

FROM GOVERNMENT DEFICIT TO DEBT: BRIDGING THE GAP

ARTICLES

From government
deficit to debt:
bridging the gap

Government deficit and debt are the primary focus of fiscal surveillance in the euro area, and reliable data for these key indicators are essential for the credibility of the surveillance process. However, there are differences between the government deficit and the change in government debt, known as deficit-debt adjustments, which can in some cases be rather significant. This article examines these differences in depth and argues that as long as they reflect the proper recording of government financial activity, such as the building-up of assets by social security funds to prepare for future pension payments, there is no reason for concern. Following recording difficulties in a few cases, statistical surveillance at the European Union (EU) level has evolved significantly in recent years. This has strengthened the implementation of accounting rules and the reliability of fiscal figures, both of which support the implementation of the revised Stability and Growth Pact.

I INTRODUCTION

Government deficit and debt are the primary focus of fiscal surveillance in the euro area. However, their development has always diverged somewhat and, in certain instances, these divergences have been significant. From the start of Economic and Monetary Union on 1 January 1999 to the end of 2005, the total increase in euro area government debt (also known as “Maastricht debt”) amounted to 15% of GDP, whereas the accumulated euro area government deficit amounted to around 13% of GDP.¹ The difference between the change in debt and the cumulated deficit was thus 2% of GDP over the period or 0.3% of GDP on average per year for the euro area as a whole. However, at the country level, cumulated differences between the change in debt and the deficit were much more substantial in some cases, amounting to up to 28% of GDP over the period. This difference between the change in government debt and the government deficit is also known as the “deficit-debt adjustment” (DDA) or more generally as the “stock-flow adjustment”.

As long as the DDA and its components are the result of proper statistical recording, the reliability of deficit and debt figures is secured. This, in turn, supports the credibility of EU fiscal surveillance. By contrast, fiscal surveillance could be undermined if doubts arise about the reliability of these figures.

Section 2 describes the sources of deficit-debt adjustments. Section 3 explores the relationship

of these adjustments with EU fiscal surveillance and the Stability and Growth Pact. Section 4 provides a quantitative analysis of the various components of the DDA and of changes over time in the euro area, and Section 5 concludes.

2 DEFINITION AND SOURCES OF THE DEFICIT-DEBT ADJUSTMENT

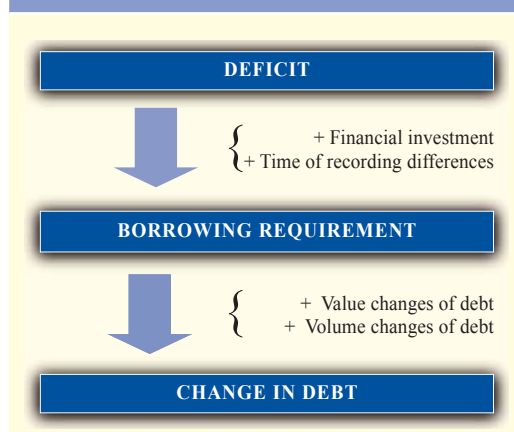
It seems intuitive that outstanding government debt should increase in line with the deficit. However, this is not necessarily the case for several reasons, which are best explained by looking at the underlying accounting steps (as illustrated in Chart 1). First, the deficit is different from the amount a government needs to borrow (the borrowing requirement) due to financial investment. Second, there are time of recording differences mainly between government expenditure or revenue and any related cash flow. Moreover, the change in outstanding government debt may differ from the borrowing requirement owing to other changes in the value or volume of debt.²

Starting with potential discrepancies between the deficit and the borrowing requirement, financial investment for instance comprises the deposits held by government at monetary financial institutions, the acquisition of (non-government) securities by social security funds

1 Both measures are expressed in terms of 2005 GDP.

2 A more detailed explanation of the DDA is provided in the ECB Government Finance Statistics Guide: <http://www.ecb.int/pub/pdf/other/governmentfinancestatisticsguide200701en.pdf>.

Chart 1 From government deficit to debt



(which build up assets to cover future pension entitlements) and increases in equity held by the government in corporations. With a given deficit, government financial investment increases the borrowing requirement and thereby also government debt; conversely, a reduction in financial assets (as a result of privatisations for instance) tends to reduce the borrowing requirement and debt, while leaving the deficit unchanged.

