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Abstract

This paper presents different ways to measure net government debt. It outlines the main benefits and potential drawbacks of each of the presented measures from a theoretical as well as a practical point of view. It also aims to propose a tentative harmonised concept of net government debt as a potentially useful additional indicator for analysts of EU governments' financial positions. While it focuses on the statistical implications of the various definitions of net government debt, this paper is not meant to provide a comprehensive economic background on net government debt measures.

The paper is divided into five chapters. Chapter 1 provides an introduction to gross government debt measures and briefly explains different possible ways to derive net government debt measures. It also elaborates on the benefits of a net government debt concept, both from users' and governments' perspective. A separate section deals with the limitations of net government debt concepts in general. Chapter 2 explores the existing practices of measuring and publishing net government debt measures by international organisations and across the EU Member States. Chapter 3 looks at one particular measure of net government debt, which presents a number of advantages when compared with other possible measures, notably from a practical point of view. This measure is based on the well-known concept of Maastricht debt (the reference measure of gross debt in EU countries) and is designed in a way to include the most measurable instruments from a statistical point of view. This chapter also aims to address some of the shortcomings of the proposed measure. In Chapter 4 a statistical analysis is performed for the EU Member States (excluding Croatia (¹)), using this particular measure of net government debt. The National Accounts data used for the analysis are based on the European system of national and regional accounts (²) (ESA 95) framework. Finally, Chapter 5 concludes by summarizing the main findings of the statistical analysis and by pointing out the benefits of having a single standardised net government debt measure at the EU level, as defined in Chapter 3.

Acknowledgement

This paper has benefited greatly from the insightful comments and suggestions from the Financial Accounts Working Group (FAWG) members, the European Commission's Directorate General for Economic and Financial Affairs (DG ECFIN), the European Central Bank (ECB), the International Monetary Fund (IMF) and the Organisation for Economic Cooperation and Development (OECD).

^{(&}lt;sup>1</sup>) Quarterly data on Maastricht debt for Croatia are only available from 2012Q1 onwards. Therefore, net government debt for Croatia is excluded from the EU aggregate. However, quarterly net government debt for Croatia is shown in the Annex, from 2012Q1 to 2013Q4.

^{(&}lt;sup>2</sup>) The new version of ESA, ESA 2010, will come into force from September 2014. This paper is based on ESA 95 data. Whilst the introduction of ESA 2010 will change the level of government debt in many countries, most noticeably due to the delimitation of the general government sector, the principles of net government debt discussed in this paper remain valid also under ESA 2010.

Introduction

Over the past few years many EU governments have been borrowing significantly to cope with increasing spending, such as on social benefits, to cover revenue shortfalls, and also to provide support to financial institutions. In a number of countries this led to a major increase in the headline indicator for general government gross debt at nominal value — the so-called Maastricht debt.

The Protocol on the Excessive Deficit Procedure (EDP) annexed to the Maastricht Treaty sets the threshold for general government gross debt at 60 % of GDP. Between the years 2000 and 2007, the Maastricht debt-to-GDP ratio for the EU-27 stayed fairly close to this threshold. However, with the onset of the financial crisis in the early 2008, Maastricht debt for the EU-27 started rising, reaching 87.2 % of GDP in 2013Q4 (³). Looking at the euro area countries (EA-18 as of 1 January 2014), Maastricht debt increased from 66.3 % of GDP at the end of 2007 to 92.6 % of GDP at the end of 2013.

It should be noted, however, that this build-up of general government gross debt over the past few years has been accompanied by a considerable accumulation of financial assets in some countries. This was partly due to governments' reinforcement of cash reserves and also governments' acquisitions of financial instruments relating to the banking sector. Maastricht debt, however, being a gross measure by definition, does not take into account government holdings of financial assets.

This paper presents the theoretical concept of net general government debt, which is broadly defined as the stock of a specific set of financial liabilities minus the stock of a specific set of financial assets held by government. Taking into account financial assets, a net government debt measure presents a number of advantages, which are further described in this paper. This paper also aims to propose a tentative measure of net government debt, among various possible measures, which could be viewed as more appropriate from a practical and statistical point of view in the EU.

It is also recognized that the general concept of net government debt is subject to certain limitations, notably when it comes to using it as a measure to assess the future creditworthiness of a government. These shortcomings of most net government debt concepts are explored in a separate section under Chapter 1.

It should nevertheless be stressed that the relevant measure for the purposes of formal fiscal monitoring in the EU is general government gross debt at nominal value (Maastricht Debt) and measures of net government debt should be considered as supplementary information for analytical as opposed to administrative purposes.

^{(&}lt;sup>3</sup>) The Maastricht debt-to-GDP ratios in this paper have been calculated using the most recent data on quarterly government debt divided by the four-quarter moving sum of GDP. Intergovernmental lending between Member States is excluded from the EU-27 and EA-18 aggregate measures of debt. However, for the purpose of the statistical analysis performed in chapter 4, an adjustment is made for intergovernmental lending not related to EFSF, which leads to slightly higher debt ratios.

1. The concepts of gross government debt and net government debt

1.1 Measures of general government gross debt

The starting point for calculating net government debt is general government gross debt. The gross debt concept means that no assets are deducted from liabilities (except in the case of consolidation). Gross debt can also be defined in different ways, depending on the liabilities used and their valuation. For practical reasons, the different concepts of gross debt could be restricted to two broad definitions, based on the corresponding legal basis and the respective valuation of liabilities.

Maastricht debt

The first definition refers to the already mentioned Maastricht debt concept, which is operationally defined in Council Regulation (EC) No 479/2009. Maastricht debt is also known as EDP debt as it is the measure of debt which is reported by EU Member States to Eurostat in the context of the EDP reporting (⁴). Maastricht debt is defined in Article 1, par. 5 of Council Regulation (EC) No 479/2009 as the total general government consolidated gross debt at nominal value outstanding at the end of the year. General government consists of central government, state government (if applicable), local government and social security funds (if applicable). Consolidation refers to the exclusion of government debt held as assets by other general government units. Gross debt is consolidated both within and between sub-sectors of general government, implying that general government gross debt is less or equal to the sum of sub-sectors debt. Substantial consolidation amounts occur for example for social security funds' holdings of government bonds.

Maastricht debt consists of the stock of the following financial liabilities: currency and deposits (AF.2), securities other than shares, excluding financial derivatives (AF.33), and loans (AF.4), as defined in paragraphs 5.45–5.85 of ESA 95:

Maastricht debt = AF.2+AF.33+AF.4

Maastricht debt excludes several important liabilities such as pension liabilities, insurance technical reserves and other accounts payable (5). Financial derivatives are also excluded due to the lack of a principal amount to be repaid at maturity. As to liabilities in shares and other equity, which are rarely seen in government, these are not debt instruments by definition and therefore should be kept outside Maastricht liabilities (6).

ESA 95 debt

The second concept of government gross debt, which we may call 'ESA 95 debt', is based on Council Regulation (EC) No 2223/96 of 25 June 1996 on the European system of national and regional accounts in the Community (also known as the ESA 95 Regulation), which sets the accounting framework for the compilation of National Accounts data in the European Union. Concretely, government gross debt could be defined as the sum of all financial liabilities of government under ESA 95, which would expand the definition of Maastricht gross debt to include other instruments such as insurance technical reserves (AF.6) and other accounts payable (AF.7):

 $ESA 95 \ debt = AF.2 + AF.33 + AF.4 + AF.6 + AF.7$

^{(&}lt;sup>4</sup>) EU Member States report annual Maastricht debt figures twice per year, in April and in October, while Eurostat publishes Maastricht debt data on a quarterly basis.

^{(&}lt;sup>5</sup>) Other accounts payable, which also include trade credits and advances, is an important category which deserves particular attention, notably because there have been discussions in the past to include these liabilities in Maastricht debt. In particular, it is worth noting that governments could in theory reduce their need to issue Maastricht debt instruments by using credits facilities that are recorded under other accounts payable.

^{(&}lt;sup>6</sup>) A debt instrument is defined in the Public Sector Debt Statistics: Guide for Compilers and Users as 'a financial claim that requires payment(s) of interest and/or principal by the debtor to the creditor at a date, or dates, in the future'. This definition of a debt instrument is consistent with the corresponding definitions in the Government Finance Statistics Manual (GFSM), the System of National Accounts 2008 (SNA 2008), the Balance of Payments and International Investment Position Manual, Sixth Edition (BPM6) and the External Debt Statistics: Guide for Compilers and Users.

Similarly to Maastricht debt, government liabilities in shares and other equity, which appear rarely in practice, and liabilities in financial derivatives, which frequently switch positions from assets to liabilities and vice versa, should be excluded from the ESA 95 debt.

It should be noted that ESA 95 does not explicitly define government debt. However, SNA 2008 gives a similar definition to debt in paragraph 22.104: '...Generally, debt is defined as all liabilities that require payment or payments of interest or principal by the debtor to the creditor at a date or dates in the future. Consequently, all debt instruments are liabilities, but some liabilities such as shares, equity and financial derivatives are not debt.' SNA 2008 further clarifies that '...due to specific legal, institutional or practical arrangements some other definitions of debt may also exist. It is therefore useful in all cases to clearly identify the definition of debt according to the instruments included'.

