

EMU fiscal indicators: a misleading compass?

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Abstract The effectiveness of any device for fiscal discipline crucially depends on the indicators it refers to. This paper assesses the indicators adopted for fiscal rules in the European Economic and Monetary Union (EMU) with respect to their relevance for EMU's objective of fiscal soundness and to the adequacy of the underlying statistical framework in providing conditions for enforcement. The paper argues that EMU's deficit and debt indicators present several shortcomings with respect to both sustainability analysis and monitoring requirements. The debt indicator allows the achievement of targets via operations that do not improve fiscal sustainability and tends to underestimate overall outstanding liabilities. The deficit indicator cannot be monitored in a timely manner, allows too much room for discretion, and is subject to significant revisions. While acknowledging that any single indicator can be distorted when used as a policy target, the paper argues that the weaknesses of EMU's indicators would be much reduced if consistency cross-checks played a larger role than they currently do.

Keywords EMU · Fiscal rules · Fiscal indicators

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“In general, countries characterized by a relatively high degree of fiscal transparency have exhibited greater fiscal discipline and, in many instances, have been able to achieve a more robust economic performance ...” (Kopits and Craig 1998, p. 2).

1 Introduction

The pros and cons of fiscal rules have long been debated (Kopits and Symansky 1998; Kopits 2001; Banca d'Italia 2001). On the one hand, incentive-compatible fiscal rules are seen as a preventive device against opportunistic behavior by policy makers and sharp discontinuities in public policies. On the other hand, rules are seen as a source of unnecessary rigidity.

In the European context, fiscal rules have been adopted mainly to ensure sound and sustainable public finances. Discipline-inducing market mechanisms were not trusted to be sufficient. The rules introduced to accompany EMU were effective in ensuring fiscal consolidation up to 1997 but have been extensively criticized in recent years. Moreover, their enforcement has encountered several problems: the 3% of GDP deficit threshold has been violated and the implementation of monitoring and sanctioning procedures has come under pressure.

Proposals to reform the rules abound. Some have suggested the outright abolition of the rules and reliance on market discipline only. Others have proposed strengthening national fiscal institutions, even envisaging some delegation of fiscal policy to independent agencies (e.g. Wyplosz 2002). Less radical proposals include replacing deficit targets with expenditure targets, introducing the golden rule, setting targets for the euro area as a whole, moving to indicators of long-run sustainability of public finances, and setting country-specific rules (Buti et al. 2003; HM Treasury 2004). The European Commission (2004) has itself advanced a number of suggestions for improving the effectiveness of EMU's fiscal framework. After a difficult debate, an agreement was reached at the ECOFIN Council of March 2005. The guidelines of the reform were set out in a report on “Improving the implementation of the Stability and Growth Pact”, which envisaged changes to both the preventive and corrective arms of the Pact (European Commission 2005).

Whether the Maastricht Treaty and the Stability and Growth Pact (SGP) will remain the cornerstone of fiscal discipline in EMU or whether market mechanisms will serve as the only constraint to budgetary imbalances, the quality of available deficit and debt measures remains crucial.

This paper contributes to the debate on European fiscal rules by assessing the indicators adopted in EMU with respect to their relevance for the objective of fiscal soundness and to the adequacy of the underlying statistical framework in providing necessary conditions for enforcement.

Concerning fiscal soundness, EMU's fiscal rules rely on yearly targets set in terms of traditional indicators of deficit and debt. Continued compliance with these targets is expected to ensure long-term fiscal sustainability. Arguably, reference to forward-looking indicators would have been more appropriate. However, these indicators rely on strong assumptions, require complex computations, and do not

lend themselves to be adopted for the enforcement of formal rules, especially in a multinational context where moral hazard issues gain prominence.

Beyond this general issue, the paper notes that EMU's debt indicator (general government gross consolidated financial debt at face value) allows targets to be achieved via operations that do not improve fiscal sustainability, and tends to underestimate outstanding liabilities. Evidence suggests that these measures have been used (and to a significant extent) in EMU member states in recent years (Koen and van den Noord 2005; Milesi-Ferretti 2003; Milesi-Ferretti and Moryiama 2004; Von Hagen and Wolff 2004).

Concerning enforcement, the paper argues that EMU's deficit indicator (general government net borrowing as defined in ESA95)¹ cannot be monitored in a timely manner, allows too much room for discretion, and is subject to significant revisions. Its shortcomings are confirmed by the analysis of some recent episodes, whereby large deviations from policy targets were detected with significant delay, after deficit figures underwent large upward revisions.

Continuous within-year monitoring is necessary from the point of view of both the member state trying to comply with the rules and the agency (the European Commission—EC) trying to detect early evidence of deviations from targets. High margins for discretion and frequent and sizeable revisions negatively affect both the viability of control of short-term developments and the reliability of the indicators as the basis for long-term analysis.

The shortcomings of EMU's indicators concern the use to which they are put in the context of monitoring compliance with EMU's fiscal rules and do not imply any weaknesses of ESA95 in providing information suitable to economic analysis.

The paper acknowledges that all fiscal indicators can be distorted when used as policy targets and recognizes that simply replacing current indicators with new ones would not solve the problem. Rather, it argues that the weaknesses of EMU's deficit indicator would be much reduced if more weight were given to consistency cross-checks with EMU's debt indicator than is currently the case.² This would reduce the risk of large revisions and safeguard the integrity of ESA95 data as a support for economic analysis. The proposals put forward in the paper have the advantage of not requiring any formal amendment of the current fiscal framework.³

The argument is supported by evidence from three case studies of abrupt and significant deficit revisions—Portugal and Italy, concerning fiscal data for 2001, and Greece, concerning fiscal data for 2003. In all three cases early signals of unusual developments in public finances could have been detected by looking at the consistency between deficit and debt figures.

Finally, the paper stresses that for policy guidance—as opposed to rules enforcement—the analysis of deficit and debt should take place within an integrated statistical framework relying on a wider range of indicators.

¹ ESA95 is the most recent version of the European System of Integrated Economic Accounts (Eurostat 1979, 1995).

² The possibility to cross-check flows and stocks, as well as accrual and cash data, is a prominent feature of the Government Finance Statistics framework developed by the International Monetary Fund (IMF 2001a). On fiscal transparency, see also IMF (2001b).

³ This paper does not consider the role of cyclically adjusted figures and macroeconomic projections in the implementation of fiscal rules. These issues are examined in European Commission (2002, 2004) and Strauch et al. (2004), respectively.

The paper is structured as follows. Section 2 briefly reviews EMU's deficit and debt indicators. Sections 3 and 4 assess the indicators with respect to the objectives of sustainability of public finances and enforcement of the rules, respectively. Section 5 argues that monitoring of deficit developments would be more effective if supported by the analysis of debt dynamics and examines the three case studies providing evidence in support of this view. Section 6 suggests that, rules design aside, the analysis of EMU's fiscal indicators would be more relevant for fiscal sustainability if it were carried out within a multifaceted statistical framework. Section 7 concludes.

2 EMU fiscal indicators

The fiscal framework of EMU was developed gradually. The 1992 Treaty of Maastricht set the fiscal criteria to be met for joining the Monetary Union. The primary objective of the Treaty was to keep a sound fiscal stance in order to preserve stable monetary and financial conditions within the Union. The SGP, adopted by the European Council in Amsterdam in June 1997, complemented the Treaty with a view to reconciling permanent restraint of deficit and debt levels with margins for fiscal stabilization policies. The SGP also strengthened the monitoring procedures accompanying the quantitative rules (Buti and Sapir 1998; Brunila et al. 2002).