Time of recording differences refer to the difference between the recording of expenditure and the related payments and that of revenue and the related cash flow to government. For instance, expenditure is recorded upon delivery of supplies and hence increases the deficit,

while government may delay (in line with contractual settlement clauses) the actual cash payment, leaving the government borrowing requirement and debt unchanged. Similarly, taxes are recorded as reducing the deficit at the time that they are assessed, even though the payment may take place somewhat later. Another time of recording difference arises on account of the advance or delay in reimbursement by the EU of the funds the government spends on its behalf. If the time of recording is not consistent across the different data sources used for the government accounts, this leads to statistical discrepancies, which are also part of this DDA component. Time of recording differences tend to broadly cancel out over time (e.g. expenses reported as expenditure but not yet paid in one year will be paid, but no longer reported as expenditure in the subsequent year).

Differences between the borrowing requirement and the actual change in debt are due to changes in the value or volume of Maastricht debt that arise independently of any transaction. For instance, the value of outstanding government debt declines when an appreciation of the domestic currency reduces the nominal value of debt denominated in foreign currencies. "Volume changes" that are not associated with transactions typically result from either reclassifications of public corporations into, and out of, the government sector or from certain debt assumptions by government.

Box

HOW ARE MAASTRICHT DEFICIT AND DEBT DEFINED?

The government deficit and debt figures used for the excessive deficit procedure are laid down in the Maastricht Treaty, which was ratified by all European Union Member States.¹ This is why government deficit and debt are also often referred to as Maastricht deficit and debt.

Maastricht debt measures the indebtedness of the government sector as a whole. However, it is not simply the sum of the debt issued by all government units, but rather consolidates the

¹ See Article 2 of the Protocol on the excessive deficit procedure annexed to the Treaty: <http://europa.eu/eur-lex/en/treaties/selected/livre335.html>.

debt across units. This means that the liabilities of one government unit that are held by another government unit, such as central government bonds held by social security funds, are excluded from government debt.

Maastricht debt is defined in gross terms: the assets held by government units that are liabilities of non-government units (for example bonds or shares issued by corporations) are not deducted from Maastricht debt.

It is measured at nominal or face value, indicating the amount the government will have to redeem when paying off its debt. However, valuation effects arising from the conversion at market price of debt denominated in foreign currencies are taken into account in Maastricht debt.

For practical reasons it excludes a number of liabilities that are difficult to measure, most importantly, other accounts payable that include trade credits originating from contractual delays of payments to providers of goods and services.²

The Maastricht deficit is the difference between government revenue and government expenditure. It is also equal to the balance of financial assets acquired by government and the total liabilities incurred.³ The proper recording of all transactions is governed by the European accounting rules known as the European System of Accounts 1995 (“ESA 95”), which is in line with other international statistical standards and is enshrined in a Council Regulation adopted by all EU Member States.⁴

2 See Council Regulation (EC) No 3605/93 of 22 November 1993 on the application of the Protocol on the excessive deficit procedure, as well as further amendments.

3 It represents the change in the government’s financial net worth due to transactions. Changes in the government’s financial net worth due to holding gains and losses are excluded from the deficit.

4 Council Regulation (EC) No 2223/96 of 25 June 1996 on the European system of national and regional accounts in the Community.

3 DEFICIT-DEBT ADJUSTMENT AND FISCAL SURVEILLANCE UNDER THE STABILITY AND GROWTH PACT

The DDA is an important variable for EU fiscal surveillance because it bridges the gap between developments in the government deficit and debt which, in turn, are the key fiscal variables monitored under the Stability and Growth Pact. The 3% of GDP reference value for the deficit and the 60% of GDP reference value for public debt must be respected to preserve confidence in stable and sustainable public finances as these are a cornerstone of macroeconomic stability in each country and the proper functioning of EMU. A breach of the deficit threshold results in the initiation of the excessive deficit procedure, which can ultimately lead to financial sanctions.

