

# PROPERTIES AND USE OF GENERAL GOVERNMENT QUARTERLY ACCOUNTS

ARTICLES

Properties  
and use of general  
government  
quarterly accounts

*This article describes general government quarterly accounts for the euro area, supported by new data sources. It explains the definitions and methods used to compile the euro area aggregates and highlights recent developments in public finances viewed from a quarterly perspective.*

*These new data are now available as a result of various Community regulations governing the collection of statistics and are being published for the first time in this issue of the Monthly Bulletin (see Part 6 of the “Euro area statistics” section). They cover the period from the first quarter of 1999 to the first quarter of 2004.*

*General government quarterly data provide key information for the analysis of turning points, seasonal patterns and specific developments in government finance. The data are particularly useful for fiscal forecasting and monitoring. First, they can serve as an early indicator of annual fiscal developments: main revenue and expenditure components follow clear and relatively stable seasonal patterns that enhance the usefulness for monitoring purposes. Second, the quarterly patterns of the revenue data closely match those of real economic activity. Third, the production of quarterly data is likely to enhance the quality and timeliness of public finance data in general.*

## I NEW QUARTERLY DATA ON GENERAL GOVERNMENT ACCOUNTS

## THE USEFULNESS OF GENERAL GOVERNMENT QUARTERLY ACCOUNTS

### SOURCE AND COVERAGE OF THE NEW DATA

The new quarterly data have become available as a result of two Community regulations on the collection of quarterly data on government revenue and expenditure, and one Community regulation on quarterly financial accounts for the government sector.<sup>1</sup> These regulations require quarterly data to be supplied to Eurostat no later than three months after the end of the reference quarter.

At present the financial accounts data are incomplete because quarterly local government data are not yet transmitted by all countries, and some data are missing for the national accounts category “other accounts receivable/payable”. This category includes trade credit and the effects of time discrepancies between distributive transactions and the corresponding payment such as the difference between accruing taxes and taxes paid. As the regulation on quarterly financial accounts for the government sector only requires complete coverage by the end of 2005, the financial accounts data have to be regarded as provisional. In any case, the share of quarterly financial transactions of local government in the different financial instruments is small.

The new set of general government quarterly accounts provides information on the main revenue, expenditure, financial investment and financing transactions of all units classified in national accounts under the general government sector. The table presents transactions as an integrated system of quarterly accounts for the government sector and the resulting balance. The structure and definitions of the accounts detailed in the table are summarised in Box 1.

Quarterly data on government finances are useful for three main reasons. First of all, such data can be applied to assess the implementation of expenditure, as well as the most recent developments in government revenue. This supports the ongoing monitoring of public finances within the year and allows assessments of the forecasts prepared by the governments for the year as a whole. While the quarterly data are somewhat volatile, their seasonal patterns are reasonably stable. This means that broad trends can be identified in the year-on-

<sup>1</sup> Commission Regulation (EC) No 264/2000 of 3 February 2000, OJ L 29, 4.2.2000, p.4; Regulation (EC) No 1221/2002 of the European Parliament and of the Council of 10 June 2002, OJ L 179, 9.7.2002, p.1; Regulation (EC) No. 501/2004 of the European Parliament and of the Council of 10 March 2004, OJ L 81, 19.3.2004, p.1.

### GENERAL GOVERNMENT QUARTERLY ACCOUNTS: STRUCTURE AND DEFINITIONS

The quarterly transaction data presented in this article are compiled according to the ESA 95 methodology from national datasets provided by the euro area member countries. The general government sector comprises all institutional units which are delineated in line with their principal economic function: either the provision of goods and services to the community or to individual households at prices that are economically insignificant; or, the redistribution of income and wealth by means of transfer payments. Both of these activities are financed primarily by taxes or by transfers from other government units.<sup>1</sup> For the sake of brevity, “general government” is shortened to “government” in this text.

Government revenue and expenditure are linked to the government’s financial transactions – the acquisition of financial assets and the incurrence of liabilities – as follows:

$$\begin{aligned} & \text{Government revenue} - \text{government expenditure} \\ &= \text{Government surplus/deficit (net lending (+)/net borrowing (-))} \\ &= \text{Net acquisition of financial assets} - \text{net incurrence of liabilities} \end{aligned}$$

The following points should be noted:

- The surplus/deficit, or “government net lending (+)/net borrowing (-)”, is equal to government revenue minus government expenditure and is also referred to as the “balance of government non-financial transactions”. A negative value indicates that expenditure is higher than revenue.
- Incurring liabilities (such as selling government bonds), or disposing of financial assets (such as running down bank deposits), both yield cash resources to fund an excess of expenditure over revenue.