The design of EMU's rules met with a number of practical problems. Sustainability analysis has a forward-looking nature and should not be based on annual outturns, which depict only the current budgetary situation. The assessment of future developments can refer either to explicit medium- and long-term projections of traditional deficit and debt measures (Franco and Marino 2004) or to summary indicators of these projections, such as the change in net worth or the imbalance in the fiscal treatment of different generations.⁴ However, both solutions rely on strong assumptions and can lead to results whose robustness can be questioned. Moreover, summary indicators are difficult to interpret and do not immediately translate into policy prescriptions.⁵ Negative net worth, for instance, signals that the present value budget constraint is not satisfied, but it gives no indication concerning the appropriate timing for the needed correction. By contrast, positive net worth signals that the constraint is satisfied, but says nothing about the timing of future developments in public finances, and therefore cannot be taken as indication that current policies are sustainable.⁶

⁴ Some authors have prescribed resorting to either "economic deficit" (Kotlikoff 1984) or to "government net worth" (Buiter 1983). These solutions would require, inter alia, the inclusion of pensions in the fiscal accounts when obligations are incurred rather than when the actual expenditure is made. For a survey, see Towe (1991) and Blejer and Cheasty (1991); for a critique see Mackenzie (1989). Both Buiter (1985) and Blanchard et al. (1990) suggest summary indicators of the outcomes of long-term projections. Summary indicators of the fiscal burden that current generations are placing on future generations are provided by generational accounts (Auerbach et al. 1991). See also H.M. Treasury (2003).

⁵ This problem is especially relevant for generational accounting. For a critical assessment see, e.g., Buiter (1995), Haveman (1994) and IMF (1996).

⁶ A positive net worth may be the net result of a sharp and significant increase in deficit and debt expected to occur shortly and a compensating improvement expected to occur at a later stage. However, if the initial increase in debt triggers a financial crisis, it will then become impossible to compensate for it.

In the context of EMU it was difficult to consider the adoption of sophisticated sustainability indicators for formal rules. The asymmetry between the monetary regime, with the single currency and a single monetary authority, and the fiscal framework, lacking the authority of federal rank, gave prominence to moral hazard issues. Against this background, European policy makers took a cautious approach and selected relatively simple numerical rules and indicators.

Article 104 of the Treaty and the annexed Protocol on excessive deficits lay out the criteria for assessing budgetary positions: (i) the general government deficit must not exceed 3% of GDP (save for exceptional circumstances, for a limited period and for a limited amount);⁷ and (ii) the general government debt must not exceed 60% of GDP or, if above this limit, must be decreasing and approaching the limit at a satisfactory pace.

As practical reasons forced the adoption of traditional indicators, tighter ceilings than otherwise necessary were chosen for yearly outcomes (Balassone and Franco 2000a, 2001). While the ceiling to the deficit ratio is consistent with Domar's (1944) requirement for sustainability, the debt ceiling aims at avoiding convergence to high levels of debt. The arbitrariness sometimes attributed to the choice of the actual thresholds appears to reflect ambiguities in the theory of fiscal sustainability rather than poor design of the rules.⁸ The choice of a gross debt measure also appears to reflect the reasonable degree of prudence that is to be used in assessing solvency, given the unavoidable large degree of judgment involved in the valuation of financial assets.

A common reference accounting framework for the two indicators was adopted (Eurostat 2000). The deficit is defined as the ESA95 general government net borrowing, while the debt is defined as gross financial liabilities at face value consolidated between and within the sectors of general government. Although this is not the debt definition provided by ESA, the relevant financial instruments and the reference sectors are those specified within that framework.⁹ The European Statistical Office (Eurostat) oversees the correct implementation of definitions and the computational criteria adopted by national statistical institutes. It also releases explanatory notes concerning controversial issues.

The choice of ESA as the relevant accounting framework for budgetary surveillance was due both to the appropriateness of national accounts for economic analysis and to the lack of any viable alternative. It was deemed unrealistic to define a new accounting framework to monitor public finances. The risk that a new framework would have been more permeable to politically motivated interpretations than ESA was probably also perceived.

⁷ The SGP introduced a medium-term target of a budgetary position of close to balance or in surplus and indicated how to interpret the Treaty's provisions allowing the annual deficit ratio to exceed the 3% limit under exceptional recessions and other circumstances that are not under government control and significantly impact on public finances. In March 2005, the Ecofin Council decided that an excess over the reference value may be considered exceptional if it results from a negative growth rate or from an accumulated loss of output during a protracted period of very low growth relative to potential growth. The Council also decided that medium-term targets are to be defined in cyclically adjusted terms, net of one-off and other temporary measures (European Commission 2005).

⁸ The target was set close to the European average at the time of the Treaty. In the absence of a fully specified "consensus" model of the economy, it is not possible to estimate a maximum sustainable level of the debt (see, for example, Balassone and Franco 2000a).

⁹ On the measurement of public debt in EMU, see Mink and Rodriguez-Vives (2004).

While continuous compliance with short-term prudent targets for the deficit indicator was taken as a means to ensure sustainability, the need for a forward-looking assessment of the budgetary situation was acknowledged by requiring the submission of multiyear programs including medium- and long-term projections. The internal consistency of the programs, their underlying assumption and, ultimately, attainability are also subject to scrutiny.¹⁰ Long-term projections are becoming increasingly important in the monitoring of budgetary trends.¹¹

3 Soundness of public finances

Fiscal soundness is the main objective of EMU's rules. While the rationale is clear (a sound policy avoids insolvency), the analytical and operational definition of soundness is not straightforward: how can the balance between unnecessary restraint and irresponsible excess be defined? This difficulty is mirrored in the lengthy debate on the definition of fiscal sustainability (Balassone and Franco 2000a; Banca d'Italia 2000).

In the literature, reference is often made to the present value budget constraint according to which financial liabilities (FL) must be equal to or smaller than the sum of: (i) assets (A); (ii) the difference between the stock of accrued revenue yet to be cashed in and the stock of accrued expenditure yet to be paid (net other accounts, NOA); (iii) the present value of the difference between future revenue (T , excluding revenue from the sale of assets) and expenditure (G , excluding expenditure for the acquisition of assets);¹² and (iv) the present value of the difference between future changes in the value of assets and those in the value of liabilities (ΔV):

$$FL_t \leq A_t + NOA_t + [\sum_{t+1,\infty} T_i(1+r)^{t-i} - \sum_{t+1,\infty} G_i(1+r)^{t-i}] + \sum_{t+1,\infty} \Delta V_i(1+r)^{t-i} \quad (1)$$

Using Eq. 1 as a reference, EMU's deficit and debt indicators can be examined with respect to two sets of issues: (i) comprehensiveness (i.e., issues related to terms in Eq. 1 which are overlooked); and (ii) measurement (i.e., issues related to the consistency of actual measures with their "theoretical" counterparts featuring in Eq. 1).

3.1 Comprehensiveness issues

EMU's fiscal indicators are measures of FL_t , for the debt, and of $(T_t - G_t)$, for the deficit. Therefore, EMU's fiscal rules do not take into account: (i) government assets (A_t); (ii) the stock of net other accounts (NOA_t , net assets/liabilities already accrued

¹⁰ European Union (EU) member states must submit their medium-term budgetary targets to the European Commission in a standardized format (Stability Programs and Convergence Programs for EMU and non-EMU countries, respectively). They must indicate the fiscal targets, the measures to allow their achievement, and the underlying assumptions. The relevance of the latter is emphasized by the examination of the track-record of budgetary forecasts in the programs (Strauch et al. 2004).

¹¹ See the Opinion of the Economic and Financial Committee, 27 June 2001, as endorsed by the Council. See also Economic Policy Committee (2001, 2003).

¹² Future revenue and expenditure are valued in accrual terms so that there is no need to consider explicitly future other accounts receivable and payable.

but not yet incorporated into financial instruments); (iii) future revenue and expenditure flows; and (iv) future changes in valuations of assets and liabilities (ΔV).

By taking into account government assets, one would be estimating net debt ($FL_t - A_t$). While this indicator would represent a better benchmark for assessing fiscal sustainability, its measurement faces some difficulties. First, the degree of liquidity of government assets should be taken into account. Second, data on assets are often subject to significant uncertainty, especially those on non-interest-bearing assets. Third, there is an open issue concerning the proper valuation criterion: while using book values may lead to underestimating the assets, reference to market values would induce excessive volatility in the debt measure.

Sales of financial assets that leave the government's net position unaffected can be used to reduce gross liabilities without improving the underlying sustainability conditions. In Italy a large privatization program undertaken during the 1990s contributed to the reduction of gross financial liabilities by almost 5 percentage points of GDP. More recently, gross debt was kept in check also thanks to sales of real estate (almost 1% of GDP in 2002) and reductions in the balances held by the treasury in its bank accounts (about 0.6% of GDP in 2003).