As long as the DDA and its components are the result of sound statistical recording, the reliability of deficit and debt figures is strengthened which, in turn, supports the credibility of EU fiscal surveillance and the excessive deficit procedure. At this point, it is important to note that a high DDA level in itself does not raise concerns about the reliability of government finance statistics and the application of the ESA 95 accounting rules (see Box). However, if the DDA is unexpectedly large, short of outright misreporting, this may reflect the use of leeway for complex transactions (for which rules may be more difficult to apply) in a deficit-reducing manner.

Some transactions merit special attention when checking the “soundness” of the DDA from this perspective. It should for instance be verified

whether capital injections by government into public corporations warrant recording as financial investment through the acquisition of equity (which does not affect the deficit) or as deficit-increasing capital transfers. Likewise, if a sale of government non-financial assets through a securitisation does not result in a full transfer of the involved risk, the transaction cannot be recorded as a deficit-decreasing sale, but should be recorded as an increase in government debt, resulting in an increase in the DDA. If the government sells a building with the purpose of leasing it back after the sale, the revenue can be recorded as a deficit-decreasing sale or as a debt-increasing loan extended to the government. The proper recording depends on the specific conditions under which the sale takes place. In addition, debt assumptions warrant close scrutiny as the change in debt that occurs may or may not be accompanied by a deficit-increasing capital transfer.

The proper recording of these borderline transactions is dealt with in the Eurostat “ESA 95 manual on government deficit and debt”. This clarifies how the ESA 95 rules should be applied when compiling the government accounts. In cases in which the manual does not provide enough guidance, Eurostat consults the Committee on Monetary, Financial and Balance of Payments Statistics (CMFB, in which the national statistical institutes and the national central banks of the EU Member States, as well as the European Commission and the ECB are represented) on the correct recording of complicated transactions. CMFB consultations help to ensure that the compilation of government deficit and debt is done in a manner that is consistent and stable over time and homogeneous across Member States, even though budgetary practices may vary across countries. They also help to apply the rules in an economically most sensible manner so that confidence in the statistical base for fiscal surveillance is enhanced.

Because the credibility of EU fiscal surveillance depends on reliable government finance

statistics, a Council Regulation³ was adopted towards the end of 2005 that granted Eurostat more powers to scrutinise the Maastricht deficit and debt figures reported by the Member States. This has allowed Eurostat, which is responsible for the provision of the statistical data needed for the excessive deficit procedure,⁴ to step up its efforts, including during the missions it conducts with the support of the ECB. All in all, the rules and procedures for fiscal statistical reporting have evolved considerably over recent years, thus contributing to improved fiscal surveillance at EU level and the enhanced credibility of the Stability and Growth Pact.

4 ANALYSIS OF THE DEFICIT-DEBT ADJUSTMENT IN THE EURO AREA

As discussed above, certain discrepancies between the deficit and the change in gross government debt should be a normal feature of public finances. From 1999 to 2005, deficit-debt adjustments in the euro area have on average led to an annual increase in the debt ratio that is 0.3% higher than can be explained solely on the basis of deficit figures.⁵ By comparison, the DDA of the United States was debt-reducing by on average 0.3% of GDP (hence cumulative deficits moderately overstated debt dynamics) over the same period. Japan’s DDA was debt-increasing by 1.5% of GDP per year, mainly due to large financial investments by government to pre-fund pension obligations.

The annual DDA for the euro area over the period 1999-2005, however, concealed large differences across countries (see table). Significant debt-increasing DDAs are reported for Finland (averaging 4.5% of GDP per year since the start of EMU), Greece and Luxembourg (both around 3% of GDP on average). Amongst the large euro area countries,

3 Council Regulation (EC) No 2103/2005 of 12 December 2005 amending Regulation (EC) No 3605/93 as regards the quality of statistical data in the context of the excessive deficit procedure.

