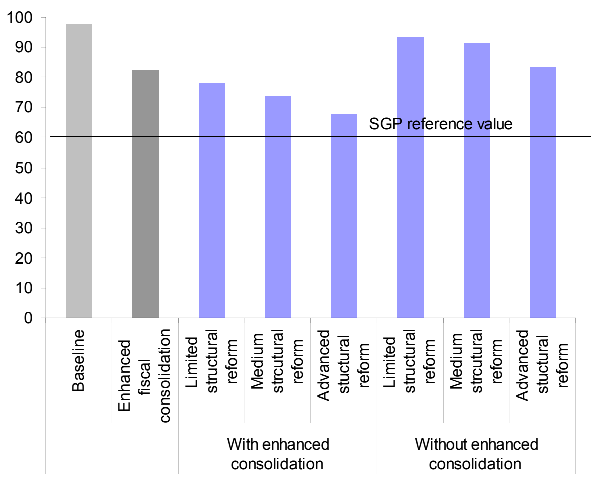
The scenarios combine QUEST III multipliers of different reforms to obtain the growth dividend of reform. This is justified by the broadly linear nature of the results, but may miss additional synergies between reform measures. As regards structural reform, the scenarios assume that policy measures start to be implemented in 2011. Due to policy and implementation lags, the shocks are phased in gradually over a 5-year period.

[2] Based on European Commission (2010).

Results

The results show that stronger fiscal consolidation is crucial to rein in public debt increase, which would approach 100% of GDP in the baseline. While extra annual consolidation of 0.5% of GDP will reduce public debt by more than 15 p.p. of GDP compared with the baseline, it will remain insufficient to bring the latter even close to the SGP reference value of 60% in 2020 (Graph 2). However, more ambitious fiscal consolidation will not affect negatively GDP growth: it will even bring about a slight increase in GDP by 2020, raising the employment rate by 0.1 p.p. compared with the baseline. The contraction in domestic demand caused by fiscal consolidation in the short term will be more than offset by the reduction of debt servicing – which crowds out productive public expenditure – and by more favourable expectations of investors and consumers about future developments in the tax burden.

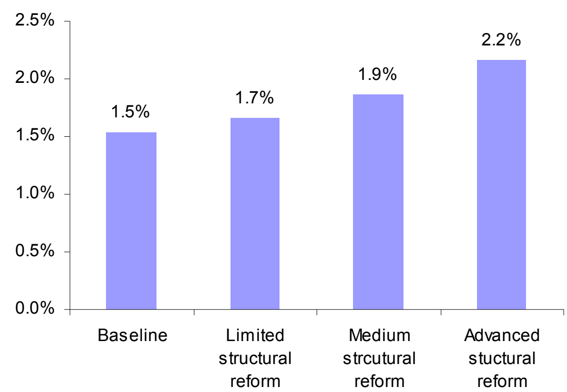
Graph 2: **Debt ratios in different scenarios**



Progress in implementing structural reforms under the main priority areas of EU2020 can generate significant gains in terms of increasing output and creating jobs. By 2020, GDP could increase from around 1½% up to 7% compared to the baseline thanks to the implementation of reform policies, which translates into between 400 and 2,000 Euros of additional output per person.

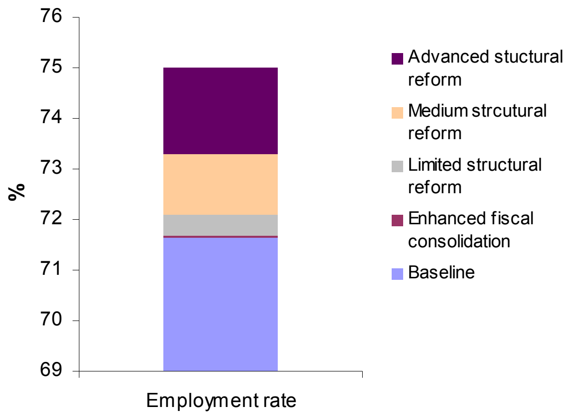
Structural reforms thus could help boost annual growth between 2010 and 2020 from 1.5% in the baseline up to 2.2% in the ambitious reform scenario (Graph 3). Employment gains would also be considerable: between around ½% and 4½%, which means creating additional 1.6 to almost 11 million jobs. The advanced reform scenario would mean that the employment rate target of 75% would be met (Graph 4). At the same time, progress with structural reforms would have a positive impact on the unemployment rate which could drop by between ½ to close to 5 percentage points (Graph 5). The important progress in the area of knowledge and innovation would also help achieve the R&D expenditure headline target of 3% of GDP in the advanced reform scenario on account of increased public spending (to around 1% of GDP) and improved framework conditions. The positive growth effects of reforms have a considerable beneficial impact on public finances and would support the necessary fiscal consolidation. Through expansion in tax bases and increased tax collection, governments find it much easier to consolidate and find resources for further growth enhancing reforms. These reforms thus contribute to reducing public debt by between 4½% and 15% of GDP. However, note that even in the most optimistic scenario, the debt levels would remain above the 60% reference value embedded in the SGP.