For the EU15, it can be estimated that privatization proceeds amounted to over 0.5% of GDP per year between 1994 and 2002. They were close to 1% of GDP between 1997 and 1999. In Belgium privatizations significantly contributed to debt reduction until 1998. In Germany privatization proceeds averaged at around 1% of GDP at the end of the 1990s. In Finland sales of shares in public corporations in the telecommunication sector amounted to 3% of GDP in 1999, 1.5% in 2000 and 1.9% in 2002. In Ireland privatization proceeds reached 5.5% of GDP in 1999. A large privatization program was started in Greece just before the turn of the century; revenue amounted to 3.3% of GDP in 1999. Government asset sales programs were also undertaken in Austria, France, and Portugal.

A more comprehensive picture of government net liabilities would be achieved by considering the stock of net other accounts (NOA_t). However, this would raise problems in terms of data availability. In particular, one would need estimates of commercial debts and tax credits.

Outstanding liabilities may be underestimated whenever net accrued liabilities are not yet incorporated in financial instruments. This may abruptly affect EMU's debt indicator. In Italy, the stock of tax credits reached significant levels in the first half of the 1990s (almost 4% of GDP). They are currently estimated at less than half that level. Settlement of past debts, mostly commercial debts of public institutions providing health care, have been significant throughout the 1990s and in most recent years, falling just short of 1/2% of GDP per year.

Overall a first-best solution is not available. However, useful indications may be recovered from: (i) a measure of debt net of most liquid assets (e.g., bank deposits) and of other assets whose valuation is less problematic (e.g., performing loans); (ii) a measure of debt including the stock of most relevant and easily measurable accrued liabilities (e.g., tax credits); and (iii) a measure of changes in net debt (valuation problems do not affect asset flows as much as stocks).

Concerning future revenue and expenditure ($\sum_{t+1,\infty} T_i(1+r)^{t-i} - \sum_{t+1,\infty} G_i(1+r)^{t-i}$), as mentioned in Section 2, there are practical reasons for excluding the use of forward-looking indicators. Nevertheless, there is a need to monitor policy measures that improve the debt and deficit today at the expense of deficit increases

tomorrow so as to avoid misleading interpretations of current budgetary outcomes. Recourse to such measures has not been uncommon among EU member states. A typical example is interest swap operations. During 1998–2003 interest swaps significantly reduced the overall deficit in Austria (0.8 percentage points of GDP), Denmark (0.6 p.p.), Italy (0.6 p.p.), and Sweden (0.6 p.p.). Swap operations, averaging 0.2 percentage points of GDP, were also carried out in Belgium, Finland, Greece, and Spain.¹³

In 2002 the Italian Treasury undertook a major swap operation with the bonds given to the Banca d'Italia in 1993 to extinguish the overdraft on the current account held by the treasury with the bank. The treasury bought back € 39.4 billion of long-term bonds with an annual coupon of 1% and gave the Banca d'Italia € 15.4 billion of long-term bonds with annual coupons ranging between 5% and 6½%. In this way, general government debt was reduced by € 23.9 billion. However, future government accounts were burdened by higher interest expenditure (about € 0.5 billion per year), lower tax revenue due to the reduction of the Banca d'Italia's taxable profits, and lower dividends paid by the bank to the treasury.

Securitizations of future revenue, securitizations backed by a state guarantee, sales and lease back of assets and transfers of pension liabilities from a company to the government in exchange for an upfront payment by the company have become increasingly popular among member states.¹⁴ However, some recent Eurostat decisions have ruled out the viability of some of these measures as a means to reduce current deficits (these transactions must now be treated as a loan).

Future changes in valuations of assets and liabilities (ΔV) are mainly due to exchange rate fluctuations and capital gains and losses. While in general the effects from each of these factors can be expected to cancel each other out in the long run, there can be circumstances in which they display a drift (e.g., if the domestic currency consistently tends to depreciate). In this case, by disregarding them, the true extent of liabilities is underestimated.

3.2 Measurement issues

These refer to the valuation criteria followed when computing the debt indicator (FL_t) and to the definition of general government.

Concerning the valuation criteria, while the present value budget constraint is defined in terms of the liabilities' redemption value, (i.e., is based on the price to be paid when the liabilities fall due), the debt indicator chosen for EMU's fiscal rules is considered at face value. Most often the two criteria coincide. However, this is not always the case. One example is the valuation of Italian Post Office Deposit

¹³ Note that two different definitions of the deficit are currently used in Europe: the first one, which is used for the purposes of EMU's fiscal rules, is affected by swap operations; the second one, which is the proper ESA95 definition, is not.

¹⁴ Securitizations of future revenue were carried out by Italy and Greece. Sale and lease-back operations were sizeable in Austria. France reduced its deficits (by 0.5% of GDP) through compensation for the take over of pension liabilities (those of France Telecom) in 1997. Portugal made a similar operation in 2003 with the Postal Service Pension Fund: the deficit reduction amounted to about 1% of GDP.

Certificates, whose nominal (face) value does not include accrued interest to be paid at withdrawal of funds. At the end of 2003, the difference between the two valuation criteria amounted to almost 5% of GDP. Bonds with this feature are also issued in Portugal.

Market valuation of liabilities would not represent a satisfactory solution for sustainability analysis: it refers to the amount the government would be asked to pay if it were to buy back its debt before it falls due, but the government has no obligation to do so. Furthermore, reference to market values could make the debt measure extremely volatile.

Concerning the definition of general government, the present value budget constraint holds for the activities of all public bodies whose financial behavior may in the end have an impact on the revenue needed to satisfy the budget constraint. In ESA95, general government units are identified as those units whose principal function is the production of non-market services or the redistribution of resources. This criterion is implemented by excluding from the general government sector those publicly-owned or controlled units dealing with commercial operations (such as public enterprises) provided that they cover most of their costs out of their own revenues.¹⁵ As a result, general government debt can be subject to sudden increases when the financial situation of these enterprises deteriorates to the point that the government is called to bail them out.

Over the past decade, debt assumptions have occurred in several EMU member states. In 1997, Italy's government assumed the outstanding liabilities of the National Railways Company (almost 2½% of GDP). In 2001, Belgium included in government debt the liabilities of the former Central Office of Mortgage Credit (in that year this operation and other ad-hoc factors increased the debt-to-GDP ratio by 1.9 percentage points); similar operations were carried out in 2002. Moreover, the Belgian government has agreed to assume in 2005 the debt of the national railway company (2.5% of GDP). In Austria, in the past few years the government issued bonds amounting to about 5.2% of GDP to finance public enterprises (*Rechtsträgerfinanzierung*). Significant debt assumptions were also carried out in France, Germany, Greece, and Portugal.

4 Enforcing the rules

In the context defined by EMU's fiscal rules, continuous within-year monitoring is necessary from the point of view of both the member state trying to comply with the rules and the agency (the EC) trying to assess the consistency of within-year developments with yearly targets. From this perspective the focus of the analysis is

¹⁵ There can be borderline cases, especially when revenue of public enterprises comes from the general government, which implies the need to ascertain whether these flows are truly revenue rather than transfers. Classification of units producing the same goods may therefore not be homogeneous across countries. The case of public enterprises involved in public investment or in the sale of public assets has recently come to the fore with reforms in Austria and Italy. Blejer and Cheasty (1991) discuss different approaches to defining the public sector.

on flow variables. Therefore, it is crucial that the chosen deficit indicator is available on a timely basis, that its computation does not involve too many elements of judgment, and that it is not subject to significant revisions.

From a fiscal monitoring point of view, the ESA deficit presents some problems that are mostly linked to its reliance on accrual accounting, a feature that was heightened by the switch from the 1979 to the 1995 version of ESA (effective as of 2000). While accrual-based accounts are indispensable for gauging the macroeconomic repercussions of fiscal policy, cash accounting has some advantages for short-term budgetary control and analysis.¹⁶

First, accrual data are essentially estimates based on cash data. Therefore their production is more time-consuming than that of cash data. This implies that the ESA95 deficit is not available on a timely basis.¹⁷ Indeed, most short-term budgetary indicators at the national level are based on cash data. There is a need to make these indicators consistent with the ESA95 budget balance, but this can be problematic if the relationship between the cash deficit and the ESA95 deficit is not stable.¹⁸

Second, while economically more relevant than cash data, accrual data embody more elements of judgment. Awareness of the potential problems linked with full reliance on accrual data is apparent in Eurostat's decision to specify that revenue computed in accrual terms should include only those items that are likely to be actually cashed in, and that in the medium-term accrual and cash data should converge.¹⁹

Third, accrual data are also more likely to be revised: as better information becomes available over time, the assumptions underlying their estimation are subject to changes.