Government net lending (+)/net borrowing (-) is therefore also equal to the difference between the net acquisition of financial assets and the net incurrence of liabilities. Both are shown in the financial transaction account, which reveals the details of how governments meet their borrowing requirements.

For more information on these definitions and methods see  
[https://stats.ecb.int/stats/download/eas\\_ch06/eas\\_ch06/eas\\_note\\_ch6.pdf](https://stats.ecb.int/stats/download/eas_ch06/eas_ch06/eas_note_ch6.pdf)

<sup>1</sup> Thus, some public institutional units which provide goods at market prices or which government does not directly control are classified as public corporations and do not belong to the government sector; typical examples are hospitals and railways. The delineation of the government sector is much influenced by institutional arrangements and can distort comparisons of the data; this distortion applies particularly to health and education services.

Table Main indicators of general government quarterly accounts in the euro area

(as a percentage of GDP)

			2003				2004
	2002	2003	Q1	Q2	Q3	Q4	Q1
<b>Government revenue and expenditure</b>							
<b>Revenue</b>	<b>46.1</b>	<b>46.3</b>	<b>42.7</b>	<b>47.1</b>	<b>43.9</b>	<b>51.2</b>	<b>42.3</b>
<i>of which:</i> direct taxes	12.2	11.8	10.0	12.4	11.1	13.6	9.9
indirect taxes	13.4	13.5	13.1	12.9	12.9	14.7	13.1
social contributions	16.0	16.2	15.9	16.1	15.9	16.8	15.8
<b>Expenditure</b>	<b>48.4</b>	<b>49.0</b>	<b>47.1</b>	<b>48.1</b>	<b>48.0</b>	<b>52.7</b>	<b>46.7</b>
<i>of which:</i> intermediate consumption	4.8	4.9	4.3	4.7	4.8	5.7	4.3
compensation of employees	10.6	10.8	10.5	10.7	10.4	11.3	10.4
interest payable	3.7	3.5	3.7	3.5	3.5	3.3	3.3
social benefits	22.2	22.7	22.1	22.3	22.3	23.9	21.9
investment	2.4	2.6	2.0	2.4	2.6	3.3	2.0
<b>Surplus (+) / deficit (-)</b>	<b>-2.3</b>	<b>-2.7</b>	<b>-4.4</b>	<b>-1.0</b>	<b>-4.1</b>	<b>-1.5</b>	<b>-4.4</b>
<b>Government financial transactions <sup>1)</sup></b>							
<b>Net acquisition of main financial assets</b>	<b>0.6</b>	<b>-0.7</b>	<b>2.7</b>	<b>2.5</b>	<b>-1.1</b>	<b>-6.5</b>	<b>1.3</b>
<i>of which:</i> currency and deposits	0.0	-0.2	1.8	1.9	-1.8	-2.6	1.4
securities	0.1	0.2	0.0	0.1	0.2	0.4	-0.4
loans	0.3	-0.7	-0.1	0.0	0.0	0.3	-0.5
shares and other equity	0.1	-0.1	0.3	0.3	0.3	-1.1	0.0
<b>Net incurrence of main liabilities</b>	<b>3.1</b>	<b>2.4</b>	<b>7.9</b>	<b>4.7</b>	<b>3.1</b>	<b>-5.5</b>	<b>2.1</b>
<i>of which:</i> currency and deposits	0.2	-0.9	-0.6	0.2	0.0	-2.9	-3.1
short-term securities	0.7	0.8	2.8	2.0	-0.5	-1.1	1.9
long-term securities	2.3	2.1	4.6	2.6	2.6	-1.1	3.1
short-term loans	0.1	0.2	0.7	-0.1	0.4	-0.3	0.2
long-term loans	-0.3	0.2	0.9	0.1	0.5	-0.6	0.4

1) The deficit is financed by incurring financial liabilities (borrowing) or by disposing of financial assets.

year comparisons. Moreover, year-on-year comparisons provide a reliable indication for better assessing the forecasts (see Box 2). This sort of analysis has been used effectively in those Member States that already produce quarterly public finance data based on the ESA 95.

