Fiscal Gimmickry in Europe:
One-Off Measures and Creative Accounting*

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Abstract

Accounting conventions usually leave some room for judgment, which governments may be tempted to take advantage of, especially when fiscal rules (threaten to) bite. The European experience over the past decade – which is documented here in unprecedented detail – illustrates that fiscal gimmicks come in many different guises, but also that some are less mischievous than others. Logit regression analysis confirms that when deficit rules tend to become more binding, recourse to gimmicks is more likely. It also suggests that more centralised budget systems are less prone to such gimmickry. The policy implications are clear as regards the virtues of transparent and consistent accounting practices, albeit less so regarding the merits or otherwise of one-off measures.

> "In practice, national administrations will seek, and likely find, ways to obfuscate and circumvent fiscal restraints if doing so serves their own interest." (von Hagen, 1991)

> "Creative accounting damages the credibility of the fiscal criteria, and thus their effectiveness, when the countries engaging in such practices are seen as not adhering to the criteria." (Kopits and Craig, 1998)

> "Even in the case of overwhelming technical arguments in favour of the proposed solution, we were discussing a trick and we all knew it. Of course, it was not the first trick in the field of complying with the convergence criteria, and other tricks would follow." (van Wijk, 2001)

> "The ability to raise one-off revenues, which have so far largely substituted for lasting structural fiscal adjustment, will become increasingly difficult as available options are exhausted." (Standard & Poor's, 2004)

In practice, accounting conventions usually leave some scope for judgment. Hence, when fiscal rules threaten to bite, or are biting, governments may be tempted to take advantage of the implied degrees of freedom. In fact, irrespective of any formal fiscal rules, governments may wish to put the best possible gloss on the accounts presented to the outside world, including bond market vigilantes.

In Europe, this wriggle room has been used rather conspicuously during the 1990s, in the course of the run-up to monetary union, when governments tried to bring fiscal deficits down below the 3 per cent of GDP threshold enshrined in the Maastricht Treaty. While genuine progress was actually achieved to consolidate underlying fiscal positions, part of the improvement in headline balances was of a temporary and cosmetic nature. Enduring fiscal weaknesses were subsequently overshadowed by strong cyclical revenue intakes and the manna of third-generation mobile-phone licence receipts. But as the downturn of the early 2000s started to bite, headline fiscal positions deteriorated at an alarming speed. Deficits rapidly approached the 3 per cent of GDP mark laid down in the Stability and Growth Pact (SGP) and the planned elimination of deficits was repeatedly put off (Figure 1). Public debt ratios, which had been brought down somewhat during the 1990s, started to edge up again. In order to minimise pro-cyclical fiscal tightening in times of duress, a number of governments responded by implementing one-off expedients containing deficits as measured according to EU rules, but only ephemerally.

Figure 1. Eliminating deficits: a moving target

Against this background, the concepts of one-off measures and "creative accounting" need to be circumscribed, noting that they are only a subset of the much broader ensemble of non-cyclical temporary factors, and recognising that conventions evolve and that there will always exist a grey area, so that any operational definition is bound to be debatable (Section I). The European experience over the past decade illustrates that fiscal gimmicks come in many different guises, but also that some are less mischievous than others (Section II). Logit regression analysis over the period 1993-2003 confirms that when deficit rules tend to become more binding, recourse to gimmicks is more likely, and suggests that their incidence is less where budget systems are more centralised (Section III). The policy implications are clear as regards the virtues of transparent and consistent accounting practices, but less straightforward as to the merits or otherwise of some of the one-offs and as to how best to discourage gimmickry (Section IV).

I. Definitions: one-off measures and creative accounting

In the private sector, corporations often use a variety of accounting devices – ranging from the establishment of "cookie-jar reserves" in good times to premature revenue recognition in bad times – to improve and smooth reported earnings, with a view to appease their stakeholders, notably the shareholders. And when new managers take over to restructure a company, they frequently start with a

cathartic "big bath accounting" operation that brings to the surface some of the gimmicks used by their predecessors and is supposed to allow them to begin with a clean slate. In practice, there may even be a propensity to overdo such corrections, since that allows to build up a cushion against future mishaps and puts the new managers' performance in a better light.

Likewise, governments have incentives to present flattering fiscal accounts and to report improving fiscal performance, and new governments have reasons to "audit" the accounts inherited from their predecessors.[1] This is especially true when fiscal rules set limits for fiscal flows and/or stocks, as in EU countries since the early 1990s. The focus here is on measures that temporarily embellish both the headline and the cyclically-adjusted fiscal position as reported in the stability programmes or in OECD publications, without a commensurate improvement in the underlying fiscal position. Hence, a number of non-cyclical one-off factors that should be controlled for in order to accurately depict deep-seated fiscal trends are disregarded in this paper: for instance, exceptional natural catastrophes entailing major extra budgetary outlays are not taken into account, since they can hardly be seen as government gimmicks.[2]

One-off measures and creative accounting are distinct, yet often combined, practices. One-off measures refer to government decisions of a non-recurrent nature. They affect general government net lending or borrowing in a given year or for a few years, but not permanently, at least to a first approximation. For instance, consider the privatisation of non-financial assets owned by the government, at a market price. All else equal, the proceeds from the sale improve the fiscal balance in the year when it takes place, and reduce the stock of gross government debt. However, in subsequent years, the impact is only indirect: assuming that the private sector manages the said assets more effectively, they will yield a higher return and the government should spend less on subsidies and/or earn more on these assets in dividends/taxes than in the past. But this extra and permanent gain is typically much smaller.

Other one-off measures, however, may have a relatively substantial long-run impact on the fiscal balance, at least in principle. Tax amnesties for instance can yield substantial revenue when they are introduced and a one-time tax/penalty payment is due. But if they successfully broaden the tax base, and if the associated tax rate is significant, they can lead to a permanent improvement in government revenue. One important caveat is that insofar as a tax amnesty fuels expectations of future leniency – which may well be the case when tax amnesties are fairly frequent – it may encourage tax avoidance and undermine the tax base, as witnessed for instance in Greece (Agapitos and Mavraganis, 1995) and Italy (OECD, 2003).

Other one-offs still only briefly affect the fiscal balance and public debt, as by construction they are unwound down the road with an effect in the opposite direction. The best example of such one-offs is the acceleration of tax intakes bringing receipts forward into an earlier fiscal year, which improves the contemporaneous measured fiscal position but worsens it in the next year.

The first two examples serve to illustrate that one-off measures may have merits on their own, over and above their contemporaneous impact on the budgetary accounts. In fact, in many cases, they are undertaken primarily for other reasons, and their timing and/or magnitude may not even be decided exclusively by the government itself, for instance in the case of the sale of third-generation mobile-phone (UMTS) licences, which in some countries brought in far more revenue than expected.

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[1] For instance, the new French governments that took office in Spring 1997 and in Spring 2002 undertook such audits. So did the new Portuguese government in Spring 2002 and the new Greek and Spanish governments in Spring 2004. Each time, the diagnosis pointed to a distinctly weaker fiscal condition than heretofore acknowledged, most spectacularly so in the case of Greece, where deficit and debt data for all years going back to 2000 have recently been substantially corrected, with further revisions to the data of the late 1990s yet to come.

[2] Hence, the focus here is narrower than in European Commission (2004).

The concept of creative accounting comes closer to what would usually be thought of as gimmicks. It refers to the more or less unorthodox treatment of operations involving the general government, which affects the fiscal balance or public debt but not, or far less, government net worth. This may reflect "opportunistic" accounting or simply "incorrect" imputation. Indeed, in some cases, it is far from clear *ex ante* what the best accounting treatment of a transaction is, and once agreement has been reached under Eurostat or other auspices on the proper way to deal with it, *ex post* corrections are required in some countries. It may even be that the Eurostat ruling itself would endorse creative accounting in the aforementioned sense, as illustrated by the case of one-time upfront payments to the government by firms undergoing privatisation to discharge their pension obligations onto the State. If the valuation of the involved future pension payments is actuarially fair, government net worth is unchanged, but Eurostat ruled that the one-time upfront payment should be counted above the line, implying that it improves the fiscal balance in the year it falls due.[3]

Like one-offs, creative accounting operations may have merits of their own. Public-private partnerships (PPPs) for instance have proliferated in several EU countries since the late 1990s, be it at the national or sub-national level (*e.g.* in the form of "private finance initiative" contracts in the United Kingdom and concessions in Spain). Instead of the government buying an asset and operating it, a private entity invests and owns the asset (at least partly and at least during the period of exploitation), selling the corresponding services to the government. PPPs may be justified on efficiency grounds, but from the perspective adopted here their main feature is that they initially reduce the general government deficit and debt for a given level of investment in publicly-used infrastructure.

II. An incomplete inventory of fiscal gimmicks

II.1. Exclusions

An exhaustive inventory of fiscal gimmicks lies well beyond the scope of this paper, if only because in many cases their size or even existence is not public information. Therefore, the inventory below is confined to publicly known instances and excludes would-have-been gimmicks that were contemplated at one point but not implemented, such as the revaluation of the Bundesbank's gold reserves in 1997,[4] or the envisaged securitisation of social contributions arrears in Greece in 2001.

Also excluded from the inventory are small measures improving the fiscal balance by less than 0.10 per cent of GDP, even though they may add up to several decimal points of GDP. Examples include below-the-line treatment of capital injections into chronically money-losing public enterprises (every year until 2000 for the state-owned coal company in France) and the lump-sum reimbursement in 1997 of the subsidies paid to Airbus during the 1980s in Germany (0.04 per cent of GDP).

A further exclusion relates to one-offs that temporarily worsen the recorded fiscal position, but make for more favourable fiscal outcomes down the road. By swallowing such bitter pills when the fiscal times are otherwise propitious, governments can avoid breaching fiscal rules in the future or present a more appealing fiscal record on the eve of the next election. An example might be the one-time 1.8 per cent of GDP capital transfer paid by the Irish government in 1999 to discharge future pension payments to the employees of the privatised telecommunication company.