Further issues may arise with respect to the treatment of transactions in financial assets, which do not affect the ESA95 deficit. The distinction between financial and nonfinancial assets is somewhat arbitrary: the sale of nonfinancial assets (real estate, but also UMTS licenses) is not intrinsically different from a privatization; also, in general, direct government investment is not intrinsically different from capital injections. Whether a transaction is a capital injection (which does not affect the deficit) or a capital transfer (which does) may depend on the profitability of the beneficiary enterprise, a concept that may not lend itself to unequivocal assessment.

The different accounting of investment spending and capital injections, on the one hand, and of sales of capital goods and privatizations, on the other hand, can induce distortions in the budgeting process—as witnessed by the recent popularity of

¹⁶ The point is made, for instance, by Kopits and Craig (1998). Similarly, the Australian Treasury notes that: “The main advantage of accrual measures (as opposed to cash) is that they provide a more comprehensive indication of the total activity of Government and the long-term effects of current policy. Cash measures, do, however, have some advantages for tracking expenditures in a fiscal year and helping to identify the short-term effects of fiscal policy on the economy.” (Commonwealth of Australia 1999, p. 2).

¹⁷ To improve the timeliness of ESA95 data, EU countries agreed to begin to publish quarterly data for the general government deficit in 2005.

¹⁸ For instance, this has been the case of Italy in recent years.

¹⁹ See Eurostat (2000) and EU Regulations 2516/2000 and 995/2001. Testimony to the relevance of this issue is the revision of the 2001 Portuguese deficit by almost 2 percentage points of GDP, partly motivated by the expiration of the derogation allowing Portugal to provide accrual data without ensuring consistency with cash data (the revision was significant also for the years from 1995 to 2000).

investment outsourcing. It can also result in the use of one-off transactions, such as sales of real estate, to fine-tune deficit figures.²⁰

Table 1 presents deficit-to-GDP ratios for the years 1997–2004 as initially reported by Euro-area member states and as reported in the most recent notifications available concerning each year considered. Revisions systematically result in worse budgetary balances. The annual revision for the area averages about 0.2% of GDP, but changes are more significant at the national level. Upward revisions were particularly large in Greece (2000–2003), Italy (2001–2003), Portugal (1998–2001) and Spain (1997, 1998, 2000). Significant upward revisions also took place in the Netherlands (2002) and Austria (2000). On the contrary, significant downward revisions took place in Belgium (1998, 1999) and Luxembourg (1997–2001).

Table 2 presents general government debt-to-GDP ratios for the years 1997–2004 for Euro-area countries as initially reported and as reported in the most recent notification available. Revisions result in both increases and decreases in initial debt figures. The overall revision averages about 0.4% of GDP per year. Upward revisions have been equal or larger than 1% percent of GDP in Belgium (1997–1998), France (1997–1998), Ireland (1998), Greece (2000–2003), Italy (2000–2002) and Austria (1999–2001). Relevant downward revisions have been as frequent as upward ones and mainly concerned Portugal, the Netherlands, Spain, and Ireland.

Changes in gross debt, an approximation of a cash deficit measure (see also Section 5), are, however, more stable. This can be seen from Table 3, which presents the ratio to GDP of the change in debt for the years 1997–2004 as initially reported and as reported in the most recent notification available concerning each year considered. Revisions are almost negligible. Revisions affecting the change in debt are less widespread across countries than those concerning ESA95 deficits and result in both increases and decreases to previously released data. Revisions were significant in Austria in 1997, 2000, 2001, and in 2002 (+1.8, +1.6%, +2.0, and –0.6% of GDP, respectively) and in Greece in 2000 and in 2001 (+2.3 and +5.1%, respectively).

Before the large revisions implemented in 2004 and 2005 to fiscal data for Greece and Italy, the European Commission (2003) reported on the reliability of EMU's fiscal indicators over the 2000–2003 period (i.e., since ESA95 came into force), noting that “the average absolute revision in the deficit ratios of Member States has been 0.15% of GDP after six months, 0.22% after one year, and 0.26% after 18 months” (p. 66). While arguing that these figures are small compared with the average size of expenditure and revenue to GDP ratios (around 47%), the EC (2003) also noted that “in some cases, the revisions in the government deficit ratios were unacceptably high”.

²⁰ Indeed, the deficit consistent with equation (1) should not be affected by any transaction in assets, whether financial or not (i.e., it should be computed excluding any type of transaction in assets). In principle, this means that equation (1) is also compatible with using deficit financing for purchasing productive physical assets (i.e., with the so-called golden rule). However, in practice, the golden rule may increase margins for opportunistic accounting (the evaluation of amortization is but one example). Moreover, the golden rule would only partly remove the bias against nonfinancial outlays embodied in present rules, while introducing new biases (e.g., against investment in human capital). Interestingly, Article 104 of the Treaty includes gross investment among the elements to take into account when assessing governments' fiscal positions but does not make explicit reference to the golden rule. For a discussion of the golden rule and the feasibility of its implementation in the context of EMU's fiscal rules, see Balassone and Franco (2000b).

Table 1 Net borrowing/lending 1997–2004: initial and final estimates of Spring notifications^a

As a percentage of GDP

	1997		1998		1999		2000 ^b		2001		2002		2003		2004	
	Spring 1998	Spring 2002	Spring 1999	Spring 2003	Spring 2000	Spring 2004	Spring 2001	Spring 2004	Spring 2002	Spring 2005	Spring 2003	Spring 2005	Spring 2004	Spring 2005	Spring 2004	Spring 2005
Belgium	-2.1	-2.0	-1.3	-0.7	-0.9	-0.4	0.0	0.2	0.2	0.6	0.1	0.1	0.2	0.4	0.1	0.1
Germany	-2.7	-2.7	-2.1	-2.2	-1.1	-1.5	1.5	1.3	-2.7	-2.8	-3.6	-3.7	-3.9	-3.8	-3.7	-3.7
Greece ^c	-4.0	-4.7	-2.4	-2.5	-1.6	-1.8	-0.9	-2.0	0.1	-3.6	-1.2	-4.1	-1.7	-5.2	-6.1	-6.1
Spain	-2.6	-3.2	-1.8	-3.0	-1.1	-1.2	-0.3	-0.9	0.0	-0.5	-0.1	-0.3	0.3	0.3	-0.3	-0.3
France	-3.0	-3.0	-2.9	-2.7	-1.8	-1.8	-1.3	-1.4	-1.4	-1.5	-3.1	-3.2	-4.1	-4.2	-3.7	-3.7
Ireland	0.9	1.2	2.3	2.3	2.0	2.4	4.5	4.4	1.7	0.9	-0.1	-0.4	0.2	0.2	1.3	1.3
Italy ^d	-2.7	-2.7	-2.7	-2.8	-1.9	-1.7	-0.3	-0.6	-1.4	-3.2	-2.3	-2.7	-2.4	-3.2	-3.2	-3.2
Luxembourg	1.7	2.8	2.1	3.0	2.4	3.7	5.3	6.3	5.0	6.2	2.6	2.3	-0.1	0.5	-1.1	-1.1
Netherlands	-1.4	-1.1	-0.9	-0.8	0.5	0.7	2.0	2.2	0.2	-0.1	-1.1	-1.9	-3.2	-3.2	-2.5	-2.5
Austria	-2.5	-2.0	-2.1	-2.5	-2.0	-2.3	-1.1	-1.5	0.1	0.3	-0.6	-0.2	-1.1	-1.1	-1.3	-1.3
Portugal	-2.5	-2.6	-2.3	-3.2	-2.0	-2.8	-1.4	-2.8	-2.7	-4.4	-2.7	-2.7	-2.8	-2.9	-2.9	-2.9
Finland	-0.9	-1.5	1.0	1.5	2.3	2.2	6.7	7.1	4.9	5.2	4.7	4.3	2.3	2.5	2.1	2.1
Euro area	-2.5	-2.6	-2.1	-2.3	-1.2	-1.3	0.4	0.1	-1.3	-1.7	-2.2	-2.4	-2.7	-2.8	-2.8	-2.8