Valuation differences between Maastricht debt and ESA 95 debt

Maastricht debt differs from ESA 95 debt not only with respect to the liabilities included but also with respect to the valuation principles applied to the liabilities. As already mentioned in the previous section, Maastricht debt is measured at nominal value, which is normally defined as the amount that the debtor has to repay to the creditor at any point in time. Nominal value, which is not affected by movements in market interest rates, should in principle reflect both repayments of principal and interest accrued but in the case of Maastricht debt nominal value is specifically defined in Council Regulation (EC) No 479/2009 as face value, which is equal to the contractually agreed amount that the government will have to refund to creditors at maturity. Face value is thus different from nominal value as it excludes accrued and not yet paid interest from the liability (⁷). Under ESA 95, however, interest accrued should be included under the corresponding financial instruments (⁸).

As Maastricht debt is valued at face value, it is not affected by changes in market interest rates and is thus a less volatile measure of debt. On the other hand, it is worth noting that face value of debt does not reflect the time value of money and can thus overstate the value of the obligations in the current period (9).

Conversely, ESA 95 and the corresponding SNA 93 provide for a valuation of the financial instruments at market value, which is the price at which an asset could be traded, at any point in time, by buyers and sellers in a liquid market. Any changes in the market interest rate would thus be reflected in the market value. ESA 95 debt would thus not only include a wider range of liabilities, but it would also apply a different valuation method for the instruments. Unlike Maastricht debt liabilities, which are valued at face value, ESA 95 financial liabilities (and financial assets) are valued at market value. For deposits and loans, however, the amount of principal is to be reported that the debtors are contractually obliged to repay at maturity, which may include interest. For currency face value, which equals nominal value, is used. The valuation principles applicable for recording financial assets and liabilities in the balance sheets are covered in paragraphs 7.46 - 7.51 of ESA 95.

1.2 Measures of general government net debt

Despite the increased importance of Maastricht gross debt, many analysts also look at net debt type measures, taking into account government assets, and many governments publish such data in response to this interest. The concept of net government debt is defined in the *Public Sector Debt Statistics: Guide for Compilers and Users (PSDSG)*, which is the internationally agreed guide on public sector debt statistics. The PSDSG was prepared under the joint responsibility of nine international organisations (¹⁰) and it aims

^{(&}lt;sup>7</sup>) More precisely, the face value of debt does not include accrued coupon payments, but it does include the full value of the discount allowed at the issuance of securities issued below par. Such discounts are interest payable in cash at the time of redemption and this interest is included in the face value of the instrument.

^{(&}lt;sup>8</sup>) In practice, however, some compilers currently include interest accrued under other accounts payable. The Manual on Government Deficit and Debt (MGDD) reinforces the ESA95 provisions that interest accrued should be included under the corresponding financial instruments.

^{(&}lt;sup>9</sup>) This would be notably the case for deep discounted long-term bonds.

^{(&}lt;sup>10</sup>) The Bank for International Settlements, the Commonwealth Secretariat, the European Central Bank, the European Commission, the International Monetary Fund, the Organisation for Economic Cooperation and Development, the Paris Club, the United Nations and the World Bank.

to improve international comparability of public sector debt statistics by promoting convergence of recording practices across countries.

The PSDSG defines gross debt as '...all liabilities that are debt instruments. A debt instrument is defined as a financial claim that requires payment(s) of interest and/or principal by the debtor to the creditor at a date, or dates, in the future'. Under this definition, which is in line with the definition of debt given in SNA 2008, liabilities include liabilities in special drawing rights, currency and deposits, debt securities, loans, insurance, pensions and standardized guarantee schemes and other accounts payable.

Net debt is defined as 'gross debt minus financial assets corresponding to debt instruments'. Similarly to the definition of gross debt, the net debt measure excludes liabilities and assets in shares and other equity and in financial derivatives.

The PSDSG also recognizes that regional and national recording and publication practices may differ, and it states that, in such cases, the data should clearly indicate how these depart from the international concepts as defined above. Net government debt could be defined in many different ways, depending on the categories of liabilities and assets included in the definition and on the different valuation rules applied to the financial instruments. Net government debt measures can be derived from both Maastricht debt and the ESA 95 concept of government gross debt. By restricting the number of categories used on the liabilities and/or on the assets side, one could derive many types of measures. The number of possible measures increases even further, keeping in mind that liabilities and assets can be valued at nominal, market or face value. For the purpose of simplification, we group the different types of net government debt measures into three broad categories: net financial worth, liquidity measures and other net government debt measures.

Net financial worth as a proxy of net government debt

A very broad definition of net government debt, or more precisely a proxy measure for net government debt, could be net financial worth, where all financial liabilities are netted off all financial assets. Net financial worth is straightforward to implement in practice from existing published data — particularly for EU Member States — and is currently published in a number of countries. As it directly results from stocks of assets and liabilities in ESA 95 and SNA 93, net financial worth is a market value based concept. It thus avoids any valuation problems which may arise in other net government debt measures as presented below. Net financial worth also reflects changes in the market interest rates which affect the value of both assets and liabilities.

Net financial worth could be also viewed as an important component of the link between net borrowing/lending (equal to net acquisition of all financial assets less net increase in all liabilities) and the change in debt. It could thus be used as a basis for the analysis of net financial transactions and the stock-flow adjustment, i.e. the difference between the change in government debt (stock) and the government deficit/surplus (flow) for a given period.

However, we should keep in mind that the liabilities side of a net financial worth concept also includes non-debt instruments. Net financial worth should therefore be clearly distinguished from a net government debt concept. Moreover, as it covers a wide range of liabilities and assets, measurement and data availability problems may arise for some of the instruments.

It should also be noted that financial liabilities (as well as assets) in a net financial worth measure are valued at market value, which reflects the value of the liabilities at a given point in time. Even if the market value of the liabilities could drop down significantly in some cases, the book value of debt which appears in the balance sheet would not automatically follow.

This paper does not consider the even broader concept of total net worth, which includes both financial and non-financial assets, due to the lack of availability of reliable data on the stock of government non-financial assets in European and most other countries.

Net government debt measures based on liquid assets

Net government debt could also be defined as a liquidity concept, where only liquid assets — which could be used to quickly repay government debt — are subtracted from liabilities. Yet, the essential difficulty in designing a robust measure of net government debt based on liquidity is to find a uniform

definition of liquid assets. At international level, there is currently no agreed definition for this, so that any indicator based on the liquidity concept should be considered with caution.

In general, the degree of liquidity could be quite arguable for some categories of assets. Even if it seems fairly reasonable to assume that most debt securities, quoted shares and mutual fund shares could be quickly converted into cash with a minimum impact on the price received in normal circumstances, liquidity becomes more questionable when it comes to loans. For an asset to be liquid, it needs an existing market, and one could argue that the lack of a market for most loans would qualify them as illiquid assets. It should be noted, however, that some loans, such as housing loan books and student loan books, are sellable.

Moreover, the degree of liquidity of an asset could vary over time depending on the state of the economy. This could be the case for example for some debt securities and even some loans, which might be quite liquid and easy to sell without any significant impact on their market prices in prosperous economic times but less liquid and much harder to sell in times of financial distress, when their sale might be only possible at significantly lower market prices.

Therefore, a prudent liquidity measure of net government debt would only include very liquid instruments on the assets side such as currency and deposits, whose liquidity would be less affected by the economic cycle. The drawback of such a measure, where only currency and deposits are counted on the assets side, is that it would be a rather restrictive indicator of net government debt, not taking into account that government could be able to sell other assets which are not counted in the measure.

Other net government debt measures

The third category of net government debt measures would group any other possible measures which are different from the net financial worth concept and do not restrict the assets to liquid instruments only. Such measures are presented in the following chapter, which gives an overview of the existing net government debt measures across the EU Member States.

Valuation issues

Selecting the right categories of liabilities and assets is only part of the issue. In order to construct an appropriate measure of net government debt, one should also reflect on the valuation of the liabilities and in particular the assets. Assets and liabilities could be valued at face value, market value or nominal value. As shown in the following chapter, it is also possible to use a mixture of valuation methods for financial instruments in the same measure of net government debt.

Using market value or face value for the liabilities may not make any big difference in prosperous economic times, but it could lead to significantly different results in times of sovereign debt crisis, when the market value of debt securities issued by countries perceived as in difficulties tends to significantly decrease. Similarly, the market value of assets could suffer a sharp decrease in times of financial crisis and thus considerably deviate from their face value or nominal value.

1.3 Pros and cons of a net government debt measure

Why do we need a net government debt concept?

There are many reasons why governments may wish to compile and/or publish net government debt figures. Governments may wish, for example, to promote transparency of their public finances and attract investors in government bonds. They can use net government debt as a signal to investors that they have enough assets to support, at least in the short-term, the reimbursement of their debt.

Net government debt may also be a useful supplementary indicator for policymakers, financial analysts and rating agencies. Net government debt would allow them to evaluate the country's capacity, during a certain period of time, to continue servicing its debt without borrowing further. Rating agencies, for example, may look at a net debt indicator to assess government's ability to access financial markets. Net government debt could be used as a proxy, combined with other measures, for assessing shorter term government solvency in general. This is particularly relevant in times of financial crisis when governments may tend to hold more financial assets. However, it has to be taken into account that the liquidity and the market value of some of these assets (e.g. problematic assets (¹¹) taken over by governments from failing banking institutions) might be very questionable.