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[3] This ruling was first issued in November 1996, in the context of the partial privatisation of France Télécom, and again in 2003, to deal with a number of similar operations. In both cases, many of the members of the consultative Committee on Monetary, Financial and Balance of Payments Statistics (CMFB) objected (see van Wijk, 2001 and the CMFB Opinion published on 21 October 2003).

[4] In early 1997, the German Finance Ministry announced plans to revalue the Bundesbank's gold reserves and use the profits to cover the budget shortfall. The measure was highly controversial, however, contradicting the ruling issued by Eurostat on 3 February 1997, and the Bundesbank objected vigorously.

Other factors that may distort the fiscal position measured in a given year but that are generally ignored in the inventory include changes in the calendar for tax payments, as happened in recent years in Austria, Ireland and Sweden.

Lastly, the inventory is mostly confined to revenue-side gimmicks, although a few well-identified spending measures are included as well.[5] In reality, numerous non-recurrent spending measures are taken by governments, be it in the initial budget law or in the course of the fiscal year (in the form of freezes for example). A comprehensive analysis would encompass these measures as well, but lies well beyond the scope of this paper.

II.2. Three generations of deficit gimmicks

The inventory is displayed in the annexed Table A1,[6] and a list of observed sources of accounting distortions is provided, in chronological order, in Table 1. Broadly speaking, three waves of one-off measures and creative accounting operations can be distinguished: a first series during the run-up to monetary union, a second one in the form of UMTS licence sales receipts, and a third wave more recently, as the cyclical downturn worsened headline deficits.

Table 1. Selected sources of possible accounting distortions: deficit

The Maastricht Treaty set the bar for euro qualification at 3 per cent of GDP for the general government deficit. The first notification by EU countries of their fiscal balance and debt statistics in the context of the procedures agreed to assess progress in convergence took place in early 1994 (Table 2),[7] and showed an average 1993 deficit of 5.7 per cent of GDP for the 12 countries now members of the euro area. While substantial genuine consolidation was achieved in the next four years, a number of one-off measures and creative accounting operations also helped bring down deficits, as highlighted in the European Monetary Institute's last report on convergence (1998).

Table 2. Fiscal balances: first notification

One-off measures observed during this period *inter alia* included above-the-line treatment of privatisation operations[8] and below-the-line treatment of capital injections into chronically loss-making public enterprises. Instances of creative accounting encompassed reclassifications of entities heretofore considered as part of general government (*e.g.* hospitals) and treatment as revenue of lump-sum payments freeing enterprises undergoing privatisation of their pension obligations. The Italian "Eurotax" levied in 1997 but to be refunded later on was both a one-off and a creative accounting operation in the aforementioned sense.

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[5] Sales of non-financial assets are treated as negative expenditure in the national accounts but can also be considered as revenue-enhancing measures.

[6] UMTS licence receipts are shown separately, in Table A2. The list in Table A1 differs significantly from the one presented in Table II.3 of European Commission (2004), which is not very specific as to which one-offs are actually counted in.

[7] When comparing the notified fiscal balances across time and countries, it should be borne in mind that the migration from the second edition of the European System of Accounts (ESA79) to the third one (ESA95) took place at different times and did not affect fiscal data uniformly across member states (Eurostat, 1998). However, until the notification of 1st September 1999, ESA79 was used to assess convergence, in accordance with Regulation No. 2223/96 of 30 November 1996. Also, ESA79 was less complete than ESA95 and applied with uneven rigour across countries. Lastly, in practice the mix between cash and accrual accounting underpinning the fiscal data varies considerably across countries (Cangiano and Ter-Minassian, 2003).

[8] Which is in line with ESA95 if real assets are sold off but not in the case of financial assets. From an economic standpoint, however, the merits of the distinction between financial and non-financial assets are not entirely obvious, since the impact on government net worth is similar (Dupuis, 2001).

Following the qualification for monetary union of 11 of the EU countries, in 1998 (with Greece following two years later), some fiscal consolidation fatigue emerged, all the more so as cyclical revenue buoyancy substantially improved headline fiscal balances. In several countries, the perception that public finance constraints were easing was further fuelled by the rather unexpected windfall stemming from the sale of UMTS licences, which in Germany in particular generated one-time receipts amounting to 2.5 per cent of GDP in 2000 (Table A2).[9] While these windfalls were included in the notified fiscal balances, they were excluded for the purposes of the stability programmes and assessment of countries' progress towards "close-to-balance or in surplus" positions.[10]

To a large extent, the third wave of gimmicks reflected attempts to keep the fiscal deficit within the SGP's 3 per cent of GDP limit, as cyclical forces undermined budgetary receipts and added to outlays. One-off measures in recent times have prominently included sales of non-financial assets and tax amnesties. Creative accounting operations have featured securitisations of various sorts (Box 1), exceptional receipts associated with the changeover to euro cash and again misclassifications of capital injections and treatment as revenue of lump-sum payments freeing enterprises undergoing privatisation of their pension obligations.

Box 1. **Securitisations**

One way to try and painlessly reduce the fiscal deficit and public debt has been for governments to securitise some existing or future assets or income flows. Typically, the government transfers the ownership of the corresponding securities to a special-purpose vehicle (SPV) which finances itself through the issuance, on its own account, of asset-backed bonds. The SPV's payment to the government then reduces the deficit and can be used to retire a portion of the public debt. In practice, such securitisations have been carried out for tax or social contribution arrears, future lottery receipts, government loans, forthcoming dividends from state-owned enterprises and real estate, and they are being considered for Paris Club claims.

In July 2002, Eurostat ruled that:
  (i) When securitisation concerns future flows not attached to pre-existing assets, the operation should be treated as government borrowing.
  (ii) When the government grants a guarantee to the SPV, the transfer of risk is incomplete and the SPV should be classified within the government sector, or an implicit loan from the SPV to the government should be recorded.
  (iii) When the difference between the initial payment by the SPV to the government and the market price of the asset exceeds 15 per cent, the operation should be treated as government borrowing.
  (iv) The value of the initial transaction must be recorded as cash paid by the SPV to the government. Possible additional payments might have an impact on net borrowing or lending in the case of sales of non-financial assets at the time they occur.

II.3. Deficit gimmicks outside the euro area

It should further be noted that in the new EU countries that are also OECD members, where the deficits notified in early 2004 for 2003 ranged from 3.6 to 12.9 per cent of GDP, opportunistic accounting has been observed as well. For instance, in Poland, where several headline measures of the fiscal balance have coexisted in recent years, some types of salary payments have been wrongly classified as financing, extra-budgetary funds have served to execute central government spending, and arrears have been treated inconsistently between fiscal years, so that the budget deficit was understated (IMF, 2001). In addition, contributions to privately-managed pension funds and the associated transfers have until recently been treated as part of social security, and hence general government, thereby improving the fiscal balance by some 1½ per cent of GDP. In early 2004,

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[9] In Luxembourg, UMTS licence receipts were minimal but the sale of a geostationary satellite position yielded 1.8 per cent of GDP in 2001 (see Table A1).

[10] They are also excluded from the OECD's measure of the cyclically-adjusted fiscal balance (see Girouard and Price, 2004).

Eurostat ruled against such a treatment. More generally, fiscal gimmicks have been used in a number of EU accession countries, notably in the form of a proliferation of off-budget operations and through the recording of privatisation receipts as current revenue (Berger *et al.*, 2004).

Obviously, one-offs or creative accounting aimed at minimising reported deficits are not confined to EU countries. A recent example is the fairly widespread recourse to various gimmicks observed across a number of US states – which are constrained to some extent by balanced-budget rules – following the latest recession, including overestimating revenues, booking one-shot asset sales, delaying payments into the first days of the next fiscal year, shifting of paydays, delaying of tax refunds, accelerating the collection of fees and selling off buildings to lease them back (Petersen, 2003).

II.4. Debt gimmicks

The Maastricht Treaty also stipulated that gross public debt ratios should be below 60 per cent of GDP or declining towards that level at a "satisfactory" pace. In practice, this formulation was somewhat less stringent than for the deficit rule. Even so, governments took initiatives to bring down their debt ratios over and above the impact of the reduction in the deficit. Some of these were of the "smoke-and-mirrors" sort and Eurostat ruled that they should not be treated as reducing public debt, in particular the exclusion from the government's balance sheet of some government-guaranteed debt and the exclusion of bonds issued by the government on behalf of public enterprises. Other measures, listed in Table 3, did reduce gross public debt – *ceteris paribus* – but without changing government net worth, which is economically more relevant to assess public finance sustainability, if harder to measure accurately. In that sense, they may be more akin to window-dressing rather than to fundamental fiscal adjustment.

Table 3. Measures which may affect gross public debt but not government net worth

One example is the corporatisation of entities in charge of infrastructure, moving them, and to some extent the associated risks, out of the government's balance sheet, as was done in Austria for the motorway agency (ASFINAG) in 1997, leading to a cut in public debt by 3.2 per cent of GDP. A second example is the use of capital gains recorded by the National Bank of Belgium on past gold sales which the government was entitled to by law to reduce foreign-currency denominated government debt by 2.7 per cent of GDP in the mid-1990s. A third example is the 2002 swap undertaken by the Italian Treasury with Banca d'Italia, whereby the Treasury bought back long-term bonds with a low coupon in exchange for a smaller amount of bonds with a much higher coupon, which reduced general government debt by 1.9 per cent of GDP but implied higher interest spending in subsequent years. A last example pertains to the securitisations undertaken in Greece, which reduced notified government debt in 2000 and 2001 by several percentage points of GDP but were reclassified by Eurostat in 2002.[11]

III. When are gimmicks most likely used?

One way to cope with a (potentially) binding deficit rule is for the government to forecast relatively robust GDP growth, which boosts projected receipts and helps contain some types of projected spending. Indeed, as documented by Milesi-Ferretti and Moriyama (2004), there is evidence that around the late 1990s euro area governments initially burdened with large deficits tended to put forth rather optimistic growth forecasts in their stability programmes (compared with contemporaneous consensus forecasts). This stratagem, however, cannot be relied upon for long, as reality catches up rapidly – unless consensus forecasts err on the downside.