^a A negative sign indicates a deficit; a positive sign indicates a surplus^b Including UMTS proceeds^c The data for the years 1997–2000 were revised at the end of 2004 to 6.6, 4.3, 3.4 and 4.1% of GDP, respectively^d The column labeled Spring 2005 refers to the May 2005 Notification

Table 2 Gross debt, 1997–2004: initial and final estimates of Spring notifications

	1997		1998		1999		2000		2001		2002		2003		2004	
	Spring 1998	Spring 2002	Spring 1999	Spring 2003	Spring 2000	Spring 2004	Spring 2001	Spring 2004	Spring 2002	Spring 2005	Spring 2003	Spring 2005	Spring 2004	Spring 2005	Spring 2004	Spring 2005
Belgium	122.2	124.7	117.3	119.6	114.4	114.8	110.9	109.1	107.5	108.0	105.3	105.4	100.5	100.0	95.6	95.6
Germany	61.3	61.0	61.0	60.9	61.0	61.2	60.2	60.2	59.8	59.4	60.8	60.9	64.2	64.2	66.0	66.0
Greece ^a	108.7	108.2	106.5	105.8	104.4	105.2	103.9	106.2	99.7	114.8	104.9	112.2	103.0	109.3	110.5	110.5
Spain	68.8	66.6	65.6	64.6	63.5	63.1	60.6	61.2	57.2	57.8	54.0	55.0	50.8	51.4	48.9	48.9
France	58.0	59.3	58.5	59.5	58.6	58.5	58.0	57.2	57.2	57.0	59.1	59.0	63.0	63.9	65.6	65.6
Ireland	66.3	65.1	52.1	54.9	52.4	48.6	39.1	38.4	36.3	35.8	33.3	32.6	32.0	32.0	29.9	29.9
Italy ^b	121.6	120.2	118.7	116.3	114.9	115.5	110.2	111.2	109.4	110.9	106.7	108.3	106.2	106.8	106.6	106.6
Luxembourg	6.7	6.0	6.7	6.3	6.2	6.0	5.3	5.5	5.5	7.2	5.3	7.5	4.9	7.1	7.5	7.5
Netherlands	72.1	69.9	67.7	66.8	63.9	63.1	56.3	55.9	52.9	52.9	52.6	52.6	54.8	54.3	55.7	55.7
Austria	66.1	64.7	63.1	63.7	64.5	67.5	62.8	67.0	61.8	67.1	68.7	66.7	65.0	65.4	65.2	65.2
Portugal	62.0	58.9	57.8	55.0	56.7	54.3	53.8	53.3	55.4	55.9	58.1	58.5	59.4	60.1	61.9	61.9
Finland	55.8	54.1	49.6	48.6	47.1	47.0	44.0	44.6	43.6	43.8	42.7	42.5	45.3	45.3	45.1	45.1
Euro area	75.2	75.3	73.4	73.7	72.3	72.8	69.7	70.4	69.1	69.6	69.2	69.5	70.4	70.9	74.1	74.1

^a The data for the years 1997–2000 were revised at the end of 2004 to 114.0, 112.4, 112.3 and 114.0% of GDP respectively

^b The column labeled Spring 2005 refers to the May 2005 Notification

Table 3 Change in debt, 1997–2004: initial and final estimates of Spring notifications

	1997		1998		1999		2000		2001		2002		2003		2004	
	Spring	Spring	Spring	Spring	Spring	Spring	Spring	Spring	Spring	Spring	Spring	Spring	Spring	Spring	Spring	Spring
	1998	2002	1999	2003	2000	2004	2001	2004	2002	2002	2003	2003	2004	2004	2005	2005
Belgium	0.6	0.7	-0.4	-0.6	0.9	0.3	0.3	0.2	2.0	1.6	-0.1	0.3	-2.1	-2.1	0.5	0.5
Germany	2.5	2.4	1.7	1.7	1.8	1.8	0.8	0.6	0.5	0.5	2.4	2.4	3.9	3.9	3.3	3.3
Greece	7.7	7.6	5.7	5.6	5.4	5.4	6.4	8.7	4.0	8.3	5.7	5.8	5.9	5.8	9.1	9.1
Spain	2.5	2.5	2.1	2.2	2.9	2.8	1.8	2.0	0.7	0.4	0.5	0.8	-0.3	-0.2	1.0	1.0
France	4.2	3.9	2.6	2.7	1.1	1.1	1.4	1.4	1.8	1.8	3.8	4.0	5.5	6.0	4.3	4.3
Ireland	0.3	0.8	-1.5	-1.7	2.1	1.9	-3.8	-3.6	1.6	1.7	0.5	0.3	1.1	1.0	0.4	0.4
Italy ^a	2.6	2.7	1.4	1.4	1.9	2.1	1.5	1.5	3.5	4.2	0.5	1.1	1.6	1.9	3.8	3.8
Luxembourg	0.6	0.5	0.7	0.8	0.5	0.0	0.1	0.2	0.0	0.2	0.2	0.5	-0.6	0.0	0.9	0.9
Netherlands	-1.1	-0.9	0.2	0.8	-0.1	-0.2	-2.7	-2.9	0.2	0.5	1.6	1.6	3.3	2.7	2.7	2.7
Austria	-0.8	-2.6	1.6	1.7	3.2	3.1	1.0	2.6	0.0	2.0	1.8	1.2	0.1	0.4	2.0	2.0
Portugal	0.6	0.8	0.4	0.5	3.4	3.0	2.2	2.5	5.5	5.5	5.2	5.2	2.5	2.5	3.8	3.8
Finland	2.0	1.5	-1.4	-1.1	0.2	-0.2	0.9	1.2	0.9	1.1	0.2	0.2	3.7	3.8	1.7	1.7
Euro area	2.5	2.4	1.7	1.7	1.7	1.7	0.9	1.0	1.6	1.8	2.1	2.2	2.9	3.1	3.3	3.3

^a The column labeled Spring 2005 refers to the May 2005 Notification

In the end, while EMU's deficit indicator allows comparability among Member States, it is not the most appropriate indicator for short-term monitoring. In several cases the deficit has turned out to be significantly higher than first estimated. Estimates of changes in debt seem to be less volatile.

5 Case studies

The discussion in the previous sections shows how both the deficit and debt indicators can be manipulated easily. However, it also suggests that since the ESA95 deficit is not the flow concept corresponding to changes in the stock of gross financial liabilities, generally a given budgetary measure affects the two indicators differently. This can be seen most easily if we compare ESA95 deficit with the change in debt. The former is given by

$$DEF_t \equiv G_t - T_t \quad (2)$$

while the latter is given by

$$\Delta FL_t \equiv G_t - T_t + NAFA_t + \Delta VL_t + CA_t \quad (3)$$

where NAFA is net acquisition of financial assets, CA is the difference between cash and accrual valuations (the former used to compute the change in debt, the latter to compute the deficit; in the medium term the difference should tend to zero) and ΔVL is valuation changes in liabilities.

The discrepancy between the change in the debt and the deficit measure chosen for EMU's rules was by no means negligible over the 1990s. The yearly average for EU15 countries between 1992 and 2001 was almost 1% of GDP. While at present this inconsistency is mainly seen as an unnecessary complication to the assessment of the Stability Programs, it also suggests the potential for unexploited synergies from the joint assessment of the two indicators.

From Eq. 3 one can obtain an estimate of the deficit in cash terms:

$$DEF_{FC_t} = \Delta FL_t - NAFA_t - \Delta VL_t \quad (4)$$

The comparison of accrual and cash deficit provides indications concerning the consistency of accrual deficit estimates. Monitoring the extent of gross asset acquisition allows an evaluation of the degree of prudence exercised when deciding on the classification of transactions. At the same time, by considering privatizations and operations determining changes in the valuation of liabilities, one can assess the extent to which debt dynamics is dependent on ad hoc non-recurrent factors that leave the government's net asset position unaffected (if not worsened).²¹

EU countries are already required to provide the information needed for these cross checks in the context of the twice-a-year Notification of public finance data. However, these data are not made publicly available, thereby limiting the possibility

²¹ Ideally one would also want to control the extent of one-off measures directly affecting G and T in equations (2) and (3). See Section 6.

of independent assessment.²² Moreover, present arrangements do not provide for an explicit estimation of the cash deficit.