Taking into account financial assets could, in theory, lead to significantly different results, compared with Maastricht debt. For instance, net government debt could remain unaffected when government takes over both liabilities and assets of the same value from a financial institution's balance sheet, while gross debt would increase significantly. This situation is particularly relevant for countries where governments set up financial defeasance structures to rescue financial institutions holding problematic assets. Public financial defeasance structures are entities, acting on behalf of the government, whose main activity is the management and eventually the resolution of these problematic assets. When there is evidence that the government is bearing most of the risks associated with the activities of the defeasance structure, this structure is to be classified inside general government, regardless of its legal status. The classification of these entities within general government would mean that both their assets and liabilities would end up on the government balance sheet. Governments would thus acquire liabilities which are fully or partly matched by financial assets, and a gross measure of government debt would only give an incomplete picture in this case. Chapter IV.5 of the 2013 edition of the Manual on Government Deficit and Debt (MGDD) provides further guidance on the statistical treatment of financial defeasance structures.

Similarly, net government debt could increase due to a decline in financial assets held by government, while gross debt could remain unaffected at the same time. This would be the case if, for example, general government draws down deposits or sells securities on the market to meet expenditure, without further increasing its gross debt. Net government debt would, in similar cases, capture this decline in assets, which would otherwise remain unnoticed if only the gross measure is analysed.

Finally, it should be clarified that a net government debt measure is not meant to replace the headline Maastricht debt measure. The gross debt concept will remain the relevant concept for fiscal surveillance purposes under the Stability and Growth Pact (SGP) and for the EDP in particular.

It is worth mentioning that it is often argued that gross debt measures have certain advantages over net debt measures. From a conceptual point of view, for instance, gross debt is a better measure of governments' financial obligations at maturity, as it shows the amount that governments have to eventually reimburse to creditors.

This paper suggests that gross debt and net debt should be rather viewed as complementary indicators. Net government debt, as a potentially useful additional indicator, could increase the analytical value of Maastricht debt by taking into account both sides of a government's balance sheet.

General drawbacks of net government debt concepts in terms of economic interpretation

This paper focuses on the statistical analysis of net government debt concepts and is not meant to provide a comprehensive economic background on net government debt measures. However, it is important that users are aware of certain drawbacks of net government debt concepts.

First, net government debt measures are based on past data and therefore past market values (for those instruments where market values are applicable). Hence, net debt measures could arguably not be viewed as reliable forward-looking measures of governments' future creditworthiness, especially if a new financial crisis arises or the current economic situation sharply deteriorates. The value of financial assets depends on both future cash flows generated by these assets and the evolution of the market interest rates and is therefore uncertain in future periods. Following this logic, a net government debt measure could only be used as an indicator to assess government's current ability to meet its obligations, assuming that the (theoretical) immediate sale of all financial assets included in the net government debt measure would have no significant negative impact on liquidity and respectively market values.

This implicit assumption of net government debt measures is particularly profound if governments hold problematic assets, whose value is highly uncertain. Governments would probably not be able to sell such assets in times of financial distress or they could only sell them at significantly lower prices. When

^{(&}lt;sup>11</sup>) Problematic assets are defined in the Manual on Government Deficit and Debt (MGDD) as assets that have significant negative impact on the profitability of the financial intermediary that holds them and could endanger its solvency.

interpreting whether a given country could sell its financial assets in a very short time, it is important that users take into account the current state of the economy.

Second, if net government debt is used for cross-country comparisons, users should be aware that especially in times of financial crisis the quality of the financial assets held by governments could significantly vary between countries. For example, one country may hold mainly problematic assets, while another country's financial assets may be primarily composed of highly rated bonds. Both countries may show equal Maastricht debt and equal values of their financial assets (implying that their net government debts would be equal as well), although clearly the country which holds highly rated bonds would be most probably in a better position to repay its debt than the country holding problematic assets. Thus cross-country comparisons based on their net government debt measures should be interpreted with caution.

Third, if debt sustainability analyses are performed by researchers or international organisations, the use of net government debt would require additional information. Typically, it should be tested whether the net present value of all future primary surpluses (including property income on government financial assets) would cover the outstanding amount of gross government debt. Debt sustainability analyses on the basis of net debt measures would therefore require the calculation and forecasting of primary surpluses adjusted for the revenue of the financial assets included in the respective net debt measure ('net' primary surpluses). The interpretation of net debt together with unadjusted primary surpluses would be misleading.

The net debt measures presented in this paper should therefore be interpreted with caution and only considered as an additional tool to analyse government debt.

2. International practices of measuring and publishing net government debt measures

As already mentioned in Chapter 1, the internationally agreed definition of net government debt is given in the PSDSG. The PSDSG defines net debt as 'gross debt minus financial assets corresponding to debt instruments', where gross debt corresponds to all liabilities that are debt instruments, notably special drawing rights, currency and deposits, debt securities, loans, insurance, pensions and standardized guarantee schemes and other accounts payable. This definition of net government debt excludes assets and liabilities in equity, investment fund shares, financial derivatives and employee stock options. As to the valuation of the instruments, users are given the choice to use either market or nominal valuation, depending on the purpose of their analysis.

The PSDSG also recognizes that publication practices may differ across countries. This chapter reviews the current publication practices adopted by international organisations and EU Member States as regards net government debt. It shows that even though many international organisations adopted the PSDSG definition of net government debt, some organisations use their own different theoretical concepts of net government debt.

2.1 Current practices in the international organisations publishing debt data

The International Monetary Fund (IMF) publishes in its Principal Global Indicator dataset both gross and net general government debt measures as part of the key debt and balance sheet aggregates agreed in the Standard Government Finance Statistics Template. Under this template, which was developed by the Inter-Agency Group on Economic and Financial Statistics (¹²), debt instruments should be valued on the reference date at nominal value, while both nominal value and market value should be used for traded debt securities. Substitution of face value for nominal value is acceptable but should be specified. The definition of net government debt in the template is in line with the PSDSG definition. The template also shows data on net financial worth and other debt concepts such as Maastricht debt.

It is worth noting that the Glossary of the PSDSG also gives a definition of 'debt net of highly liquid assets': 'debt net of highly liquid assets is, in most cases, equal to gross debt minus financial assets in the form of currency and deposits. However, in some cases, debt securities held for debt management purposes could be included as highly liquid financial assets'. This concept is also mentioned in Chapter 5, footnote 8 of the PSDSG, when discussing different public sector debt statistics.

The IMF *External Debt Statistics: Guide for Compilers and Users* (EDSG) defines gross external debt as 'the outstanding amount of those actual current, and not contingent, liabilities that require payment(s) of interest and/or principal by the debtor at some point(s) in the future and that are owed to non-residents by residents of an economy'. This definition is consistent with the definition of gross debt in the PSDSG and the one in SNA 2008.

Chapter 7 of the EDSG includes a presentation table on 'net external debt position' (Table 7.14), which is calculated as gross external debt reduced by claims on non-residents in the form of debt instruments. The data on external financial assets in the form of debt instruments to be included in this table are the same as presented in the International Investment Position (IIP). Provided that debt securities are valued at market value, the net external debt position in Table 7.14 should equal the net IIP, excluding the following instruments: equity and investment fund shares, financial derivatives and employee stock options and gold bullion. As regards valuation, the EDSG recommends that both nominal and market values be provided for debt securities.

The IMF's Government Finance Statistics Yearbook (GFSY) database provides all the necessary information for the calculation of net debt for the central government, general government or the public

^{(&}lt;sup>12</sup>) The Inter-Agency Group on Economic and Financial Statistics comprises the Bank for International Settlements, the European Central Bank, Eurostat, the International Monetary Fund, the Organisation for Economic Cooperation and Development, the United Nations and the World Bank.

sector as a whole. Similarly, the IIP does not explicitly show a net external debt measure but provides all the necessary information for the calculation of such a measure. These databases allow users to calculate a net debt measure that suits their specific needs. With respect to valuation, both the GFSY and the IIP recommend market valuation.

At the EU level, Eurostat is currently not publishing a net debt series for the general government sector but it does show a 'Financial assets net of liabilities' concept in its Government Finance Statistics Summary tables. On the other hand, Eurostat publishes government gross debt data on a quarterly and annual basis. Eurostat also publishes data on gross and net external debt for EU Member States as a subset of the IIP data. The gross and net external debt concepts follow the definitions of the respective concepts in the IMF's EDSG.

The Directorate General of Economic and Financial Affairs (DG ECFIN) of the European Commission (EC) does not publish a net government debt series in its database (AMECO). However, under the Commission Delegated Regulation (EU) No 877/2013 of 27 June 2013, which lays down the specifications concerning the content of the reports that may be requested by the Commission from Member States whose currency is the euro and which are subject to an EDP, DG ECFIN may request from euro area countries subject to an EDP to report a measure of 'net financial debt', which is defined in the Regulation as Maastricht debt minus liquid assets. Liquid assets are further defined in the Regulation as special drawing rights, currency and deposits, securities other than shares (consolidated for general government), quoted shares and mutual fund shares.

The European Central Bank (ECB) does not publish an official net government debt series in its data warehouse. However, the ECB has published a working paper on its website which elaborates a net government debt concept based on ESA 95 (¹³). In this paper net government debt is defined as the difference between the total stock of ESA 95 government liabilities and the total stock of ESA 95 government financial assets. Both the liabilities and their corresponding assets are valued according to the ESA 95 valuation rules.

The OECD, in collaboration with the IMF and the WB, collects quarterly data on both general government and public sector debt. Definitions exist for both gross and net government/public debt, which are broadly aligned with the definitions available in the PSDSG. The Statistical Glossary on the OECD website also defines net debt as the difference between all financial liabilities and all financial assets of general government, which is similar to a net financial worth measure.