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[11] The public debt ratio notified in March 2002 amounted to 99.7 per cent of GDP but by November 2002 it had been revised to 107 per cent of GDP.

A more sophisticated approach, focusing on cyclically-adjusted flows rather than on headline fiscal balances, has involved the use of favourable methodologies and assumptions in the estimation of potential output. Specifically, Hodrick-Prescott filtering of real GDP coupled with optimistic "back-to-average growth" forecasting has provided euro area policy-makers with an overly rosy estimate of potential output growth and structural budget positions during the upswing of the late 1990s, hiding the extent of underlying fiscal fragility (Cotis *et al.*, forthcoming).

The gimmicks listed above are a third way to formally meet, or to come closer to meeting, deficit rules, affecting headline as well as cyclically-adjusted fiscal balances. Indeed, it has been argued that in the presence of numerical fiscal rules, governments are inclined to use one-off measures and/or creative accounting (Box 2). This is tested empirically below for the EU15 countries by running a set of logit regressions over the period starting with the first year for which a notification was made and ending with the last year for which there is full information, namely 1993-2003.

Box 2. **Do fiscal rules encourage recourse to gimmicks? Findings in the literature**

The small literature on the subject suggests that the imposition of numerical fiscal rules will encourage recourse to gimmicks.* According to a pessimistic view, governments are myopic – *i.e.* discount time more heavily than society does – and therefore tend to run down public assets (in the broadest possible sense, including the present value of future tax revenues) in order to finance the highest possible amount of present consumption. A deficit rule will then merely induce the government to shift from overt to hidden forms of borrowing, through:
  • Privatisation, insofar as it is driven by a desire to replenish the treasury rather than the prospect of efficiency gains.
  • Cuts in public investment projects that carry a high social return, which deprive taxpayers from prime investment opportunities and hence represent a net cost to society.
  • Cuts in operations and maintenance spending, which unless they seek to achieve efficiency gains, lead to faster wear and tear of public infrastructure.
  • Shifting expenditures and revenues over time, typically by accelerating the collection of future tax liabilities or postponing the payment of subsidies or benefits.
  • Eating into the net present value of contributions and benefits of an entitlement programme, such as public pensions, *e.g.* by forcing a public pension scheme to lend to the government at favourable rates.

Hence, fiscal gimmicks should be seen as a subset of a broader class of policies that aim to disguise declines in public net worth. At the same time, a gimmick may combine several of the above elements. For example, the privatisation of a public agency may be motivated in part by the possibility to cut down expenditures in operations and maintenance, to bring revenues forward in time (by cashing the present value of future user fees) and to cut public investment.

It has further been argued that fiscal rules may foster genuine fiscal consolidation if the social cost attached to window-dressing is high and the probability of the true nature of these measures being discovered by taxpayers or the electorate is also high (Milesi-Ferretti, 2000). The latter depends in part on the degree of transparency of the budgetary process.

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* The literature on US states includes Ratchford (1941), Heins (1963), Bunch (1991) and von Hagen (1991). It stresses that a common way for states to sidestep constitutional debt strictures is to issue non-guaranteed bonds that are not backed by the taxing power of the state, but by a non-tax flow of revenue (*e.g.* utility bills, tolls, or user fees): as the state's taxpayers are not directly liable in the event of default on such bonds, the courts have ruled that constitutional debt limitations do not apply. A more recent strand of literature focuses more on EU countries, notably Kopits and Craig (1998), Eichengreen and Wyplosz (1998), Easterly (1999) and Milesi-Ferretti (2000).

The deficit measure used for regression purposes is a real-time proxy in the form of the first notification in year t+1 for year t, which in many cases differs substantially from the eventual outturn (Table 4). Rather than using the notified deficit itself, however, the "bare" deficit is used, defined as the notified deficit adjusted for any recorded and quantified gimmicks and adjusted for UMTS proceeds (since the European Commission has declared to assess fiscal balances excluding these proceeds). The gimmicks taken into account appear in Table A1 – which also lists some of the

gimmicks that for various reasons are abstracted from in the regressions[12] – and are summed up in Table 5. An important caveat is that a number of relevant ones are bound to be missing, including some the existence of which has been documented but which cannot be quantified, at least at this stage (*e.g.* Greece's under-recording of military expenditure, publicly highlighted by Eurostat but only in qualitative terms so far, or public investment in infrastructure in Spain, for which cumulative amounts are known but not the corresponding year-by-year breakdown).

Table 4. Revisions to fiscal balances following the first notification

Table 5. One-offs, "creative accounting" operations and reclassifications affecting the fiscal balance

The test is carried out as follows. First, the number of observed bare deficits of level i, N_i, is computed (first line of Table 6). Next, the incidence of gimmicks F_i for each bare deficit category i is calculated. The ratio F_i/N_i is then the odds of gimmickry occurring for a given bare deficit level i. Table 6 suggests that the level of the bare deficit and the odds of gimmickry are indeed positively correlated. The odds vary from around one-third if the bare deficit is below 2 per cent of GDP to two-thirds or higher for bare deficits exceeding 6 per cent of GDP.

Table 6. Bare deficits and gimmicks, 1993-2003

A more formal way to test this relationship is to estimate the following simple logit model:

$$(1) \qquad \frac{F_i}{N_i} = \frac{1}{1 + e^{-(b_0 + b_1 BAREDEF_i + u_i)}}$$

In this equation $BAREDEF_i$ stands for the bare deficit of level i and u_i is a normally distributed residual.[13] Eight brackets are distinguished for the bare deficits, ranging from 0 to 1 per cent of GDP up to 6 to 7 per cent and above 7 per cent. If the parameter b_1 is positive and significant, the hypothesis of a positive correlation between the odds of gimmickry and the level of the bare deficit cannot be rejected. The estimation result is shown in the first column of Table 7. The coefficient b_1 is indeed strongly significant and has the expected sign. However, the predicted incidence of gimmicks is clearly too high for bare deficits in the 3 to 4 and 5 to 6 per cent of GDP brackets (Figure 2). Obviously this may be due to measurement errors, but there may also be more fundamental flaws.

Table 7. Bare deficits and gimmicks: estimation results

Figure 2. The odds of gimmickry as a function of the bare deficit

Against this background, it may be interesting to examine to what extent the 3 per cent threshold does effectively act as a trigger point above which countries resort more frequently to gimmickry. This is likely to have been the case since 1999, when the SGP's 3 per cent reference value started to be

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[12] These reasons include size (smaller than 0.10 per cent of GDP) and sheer lack of information about the magnitude of the gimmick and/or its timing.

[13] For estimation purposes the equation is converted into a linear specification of the form:

$$\ln \frac{F_i}{N_i - F_i} = b_0 + b_1 X_i + u_i$$

where $X_i = BAREDEF_i$. This allows ordinary least squares to be applied. In order to remove small-sample bias, the following adjustment was applied, as suggested by Cox (1970):

$$\ln \frac{F_i + 1/2}{N_i - F_i + 1/2} = b_0 + b_1 X_i + u_i$$

The reported statistics (Student's t, R^2, F) refer to this modified equation.

considered as a ceiling above which the risk of pecuniary sanctions and loss of reputation quickly increases. But in the period 1994-98, when most countries were exceeding but converging towards the 3 per cent reference value, the latter was considered more as a target rather than as a ceiling. To capture this distinction, the observations are split between these two sub-periods (Table 8).

Table 8. Bare deficits and gimmicks, breakdown by period

Accordingly, the following modified logit model was estimated:

$$(2) \qquad \frac{F_i}{N_i} = \frac{1}{1 + e^{-(b_0 + b_1 BAREDEF_i + b_2 DUMSGP_i + u_i)}}$$

where the dummy variable $DUMSGP_i$ takes the value 0 in the period 1994-98 and the value 1 in the period 1999-2003. If the coefficient b_2 is positive and significant, the odds of gimmickry for a given bare deficit will be higher under the SGP than during the run-up to the single currency. However, as shown in the second column of Table 7, the coefficient is clearly insignificant.

These results are somewhat unsatisfactory, not least because the main explanatory variable, the bare deficit, is obviously endogenous. Having endogenous variables both at the left-hand and right-hand side of the equation is a reason for suspicion. One way around this problem is to use a truly exogenous explanatory variable which can be considered as explaining deficit bias, namely the degree of centralisation of the budget process, as indexed by Von Hagen *et al*. (2002).[14] This index is based on the notion that deficit bias essentially results from co-ordination failure. A strong centralisation of budgeting is a way to internalise the externalities resulting from government spending which is commonly targeted at specific groups in society while financed from taxes to which all taxpayers contribute. Without centralisation the externalities prevail and deficit bias results. Box 3 provides econometric evidence on the validity of this relationship.

Box 3. Deficit bias and the degree of centralisation of the budget process

The decision-making rules governing the budget process influence the extent to which the externalities of fiscal policy are internalised so that full account is taken of the costs and benefits of public policy. In this context, a "fragmented" budget process can be defined as one where the spending ministers hand in their spending plans and the Treasury has to make ends meet, as opposed to a "centralised" budget process. There are two ways of "centralising" the budget process: the "delegation approach" and the "contract approach". Under the delegation approach a finance minister is vested with strong agenda-setting and monitoring power relative to the remaining executive power and the legislative. Under the contract approach, the agenda is negotiated between all members of the executive at the beginning of the annual budget cycle, but the finance minister is vested with strong monitoring power. Obviously a fragmented budget process produces more deficit bias than a centralised one. Countries can be indexed with respect to their degree of centralisation according to this definition, with a higher index value denoting a more centralised budget process (Von Hagen *et al*., 2002). The following values for the index are observed for the 15 EU countries under consideration: 15 (United Kingdom), 14 (France, Luxembourg, Finland), 13 (Denmark, Germany, the Netherlands), 10 (Austria), 8 (Portugal, Spain), 7 (Ireland, Belgium), 6 (Greece, Sweden) and 5 (Italy).