Evidence supporting the usefulness of cross-checking fiscal data is provided by three case studies of abrupt and significant deficit data revisions. These revisions occurred in Italy and Portugal in 2002, and in Greece in 2004.

5.1 Italy 2001

According to the March 2002 release by the Italian Statistical Office (Istat), net borrowing in 2001 was 1.4% of GDP (as against 1.7% in 2000, excluding UMTS proceeds). The outcome was very close to the range of forecasts by international organizations.²³

In June 2002, Istat raised the figure for the 2001 deficit to 1.6% of GDP, primarily on account of the revision of the data on the health sector.²⁴ In July 2002, Eurostat announced its decision on the accounting treatment for the purposes of the excessive deficit procedure of securitizations carried out by governmental authorities. This implied an upward revision of Italy's deficit to 2.2% of GDP.²⁵ In March 2003, Istat again revised the 2001 figure upwards, to 2.6% of GDP. This revision was due to the availability of more complete information on the accounts of different government tiers.²⁶ In March 2005, Istat revised the deficit for the period from 2001 to 2003 upwards. The deficit for 2001 reached 3.0% of GDP. This change largely reflected a revision in the classification of capital injections to the state-owned railway company. In May 2005, the deficit was further revised to 3.2%.²⁷

Overall, the initial estimate of the 2001 deficit was revised upwards by 1.8 percentage points of GDP, from 1.4% in March 2002 to 3.2% in March 2005. Less than one third of the revision was due to non-ordinary factors (i.e., Eurostat's decision concerning securitizations).²⁸

²² The European Central Bank publishes a deficit-debt adjustment table for the Euro area as a whole.

²³ 1.3% of GDP according to the IMF in October 2001; 1.1% according to the EC in November 2001; and 1.4% according to the OECD in December 2001.

²⁴ A similar revision, again due to health sector data, had already been made in March 2002, with reference to the 2000 outturn (from 1.5% to 1.7%).

²⁵ According to Eurostat's decision, securitizations are considered loans to general government if: (i) they concern future income unrelated to previously existing assets; and (ii) they do not involve an adequate transfer of risk to the assignee (Eurostat established that the risk is transferred only if the government does not guarantee the securitized asset and if it is paid at least 85% of the market value of the securitized assets). The operation carried out in Italy in 2001 concerned real estate and future lotteries' receipts. They were both considered loans as, in the first case, the government received less than 85% of the market value of the securitized buildings and, in the second case, the future income flows were not related to previously existing assets.

²⁶ In particular, the revisions concerned health and interest expenditure, tax revenues and expenditure on intermediate consumption, compensation of employees, subsidies and interests.

²⁷ Following indications provided by Eurostat, in May 2005 some payments that the government had received from tax collectors in 2003 and 2004 were recorded as loans rather than as revenues. Moreover, the debt issued in 2004 by Infrastrutture S.p.A. in the context of the financing of the high-speed railway operation was to be recorded as government debt.

²⁸ Istat stressed that previously, up to the March 2002 Notification to the EC, ordinary revisions (i.e., excluding, for example, those related to Eurostat decisions) of deficit figures from one year to the following had been small, normally not exceeding $\pm 0.1\%$ of GDP. See Istat press release (February 2003, p. 7).

The decline initially reported for the deficit between 2000 and 2001 (from 1.7% to 1.4% of GDP) was in marked contrast with debt dynamics. The change in debt rose from 1.5% of GDP in 2000 to 3.5% in 2001 (Fig. 1a).

The decline in net borrowing was also at odds with the increase in the cash deficit as computed by subtracting net asset acquisitions and valuation effects from the change in debt: the cash deficit was 3.0% in 2000 and 3.3% in 2001 (Fig. 1b).

After the revisions, the estimates for the ESA95 deficit (1.9% and 3.2% of GDP for 2000 and 2001, respectively) follow a pattern which is more in line with the dynamics of debt (Fig. 2a). The ESA95 figures are also closer to those computed on a cash basis (3.1 and 3.8, respectively; Fig. 2b).²⁹

We conclude that a joint examination of the three indicators could have provided an early warning of the likely forthcoming revisions. It should be recalled that all the information for computing these indicators had been available since the March 2002 Notification to the EC. This comparative exercise was, in fact, carried out by the Banca d'Italia in its Annual Report released in May 2002.

5.2 Portugal 2001

In its first Notification about the fiscal outcomes for 2001, Portugal estimated the general government deficit to be 2.2% of GDP as against 1.5% in 2000. At that time, the most up-to-date deficit forecasts by international institutions were somewhat more favorable.³⁰

Eurostat stated that it was not in a position to certify the figures in the Portuguese Notification due to, *inter alia*, the lack of information on capital injections to public corporations—which had been treated as acquisition of equity with no effect on the government deficit (Eurostat 2002, p. 2). Moreover, Eurostat stressed that, as some of these capital injections might be reclassified as transfers, the notified deficit was to be considered as provisional and was likely to be increased.

In the Spring of 2002 a commission headed by the Banco de Portugal with representatives of the Ministry of Finance and the National Statistical Institute was set up to analyze and update government accounts. In September, the figure for the 2001 deficit was revised upwards to 4.1% of GDP. This revision was due to a number of factors: new data on the accounts of local authorities; the reclassification of some capital-injections into publicly owned companies; changes to the methods used to account for expenditure carryovers and revenue connected with the EU structural funds; and the expiration of a derogation with regard to the methods of recording tax and social contribution receipts accruing in the year.

The initially reported increase in the deficit between 2000 and 2001 (from 1.5% to 2.2% of GDP) was markedly smaller than the one observed for the change in debt (from 2.5% to 5.5%). Figure 3a shows the initial divergence between the ESA95 deficit figures and those referring to the change in debt. Figure 3b shows the same variables after the revisions. Note that the ESA95 deficit is closer to the change in debt also in the years preceding 2001.

²⁹ The change in debt in 2001 was revised upwards following (1) a Eurostat decision concerning securitizations and (2) the release of new data concerning Post Office accounts.

³⁰ 2.0% of GDP according to the IMF (October 2001); 2.0% according to the EC (November 2001); and 1.7% according to the OECD (December 2001).

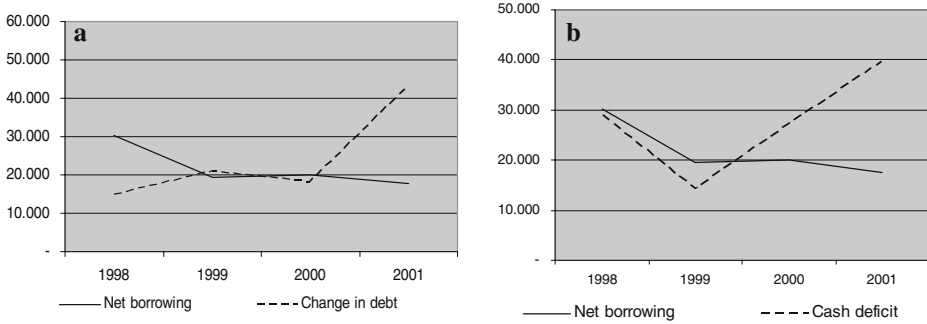


Fig. 1 a. Italy: net borrowing and change in gross debt as available in March 2002 (in billions of euro). b. Italy: net borrowing and cash deficit as available in March 2002 (in billions of euro)

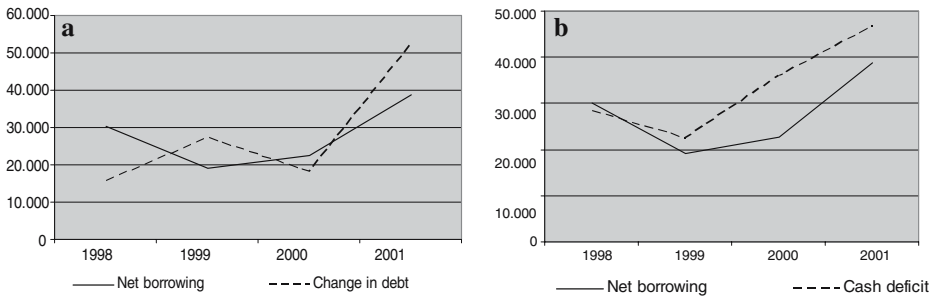


Fig. 2 a. Italy: net borrowing and change in gross debt as available in May 2005 (in billions of euro). b. Italy: net borrowing and cash deficit as available in May 2005 (in billions of euro)