The OECD Economics Department publishes a net financial worth measure called 'General government net financial liabilities'. This measure excludes, however, unfunded pension liabilities, which could be quite important for some countries (e.g. Australia, Canada and the USA). In addition to that measure, the OECD publishes in its Financial Dashboard related to National Accounts a second net financial worth measure which includes unfunded pension liabilities.

The OECD also produced and presented a working document where a measure of a so-called 'net financial debt' is proposed. 'Net financial debt', as defined in the document, is equal to the difference between gross debt, excluding shares and other equity and financial derivatives, and all financial assets (¹⁴). Both assets and liabilities are valued at market value in this document.

Thus, many international organisations publish net government debt measures which are closely aligned with the internationally agreed PSDSG definition. However, restricting the analysis to the EU level, the following section shows that a large heterogeneity of net government debt measures exists across EU Member States. A common point is, however, that many of the EU Member States publish net government debt measures which are derived from Maastricht debt.

^{(&}lt;sup>13</sup>) http://www.ecb.europa.eu/pub/pdf/scpops/ecbocp132.pdf

^{(&}lt;sup>14</sup>) 'Government Finance Indicators: Truth and Myth', presented at the Working Party on Financial Statistics, held on 30 September-1 October 2013 at the OECD Conference Center.

2.2 Current practices in the EU Member States

Eurostat launched a questionnaire in December 2013 on the Member States' publication practices of net general government or public debt. The questionnaire was sent to the main compilers of government debt data — National Statistical Offices, Central Banks and Ministries of Finance. All Member States replied to the questionnaire. Table 1 summarizes the replies received by those Member States which publish an explicit net government/public debt measure. EU Member States which are missing from the table do not currently publish explicit net government debt measures but they may, however, publish net financial worth instead.

Table	1:	Publication	practices	of	net	government/public	debt	in	the	EU-28	Member
States											

Member State	Published national net debt measure	Valuation of the assets	Publishing insitution	Sector coverage		
EE	Maastricht debt-AF.2-AF.33	NV	MoF	GG		
IE	Maastricht debt-AF.2-AF.33-AF.4	MV	NSI	GG		
FR	Maastricht debt-AF.2-AF.33-AF.4	FV	NSI	GG		
LV	Maastricht liabilities-corresponding assets	FV	MoF	Treasury		
PL	AF.2+AF.33+AF.4+AF.7 (*) liabilities-AF.2	FV	MoF	public sector liabilities, Treasury assets		
PT	Maastricht debt-central government deposits	NV	CB	GG		
RO	Maastricht debt-AF.2-AF.511-AF.52	AF.2 and AF.511 at MV, AF.52 at FV	MoF	GG		
SK	Maastricht debt-AF.11-AF.2-AF.3-AF.511-AF.52	AF.11 and AF.2 at MV, AF.3, AF.511 and AF.52 at NV	MoF	GG		
UK	Maastricht debt-liquid assets	NV	NSI and MoF	public sector		

(*) The category AF.7 for Poland includes other accounts payable which are overdue

NV = nominal valıNSI = National Statistical Institute MV = market valı CB = Central Bank FV = face value MoF = Ministry of Finance

GG = General Government

Source: Replies to the Questionnaire on publication practices of net government/public debt, sent on 13 December 2013.

The nine EU Member States shown in table 1 already produce and publish their own national net government debt measures. As shown in the table, the definitions used for net government debt vary across the countries not only with respect to the financial instruments included in the measure and their respective valuation, but also with respect to sector coverage. Most countries calculate net debt for the general government sector, as defined in ESA 95. The Latvian MoF publishes a net debt measure for the Treasury only, while the UK uses the wider concept of the public sector as whole, including public corporations. The Polish MoF calculates a net debt measure where liabilities of the public sector are reduced by the Treasury cash reserves.

Many EU Member States, not shown in the table above, publish net financial worth measures. The following countries indicated in the questionnaire that they do not publish explicit net government debt measures but they do publish net financial worth measures: Belgium, Denmark, Spain, the Netherlands, Austria, Finland and Sweden. Other countries than those may also calculate and publish net financial worth measures, even though they did not explicitly mention it in the questionnaire. Net financial worth measures are calculated as ESA 95 stocks of financial assets net of corresponding stocks of liabilities.

Liquidity type measures of net government debt, as described in the previous chapter, are published in six countries. Poland, Portugal and the UK restrict the liquid assets to cash reserves. In the case of Poland, overdue other accounts payable at face value are added on top of the Maastricht instrument liabilities, which are then reduced by the Treasury cash reserves. The Portuguese Central Bank developed its definition of net government debt (Maastricht debt minus central government deposits at nominal value) specifically for the purposes of the Financial Assistance Programme for Portugal. In the UK's public sector net debt measure liquid assets mainly include deposits and foreign exchange reserves, valued at nominal value; however, in some cases other short-term securities and equity instruments may be considered as liquid assets.

Estonia, Romania and Slovakia add on top of the cash reserves other categories of assets deemed to be liquid. Estonia includes currency and deposits and securities other than shares (excluding financial

derivatives) (¹⁵). Romania applies a net government debt measure where Maastricht debt is reduced by currency and deposits, quoted shares at market value and mutual fund shares at face value. In its Convergence Program Romania uses a more extended measure of net government debt where also special drawing rights and securities other than shares are included on the assets side. Slovakia uses a similar measure which includes special drawing rights, currency and deposits, securities other than shares, quoted shares and mutual fund shares among the liquid assets.

Estonia, Ireland, France, Latvia, Portugal, Romania, Slovakia and the UK use Maastricht debt as the starting point in their net government debt measures. It should be noted, however, that the Latvian Ministry of Finance, more precisely the Treasury, takes into account only that part of Maastricht debt which is managed by the Treasury.

The Irish Statistical Office calculates net government debt by starting from Maastricht debt and then subtracting assets in currency and deposits, securities other than shares (excluding financial derivatives) and loans, valued at market values (16). In the next chapter we argue in favour of this measure as being the most appropriate measure of net government debt from a practical point of view. The Statistical Offices of France and Latvia publish a similar to the Irish measure of net government debt, although both liabilities and assets are valued at face value.

To summarise, despite the existence of an internationally agreed measure of net government debt, there is no single measure of net government debt released across EU Member States. The definitions of net government debt used vary, both in terms of the financial assets and/or liabilities used and in terms of their valuation. While it is true that the various definitions could serve different purposes, the wide variety of measures makes their interpretation more difficult. Thus, it would make sense to have one single harmonised concept of net government debt across EU countries, which would improve comparability and be a complement to national net government debt measures, which may be based on Member States' specific needs. In the following chapter we develop a single measure of net government debt that could be applied to all EU Member States.

^{(&}lt;sup>15</sup>) The Estonian indicator for net government debt is only published as part of the Ministry of Finance forecasts, and not as an official publication of a net debt series.

^{(&}lt;sup>16</sup>) The Irish Statistical Office may, however, switch to nominal value for the assets in the future.

3. A proposal for measuring net government debt

In this chapter we argue in favour of a net general government debt measure which could be used as a harmonised concept for releasing data for EU Member States. Under this measure Maastricht liabilities are reduced by their corresponding financial assets in currency and deposits (AF.2), securities other than shares, excluding financial derivatives (AF.33) and loans (AF.4). Maastricht debt is valued at face value, while the ESA 95 valuation rules are applied to the financial assets. The measure refers to the general government sector as defined in ESA 95. This concept of net government debt could be labelled 'net government debt based on Maastricht debt' and can be expressed in the following way:

Net government debt based on Maastricht debt = Maastricht debt – AF.2 - AF.33 - AF.4 (¹⁷)

This measure presents a number of advantages when compared to other measures of net government debt.

First, it takes Maastricht debt as the starting point of the definition and is thus appropriate for EU Member States. Maastricht debt is one of the cornerstones of fiscal governance in the EU and it is closely followed by politicians, economists and market analysts. In addition, its importance has been further reinforced by the recent strengthening of the EU fiscal governance framework. It makes sense, therefore, to derive a net government debt measure as a supplementary indicator from the well-established concept of Maastricht debt.

After having chosen Maastricht debt as the starting point for the calculation, defining net government debt comes down to the choice of the financial assets and their valuation. As already mentioned, net government debt measures which are based on the most liquid financial assets have the advantage of taking into account only those assets which could be easily sold without any significant impact on their prices. Even if not all government financial assets are (equally) liquid or reasonably measurable, a number of categories can be measured and do not give rise to contestation as regards their liquidity. It seems for example quite natural to include at least currency and deposits on the assets side.

Most traded securities other than shares (excluding financial derivatives) are liquid assets, which are straightforward to measure. Even so, it is worth noting that some over-the-counter instruments, i.e. securities which are not traded on an organized exchange, might be rather illiquid. An example of such securities is asset-backed securities resulting from securitization operations. Nevertheless, it would be difficult to distinguish for statistical purposes between over-the-counter securities and those traded on an organized market. Moreover, some of these securities may well be not traded but rather held by government till maturity. Therefore, we do not make the distinction between over-the-counter securities and those listed on an official exchange, and we would include all securities other than shares among the assets.

If we stop here, we would end up with a definition of net government debt where only the most liquid assets are deducted from Maastricht debt. However, the proposed measure of net government debt is not intended to be a pure liquidity measure. We believe that considering loans in addition to currency and deposits and securities other than shares (excluding financial derivatives) confers certain advantages.

By adding loans on the assets side a balance between types of liabilities on the one side and types of assets is achieved. This is a common approach adopted by a number of countries in their national measures of net government debt and/or net financial worth. It is also in line with the PSDSG definition of net government debt, which also matches liabilities with their corresponding assets (albeit not the same ones as here).