One way to test the relevance of the centralisation index as an explanatory variable for deficit bias is to incorporate it into a regression model with as the dependent variable some measure of the fiscal stance, while controlling for other influences such as the business cycle and elections. Using the dataset and model reported in Buti and Van den Noord (2004),the following equation is estimated, for 11 euro area countries (Luxembourg is excluded) over the period 1999-2003:

$$DP_{it} = \lambda CI_i + \alpha_1 (DEF_{it-1} - DEF*_{it-1}) + \alpha_2 GAP_{it-1} + \alpha_3 PEE_{it} + \alpha_4 FBE_{it} +$$
$$+ \alpha_5 \max(GAP_{it-1} \times PEE_{it}, 0) + \alpha_6 \max(GAP_{it-1} \times FBE_{it}, 0) + \alpha_7 + u_{it}$$

---

[14] The index is taken to be constant over the period under consideration. In reality, however, the introduction of internal stability pacts and other changes in fiscal rules may have altered the degree of centralisation over time.

Where the index i denotes the country and:

• DP_{it} (discretionary policy) is a measure of the fiscal stance. The higher its value, the looser the stance is. This indicator is similar to the change in the cyclically-adjusted primary fiscal balance although there are definitional differences that are explained in Buti and Van den Noord (2004).

• CI_i is the centralisation index. We expect the regression coefficient to be negative: more centralisation should give less deficit bias.

• The first control variable $DEF_{it-1} - DEF^*_{it-1}$ denotes the deficit gap, which is the gap between the actual deficit from which the stability programme assessed in year t jumps off, *i.e.* the lagged deficit, and the deficit target embodied in the running stability programme (for which the projected deficit for the end-year of the programme is taken). This variable thus measures the required consolidation effort implied by the country's stability programme. The larger this required effort, the tighter discretionary policy will be; the sign of the regression coefficient should be negative.

• The second control is the output gap, lagged by one period (GAP_{t-1}). This is included to capture the impact of the cycle on DP through discretionary policy. A negative sign will emerge if the fiscal impulse is counter-cyclical and conversely if it is pro-cyclical.

• To control for where the country stands in its electoral cycle and the degree to which this affects discretionary policy we have included two dummy variables, PEE_t and FBE_t. $PEE_t = 1$ in a pre- or early (advanced) election year and zero otherwise and $FBE_t = 1$ in a normal (full-blown) election year and zero otherwise.

• The model also controls for the possibility that the impact of the electoral cycle on DP interacts with the business cycle. The interaction is captured by two explanatory variables that are the respective products of the election dummies and the lagged output gap, but only positive observations of the gap are included. This indicates whether not only the level of DP but also the way it responds to the cycle is affected by electoral motives.

As usual u_{it} denotes the normally-distributed residual. The total number of observations is 55, *i.e.* 11 countries times 5 years. Using ordinary least squares the following result obtains (t-values in brackets):

Explanatory variable

CI_i	-0.14 (-3.41)
$DEF_{it-1}-DEF^*_{it-1}$	-0.32 (-3.34)
GAP_{it-1}	-0.18 (-1.78)
PEE_{it}	0.03 (0.07)
FBE_{it}	0.30 (0.80)
$Max (GAP_{it-1} \times PEE_{it}, 0)$	0.63 (3.40)
$Max (GAP_{it-1} \times FBE_{it}, 0)$	0.28 (1,33)
$Constant$	1.84 (3.81)
R^2 (F)	0.46 (5.63)

As expected, the regression coefficient for the centralisation index is negative and significant, suggesting that strong centralisation of the budget process lessens the bias towards fiscal easing, and vice versa. The upshot from the controls is that in "normal" years (no elections in either the current or next year), there is a bias towards fiscal tightening if the deficit target is lower than the actual deficit. In those years, moreover, the tightening is accentuated if the cyclical position of the economy is strong (and vice versa), suggesting a counter-cyclical bias of fiscal policy in the absence of elections. In addition, there is evidence of fiscal easing in pre- or early election years if the cyclical position of the economy is strong (*i.e.* the output gap is positive).

Table 9 presents the results for the breakdown of the observed gimmicks by the countries' centralisation scores. In the sample, the latter range from 5 to 15, with a higher score reflecting a more centralised budget process. Indeed, a negative correlation is apparent between the centralisation scores and the odds of gimmickry.

Table 9. Budget centralisation and gimmicks

This is confirmed in a more formal test using the following logit model:

$$(3) \qquad \frac{F_j}{N_j} = \frac{1}{1 + e^{-(b_0 + b_1 CENTRAL_j + u_j)}}$$

where $CENTRAL_i$ is the numerical value of the centralisation index. If the coefficient b_1 is negative, a higher degree of centralisation of the budgetary process lowers the odds of gimmickry. As shown in the first column of Table 10, this is indeed the case. The fit of the equation is stronger than that of equation (1). Figure 3 depicts the actual and fitted odds of gimmickry based on equation (3): countries which score poorly on the centralisation index present a higher risk of gimmickry.

Table 10. Budget centralisation and gimmickry: estimation results

Figure 3. The odds of gimmickry as a function of centralisation

While it may be true that lower scores on centralisation raise the odds of gimmickry, a country's behaviour in this regard may be different dependent on whether its bare deficit is below or above the 3 per cent of GDP reference value. Indeed, if the deficit target/threshold is not binding, it may not pay for a country to undertake gimmicks to begin with, unless the bare deficit is surrounded by wide margins of uncertainty and the authorities wish to take out insurance against unwelcome data revisions. A simple way to test this is to split the observations into two groups, one for which the observed bare deficit exceeds the reference value and one for which this is not the case (Table 11). This clearly shows that the odds of gimmickry are more or less constant (at about one-fourth) if the bare deficit is below 3 per cent of GDP, but correlated with the centralisation index when the bare deficit exceeds the reference value.

Table 11. Budget centralisation and gimmicks: breakdown by centralisation score

This can again be tested formally by including a dummy variable *EXCESSDEF* in equation (3) which takes the value 1 if the bare deficit exceeds 3 per cent and 0 otherwise. This is done in two ways, first by simply adding the dummy:

$$(4) \qquad \frac{F_j}{N_j} = \frac{1}{1 + e^{-(b_0 + b_1 CENTRAL_j + b_2 EXCESSDEF_j + u_j)}}$$

and next by allowing for interaction between the presence of a an excessive bare deficit and the degree of centralisation:

$$(5) \qquad \frac{F_j}{N_j} = \frac{1}{1 + e^{-(b_0 + b_1 CENTRAL_j + b_2 EXCESSDEF_j / CENTRAL_j + u_j)}}$$

The latter specification measures the impact of the absence or presence of an excess deficit on the slope of the change in the odds of gimmickry. The results are presented in the second and third columns of Table 10. Equation (4) yields significant and plausible coefficients. However, the estimate for equation (5) suggests that the interaction variable is also powerful. Plotting the fitted odds of gimmickry based on equation (5) suggests that indeed both the level and the slope of the probability function is higher if the bare deficit exceeds 3 per cent of GDP (Figure 4).

Figure 4. The odds of gimmickry as a function of centralisation and the bare deficit

As noted, some gimmicks primarily serve to reduce the reported debt level without necessarily affecting the reported deficit. This may imply that the odds of gimmickry rise if the debt ratio to GDP exceeds the reference value of 60 per cent. To examine this possibility, the data set was split into two subsets, one for which the observed debt ratio to GDP exceeded 60 per cent, and one for which the

debt ratio was below 60 per cent.[15] The results are shown in Table 12 and suggest a comparatively weak correlation between the debt ratio and the odds of gimmickry.

Table 12. Budget decentralisation and gimmickry: breakdown by debt ratio

This is confirmed in a formal test based on the following equations:

$$(6) \qquad \frac{F_j}{N_j} = \frac{1}{1 + e^{-(b_0 + b_1 CENTRAL_j + b_2 EXCESSDEBT_j + u_j)}}$$

and:

$$(7) \qquad \frac{F_j}{N_j} = \frac{1}{1 + e^{-(b_0 + b_1 CENTRAL_j + b_2 EXCESSDEBT_j / CENTRAL_j + u_j)}}$$

where $EXCESSDEBT_i$ takes the value 1 if the debt ratio exceeds 60 per cent and is 0 otherwise. The results are shown in the fourth and fifth columns of Table 10. Although the coefficient for $EXCESSDEBT_i$ has the correct sign it is insignificant. As shown in Figure 5, based on equation (7), the upward shift and the increase in the slope of the probability function for a debt ratio in excess of 60 per cent is small. Perhaps the impact of high debt on the odds of gimmickry is already captured by the centralisation index; others (Von Hagen *et al*., 2002) have found budget centralisation to be inversely related with deficit bias and hence the debt ratio.

In sum, the regression analysis strongly suggests that a decentralised budget process will favour budget gimmickry, especially if the bare deficit (prior to gimmicks) exceeds the 3 per cent reference value. There is only weak evidence that a debt ratio in excess of the 60 per cent reference would act as an additional trigger for fiscal gimmicks over and above the impact of budget centralisation.

IV. Policy implications

While the existence of a margin for one-off and creative accounting expedients means that the budget retains some ability to respond to adverse shocks even in the presence of a numerical budget rule, recourse to such measures is problematic for two reasons at least. Granted, one-offs are not necessarily inappropriate, nor are they always a response to fiscal stress. But when inadequately documented, they do obscure the evolution of the underlying fiscal position. In addition, persistent reliance on temporary fixes can end up postponing structural adjustment and undermine fiscal transparency and credibility.