Second, changes in the quarterly pattern may provide information on possible changes in the trend of government finances during the course of a year that cannot be inferred from a single figure for the year as a whole. For example, the latest annual figure for the deficit would not reveal whether it was increasing or decreasing during the course of the year or whether there was a turning point within the year.

Third, the statistical procedures that Member States need to produce quarterly data can help to improve the quality and timeliness of government finance statistics in general,

including annual data. For example, compilation systems need to be made more automated and robust and the treatment and recording of new types of transactions, and any potential problems, can be resolved well in advance during the course of the year.

However, in order to understand better the link between quarterly macroeconomic variables and quarterly government revenue, expenditure and financial investment and financing data, further work is necessary. For instance, the ESA 95 rules of accounting generally require data to be recorded in line with the "accruals" principle of accounting, with some well-defined exceptions. With respect to revenue, the principle requires that it be recorded in the period in which the economic activity that generates the liability to pay the tax takes place, which may differ from the period in which the actual payment is due. While the accruals principle of accounting is generally adhered to, it cannot always be

## Box 2

### GOVERNMENT QUARTERLY ACCOUNTS DATA AS AN EARLY INDICATOR OF ANNUAL RESULTS

Government quarterly accounts data can serve as an early indicator of the annual outcomes. This function is especially useful in mutual fiscal surveillance procedures as in the EU framework for fiscal policies.

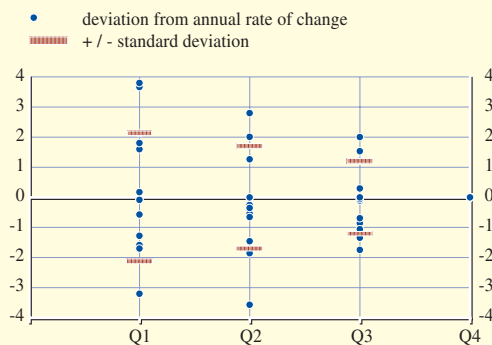
The uncertainty surrounding the annual result of a budgetary item is relatively high in the first quarter but should diminish as and when data for additional quarters become available. Eventually, when the release of data for the fourth quarter coincides with the publication of annual data, there is no more uncertainty over the annual result.

While the indicator function of quarterly data and the gain in information when additional quarters are released need to be assessed in a more technical analysis, a simple exercise can illustrate the use of quarterly data as an early indicator of annual results. As a simple approach to forecasting the annual outcome of a budgetary item, it is assumed that the rate of change between outcomes cumulated over subsequent quarters of one year and the previous year is the same as the annual rate of change in that item. This assumption can be used to forecast the annual outcomes in past periods, which are actually known. In this way, four forecasts – one for each quarter – are generated for each year. Subsequently, the deviations of the forecasts from the annual result can be computed for each of the four quarters.

One would expect the deviations to decrease between the first quarter and the fourth, when they eventually amount to zero, as the change between cumulated fourth-quarter outcomes is by definition equal to the annual rate of change.

**Chart Quarterly forecasts of annual changes in direct tax revenues in the euro area**

(percentage points)



Source: ECB calculations based on national data.

While this exercise demonstrates how the uncertainty in the forecast of the annual rate of change decreases as and when additional quarters become available, a significant amount of uncertainty still remains in the third quarter. Furthermore, both annual and quarterly government accounts data are often revised ex post. Hence, caution is required when gauging

1 While most of the data concerned by Commission Regulation (EC) No 264/2000 of 3 February start in the first quarter of 1991, some data for direct taxes are missing and have been estimated in order to compute euro area aggregate figures.

final annual results on the basis of quarterly data. It must be kept in mind, however, that the forecasting model is a simple one and not the optimum one. With more advanced techniques, better models and more precise forecasts would be obtainable.

strictly applied in practice. For example, the accruals principle is difficult to apply on a quarterly basis for taxes that are levied annually. While to some extent unavoidable, deviations from the accruals principle complicate the economic analysis of the relationship between government accounts and macroeconomic variables.