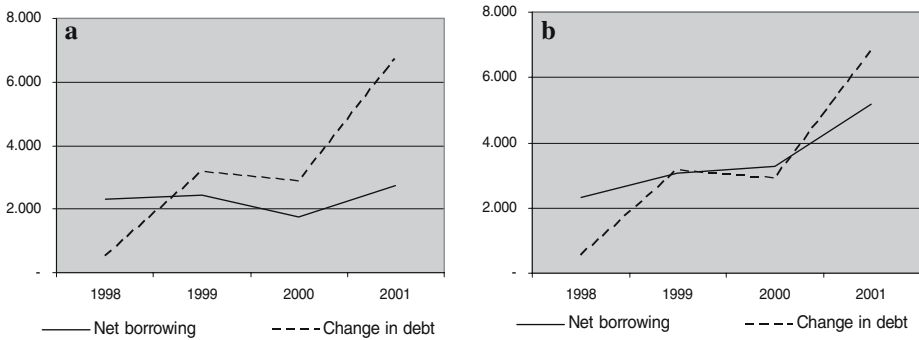


Fig. 3 a. Portugal: net borrowing and change in gross debt as available in March 2002 (in billions of euro). b. Portugal: net borrowing and change in gross debt as available in March 2003 (in billions of euro)

5.3 Greece 2003

At the beginning of March 2004, in its first Notification about the 2003 fiscal outcome, Greece estimated the general government deficit at 1.7% of GDP, as against

1.4% in 2003. At that time, the most up-to-date forecasts by international institutions were broadly in line with the data notified by Greece.³¹

Later in March, Greece sent updated data to the EC, revising the 2003 deficit upwards to 3.0% of GDP. In April, when publishing the Spring Forecasts, the EC took into account this Notification and stressed that “the data for 2003 are not yet validated by Eurostat and do not therefore provide a reliable basis for assessing the budgetary situation at this stage” and “[a] fact-finding mission is being prepared for the end of April in order to have more information about the budgetary situation in this country and decide on steps to be taken”. In May, following an additional Notification, Eurostat verified that in 2003 the general government deficit was 3.2% of GDP. In the September Notification, deficit and debt figures for the years 2000–2003 were significantly revised. In particular, the 2003 deficit was revised to 4.6% of GDP and the 2003 debt was revised to 109.9% of GDP.

The deficit revisions occurred between March and September and were essentially due to (i) lower tax revenue (mainly VAT); (ii) lower payments from EU institutions in the context of structural funds programs; (iii) the reclassification, as a financial transaction, of a payment from the Saving Postal Bank to the government; (iv) upward revisions of military expenditure and interest payments; and (v) lower than expected surpluses of social security funds.³²

The initially reported increase in deficit between 2002 and 2003 (from 1.4% to 1.7% of GDP) was in line with that observed for the change in debt, the latter rising from 5.6% of GDP in 2002 to 5.9% in 2003. However, the level of the two indicators was markedly different (Fig. 4a).³³ Figure 4b shows how revisions began to reduce the discrepancy.

6 Toward an integrated framework of analysis

The ESA95 deficit is the main indicator for evaluating fiscal policy developments in EMU. It is the cornerstone of fiscal programs, fiscal monitoring, and ex-post assessment of budgetary policy. This extensive use contrasts with the concerns that arise with respect to its use for monitoring purposes. It also contrasts with the conclusions of the economic literature concerning fiscal indicators, stressing that the evaluation of all the various aspects of fiscal policy (e.g., macroeconomic effects, size of discretionary policy measures, impact on national savings, fiscal sustainability) cannot be based on a single indicator.³⁴ The analysis of each aspect of fiscal policy is best conducted with reference to a specific indicator.³⁵

In considering possible remedies, one should keep in mind that, as the literature of monetary policy has also suggested, any single policy indicator is likely to be

³¹ 1.4% of GDP according to the IMF (September 2003); 1.7% according to the EC (October 2003); and 1.7% according to the OECD (December 2003).

³² The revisions concerning debt figures were due to underestimation of bonds with capitalized interest and to overestimation of consolidating assets of social security.

³³ Note that the level of net borrowing as reported in March was also significantly lower than that of the general government net borrowing requirement (see Bank of Greece 2003, 2004).

³⁴ “... too much concentration on a single indicator of policy ‘success’ over-simplifies the technical issues concerning the running of the economy and diverts attention away from the more fundamental problems affecting its state of health” (Peacock and Shaw 1981, p. 5).

³⁵ See, for example, Blanchard (1990), Blanchard et al. (1990), and Blejer and Cheasty (1991, 1993).

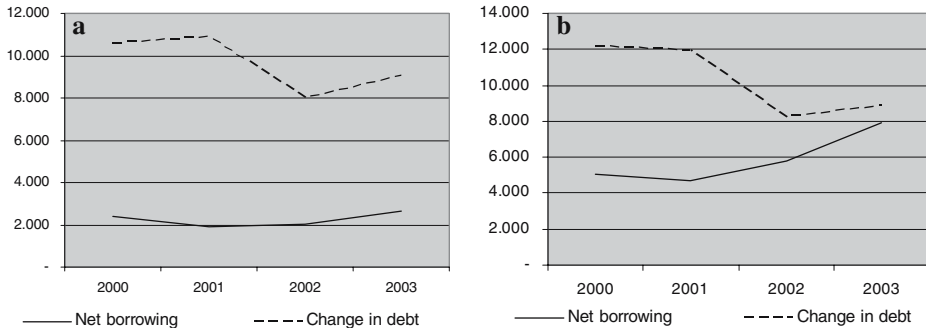


Fig. 4 a. Greece: net borrowing and change in gross debt as available in March 2004 (in billions of euro). b. Greece: net borrowing and change in gross debt as available in September 2004 (in billions of euro)

distorted (Goodhard 1984). This consideration warns against simply replacing the ESA95 deficit with another indicator. Any alternative indicator would also be prone to distortions and not capture all the aspects of fiscal policy. This Section further considers how cross checking of current EMU deficit and debt indicators can be better exploited to ensure effective enforcement of EMU's fiscal rules and how these indicators can usefully be integrated with additional information to provide sounder policy guidance without any change in the Treaty.

6.1 Exploiting synergies

The three cases examined in Section 5 share two common features: (a) the initial deficit figure was consistent with forecasts by all international organizations; and (b) the change in gross general government debt was much larger than the initial estimate of the ESA95 deficit and usually was not significantly modified upward.³⁶

This suggests that: (a) by looking at the ESA95 deficit in isolation all parties involved can get a distorted view of fiscal trends over significant periods of time; and (b) the change in debt and the cash deficit underlying it can be used to check the ESA95 deficit and that there are unexploited synergies between the two EMU indicators.

The European Commission recently made a similar point: “large and persistent stock-flow adjustment should give cause for concern, as they may be the result of inappropriate recording of budgetary operations and can lead to large ex post upward revisions of deficit levels” (European Commission 2003, p. 59). The Commission also argued that “it is important that a link is established between the ESA government deficit and the cash-based public accounts deficits. This is important because the cash-based balances are easier to compile and to monitor as they are directly observable”. Moreover, while “all countries transmit to the Commission data on the link between the cash-basis figures and the ESA government deficit [...], for several countries this information is relatively confusing or not complete or there are important statistical discrepancies” (p. 67).