Graph 3: **Average GDP growth (2009-2020)**

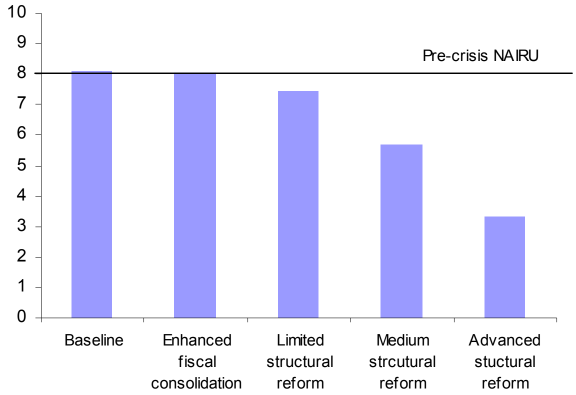


Note: Structural reform scenarios contain enhanced fiscal consolidation (1% of GDP annually)

Graph 4: **Effect of reform scenarios on employment rate**



Graph 5: **Unemployment rate**



Note: Structural reform scenarios contain enhanced fiscal consolidation (1% of GDP annually)

The wide range of these results underlines the importance of comprehensive approach in order to make substantial progress with reform along all the policy agendas. While certainly non-negligible, the economic benefits from partial and shallow reform generate only limited gains and would not bring the EU much closer to its Europe 2020 ambition. Clearly, an ambitious scenario would mean a significant departure from the past policies and a strong political commitment and consensus on the need for change.

The results are surrounded by a great deal of uncertainty, a large part of which is related to the short-term economic fluctuations around the projected trends in the different scenarios. If the recovery from the crisis turns out to be sluggish, meeting the ambitious reform scenario would be more difficult. Conversely, it would become more attainable in the case of a swift economic pickup.

In the longer-run, the effects of structural reform packages would be considerably higher. Due to the inevitable adjustment to the new structural settings, only a part of benefits form reform policies would materialise by 2020. Long-run gains from reforms (20 years after the implementation of the shock) in different scenario would be approximately 1/3 to 1/2 bigger. Not surprisingly, it is in particular measures to stimulate R&D and innovative activities that require a longer time to deliver their full benefits.

Conclusions

Past experiences with financial crisis suggest that recoveries are typically particularly slow and prolonged. Against a background of the need for strong fiscal consolidation, and the potentially significant effects of the recent financial turmoil on the pace of recovery, the prospects for the EU and the Euro area, on unchanged policy, are, therefore, marked by slow growth and high and lasting unemployment. Under such circumstances, it would not be possible to generate the rates of growth needed to sustain fiscal consolidation and return debt levels to a declining path.

Therefore, there is a strong case to proceed with structural reforms that would strengthen Europe's growth potential. The reform measures foreseen in the context of the Europe 2020 strategy have a potential to deliver significant gains in terms of additional output and new jobs as shown in the tentative quantification exercise presented in this brief. The extent of these benefits will naturally depend on the depth as well as breadth of undertaken reforms: if the EU succeeds in generating the reform momentum necessary to materialise the Europe 2020 vision, the gains could be considerably higher then in the case of piecemeal and shallow reform.

Growth would need to be given a more prominent role in the coming months. Given an the urgency to raise growth, there is a strong case to accelerate the implementation of the most growth enhancing elements of the Europe 2020 agenda and ensure delivery of key reforms as soon as possible. Credible commitments to implement growth enhancing reforms in the medium term could boost confidence, and through expectations of stronger fiscal positions translate into lower risk premia. Structural reforms could also directly contribute to budgetary consolidation.

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