Furthermore, work is under way to compile an integrated system of quarterly accounts for all institutional sectors of the euro area. Such an integrated system of accounts will make it easier to analyse the interaction between economic developments and the government sector. The following sections explore the quarterly profile of government revenue, expenditure, deficit and financial transactions. Finally some trends in the quarterly government accounts are highlighted.

## 2 THE MAIN AGGREGATES: GOVERNMENT REVENUE, EXPENDITURE AND BUDGET BALANCE

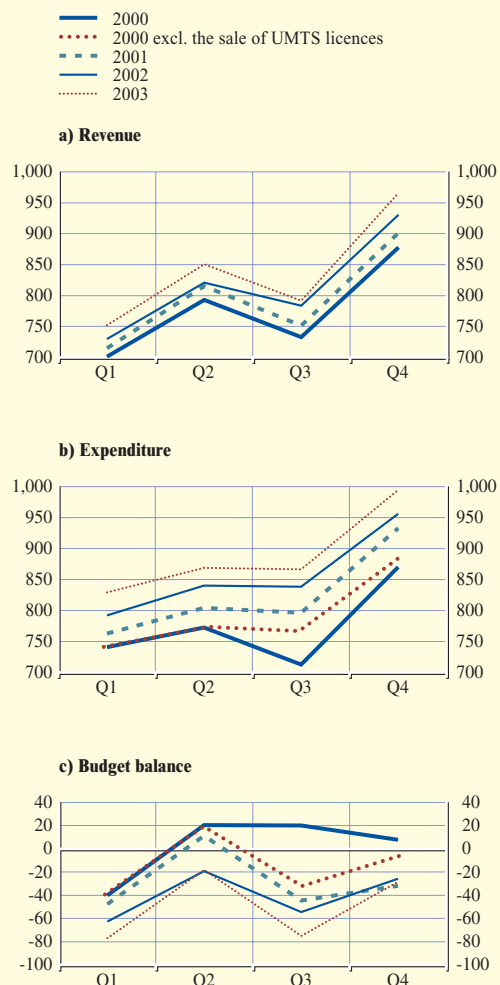
This section analyses the changes within the year in the main aggregates – government revenue, expenditure, and deficit – between the first quarter of 2000 and the first quarter of 2004. Such an analysis is necessary in order to distinguish between longer-term and short-term developments of government finances. The main findings are a distinct stability in the seasonal pattern of these aggregates, which only in some years is disturbed by temporary influences, and a high degree of congruence with the seasonal pattern in real economic activity.

Chart 1 shows the seasonal patterns of the main aggregates of relevance for fiscal policy analysis: government revenue, government expenditure and the budget balance. In most years, the deficit is lowest in the second and fourth quarter. This is mainly a consequence of

the quarterly pattern of government revenue: in many countries corporate taxes and taxes paid by the self-employed are payable in the second and fourth quarters. The surge in tax receipts in the fourth quarter is greater than that in expenditure, which is highest in that quarter.