Greater reliance on cash and debt figures would have additional benefits in terms of timeliness and transparency. As for the former, data on financial liabilities are

³⁶ In the case of Greece, the change in gross debt was significantly revised upwards for 2000 and 2001.

available more rapidly than those on real transactions and on transactions in financial assets (the information set for the general government is usually completed within a month after the end of the reference period); as for the latter, data are usually publicly available from market sources.³⁷

The ESA95 deficit should be systematically reconciled with the change in gross debt and with the underlying cash deficit.³⁸ The Stability and Convergence programs, which set targets both for the budget balance and the debt, should provide information reconciling the two indicators. The reconciliation currently included in the twice-a-year Notifications should be made available to the public and be extensively explained. Moreover, full details should be provided concerning the transactions in financial assets, the difference between cash and accrual figures, the difference between the nominal value of bonds and their price at issuance, the effects of exchange rate movements on foreign currency denominated government bonds, and the other factors that may result in a wedge between the deficit and the change of gross debt. This would allow in-depth investigation of unusual developments in any such items (such as persistently significant net acquisition of financial assets and differences between cash and accrual figures).

6.2 A broader network of indicators

While a more transparent and publicized reconciliation of deficit and debt figures would surely help with rules enforcement, further complementing these indicators can prove beneficial from the point of view of sustainability analysis and policy guidance.

The gross debt definition overlooks the fact that government assets can be sold to repay the debt. Relying on both a gross and a net debt definition is preferable (H.M. Treasury 2003). The former is more precise, available on a more timely basis, and more relevant over the short term; the latter is more complete and more relevant from a longer time perspective. As pointed out in Section 3, an adequate measure of net debt may not be available. However, it may be useful to complement gross debt with (i) a measure of the most liquid assets (e.g., bank deposits) and of those other assets whose valuation is less problematic (e.g., performing loans); and (ii) a measure of changes in net debt (valuation problems do not affect assets flows as much as stocks).

Moreover, liabilities excluded from EMU's debt definition should be monitored. First, there are contingent liabilities that can emerge from the government's involvement in the economy (e.g., guaranteeing the debt of public enterprises or providing deposit insurance).³⁹ Second, there are non-financial liabilities (such as commercial debt and the credits of taxpayers) that need to be considered (Kopits and Craig 1998). On the basis of an agreed and transparent framework, governments

³⁷ Or, at worst, they are available not only from government sources but also from the counterparts of the underlying financial transactions. While cash data are obviously not immune from window-dressing (e.g., by delaying payments to providers or employees), it is also true that in these circumstances somebody is likely to voice objections to such practices, which is not the case for opportunistic accrual accounting.

³⁸ In the Australian accounting framework, which is based on accrual criteria, accrual and cash figures are reconciled. See Commonwealth of Australia (1999) and Robinson (2002).

³⁹ A contingent liability can be defined as a public sector action that determines an expenditure only if and when a certain event takes place.

could be required to provide estimates of these off-budget liabilities on a yearly basis. This would allow having an estimate of the overall fiscal position of the government.⁴⁰

The size of one-off measures should be publicized in order to evaluate the underlying budget balance. The measurement of one-off effects raises some methodological issues (European Commission 2004; Koen and van den Noord 2005). Public spending normally is the result of several provisions and events with temporary expansionary or restrictive effects. It may be useful to consider only measures having transitory effects on public revenue (e.g., sales of assets, anticipation of tax payments, tax amnesties). Guidelines concerning the definition of one-off measures would have to be agreed upon in advance.

Periodical and standardized assessments of the long-term implications of current budgetary policies should also be provided.⁴¹ Estimates should be revised regularly, and changes extensively explained. The exercises co-coordinated at the European level have greatly contributed to increasing the quality and comparability of long-term projections (Economic Policy Committee 2001, 2003). However, further progress is required before the estimates can be used in the EU fiscal framework. While the assessment of the sustainability of pension systems and the pressure of pension schemes on the budgets should primarily refer to expenditure to GDP ratios and equilibrium contributory rates, estimates of pension liabilities may represent a useful complement to conventional debt and deficit measures.⁴²

7 Conclusions

The EU ECOFIN Council, while noting the progress in the provision of fiscal statistics, has recently stated that “the compilation and reporting of statistics for the Excessive deficit procedure must not be vulnerable to political and electoral cycles”. It has noted that it “considers that integrity, independence and accountability of data compilers, and the transparency of the compilation methods, underpinned by the appropriate institutional arrangements, are crucial to ensure such high-quality statistics”. Finally, it has invited “the Commission to make, by June 2005, a proposal for such standards, which reinforce the independence, integrity, and accountability of the Member States’ national statistical institutes”. The Council has therefore implicitly recognized that indicators can be affected by political considerations and that there is room to improve both the transparency of methodologies and the independence of statistical institutes. This situation is particularly worrying in a period of fiscal stress in which pressure to engage in non-transparent practices may mount (Kopits and Craig 1998; Petersen 2003).

⁴⁰ See, for instance, the analysis in Commonwealth of Australia (2002a).

⁴¹ A first step in this direction is the introduction of long-term expenditure projections in the Stability Programs. On the technical features and policy implications of long-term projections, see Franco and Marino (2004).

⁴² They may bring a clearer understanding of the impact of policies (present pensioners’ and workers’ liabilities correspond to Social Security Wealth), may provide a measure of the cost of terminating pay-as-you-go pension schemes and may be useful for the measurement of deficits computed on accrual basis (Franco et al. 2005. See also Van den Noord and Herd (1993)).

The paper has stressed that whatever the indicators adopted, it is important to be aware of the unavoidable pressures for opportunistic interpretations of accounting rules. While highlighting the problematic aspects of EMU's deficit and debt indicators, we noted that any other indicator would suffer the same pressures, and suggested that the effectiveness of short-term monitoring would greatly benefit from the full exploitation of the consistency cross-checks made possible by the availability of two indicators. At the same time, we argued that a battery of indicators should be developed in order to increase the relevance of fiscal monitoring for fiscal sustainability and policy guidance.

By complementing indicators currently in use with cash deficit and net debt estimates, the mismatch of tools and targets implicit in the implementation of EMU's rules would also be redressed. At present, the framework relies on accrual figures for short-term monitoring and on cash-consistent figures for the evaluation of long-term sustainability. However, accrual accounting is better suited for medium- and long-term sustainability analysis and cash figures are best used for short-term monitoring.⁴³

The proposals formulated in Section 6 do not require any change to the Maastricht Treaty or to the Stability and Growth Pact. They are in line with the reforms introduced in recent years in some countries to improve the analysis of fiscal developments.⁴⁴

In the context of a reform of budgetary targets, New Zealand has introduced measures aimed at increasing fiscal transparency and signaling a commitment to sound fiscal policies (New Zealand Treasury 1995; Cangiano 1996). Public accounts are reported for a broad public sector, which also includes non-financial enterprises and public financial institutions. While the accounting statements are accrual-based, cash accounts are also published. Estimates of measurable commitments and contingent liabilities are provided.

The Australian budget presents a detailed analysis of financial and non-financial assets (Commonwealth of Australia 2002a). The latter include land, buildings, plant, equipment, infrastructure, and inventories. The budget also examines financial and non-financial liabilities. The latter include public employees' pension liabilities and other entitlements, subsidies and grants payable and payables to suppliers. Both the net worth (total assets minus total liabilities) and the net debt (gross financial liabilities minus financial assets) are reported. Figures are provided for the general government (central and state/local), for public non-financial corporations and for the consolidated public sector. The budget balance is presented both in accrual and cash terms. The Australian government also releases a report examining budgetary prospects over a 40-year period (Commonwealth of Australia 2002b). Inter alia, the report evaluates the effects of demographic changes on the main spending programs.

These and other examples provide evidence that "transparency is conducive to successful fiscal policy whether in the context of rules-based or of discretionary

⁴³ Accordingly, in the United States the Budget reports past and expected flows of cash into and out of the treasury and the federal government's Financial Statement reports assets and liabilities on an accrual basis of accounting (United States CBO 2004; United States Department of the Treasury 2004). The budget deficit determines the change in the debt held by the public and contributes, together with changes in other liabilities (e.g., pension benefits earned by federal employees) and other items (e.g., the estimate of depreciation) to determine the change in the government's net position. In 2003, the deficit and the debt increase amounted to about 3.5% of GDP, the net position worsened by 6.1% of GDP.

⁴⁴ For the developments in the U.S., see United States CBO (2004).

policymaking” (Kopits 2001, p. 74) since “prudent expenditure, productive and equitable taxation, and due equilibrium between income and outlay will only be found where responsibility is enforced by the public opinion of an active and enlightened community” (Bastable 1927, p. 761).

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