4 See Article 4 of the Protocol on the application of the excessive deficit procedure annexed to the Treaty.

5 Note that DDA = change in debt – deficit.

Deficit-debt adjustment (1999–2005)

(annual average as a percentage of GDP)

Countries	DDA											
	Financial investment									Valuation & volume effects		Time of recording differences ¹⁾
	Currency and deposits	Securities	Shares						Loans	Change in volume of debt		
			Equity injections	Other investment in shares	Privatisations							
BE	0.2	-0.3	0.1	0.0	0.0	0.1	0.0	-0.2	-0.4	0.2	0.2	0.3
DE	-0.3	-0.3	0.0	0.0	-0.2	0.2	0.0	-0.4	-0.1	-0.1	-0.1	0.1
IE	1.6	0.7	0.5	0.2	-0.1	1.1	0.0	-1.3	0.2	0.6	0.0	0.2
GR	3.2	0.6	0.2	0.0	0.4	0.3	0.9	-0.7	0.0	0.9	0.0	1.7
ES	0.8	1.0	0.8	0.1	-0.1	0.2	-0.3	0.0	0.2	0.0	0.1	-0.3
FR	0.6	0.5	0.1	0.0	0.4	0.1	0.5	-0.2	0.0	0.1	0.1	0.0
IT	0.0	0.0	0.1	0.0	-0.4	0.1	0.1	-0.6	0.3	-0.5	0.0	0.5
LU	2.6	2.8	2.0	0.5	0.3	n.a.	n.a.	n.a.	-0.1	0.1	n.a.	-0.2
NL	0.0	-0.2	0.1	0.0	-0.2	0.0	0.0	-0.3	-0.1	0.1	0.0	0.1
AT	0.9	1.1	0.2	0.3	0.1	n.a.	n.a.	n.a.	0.6	-0.4	n.a.	0.1
PT	0.6	0.2	-0.1	0.2	-0.1	0.5	0.1	-0.7	0.2	-0.1	0.0	0.5
FI	4.5	4.2	0.7	2.6	1.1	0.1	2.3	-1.3	-0.2	0.4	-0.1	-0.1
Euro area ²⁾	0.3	0.2	0.2	0.1	0.0	0.2	-0.1	-0.4	0.1	-0.1	0.0	0.2

Source: Eurosystem.

1) "Time of recording differences" mainly includes transactions in other accounts receivable/payable and the statistical discrepancies between the non-financial and financial accounts of general government.

2) Data for the euro area do not include Slovenia.

France and Spain have been showing a DDA of 0.6% and 0.8% of GDP per annum, respectively, while in Germany the DDA has been moderately debt-reducing. However, the DDA for single years sometimes differs substantially from the intertemporal average (and this may be of relevance for the excessive deficit procedure, which looks at both deficit and debt developments in individual countries and years). Italy is a case in point, where the DDA averaged out to zero since the start of EMU, but figures for individual years were significantly positive or negative.

Looking at the different sources of the DDA in the euro area, financial investments of general government had an important debt-increasing effect in most of the countries with large DDAs (see Chart 2). This was notably the case in Finland, Luxembourg, Austria and Spain. On average, they reached more than 4% of GDP per annum in Finland. In Finland, Luxembourg, Spain and Greece, financial investment by government was largely due to the accumulation

of assets in social security funds to prepare for future pension payments (see also Chart 3).⁶

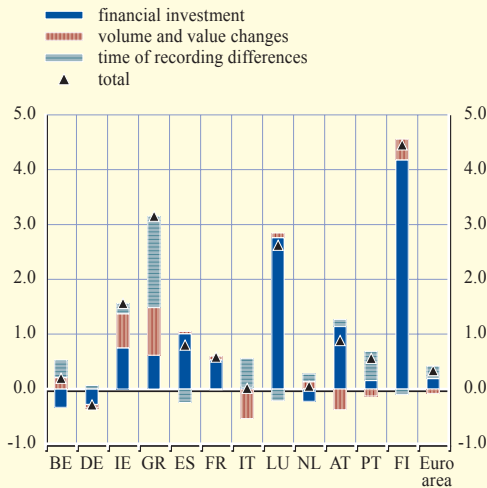
With regard to other components of government financial investment, changes in government deposits in some instances affected the magnitude of the DDA significantly. Deposits held by national treasuries with monetary financial institutions continued to increase strongly in Finland, Spain and Ireland. By contrast, governments in a number of other countries tended to contain the rise of indebtedness by reducing their average cash balance.

A few further components of government financial investment are worth mentioning.

⁶ In addition, since the start of EMU, social security funds in some countries have tended to diversify their portfolio investment out of government bonds of their own countries which has had the effect of further increasing the DDA. Since Maastricht debt is consolidated (see box), a decrease in the holdings of national government bonds by social security funds will *ceteris paribus* lead to a higher Maastricht debt without affecting the deficit. The DDA will therefore increase.