In recent years, the European Commission has increasingly underlined this problem. It has recommended that the reporting tables used in the biannual notification of fiscal flows and stocks be more detailed and precise, that any accounting issues be taken up at the earliest stage with Eurostat whenever there are doubts as to the proper accounting treatment of a non-standard government measure, and that the procedures followed by Eurostat to reach decisions be streamlined (European Commission, 2002b). It has also argued that the "close to balance or in surplus" requirement enshrined in the SGP should be understood net of cyclical and other transitory effects (European Commission, 2002c). In practice, Eurostat and the CMFB have become more pro-active in this area and beforehand consultation is now more frequent.[16] Moreover, with the interpretation and implementation of the SGP increasingly moving away from year-by-year compliance to focus on the longer term, the temptation to temporarily embellish the accounts should diminish.

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[15] The debt ratio is lagged by one year, *i.e.* refers to the debt ratio at the start of the current year.
[16] The CMFB's role has been codified in *Procedures for the Consultation of the CMFB about the Statistics Underlying the Excessive Deficit Procedure*, 28 February 2003.

The European Commission's proposals have only partly been implemented, however. In particular, more information would need to be provided allowing stock-flow checks and more active use should be made of cash data. Looking simultaneously at several indicators can help overcome what in this context could be referred to as Goodhart's curse, namely, the likelihood that any single indicator used as a benchmark, however smartly defined, will soon loose of its relevance.[17] Specifically, monitoring changes in gross debt and the more readily observable cash balance in addition to the ESA measure of the fiscal balance used thus far would help spot slippages earlier on, as documented by Balassone *et al.* (2004) for Greece, Italy and Portugal. In this respect, more complete notification of balance sheet data would also help.[18] It would even be desirable to require that the ESA deficit be systematically reconciled with the changes in gross debt and the underlying cash deficit in the stability programmes and the notifications, with the necessary explanations.

Another and complementary avenue for improvement would be to agree on a formal presumption that any macroeconomically significant one-off measures be advertised more transparently and on a more timely basis by the governments that introduce them, not just retroactively but also for the coming year.[19] This could be a first step towards a generalisation of the treatment that was applied to UMTS licences. While difficult to operationalise, such an approach is to some extent already being followed by Denmark and Sweden in their annual convergence programmes and by the US Congressional Budget Office (CBO), which calculates a so-called standardised budget balance adjusting not just for the cycle but also for a number of special factors, including temporary legislative changes in the timing of revenues and outlays, asset sales and receipts from auctions of licences (CBO, 2004).

Lastly, revisiting target indicators should probably be done in conjunction with, or at least taking into account, the ongoing revisions of the ESA95, which *inter alia* concern the treatment of various borderline operations, such as dividend payments by public enterprises and implicit pension liabilities.[20] In particular, convergence with private sector consolidation rules should, in the future, more fully neutralise the impact on the fiscal balance of transactions between the government and public enterprises.

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[17] Goodhart's "law" is a cross between the Lucas critique and Murphy's law. It stipulates that "any observed statistical regularity will tend to collapse once pressure is placed upon it for control purposes" (Goodhart, 1984). In other words, when a measure becomes a target, it ceases to be a good measure (not unlike Heisenberg's uncertainty principle in quantum mechanics, which states that measuring a system usually disturbs it, and that the more precise the measurement and shorter its timescale, the greater the energy of the disturbance and the unpredictability of the outcome).

[18] At present, Greece, Ireland and Luxembourg do not compile and transmit financial balance sheet data to the European Commission (Mink and Rodriguez-Vives, 2004).

[19] As indicated in the *Code of Best Practice on the Compilation and Reporting of Data in the Context of the Excessive Deficit Procedure* endorsed by the Ecofin Council on 18 February 2003, member countries provide budgetary projections to the European Commission alongside estimates of realisations, although these planned data are not published.

[20] See http://unstats.un.org/unsd/sna1993/issues.asp.

Table 1. Eurostat decisions on possible accounting distortions affecting the fiscal balance

Distortion	Eurostat news release
Treatment of interest associated with various types of bonds	10/97
Above-the-line treatment of payments stemming from gold sales by central banks	10/97, 05/98
Below-the-line treatment of export credit insurance	33/97
Above-the-line treatment of central bank payments to the State on account of forex reserve revaluation, sales of forex reserves or interventions	88/97
Treatment of extra tax receipts when due dates are brought forward	88/97
Above-the-line treatment of taxes on capital gains realised by a public holding company in the context of privatisation	82/98
Impact of UMTS licence receipts	81/2000
Exclusion from accrued taxes and social contributions of that part which is unlikely to be collected	..[1]
Above-the-line treatment of securitised future receipts	80/2002
Above-the-line treatment of gains from non-returned banknotes or coins in the context of the cash changeover to the euro	88/2002
Capital injections into public enterprises treated as financial transactions instead of capital transfers	98/2003
One-time compensation paid by public corporations when transferring unfunded pension liabilities to the State	120/2003 26/2004
Treatment of public-private partnerships	18/2004
Incomplete accounting of certain outlays	62/2004
Overstatement of certain receipts	62/2004

1. Regulation No. 2516/2000 of the European Parliament and of the Council, 7 November 2000.

Table 2. Fiscal balances: first notification
In per cent of GDP

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Austria[1]	-4.0	-4.0	-6.1	-3.9	-2.5	-2.1	-2.0	-1.1	0.1	-0.6	-1.1
Belgium	-7.2	-5.4	-4.5	-3.4	-2.1	-1.3	-0.9	0.0	0.2	0.0	0.2
Finland[1]	-7.8	-5.6	-5.6	-2.6	-0.9	1.0	2.3	6.7	4.9	4.7	2.3
France	-5.5	-6.0	-5.0	-4.1	-3.0	-2.9	-1.8	-1.3	-1.4	-3.1	-4.1
Germany	-3.4	-2.7	-3.6	-3.9	-2.7	-2.1	-1.2	1.3	-2.7	-3.6	-3.9
Greece	-15.9	-12.5	-9.2	-7.4	-4.0	-2.4	-1.6	-0.9	0.1	-1.2	-1.7
Ireland	-2.3	-2.3	-1.9	-0.9	0.9	2.3	2.0	4.5	1.7	-0.1	0.2
Italy	-9.5	-9.0	-7.1	-7.1	-2.7	-2.7	-1.9	-0.3	-1.4	-2.3	-2.4
Luxembourg	1.4	1.9	1.1	2.7	1.7	2.1	2.4	5.3	5.0	2.6	-0.1
Netherlands	-2.1	-3.6	-3.7	-2.2	-1.4	-0.9	0.5	2.0	0.2	-1.1	-3.0
Portugal	-7.1	-5.9	-5.2	-4.0	-2.5	-2.3	-2.0	-1.4	-2.2	-2.7	-2.8
Spain	-7.3	-6.7	-5.8	-4.4	-2.6	-1.8	-1.1	-0.3	0.0	-0.1	0.3
Denmark	-4.4	-3.9	-1.5	-1.7	0.7	0.8	3.0	2.5	2.5	1.9	1.5
Sweden[1]	-13.4	-10.4	-7.8	-3.6	-0.5	2.0	1.9	4.0	4.7	1.2	0.7
United Kingdom	-7.7	-6.9	-6.0	-4.4	-1.9	0.6	1.2	4.4	0.9	-1.4	-3.2

1. For 1993, the first notification was in March 1995.

Source: European Commission and Eurostat.

Table 3. Measures which may affect gross public debt but not, or much less, government net worth

Payments to the State of proceeds from gold sales by the central bank or the agency entrusted with the official foreign exchange reserves

Exceptional dividends paid to the State by the central bank or public enterprises

Privatisation (first-round impact)

Securitisation of government financial assets (*e.g.* unpaid taxes or social security contributions)

Shift from direct public investment to PFI-type arrangements or to investment by public non-government enterprises

Cuts in maintenance spending on non-financial public capital

Switch in public social security funds' portfolio from private-sector securities to government bonds

Possibility given temporarily to firms to revalue their fixed assets with an exceptionally low tax on valuation gains

Swap of low-coupon debt for a smaller face value of higher-coupon debt

Table 4. Revisions to fiscal balances following the first notification[1]
In per cent of GDP

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Austria	-0.2	-1.0	0.8	-0.1	0.5	-0.4	-0.4	-0.4	0.2	0.4	0.0
Belgium	-0.2	0.3	0.1	-0.4	0.1	0.6	0.4	0.2	0.4	0.1	0.2
Finland	0.6	-0.1	1.7	-0.3	-0.4	0.6	-0.1	0.4	0.3	-0.4	0.0
France	-0.5	0.5	-0.5	0.0	0.0	0.2	0.0	-0.1	-0.1	-0.1	0.0
Germany	0.3	0.3	0.3	0.5	0.0	-0.1	-0.3	0.0	-0.1	-0.1	0.1
Greece	2.5	3.2	-1.0	0.0	0.0	-0.1	-0.2	-3.2	-3.8	-2.5	-2.9
Ireland	-0.4	0.3	-0.2	0.8	0.5	0.0	0.3	-0.1	-0.8	-0.1	-0.1
Italy	-0.8	-0.3	-0.5	0.0	0.0	-0.4	0.1	-0.3	-1.2	0.0	0.0
Luxembourg	0.1	0.8	1.0	-0.8	1.5	1.1	1.3	0.7	1.4	0.2	0.9
Netherlands	-0.7	0.1	-0.5	0.4	0.3	0.1	0.2	0.2	-0.3	-0.8	-0.2
Portugal	-1.0	-1.8	-0.3	-0.8	-1.1	-0.9	-0.9	-1.4	-2.2	0.0	0.0
Spain	0.3	0.2	-0.8	-0.6	-0.6	-1.2	-0.1	-0.6	-0.4	0.0	0.1
Denmark	1.5	1.5	-0.8	0.7	-0.3	0.3	0.2	-0.8	-0.5	-1.2	-1.2
Sweden	2.0	1.1	0.9	0.8	-0.5	-0.1	0.4	1.1	-1.9	-1.2	-0.4
United Kingdom	-0.2	0.2	0.2	0.2	-0.3	-0.5	-0.1	-0.6	-0.2	-0.3	-0.1