By including loans on the assets side, this measure also takes into account government assets from intergovernmental lending, in particular lending under the European Financial Stability Facility (EFSF). The EFSF was created in 2010 with the purpose of providing temporary financial assistance to the euro area countries, if needed. In 2011 Eurostat decided that the EFSF cannot be considered as an autonomous international organisation for the purposes of National Accounts (¹⁸). This implies that the part of the debt

⁽¹⁷⁾ Both Maastricht debt and financial assets held by government are consolidated within the general government sector.

^{(&}lt;sup>18</sup>) In January 2011 Eurostat published a Decision on the statistical recording of operations undertaken by the EFSF, together with an accompanying background note on this issue.

incurred by the EFSF on the markets, which will be later granted to a euro area country, should be allocated to the guarantor euro area Member States, on the basis of their contribution key in a given support operation. Similarly, the loans granted by the EFSF to the euro area countries should be considered as loans directly granted by the guarantor euro area Member States. In other words, when the EFSF grants a loan to a borrowing euro area Member State, the lending (guarantor) euro area countries would see both their liabilities and assets increase by the same amount. This would lead to an increase in the guarantor euro area countries' Maastricht debt, but their net government debt would remain unaffected, if assets in loans are taken into account. This is particularly relevant for the years from 2010 onwards, when the EFSF was very active.

However, it should be noted that the inclusion of loans (measured at nominal value) on the assets side may have some downsides. As already mentioned, due to the general lack of a market for individual loans, these financial instruments are in principle less liquid than currency and deposits and securities other than shares. Moreover, some of these loans may well be non-performing loans that will likely never be fully repaid and this risk increases in economic downturns. Thus, the fair value of some loans may be substantially less than their nominal value.

One way to solve this problem would be to separately identify and remove non-performing loans, if these amounts are significant. Currently there is no existing data on non-performing loans which would allow this. However, data on non-performing loans will be collected in the future through the supplementary questionnaire on government contingent liabilities under Council Directive 2011/85/EU (¹⁹), to be launched by Eurostat in December 2014.

Based on the arguments above, we include loans on the assets side. In principle, the definition of net government debt based on Maastricht debt could be further extended to take into account other types of instruments on the assets side, such as quoted shares and mutual fund shares, given their high degree of liquidity. However, mainly for practical reasons, quoted shares and mutual fund shares are not included among the assets. The quarterly financial accounts of general government do not currently provide the breakdown of shares and other equity into quoted shares and mutual fund shares. Recognising that adding quoted shares and mutual fund shares to the assets could make a significant difference for a few countries, we present annual data on these instruments for illustrative purposes in the following chapter.

It should also be noted that some countries hold significant amounts of employment pension reserve assets (including debt securities and equity instruments) which are reserved for future pension payments. In this case, the proposed asset boundary would not have much analytical meaning, as debt securities and equity instruments are basically substitutes in the asset portfolio. One could also argue that pension reserve assets should be left totally outside the asset boundary. However, if the government sells these pension reserve assets and uses the funds collected to pay out future pension obligations, it would not have to raise any additional debt for this purpose. Money is therefore fungible and we do not separate pension reserve assets from the rest of the financial assets.

Finally, it is worth noting that the proposed measure does not make any distinction between short-term and long-term securities other than shares (or between short term and long term loans) because in some cases markets for short-term instruments may be less liquid than markets for long-term instruments.

As regards the valuation of the liabilities and the assets, we use face value for the liabilities (Maastricht debt), whereas the ESA 95 valuation principles apply to the financial assets. One may argue that the mixture of valuations used on the liabilities and on the assets side may hamper the analytical value of the net government debt indicator. In particular, the liabilities may be overstated when compared with their corresponding assets. However, the proposed net debt indicator is designed in a way to allow comparisons with Maastricht debt and also cross-country comparisons. In this sense, the valuation of the assets at market value (nominal value for deposits and loans) would not go against these two objectives of the measure.

Moreover, the market value of the securities other than shares (excluding financial derivatives) reflects the amount that the government could in theory collect from their sale. The proceeds could be thus used by government to extinguish its debt at any time between the moment of the sale of the assets and

^{(&}lt;sup>19</sup>) Council Directive 2011/85/EU of 8 November 2011 on requirements for budgetary frameworks of the Member States.

maturity. It is more common, however, that governments redeem their debt at maturity, thus paying the face value. Thus the mixture of valuations used in the measure could be even viewed as an advantage rather than a shortcoming, because it reflects the true nature of the government liabilities (which are owed at maturity) and assets in securities other than shares (which could be sold at any time before maturity). After all, if the net government debt indicator is used to assess the creditworthiness of the government at one particular point in time, it would be the market value of the assets at that particular point which matters. Hence, using Maastricht debt for the liabilities and market value on the assets side for those instruments where applicable could be rather viewed as a prudent approach.

The market value also reflects any changes in the value of the outstanding instruments due to interest rate movements. Thus, net government debt development could deviate from the pattern shown for gross debt figures not only due to the accumulation of financial assets but also to movements in their prices. The ability of net government debt to capture changes in the financial assets prices could also be seen as an advantage, showing a better picture of the financial situation of the government. This could be particularly important in the context of debt management, notably because net government debt could be seen as an indicator of future refinancing needs.

To summarize, the net government debt measure proposed in this paper goes beyond a simple liquidity measure, which is frequently open to interpretations as regards the degree of liquidity of the instruments. It takes into account the most measurable instruments, for which data sources are available, and represents a symmetric concept of net government debt, where liabilities are paired with assets. Applying different valuation principles to the liabilities and the assets better reflects the nature of the underlying instruments. Therefore, from a practical point of view, we consider this measure to be the most appropriate measure of net government debt based on Maastricht debt.

4. Statistical analysis

This chapter shows the results of an empirical analysis, comparing net government debt with Maastricht debt over the period 2000–2013. Net government debt is calculated as described in the previous chapter: Maastricht debt - AF.2 - AF.33 - AF.4.

Description of the data used

The analysis compares net government debt with Maastricht debt data for the period 2000-2013. From an analytical point of view, the time span can be broken down into two sub-periods: the period from 2000 to 2007 covers the pre-crisis years, whereas the years from 2008 up until 2013 cover the economic and financial crisis and the sovereign debt crisis periods.

Maastricht debt data are obtained from the most recent quarterly government debt data. The stock data on general government financial assets are based on the balances as at the end of each quarter. GDP at market prices is the sum of the four quarters GDP before each reference quarter.

For the aggregates, the analysis is performed on the EU-27 Member States and the EA-18 countries, including Latvia, which joined the euro area on 1 January 2014. For Croatia, which became the 28th Member State of the EU on 1 July 2013, the evolution of net government debt is shown separately in the Annex, covering the period from 2012Q1 to 2013Q4 only, due to unavailability of historical data which would allow the calculation of net government debt for previous years. For Malta and Slovenia the net government debt series has been calculated from 2003Q4 and 2004Q1 onwards, respectively, due to the lack of data on government financial assets for previous quarters.

Government loans granted to other EU governments, including those made through the EFSF, are consolidated in the EU-27 and EA-18 debt aggregates. This means that the EU-27 and EA-18 aggregates for Maastricht debt only include the amounts borrowed by the euro area countries to finance the EFSF lending. As assets in the quarterly general government financial accounts are not consolidated between countries in the EU and euro area aggregates, for the purpose of calculating net debt, liabilities from intergovernmental lending not related to EFSF lending are added back to the consolidated EU-27 and EA-18 debt aggregates, so that they could be netted off in the net government debt measure.

The valuation principles of the ESA 95 are applied for the assets. Deposits and loans are valued at nominal value, whereas securities other than shares (excluding financial derivatives) are valued at market value, which represents the amount that the government could in theory realise from their sale at any point in time. The nominal value of currency and deposits and loans should in principle include interest accrued but not yet paid.

Net debt for the EU-27 and the EA-18

Figure1 shows the evolution of aggregate Maastricht debt at the level of EU-27 countries, compared with the evolution of net government debt, for the period 2000–2013.



Figure 1: Maastricht (gross) debt and net government debt for EU-27, 2000–2013 (% of GDP)

Source: Eurostat (online data codes: gov_q_ggdebt, gov_q_ggfa and namq_gdp_c)

Between 2000 and 2007 (the pre-crisis period) both Maastricht debt and net government debt were fairly static, with Maastricht debt approaching the 60 % threshold. Net government debt was closely following Maastricht debt, standing on average 10.1 pp below the gross measure. The difference between the two ratios mainly corresponded to government holdings in currency and deposits. From 2005 onwards Maastricht debt and net government debt even decreased, reaching 58.9 % and 49.4 % of GDP at the end of 2007.

The year 2008 marks the beginning of the economic and financial crisis which led to increasing deficits and increasing debts to finance them. After a moderate increase of both Maastricht and net government debt in 2008 (although the increase in Maastricht debt was already more pronounced than the increase in net government debt), the two measures rose sharply in 2009, reaching 74.6 % and 61.7 % of GDP, respectively, at the end of the year. Over the following three years, the sovereign debt crisis further accelerated the increase in gross and net debt levels, bringing them to a peak of 87.6 % and 72.0 % of GDP, respectively, at the end of 2013.