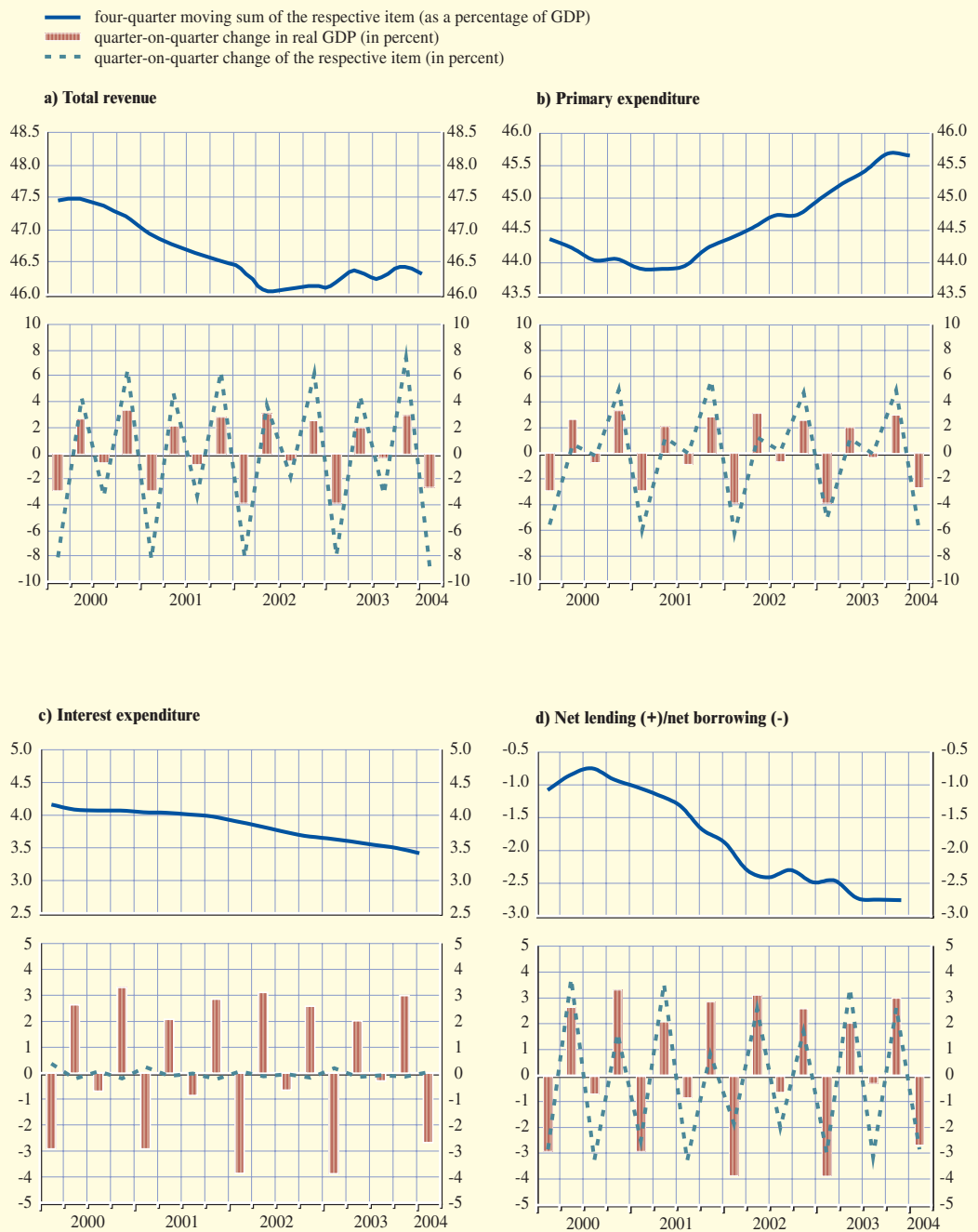
**Chart 1 Quarterly patterns of government revenue, expenditure and budget balance in the euro area**

(in EUR billions)



Sources: ECB calculations based on national data.

Chart 2 Trends and quarterly changes in main items of general government accounts



Sources: ECB calculations based on Eurostat and national data.

One-off events affect these regularities in the data, and their precise identification is crucial for making a sound assessment of government finance developments. For example, large sales of UMTS licences in Germany and the Netherlands in the third quarter of 2000, and in Italy and Austria in the fourth quarter of 2000 are recorded in the national accounts as negative government investment. As Chart 1 shows, they affected the seasonal pattern in government expenditure and in government net lending in the third and fourth quarters of 2000. Expenditure and deficit figures in Charts 2 and 4 have therefore been adjusted for sales of UMTS licences.

Chart 2 shows the evolution of the main aggregates as a ratio to GDP, with expenditure split into primary and interest expenditure. For each of these ratios, the chart differentiates between the smoother changes of the four-quarter moving sums in the upper part, and their quarter-on-quarter change, in comparison with the quarter-on-quarter changes in real GDP in the lower part. This format, which presents the more persistent trends in combination with the short-term developments, will also be used in the following charts to show how the main components of government revenue and expenditure have developed. As Chart 2 shows, the seasonal pattern of the government revenue ratio closely matches that of real economic activity, reflecting the co-movements of most revenue items and economic activity. Furthermore, the volatility of the revenue ratio is somewhat higher than that of the government primary expenditure ratio. Quarterly fluctuations of interest expenditure as a percentage of GDP are negligible.

### 3 GOVERNMENT REVENUE

This section provides a more detailed analysis of the revenue side, decomposing government revenue into its main components: direct taxes, indirect taxes, social contributions and other sources of government revenue.