1. Outturn minus first notification.
Source: OECD, *Economic Outlook No. 75,* Eurostat and European Commission.

**Table 5. One-offs, "creative accounting" operations
and reclassifications affecting the fiscal balance[1]**
In per cent of GDP

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Austria	0.1	0.5	0.5		0.1			0.3			
Belgium	0.4	0.2		0.9					0.3	0.2	1.9
Finland		1.3		0.3	0.3			0.3			
France		0.2		0.3	0.5		0.1				
Germany					0.2						
Greece	3.7	0.5	1.7	1.3	0.2	0.2		1.2	0.3	1.2	2.8
Ireland	0.4			0.5	0.4			0.4	0.4	0.7	
Italy	0.9	0.6	0.7	0.4	1.4				0.7	0.9	1.7
Luxembourg									1.8		
Netherlands	1.1	1.1	0.9	0.4	0.1						
Portugal		0.7	1.0		0.5	0.2			0.6	1.7	2.3
Spain	1.3		0.4	0.4	0.4						0.3
Denmark			0.1		0.2						
Sweden	0.2	0.2	0.5		0.6	0.9					
United Kingdom					0.6	0.3					

1. Abstracting from UMTS licence receipts and from operations amounting to less than 0.1 per cent of GDP.
Source: See Table A1.

Table 6. Bare deficits and gimmicks, 1993-2003

Deficit (interval, % of GDP)	]0 ; 1]	]1 ; 2]	]2 ; 3]	]3 ; 4]	]4 ; 5]	]5 ; 6]	]6 ; 7]	>7	Total
Number of bare deficits (N_i)	13	24	22	16	17	5	9	16	122
Incidence of gimmicks (F_i)	5	8	12	5	12	2	6	13	63
Odds of gimmickry (F_i/N_i)	0.38	0.33	0.55	0.31	0.71	0.40	0.67	0.81	0.52

Table 7. Bare deficits and gimmicks: estimation results

Equation No.	1	2
BAREDEF	0.21 ***	0.20 ***
t statistic	*2.84*	*2.11*
DUMSGP		-0.11
t statistic		*-0.24*
Constant	-0.77 *	-0.75 *
t statistic	*-2.14*	*-1.56*
R^2	0.57	0.36
F	*8.07*	*2.76*
Number of observations	*8*	*13*

Note: * and *** respectively denote significance at the 10 and 1 per cent levels.

Table 8. Bare deficits and gimmicks, breakdown by period

Deficit (interval, % of GDP)	]0 ; 1]	]1 ; 2]	]2 ; 3]	]3 ; 4]	]4 ; 5]	]5 ; 6]	]6 ; 7]	>7	Total
				1993-98					
Number of bare deficits (N_i)	1	9	15	10	13	4	9	16	77
Incidence of gimmicks (F_i)	0	5	8	4	9	1	6	13	46
Odds of gimmickry (F_i/N_i)	0.00	0.56	0.53	0.40	0.69	0.25	0.67	0.81	0.60
				1999-2003					
Number of bare deficits (N_i)	12	15	7	6	4	1	0	0	45
Incidence of gimmicks (F_i)	5	3	4	1	3	1	0	0	17
Odds of gimmickry (F_i/N_i)	0.42	0.20	0.57	0.17	0.75	1.00	n.a.	n.a.	0.38

Table 9. Budget centralisation and gimmickry

	Centralisation index[1]								
	15	**14**	**13**	**10**	**8**	**7**	**6**	**5**	**Total**
Number of observations by centralisation score (N_j)	11	33	33	11	22	22	22	11	165
Incidence of gimmicks (F_j)	2	9	8	5	12	12	15	8	71
Odds of gimmickry (F_j/N_j)	0.18	0.27	0.24	0.45	0.55	0.55	0.68	0.73	0.43

1. The following index values are observed for the various countries: 15 (United Kingdom), 14 (France, Luxembourg, Finland), 13 (Denmark, Germany, the Netherlands), 10 (Austria), 8 (Portugal, Spain), 7 (Ireland, Belgium), 6 (Greece, Sweden) and 5 (Italy).

Table 10. Budget centralisation and gimmickry: estimation results

Equation No.	3	4	5	6	7
CENTRAL	-0.22 ***	-0.23 ***	-0.16 ***	-0.22 ***	-0.22 **
t statistic	*-14.36*	*-4.01*	*-3.39*	*-2.93*	*-2.35*
EXCESSDEF		1.12 ***			
t statistic		*2.72*			
EXCESSDEF/CENTRAL			11.35 ***		
t statistic			*4.50*		
EXCESSDEBT				0.54	
t statistic				1.03	
EXCESSDEBT/CENTRAL					*1.63*
t statistic					*0.35*
Constant	1.91 ***	1.57 **	0.55 *	1.65 *	1.82 *
t statistic	*12.20*	*2.49*	*1.41*	*1.77*	*1.51*
R^2	0.97	0.64	0.78	0.51	0.47
F	*206.07*	*11.75*	*23.26*	*5.65*	*4.79*
Number of observations	*8*	*16*	*16*	*16*	*16*

Note: *,**,*** respectively denote significance at the 10, 5 and 1 per cent levels.

Table 11. Budget centralisation and gimmickry: breakdown by bare deficit level

|	Centralisation index[1]								
	15	**14**	**13**	**10**	**8**	**7**	**6**	**5**	**Total**
	Bare deficit < 3 % of GDP								
Number of observations by centralisation score (N_j)	6	23	22	7	10	18	12	4	102
Incidence of gimmicks (F_j)	2	5	5	2	3	9	6	1	33
Odds of gimmickry (F_j/N_j)	0.33	0.22	0.23	0.29	0.30	0.50	0.50	0.25	0.32
	Bare deficit > 3 % of GDP								
Number of observations by centralisation score (N_j)	5	10	11	4	12	4	10	7	63
Incidence of gimmicks (F_j)	0	4	3	3	9	3	9	7	38
Odds of gimmickry (F_j/N_j)	0.00	0.40	0.27	0.75	0.75	0.75	0.90	1.00	0.60

1. For explanation, see note 1 of Table 9.

Table 12. Budget centralisation and gimmickry: breakdown by debt ratio

	Centralisation index[1]								
	15	**14**	**13**	**10**	**8**	**7**	**6**	**5**	**Total**
	Debt < 60 % of GDP								
Number of observations by centralisation score (N_j)	7	20	10	1	9	5	0	0	52
Incidence of gimmicks (F_j)	0	4	0	1	6	3	0	0	14
Odds of gimmickry (F_j/N_j)	0.00	0.20	0.00	1.00	0.67	0.60	n.a.	n.a.	0.27
	Debt > 60 % of GDP								
Number of observations by centralisation score (N_j)	4	13	23	10	13	17	22	11	113
Incidence of gimmicks (F_j)	2	5	8	4	6	9	15	8	57
Odds of gimmickry (F_j/N_j)	0.5	0.38	0.35	0.4	0.46	0.53	0.68	0.73	0.50

1. For explanation, see note 1 of Table 9.

Figure 1. Eliminating deficits: a moving target[1]

General government balance in the euro area as a per cent of GDP[2]
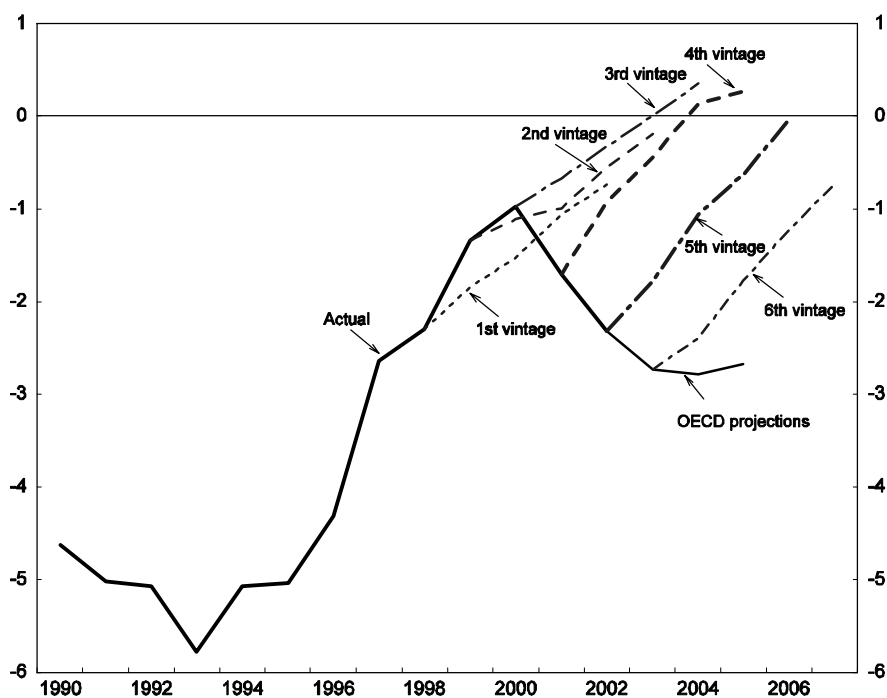
1. The various vintages of the stability programmes were released over the following periods: 1st 1998/99, 2nd 1999/2000, 3rd 2000/01, 4th 2001/02, 5th 2002/03, 6th 2003/04.
2. Excluding UMTS licence proceeds.
Source: OECD (2004).