However, even if both Maastricht debt and net government debt have increased since the beginning of the economic and financial crisis, Maastricht debt grew at a faster pace than net debt. The gap between Maastricht debt and net government debt at the end of each year shows the total stock of assets held by EU-27 governments in currency and deposits, securities other than shares (excluding financial derivatives) and loans. At the end of 2007, roughly one year before the crisis, the difference between gross debt and net debt at the EU-27 level was less pronounced (9.6 pp). Since the onset of the financial crisis in the early 2008, the gap has been widening, reaching a maximum of 17.0 pp in the second quarter of 2013. This trend reflects governments' increased accumulation of financial assets as a response to the financial crisis. In particular, some governments intervened to take over failing banks, which led to an increase in their gross debt; however, by doing so, governments sometimes also took over financial assets from the banks that had value and therefore net debt went up by less.

Figure 2 further illustrates the increased accumulation of financial assets by EU governments over the period 2007–2013 (²⁰).

^{(&}lt;sup>20</sup>) The analysis of financial assets is restricted to the three instruments used in the proposed definition of net government debt. Besides these instruments, financial assets held by general government may also include financial derivatives, shares and other equity and other accounts receivable.



Figure 2: Evolution of the breakdown of financial assets in AF.2, AF.33 and AF.4 held by EU-27 countries, 2000–2013 (% of GDP)

The line on the top of the bars corresponds to the sum of assets in the categories of currency and deposits, securities other than shares (excluding financial derivatives) and loans, at any point in time. The rather straight line up until end 2007 was followed by a steep upward trend from 2008 onwards. Looking more closely at the evolution of the composition of government financial assets, this development can be explained by governments' increased holdings in long-term loans, long-term securities other than shares (excluding financial derivatives) and currency and deposits.

Long-term loans doubled as a percentage of GDP from 2008 to 2012 (from 3 % to 6 % of GDP). The importance of loans as a government asset has increased over the past few years due to intergovernmental lending and in particular EFSF lending. Long-term securities other than shares (excluding financial derivatives) also more than doubled from 2007 to 2012 (from 1.5 % to 3.1 % of GDP). This increase is largely explained by governments' support to the banking sector, in particular recapitalizations of banks through acquisitions of securities other than shares. The increase in currency and deposits was less rapid, although it should be kept in mind that this was by far the most important category of financial assets held by governments. The increase in currency and deposits was mainly due to governments' cash reinforcements both at the beginning and during the economic and financial crisis. It is worth noting, however, that in 2013, all financial assets, except for long-term loans, exhibited a decline.

The large increase of governments' holdings in long-term loans and long-term securities other than shares led to a decline in the relative importance of currency and deposits. This could be seen in Figure 3, which shows the evolution of the contribution of each category of financial asset to the total amount of assets.

Source: Eurostat (online data codes: gov_q_ggfa and namq_gdp_c)



Figure 3: Contribution of each category of financial asset to the total amount of financial assets in AF.2, AF.33 and AF.4, held by EU-27 governments, 2000–2013 (% of the total financial assets)

In the year 2000, currency and deposits accounted for about half of the total sum of the assets, while in 2013 the contribution of this category amounted to less than 40 % of the total sum of assets. On the other hand, both long-term securities other than shares and long-term loans increased their share in the total amount of assets, held by EU-27 governments.

A similar trend is observed for the euro area countries. Figure 4 compares Maastricht debt with net government debt for the EA-18 countries.





Source: Eurostat (online data codes: gov_q_ggfa)

Prior to the economic and financial crisis, Maastricht debt and net government debt were relatively stable, with both measures decreasing between the years 2005 and 2007. From 2008 onwards, both measures rapidly increased, reaching 93.1 % and 77.9 % of GDP, respectively, at the end of 2013. However, the Maastricht debt curve in Figure 4 presents a steeper slope than the net debt curve, due to the increased accumulation of financial assets by euro area countries.

It is worth noting that both for the EU-27 and EA-18 countries the increased accumulation of financial assets from 2008 onwards was rather due to governments' acquisitions of financial assets than to revaluation effects. Actually, the value of the financial assets held by governments during the economic and financial crisis declined.

Net government debt for individual countries

Table 1 in the Annex shows net government debt across EU-27 Member States for the period 2000–2013. A few countries show negative net government debt figures: Bulgaria (from 2007 to 2009), Estonia (for the whole reference period), Luxembourg (from 2000 to 2008) and Finland (for 2002 and from 2004 to 2009). While Bulgaria, Estonia and Luxembourg have always been among the countries with the lowest Maastricht debt-to-GDP ratios, the negative debt figures observed for Finland are mainly due to the large amount of assets held by Finnish government units (notably social security funds).

Charts comparing net government debt with the evolution of Maastricht debt for each individual Member State are available in the Annex. For most countries net government debt follows the same pattern as gross government debt. However, keeping in mind that government financial assets in some cases represent a significant percentage of GDP, the difference between gross debt and net debt could be very large for some countries. Similarly, cross-country comparisons show that large differences exist in the size of the financial assets held by EU Member States.

In Denmark, for example, the government increased its holdings in financial assets from 12.6 % of GDP in the year 2000 to 25.9 % of GDP in 2013. This increase was particularly pronounced in 2008, when financial assets held by government increased by almost 10 pp, largely due to the reinforcement of cash reserves in the context of the financial crisis. This was reflected in a decrease in the net debt measure, while at the same time Maastricht debt increased. In 2009 and 2010 the government used a lot of cash (one part used to buy bonds and to provide loans), which led to an increase in the net government debt measure. In 2011, gross debt increased, while the net government debt measure remained more or less unaffected. This could be again explained by an increase in currency and deposits in 2011, which off-set the increase in Maastricht debt. Finally, in 2012 and 2013, gross debt declined, while net government debt increased in 2012 and remained rather stable in 2013, following a significant decline in currency and deposits and long-term securities other than shares.

In Germany net government debt increased only marginally (by 0.9 pp) in 2010, while gross debt went up by 8.0 pp. This pattern was due to a parallel increase in government assets and debt due to the classification of two defeasance structures that took over the impaired assets (mainly long-term securities other than shares) and related liabilities from Hypo Real Estate and West LB within the general government sector.

Unlike most other countries, Luxembourg has been actually reducing its holdings in financial assets since the year 2000, thereby increasing net government debt and bringing it closer to Maastricht debt figures. This was mainly due to a decline in securities other than shares (excluding financial derivatives) held by government. It is worth noting that since 2007, Luxembourg has been accumulating large amounts of mutual fund shares, which are not taken into account in the net government debt measure as presented above.

Table 2 in the Annex shows the EU-27 Member States ranked by Maastricht debt and net debt for the period 2009–2012. It can be seen that the rankings by debt remain fairly similar on both gross and net measures, except for Finland where the large amount of government financial assets makes a difference.

Over the whole reference period 2000–2013, the top three countries showing the highest level of debt as percentage of GDP remain the same, regardless of whether gross debt or net debt is used. The biggest

change in ranking within the same year in the reference period 2000–2013 occurs for Finland, due to the large amount of assets held by Finnish government units.

Quoted shares and mutual fund shares

As already mentioned in Chapter 3, the concept of net government debt used in this paper could be in principle extended to include quoted shares and mutual fund shares on the assets side, as these two instruments are deemed to be rather liquid. However, for practical reasons, these instruments have not been included in the statistical analysis presented in this chapter. Therefore, for illustrative purposes only, we show below the relative importance of governments' holdings in these two instruments. Figure 5 shows the EU-27 Member States' holdings of quoted shares and mutual fund shares, as a percentage of GDP, for 2012.

Figure 5: EU-27 Member States' holdings of quoted shares and mutual fund shares, 2012



Source: Eurostat (online data codes: nasa_f_bs and nama_gdp_c)

In 2012, the largest amounts of quoted shares were held by Finland and Sweden (20.5 % and 13.7 % of GDP, respectively). Other countries, such as Belgium, the Czech Republic, Ireland, Greece, France, Cyprus, Luxembourg, Hungary, Malta, Poland and Slovenia also held non-negligible amounts of quoted shares, ranging from 2.4 % to 6.7 % of GDP. On the other hand, some countries, such as Bulgaria, Spain, Latvia, the Netherlands and Slovakia, held insignificant amounts, if any, of quoted shares.

Most countries had holdings in mutual fund shares of less than 1 % of GDP in 2012. Finland and Luxembourg held the largest amounts of mutual fund shares (26.1 % and 24.4 % of GDP, respectively). France and Sweden also had non-negligible holdings of mutual fund shares. It should be noted that data on mutual fund shares for Lithuania and the UK are not available.

It could be therefore inferred, that the inclusion of quoted shares and mutual fund shares in the calculation of a net government debt measure would make a difference for some countries such as France, Luxembourg, Finland and Sweden. The amounts held by these four countries in both quoted shares and mutual fund shares accounted for 8.4 %, 29.3 %, 46.6 % and 16.9 % of GDP, respectively, in 2012. For most countries, however, the impact on net government debt would be rather insignificant.

Conclusion

This paper gives an overview of the existing definitions of net government debt across the EU Member States and international organisations. The paper points out both the benefits and the shortcomings of net government debt measures. It also argues that from a statistical point of view there is an opportunity for a single harmonised measure of net government debt at the EU level, which would allow users to make cross-country comparisons and to analyse Maastricht debt figures from a different perspective.

Chapter 3 of this paper proposes a harmonised concept of net government debt, where Maastricht debt is offset by assets in currency and deposits, securities other than shares (excluding financial derivatives) and loans. The proposed measure of net government debt seems to be a good compromise from a practical point of view. It takes into account the most measurable assets for which data are widely available. It also goes beyond a simple liquidity measure by adding to the assets less liquid instruments such as loans and some less liquid securities other than shares (excluding financial derivatives) which are traded over-the-counter. Moreover, this measure results directly from Maastricht debt and allows thus users to compare the evolution of net government debt with the evolution of Maastricht debt.