Chart 2 The components of the deficit-debt adjustment (1999-2005)

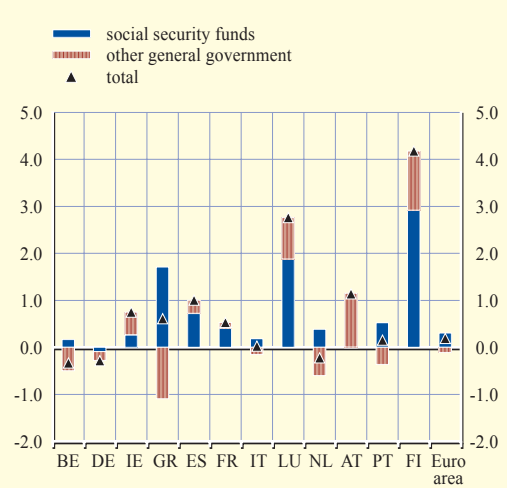
(annual average as a percentage of GDP)



Source: Eurosystem.

Chart 3 Financial investment of social security funds and other general government (1999-2005)

(annual average as a percentage of GDP)



Sources: Eurostat and ECB.

Note: Data for social security funds are not consolidated with other general government sub-sectors.

Equity injections, mainly relating to the financing of infrastructure (e.g. for transport, telecommunication and energy), had a debt-increasing effect of 0.2% on average per year for the euro area, and were particularly high in Ireland, and to a lesser degree in Portugal. Other investment in shares (largely due to financial investment by social security systems) was significant in Finland, Greece and France. However, the debt-increasing effect of equity injections and other investment in shares was on average more than offset by large privatisation programmes (amounting to 0.4% of GDP on average per year in the euro area), notably in Italy, the Netherlands and Germany.

The impact of government loans (generally to public corporations) was moderate overall, except in Belgium, Austria and Italy.

Time of recording differences were not very significant at the euro area level, except for Greece, and to a lesser extent Italy and Portugal.

Valuation and volume changes unrelated to transactions overall reduced government debt

in the euro area (by 0.1%). Exchange rate effects on the value of government debt denominated in foreign currency were marginal and tended to decline in line with the reduction in the share of such debt following the adoption of the euro (falling from 8% of total debt in 1993 to 2% in 2005). This decline was mainly seen in Greece, Finland and Ireland. The early redemption of old debt and the issuance of new debt of equivalent market value also had an impact on the change in Maastricht debt, because the face value of the old and new debt differed. In particular, such debt restructuring was reported in Italy.

In recent years, the level of DDA has been reduced in some euro area countries through the resolution of significant controversies over the accounting of certain transactions. Most notably, Eurostat has revised the deficit and debt figures notified by some countries, leading in some cases to significantly higher deficits and lower DDAs than originally reported. Revisions referred notably to the reclassification of assumptions of public enterprise debt; the recording of military expenditure; equity

injections into public enterprises; the recording of social security accounts; and the accrual methodology. Despite the clarification of accounting requirements and recent improvements in national statistical recording, new contentious issues or otherwise unexplained discrepancies may arise. Continued vigilance in the monitoring of DDAs therefore appears warranted.

5 CONCLUSION

The credibility of fiscal surveillance under the Stability and Growth Pact requires the compilation of reliable government finance statistics. Since government deficit and debt figures are the headline statistics for fiscal surveillance at the EU level, it is important to understand how these two concepts are related. The difference between the change in debt and the deficit can be grouped into three major categories: financial investment, time of recording differences and other changes in the value and volume of debt.

A high level of the DDA may not in itself raise concerns about the reliability of deficit and debt statistics. In this regard, the article finds that a large part of the DDA has been due to financial investment by social security funds to prepare for future pension payments. Nevertheless, some recording difficulties and controversies in recent years have underlined the need for reliable government finance statistics, and the powers of the European Commission (Eurostat) to verify the reported deficit and debt figures have been strengthened. This has led to improved data reporting, and considerable progress has been made on clarifying the accounting rules and ensuring their harmonised implementation. It is of crucial importance that Eurostat, with the support of the ECB, continues its close monitoring of the deficit-debt adjustment and its components.