Figure 2. The odds of gimmickry as a function of the bare deficit
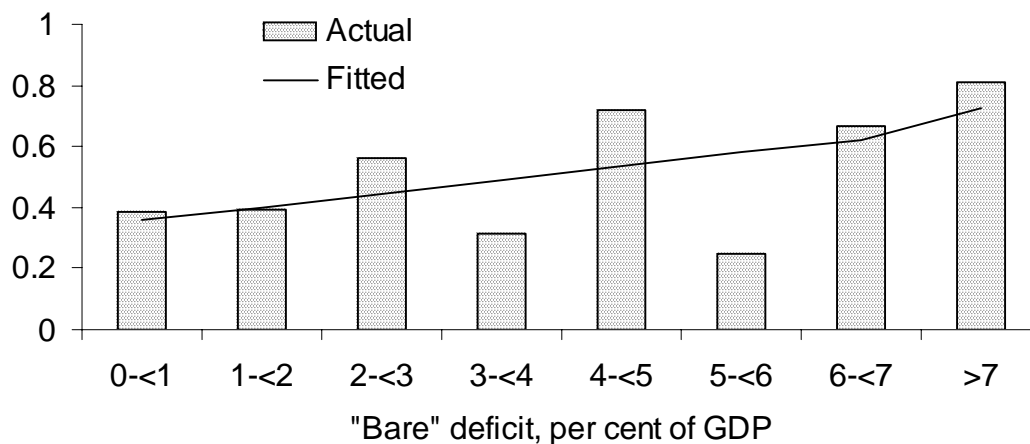
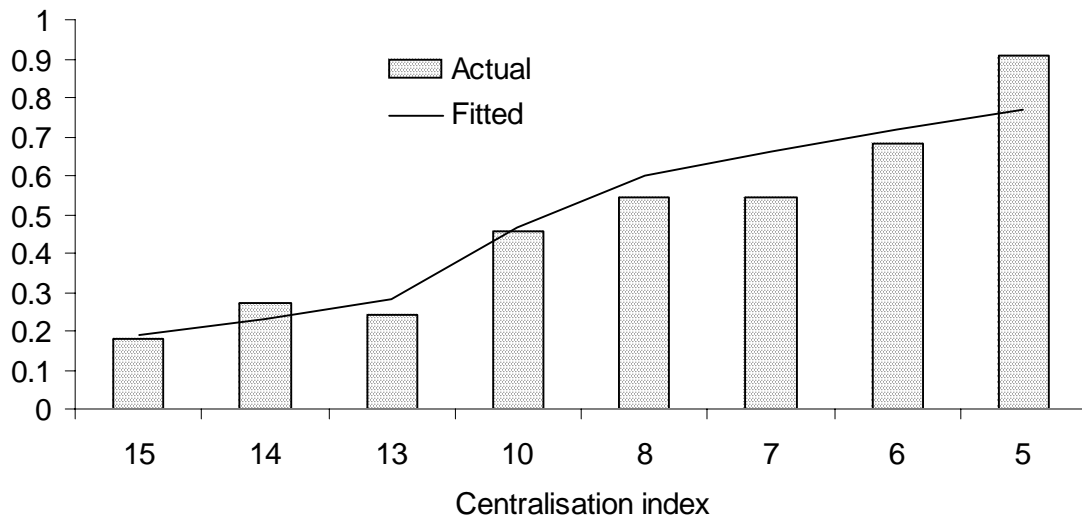**Figure 3. The odds of gimmickry as a function of centralisation**

Figure 4. The odds of gimmickry as a function of centralisation and the bare deficit
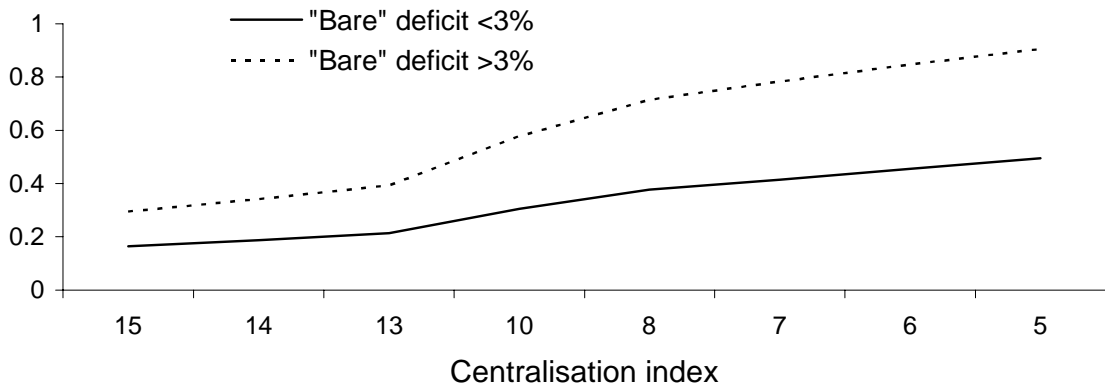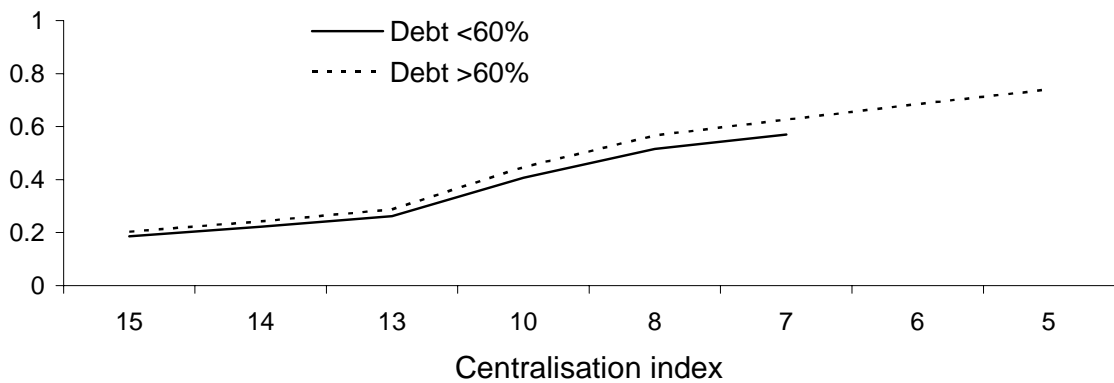

Figure 5. The odds of gimmickry as a function of centralisation and the debt ratio

ANNEX

Table A1. One-offs, "creative accounting" operations and classification errors[1]

	Year	Measure	Size	
Austria	1993	Privatisation operations treated above the line	0.1	
	1994	Privatisation operations treated above the line	0.5	
	1995	Privatisation operations treated above the line	0.5	
	1997	Exceptional payment from Postsparkasse as the State takes over future pension payments	0.1	
	1997	ASFINAG holding reclassified in the corporate sector	..	*
	..	Schieneninfrastrukturfinanzierungsgesellschaft holding reclassified in the corporate sector	..	*
	..	Corporatisation of hospitals	..	*
	1997	Sale of a third mobile phone license	0.09	*
	2000	Sales of real estate (Bundes-Immobiliengesellschaft)	0.3	
Belgium	1993	Privatisation operations (CGER) treated as negative capital transfers	0.4	
	1994	Privatisation operations (SNI and remainder of CGER) treated as negative capital transfers	0.2	
	1996	Privatisation operations treated as negative capital transfers	0.9	
	1996	Payment of dividends to the State by the CGER holding company in the context of privatisation	..	*
	1997	Change in the treatment of social contributions of bankrupt firms	0.025	*
	1997	Below-the-line treatment of railway recapitalisation	..	*
	2001	Sales of public buildings	0.2	
	2001	Restitution by private companies of reductions in social security contributions (Maribel arrangement)	0.1	
	2002	Public asset sales	0.2	
	2003	Transfer of Belgacom pension "liabilities"	1.9	
Finland	1994	Postponment of tax refunds	1.3	
	1995	Adjustment in the treatment of swaps	0.09	*
	1995 ->	Securitisation of ARAVA loans granted by the Housing Fund of Finland	..	*
	1996	Settlement of Arsenal defeasance scheme	0.3	
	1996	Adjustment in the treatment of swaps	0.07	*
	1996	Disputed treatment of interest on linear bonds	0.08	*
	1997	Disputed treatment of interest on short-term Treasury bills	0.04	*
	1997	Adjustment in the treatment of swaps	0.1	
	1997	Disputed treatment of interest on linear bonds	0.2	
	2000	Exceptional dividend of the fully state-owned bank Leonia on eve of its merger with Sampo	0.3	
France	1994	Disputed treatment of the use of a revaluation of central bank reserves	0.2	
	1994	Capital injections into Charbonnages de France	..	*
	1995	Capital injections into Charbonnages de France	..	*
	1996	Capital injections into Charbonnages de France	..	*
	1996	Disputed treatment of accrued coupons on fungible Treasury bonds	0.2	
	1996	Treatment of export credit insurance below the line	0.1	
	1997	France Télécom *soulte* (compensation payment to the State for the partial takeover of pension liabilities)	0.5	
	1997	Capital injections into Charbonnages de France	0.03	*
	1998	Capital injections into Charbonnages de France	0.03	*
	1999	Capital injections into Charbonnages de France	0.03	*
	1999	Capital injection into Réseau Ferré de France	0.1	
	2000	Capital injections into Charbonnages de France	0.04	*
	2000	Capital injection into Réseau Ferré de France	0.08	*
	2000	Disputed treatment of swaps	0.02	*
	2001	Capital injection into Réseau Ferré de France	0.07	*
	2002	Capital injection into Réseau Ferré de France	0.09	*
	2003	Repayment by EdF to the State on account of a reclassification requested by the European Commission	0.08	*
Germany	1997	Reclassification of public hospitals into quasi-corporations	0.2	
	1997	Reimbursement of Airbus subsidies	0.04	*
	2001	Capital injection in Bankgesellschaft Berlin	0.09	*
	2001	Payment by the Land of Niedersachsen to cover losses of the Hanover exhibition consortium	0.02	*