The paper recognises that more detailed measures of net government debt, further expanding the assets side, could be considered. However, adding more categories to the assets may lead to practical difficulties related to the lack of available data sources and valuation problems. On the other hand, focusing exclusively on very liquid assets limits the analytical value of the net government debt indicator and may lead to different interpretations as to which categories of assets should be viewed as very liquid. Therefore, the proposed definition of net government debt should be viewed as a prudent measure, which finds a good balance between analytical usefulness and practical concerns.

Chapter 4 shows how the measure could be applied in practice, using real data. The statistical analysis performed on the EU-27 Member States shows that the measure can be used as a complementary tool to analyse Maastricht debt and in particular to capture the evolution of the financial assets held by governments.

It has been shown that prior to the economic and financial crisis, looking at net government debt or Maastricht debt of the EU-27 Member States would not make a big difference. Both measures were rather stable over time and they evolved in a similar way, with net government debt closely following Maastricht debt. However, from 2008 onwards, up until 2012, net government debt has been growing at a slower pace than Maastricht debt. This difference in the observed patterns was due to governments' increased accumulation of financial assets.

The net government debt measure reflects thus the movements on both sides of the government balance sheet, taking into account that governments could use some assets to reduce their debt. It can thus be used to assess government's creditworthiness at a particular point in time. However, users should be aware that net government debt is a less reliable indicator if applied to assess government's future creditworthiness, notably due to the uncertainty of the future value of the financial assets held by government. For the same reason, users should be cautious when using net government debt for cross-country comparisons.

References and abbreviations

References

Legislation:

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

Council Regulation (EC) No 479/2009 of 25 May 2009 on the application of the Protocol on the excessive deficit procedure annexed to the Treaty establishing the European Community

Regulation (EU) No 473/2013 of the European Parliament and of the Council of 21 May 2013 on common provisions for monitoring and assessing draft budgetary plans and ensuring the correction of excessive deficit of the Member States in the euro area

Commission Delegated Regulation (EU) No 877/2013 of 27 June 2013 supplementing Regulation (EU) No 473/2013 of the European Parliament and of the Council on common provisions for monitoring and assessing draft budgetary plans and ensuring the correction of excessive deficit of the Member States in the euro area

Council Directive 2011/85/EU of 8 November 2011 on requirements for budgetary frameworks of the Member States

Regulation (EC) No 501/2004 of the European Parliament and of the Council of 10 March 2004 on quarterly financial accounts for general government

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Abbreviations

Euro area 18 (EA-18): BE (Belgium), DE (Germany), EE (Estonia), IE (Ireland), EL (Greece), ES (Spain), FR (France), IT (Italy), CY (Cyprus), LV (Latvia), LU (Luxembourg), MT (Malta), NL (the Netherlands), AT (Austria), PT (Portugal), SI (Slovenia), SK (Slovakia) and FI (Finland).

European Union of 27 Member States (EU-27): Euro area 18 countries as well as BG (Bulgaria), CZ (Czech Republic), DK (Denmark), LT (Lithuania), HU (Hungary), PL (Poland), RO (Romania), SE (Sweden), and the UK (United Kingdom).

pp: percentage points

EU: European Union

ESA 95 classification codes:

AF.2: The category currency and deposits consists of currency in circulation and all types of deposits in national and in foreign currency.

AF.33: The category securities other than shares, excluding financial derivatives, consists of financial assets, other than financial derivatives, that are bearer instruments, are usually negotiable and traded on secondary markets or can be offset on the market, and do not grant the holder any ownership rights in the institutional unit issuing them.

AF.4: The category loans consists of financial assets created when creditors lend funds to debtors, either directly or through brokers, which are either evidenced by non-negotiable documents or not evidenced by documents.

AF.511: This sub-category of the instrument 'shares and other equity', quoted shares, excluding mutual fund shares, consists of shares with prices quoted on a recognised stock exchange or other form of secondary market.

AF.52: The sub-category 'mutual fund shares' consists of shares issued by a specific type of financial corporation, whose exclusive purpose is to invest the funds collected on the money market, the capital market and/ or in real estate.

Annexes

Table 1: General government net debt across EU Member States, 2000–2013(% of GDP)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
EU-27 - net debt	50.9	50.9	50.7	52.6	53.0	53.5	52.0	49.4	50.8	61.7	65.6	68.2	69.8	72.0
EA-18 - net debt	58.1	57.9	58.0	59.6	60.2	60.9	59.1	56.8	58.7	67.5	71.7	74.1	75.7	77.9
AT	43.9	44.4	44.2	44.8	47.6	47.1	46.0	45.1	45.8	53.3	57.1	56.8	57.6	57.4
BE	102.9	100.8	98.1	95.7	91.3	89.5	85.6	81.5	84.9	91.3	91.1	93.2	94.1	93.9
BG	34.9	32.9	24.6	20.0	14.6	7.4	0.6	-1.3	-2.9	-0.2	4.4	6.3	6.8	9.1
CY	49.3	47.8	51.4	55.1	56.0	55.0	52.2	44.8	40.2	47.3	51.0	55.7	72.6	83.7
CZ	0.9	1.9	8.3	15.0	16.7	14.8	16.6	15.4	15.1	22.2	28.5	30.3	32.1	33.1
DE	45.6	46.9	49.4	53.3	55.9	58.4	57.2	54.4	54.1	61.2	62.2	60.3	59.2	58.0
DK	39.8	36.3	37.1	36.4	32.6	26.3	16.9	11.5	7.9	11.7	15.2	15.3	18.8	18.6
EE	-0.1	-2.0	-4.0	-6.6	-8.5	-9.0	-10.1	-9.6	-6.7	-8.3	-7.3	-5.5	-3.7	-3.2
EL	98.9	99.3	97.4	93.3	93.0	105.1	102.2	102.2	106.3	122.0	137.9	159.9	139.3	156.0
ES	49.0	46.0	42.3	39.5	36.6	32.3	27.0	22.4	25.2	36.5	46.4	56.6	71.0	79.9
A	4.6	3.0	-0.3	1.0	-2.1	-4.9	-5.1	-5.5	-8.2	-5.1	2.9	4.0	7.5	11.5
FR	50.9	50.8	52.6	56.3	58.2	60.3	59.4	59.5	62.1	72.2	76.1	79.1	82.7	86.2
HU	50.6	46.4	52.4	55.5	55.3	57.5	61.2	62.5	63.4	70.5	74.2	73.8	71.9	72.9
IE	25.7	21.3	22.9	22.5	20.0	17.8	14.7	14.5	22.9	37.2	67.5	80.8	88.0	92.2
п	100.4	99.9	97.0	96.6	96.0	96.9	97.7	95.3	97.4	106.3	108.2	110.6	114.9	119.8
LT	10.8	11.7	11.6	11.1	11.2	10.9	8.7	9.2	11.1	21.4	28.9	31.8	32.4	33.0
LU	-30.9	-32.9	-32.5	-31.8	-29.4	-24.7	-23.9	-9.5	-5.2	0.9	4.0	4.8	7.1	7.5
LV	6.9	7.1	7.9	8.8	9.5	9.1	6.7	4.8	9.0	20.3	29.2	31.2	29.2	29.4
МТ	:	:	:	58.6	62.3	59.3	53.7	51.5	52.4	56.3	55.8	56.8	60.6	62.5
NL	43.8	41.6	41.8	44.2	44.8	42.8	39.8	36.5	42.3	45.5	49.3	51.9	56.6	58.9
PL	32.4	32.9	37.3	42.1	40.3	41.2	42.1	37.8	40.0	44.4	49.2	50.7	50.1	52.7
PT	41.8	44.5	46.7	50.5	53.6	58.6	60.2	61.2	64.8	76.9	86.1	93.8	103.7	108.2
RO	16.9	20.8	20.0	17.3	13.3	10.8	6.4	7.6	10.0	18.2	25.5	29.9	31.6	31.5
SE	26.7	32.3	31.5	31.0	29.2	27.2	21.0	15.2	12.7	13.7	12.3	10.7	10.5	10.6
SI	:	:	:	:	20.1	20.2	19.4	15.2	13.9	21.4	27.0	32.6	37.0	52.8
SK	23.8	27.1	19.5	21.5	22.3	24.9	23.2	21.1	20.1	29.5	35.6	39.4	42.9	45.0
UK	32.1	30.3	30.5	32.2	33.8	35.2	35.8	36.0	41.0	55.7	61.3	66.8	71.5	73.5

Source: Eurostat (online data codes: gov_q_ggdebt, gov_q_ggfa and namq_gdp_c)

 Table 2: Rankings of Member States by net government debt and Maastricht debt,

 2009–2013

		Rankings b	y net gover	nment debt	Rankings by Maastricht (gross) debt					
	2009	2010	2011	2012	2013	2009	2010	2011	2012	2013
1	EE	EE	EE	EE	EE	EE	EE	EE	EE	EE
2	FI	FI	FI	BG	LU	BG	BG	BG	BG	BG
3	BG	LU	LU	LU	BG	LU	LU	LU	LU	LU
4	LU	BG	BG	FI	SE	RO	RO	RO	RO	LV
5	DK	SE	SE	SE	FI	LT	LT	LT	SE	RO
6	SE	DK	DK	DK	DK	CZ	CZ	SE	LT	LT
7	RO	RO	RO	LV	LV	SI	SI	CZ	LV	SE
8	LV	SI	CZ	RO	RO	SK	SE	LV	DK	DK
9	LT	CZ	LV	CZ	LT	LV	SK	SK	CZ	CZ
10	SI	LT	LT	LT	CZ	DK	DK	DK	SK	SK
11	CZ	LV	SI	SI	SK	SE	LV	SI	FI	FI
12	SK	SK	SK	SK	PL	FI	FI	FI	SI	PL
13	ES	ES	PL	PL	SI	PL	PL	PL	PL	SI
14	IE	PL	NL	NL	AT	ES	CY	NL	MT	MT
15	PL	NL	CY	AT	DE	CY	ES	MT	NL	NL
16	NL	CY	ES	DE	NL	NL	NL	ES	AT	AT
17	CY	MT	AT	MT	MT	IE	MT	CY	HU	DE
18	AT	AT	MT	ES	HU	MT	AT	AT	DE	HU
19	UK	UK	DE	UK	UK	UK	UK	DE	ES	UK
20	MT	DE	UK	HU	ES	AT	HU	HU	CY	ES
21	DE	IE	HU	CY	CY	DE	DE	UK	UK	FR
22	HU	HU	FR	FR	FR	FR	FR	FR	FR	BE
23	FR	FR	IE	IE	IE	HU	IE	IE	BE	CY
24	PT	PT	BE	BE	BE	PT	PT	BE	IE	IE
25	BE	BE	PT	PT	PT	BE	BE	PT	PT	PT
26	IT	IT	IT	IT	IT	IT	IT	IT	IT	IT
27	EL	EL	EL	EL	EL	EL	EL	EL	EL	EL

(1 = smallest debt, 27 = largest debt)

Source: Eurostat (online data codes: gov_q_ggdebt, gov_q_ggfa and namq_gdp_c)

Charts of historical evolution of Maastricht debt and net government debt for individual countries, for the period 2000–2013 (% of GDP) (for Croatia quarterly data are used for the period 2012Q1–2013Q4)

Historical evolution of Maastricht debt and net government debt for Belgium, 2000Q1– 2013Q4 (% of GDP)



Source: Eurostat (online data codes: gov_q_ggdebt, gov_q_ggfa and namq_gdp_c)

Historical evolution of Maastricht debt and net government debt for Bulgaria, 2000Q1-2013Q4

(% of GDP) 80 70 60 50 40 % of GDP 30 20 10 0 -10 2000Q4 2013Q4 200104 200404 2005Q4 2006Q4 2008Q4 2009Q4 2010Q4 201104 2012Q4 200204 2003Q4 200704 BG - (quarterly) Maastricht Debt -BG - net debt Source: Eurostat (online data codes: gov_q_ggdebt, gov_q_ggfa and namq_gdp_c)



Historical evolution of Maastricht debt and net government debt for the Czech Republic, 2000Q1–2013Q4 (% of GDP)



Source: Eurostat (online data codes: gov_q_ggdebt, gov_q_ggfa and namq_gdp_c)



Historical evolution of Maastricht debt and net government debt for Germany, 2000Q1– 2013Q4 (% of GDP)

Source: Eurostat (online data codes: gov_q_ggdebt, gov_q_ggfa and namq_gdp_c)

Historical evolution of Maastricht debt and net government debt for Estonia, 2000Q1-2013Q4





Source: Eurostat (online data codes: gov_q_ggdebt, gov_q_ggfa and namq_gdp_c)



Historical evolution of Maastricht debt and net government debt for Ireland, 2000Q1– 2013Q4 (% of GDP)

Source: Eurostat (online data codes: gov_q_ggdebt, gov_q_ggfa and namq_gdp_c)

Historical evolution of Maastricht debt and net government debt for Greece, 2000Q1- 2013Q4





Source: Eurostat (online data codes: gov_q_ggdebt, gov_q_ggfa and namq_gdp_c)

100 90 80 70 60 % of GDP 50 40 30 20 200104 2003Q4 200704 201304 2000Q4 2002Q4 200404 2005Q4 2006Q4 2008Q4 201004 201104 201204 2009Q4 ES - (quarterly) Maastricht Debt

Historical evolution of Maastricht debt and net government debt for Spain, 2000Q1– 2013Q4 (% of GDP)

Historical evolution of Maastricht debt and net government debt for France, 2000Q1– 2013Q4 (% of GDP)



Source: Eurostat (online data codes: gov_q_ggdebt, gov_q_ggfa and namq_gdp_c)

Source: Eurostat (online data codes: gov_q_ggdebt, gov_q_ggfa and namq_gdp_c)

Historical evolution of Maastricht debt and net government debt for Croatia, 2012Q1– 2013Q4 (% of GDP)



Source: Eurostat (online data codes: gov_q_ggdebt, gov_q_ggfa and namq_gdp_c)

Historical evolution of Maastricht debt and net government debt for Italy, 2000Q1– 2013Q4 (% of GDP)



Source: Eurostat (online data codes: gov_q_ggdebt, gov_q_ggfa and namq_gdp_c)

110 100 90 80 % of GDP 70 60 50 40 201104 201304 200004 200104 200404 2002Q4 200304 2005Q4 2006Q4 200704 200804 2009Q4 201004 2012Q4 -CY - (quarterly) Maastricht Debt -CY - net debt

Historical evolution of Maastricht debt and net government debt for Cyprus, 2000Q1– 2013Q4 (% of GDP)

Historical evolution of Maastricht debt and net government debt for Latvia, 2000Q1– 2013Q4 (% of GDP)



Source: Eurostat (online data codes: gov_q_ggdebt, gov_q_ggfa and namq_gdp_c)

Source: Eurostat (online data codes: gov_q_ggdebt, gov_q_ggfa and namq_gdp_c)

Historical evolution of Maastricht debt and net government debt for Lithuania, 2000Q1– 2013Q4 (% of GDP)



Source: Eurostat (online data codes: gov_q_ggdebt, gov_q_ggfa and namq_gdp_c)

Historical evolution of Maastricht debt and net government debt for Luxembourg, 2000Q1–2013Q4 (% of GDP)



Source: Eurostat (online data codes: gov_q_ggdebt, gov_q_ggfa and namq_gdp_c)

90 85 80 75 70 65 % of GDP 60 55 50 45 40 201304 200004 200104 2003Q4 200404 200504 2006Q4 2008Q4 2009Q4 201004 201104 201204 200204 200704

Historical evolution of Maastricht debt and net government debt for Hungary, 2000Q1– 2013Q4 (% of GDP)

Source: Eurostat (online data codes: gov_q_ggdebt, gov_q_ggfa and namq_gdp_c)

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HU - (quarterly) Maastricht Debt

Historical evolution of Maastricht debt and net government debt for Malta, 2000Q1– 2013Q4 (% of GDP)

-HU - net debt





Historical evolution of Maastricht debt and net government debt for Austria, 2000Q1-

AT - (quarterly) Maastricht Debt

2006Q4

-AT - net debt

Historical evolution of Maastricht debt and net government debt for the Netherlands, 2000Q1-2013Q4

2013Q4 (% of GDP)

% of GDP



2009Q4

Source: Eurostat (online data codes: gov_q_ggdebt, gov_q_ggfa and namq_gdp_c)

Historical evolution of Maastricht debt and net government debt for Poland, 2000Q1– 2013Q4 (% of GDP)



Source: Eurostat (online data codes: gov_q_ggdebt, gov_q_ggfa and namq_gdp_c)

Historical evolution of Maastricht debt and net government debt for Portugal, 2000Q1– 2013Q4 (% of GDP)



Source: Eurostat (online data codes: gov_q_ggdebt, gov_q_ggfa and namq_gdp_c)



Historical evolution of Maastricht debt and net government debt for Romania, 2000Q1– 2013Q4 (% of GDP)

Historical evolution of Maastricht debt and net government debt for Slovenia, 2000Q1– 2013Q4 (% of GDP)



Source: Eurostat (online data codes: gov_q_ggdebt, gov_q_ggfa and namq_gdp_c)

Source: Eurostat (online data codes: gov_q_ggdebt, gov_q_ggfa and namq_gdp_c)

60 55 50 45 40 % of GDP 35 30 25 20 15 10 201304 200104 2002Q4 200404 201204 2000Q4 201104 2003Q4 2005Q4 2006Q4 2007Q4 2008Q4 2009Q4 2010Q4 SK - (quarterly) Maastricht Debt -SK - net debt

Historical evolution of Maastricht debt and net government debt for Slovakia, 2000Q1– 2013Q4 (% of GDP)

Source: Eurostat (online data codes: gov_q_ggdebt, gov_q_ggfa and namq_gdp_c)

Historical evolution of Maastricht debt and net government debt for Finland, 2000Q1– 2013Q4 (% of GDP)



Source: Eurostat (online data codes: gov_q_ggdebt, gov_q_ggfa and namq_gdp_c)

70 60 50 40 % of GDP 30 20 10 0 200104 200404 200504 2006Q4 200704 201004 201204 2013Q4 2008Q4 201104 200004 2002Q4 200904 2003Q4 —SE - net debt -----SE - (quarterly) Maastricht Debt Source: Eurostat (online data codes: gov_q_ggdebt, gov_q_ggfa and namq_gdp_c)

Historical evolution of Maastricht debt and net government debt for Sweden, 2000Q1– 2013Q4 (% of GDP)

Historical evolution of Maastricht debt and net government debt for the United Kingdom, 2000Q1–2013Q4

(% of GDP)