Greece	1993	Tax amnesty	..	*
	1993	Privatisation of the telecommunications company OTE	2.0	
	1993	Capitalisation of interest on debt taken on by the general government	1.7	
	1994	Sale of casino licences	..	*
	1993	Capitalisation of interest on debt taken on by the general government	0.5	
	1995	Running up of wage arrears in the general government sector	0.7	
	1995	Capitalised interest and called guarantees moved below the line	1.0	
	1996	Fines on illegal housing	..	*
	1996	Capitalised interest and called guarantees moved below the line	1.3	
	1997	Imputation to earlier fiscal years of payments made in 1997 (in line with Eurostat rules)	0.2	
	1998	Change in the frequency of withholding the corporate income tax, boosting receipts by 13/12th in 1998	0.2	
	1998	One-off 17.5 per cent tax on 40 per cent of tax-free reserves of banks and other corporations	..	*
	2000-03	Below-the-line capital injections into state-owned entities and entreprises	..	*
	2000-03	Under-recording of interest	..	*
	2000	Securitisation of future lottery proceeds	0.6	
	2000	Securitisation of forthcoming dividends of the state-owned Consignment and Deposit Loan Fund	0.6	
	2001-03	Over-estimation of surplus of social security funds	..	*
	2001	Securitisation of Eurocontrol receivables for the provision of air traffic control	0.3	
	2002	Subsidies to public enterprises treated below the line	0.7	
	2002	Euro cash changeover related receipts	0.5	
	2002	Tax amnesty (settling of tax arrears for the self-employed)	..	*
	2003	Classification of a payment from the Saving Postal Bank to the government as revenue	0.2	
	2003	Tax amnesty	1.2	
	2003	Overstatement of payments received from EU institutions in context of certain structural fund programmes	1.4	
	2003	Over-estimation of tax (mainly VAT) revenue	..	*
	Chronic	Under-estimation of government expenditure for the procurement of military equipment	..	*
Ireland	1993	Temporary one per cent levy on income	0.4	
	1996	Adjustment in the treatment of swaps	0.3	
	1996	Capital gains realised by the central bank classified above the line	0.2	
	1997	Adjustment in the treatment of swaps	0.4	
	2000	Tax amnesty/settlements	0.2	
	2000	Receipts from enquiry into non-retention of tax on bogus non-resident accounts	0.2	
	2001	Receipts from enquiry into non-retention of tax on bogus non-resident accounts	0.2	
	2001	Tax amnesty/settlements	0.2	
	2002	Exceptional dividend from central bank on account of profits from minting coins accrued since 1943	0.3	
	2002	Exceptional central bank payment to the Exchequer on account of euro cash changeover receipts	0.2	
	2002	Tax amnesty/settlements	0.2	
Italy	1993	Above-the-line treatment of privatisation receipts	0.4	
	1993	Special tax on companies' net assets	0.3	
	1993	Incorrect treatment of export insurance transactions	0.1	
	1994	Tax amnesty for illegal buildings	0.4	
	1994	Incorrect treatment of export insurance transactions	0.1	
	1995	Amnesty on social security contributions	0.2	
	1995	Amnesties on car taxes and other fiscal irregularities	0.1	
	1995	Disputed treatment of capitalised interest on postal bonds	0.3	
	1995	Incorrect treatment of export insurance transactions	0.1	
	1996	Disputed treatment of capitalised interest on postal bonds	0.4	
	1996	Tax amnesty/settlement	0.02	*
	1996	Extension of the tax conciliation scheme to 1994 incomes	..	*
	1996	Incorrect treatment of export insurance transactions	0.05	*
	1997	Reclassification of the national railways' debt	0.2	
	1997	Eurotax	0.6	
	1997	Payment by tax concessionaires	0.2	
	1997	Tax on the capital gain stemming from the sale of gold by the Ufficio Italiano dei Cambi to the Banca d'Italia	0.2	
	1997	Change in the accounting of capitalised interest on postal savings certificates from accrual to cash	0.3	
	1997	Tax amnesty/settlement (on VAT)	0.08	*
	1997-2000	Imputation to 1993-95 of payments of overdue pensions following a decision of the Constitutional Court	0.2	*
	1998-2000	Public real estate asset sales	0.1	*
	2001	Securitisation of the future net proceeds from the State lottery	0.2	
	2001	Securitisation and sale of public real estate assets	0.3	
	2001	Tax amnesty/settlement (on off-shore placements)	0.1	
	2002	Adjustment for swap/forward rate agreements	0.2	
	2002	Tax amnesty/settlement	0.1	
	2002	Securitisation and sale of public real estate assets	0.5	
	2002	Securitisation of overdue social security contributions	0.1	
	2003	Sale of public real assets	0.2	
	2003	Tax amnesty/settlement (including for self-employed)	1.5	

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Luxembourg	2001	Sale of satellite parking rights	1.8
Netherlands	1993	Delaying of government payments and sale of government property	0.5
	1993	One-time windfall due to reorganisation and computerisation of the tax department	0.6
	1994	Receipts from the privatisation of KPN and DSM used to strengthen the Infrastructure Fund (FES)	1.1
	1995	One-off measures and privatisations	0.9
	1996	One-off receipts stemming from Court decision regarding natural gas receipts	0.4
	1997	Disputed treatment of interest on government debt	0.1
Portugal	1994	Measures to reduce tax and social security arrears	0.3
	1994	Disputed treatment of interest on capitalised interest bonds and savings certificates	0.4
	1995	Reclassification of export insurance claims	0.2
	1995	Disputed treatment of interest on capitalised interest bonds and savings certificates	0.8
	1996	Disputed treatment of interest on capitalised interest bonds and savings certificates	0.09 *
	1997	Exceptional payment from Banco Nacional Ultramarino, as the State takes over future pension payments	0.3
	1997	Disputed treatment of interest on capitalised interest bonds and savings certificates	0.2
	1997	Disputed treatment of premia on linear bonds	0.05 *
	1998	Public holding company payment of taxes on capital gains stemming from privatisation disposals	0.2
	2001	Subsidies treated as below-the-line acquisitions of shares	0.2
	2001	Belated recognition of the end of the derogation for the recording of taxes and social contributions	0.4
	2002	Sale of fixed lines to Portugal Telecom	0.3
	2002	Tax amnesty (on interest surcharges on the payment of arrears on tax and social security contributions)	1.1
	2002	Liquidation of the EFTA industrial develement fund	0.1
	2002	Future toll rights	0.2
	2003	Transfer of postal services pension fund obligations	0.9
	2003	Sale of non-performing tax and social security claims to a private entity	1.4
Spain	1993	Extraordinary payment by Instituto Nacional de Empleo to cover past deficits	1.0
	1993	Incorrect timing in the recording of interest on government debt	0.3
	1993	Above-the-line treatment of privatisation receipts	.. *
	1995	Privatisation receipts from the sale of part of Repsol treated above the line	0.4
	1996	Change in the recording of social contributions (move to accruals)	0.4
	1997	Change in the treatment of tax and social contribution debt forgiveness	0.3
	1997	Privatisation receipts from the sale of part of Repsol treated above the line	0.1
	1997	Payment of central bank to the government	.. *
	1997	Use of turnkey method of payment for large government procurement projects	.. *
	1997	Capital gains receipts associated with the sale of the final tranche of Telefonica	.. *
	2003	Tax amnesty/settlements	0.3
	…	Investments in Red Nacional de Ferrocarriles Españoles (REFNE)	.. *
	1997-2003	Investments in Gestor de Infraestructuras Ferroviarias (GIF)	0.9 *
	1997-2003	Investments in water infrastructure (Sociedades de Aguas)	0.2 *
Denmark	1995	Lump-sum payment from Danish Telekom, as the State took over future pension payments	0.1
	1997	Phasing out of a war insurance scheme for ships	0.2
	1997	Sales of government-owned buildings and land	0.05 *
Sweden	1993	Withdrawal of the remaining funds in the Working Life Fund	0.2
	1994	Exceptional tax payment by telecom and postal companies as State took over their pension liabilities	0.2
	1995	Disputed treatment of linear bonds and T-bill interest	0.5
	1997	Disputed treatment of linear bonds and T-bill interest	0.3
	1997	Transfer of the net assets of Securum, a financial defeasance structure, to the State	0.3
	1998	Sale of real estate owned by pension funds	0.9
United Kingdom[2]	1997	Treatment of index linked bonds	0.2
	1997	Sale of Ministry of Defence buildings	0.1
	1997	Windfall tax on "excess" profits of privatised utilities	0.3
	1998	Windfall tax on "excess" profits of privatised utilities	0.3

1. The starred items are not retained for regression purposes. Excludes UMTS licence receipts.

2. Fiscal year.

Source: Eurostat (1998) and press releases; European Commission reports on Public Finances in EMU; National statistical institutes and central banks; OECD Economic Surveys; van Wijk (2001); IMF (2003); Milesi-Ferretti and Moriyama (2004); Annual reports of the Cour des Comptes (France); Ministerio de Economia y Hacienda (2004).

Table A2. UMTS licence receipts

In per cent of GDP, national treatment

	1999	2000	2001	2002	2003	2004
Austria		0.4				
Belgium			0.2			
Finland	0.0					
France			0.1	0.0		
Germany		2.5				
Greece			0.5			
Ireland				0.2		
Italy		1.2				
Luxembourg				0.0		
Netherlands		0.7				
Portugal		0.4				
Spain		0.3				
Euro area		**1.08**	**0.03**	**0.01**		
Denmark[1]			0.0	0.0	0.0	0.0
Sweden		0.0				
United Kingdom[2]		0.1	0.1	0.1	0.1	0.1

1. Eurostat inputed the entirety of the receipts (0.24 per cent of GDP) to 2001.

2. Eurostat inputed the entirety of the receipts (2.36 per cent of GDP) to 2000.

Source: OECD.

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