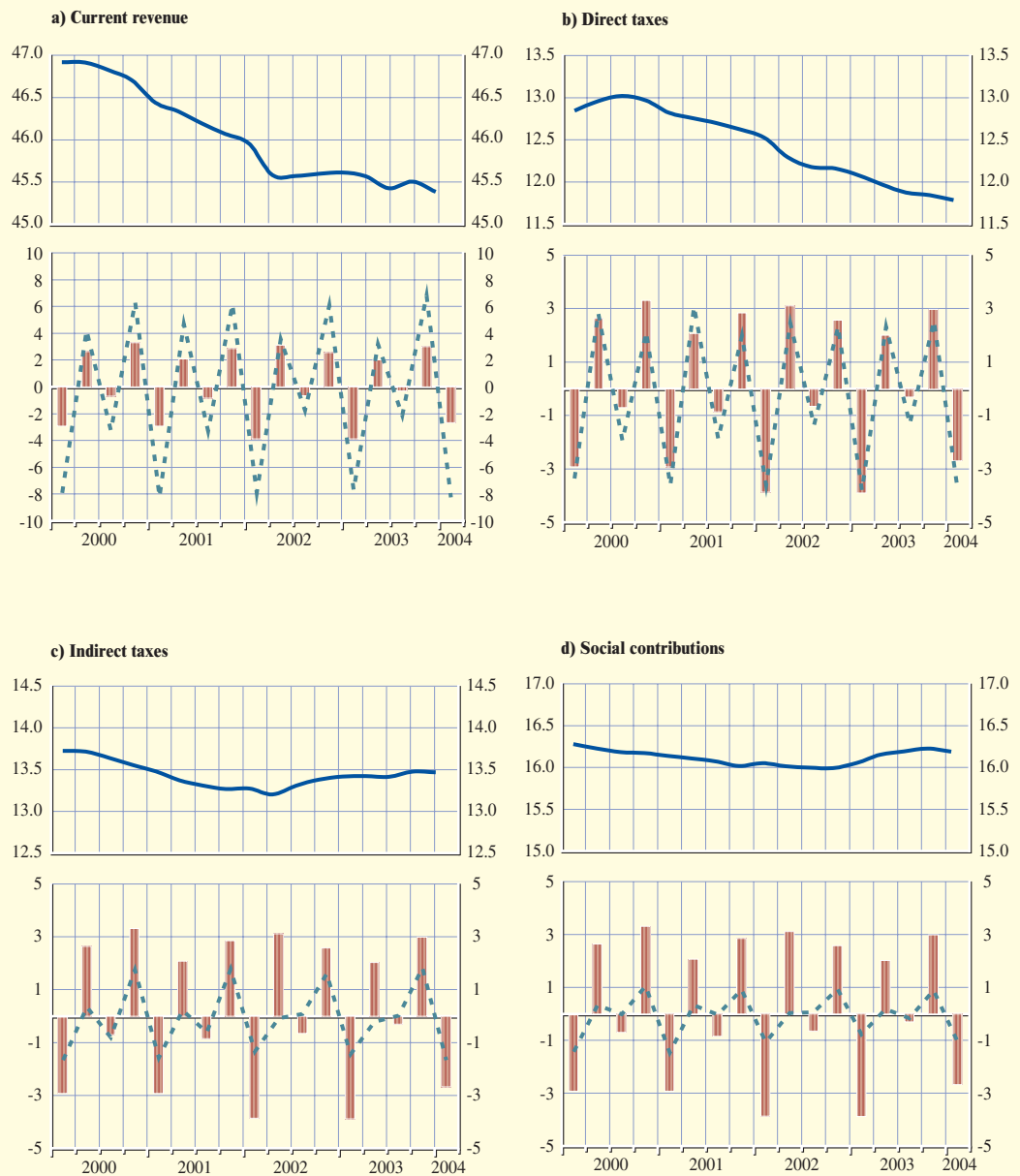
The data confirm in more detail the previous finding that government revenue is affected by cyclical phenomena. Deviations largely reflect the impact of discretionary measures. Furthermore, specific administrative arrangements for the collection of the different revenue items have a limited impact on the quarterly pattern of the respective ratios. While generally this pattern is mitigated by the accruals principle of accounting, the ESA 95 rules of accounting deliberately allow some well-defined exceptions from this principle. The exceptions concern cases in which the liability to pay income taxes can only be determined in an accounting period later than that in which the income accrues. The periods in which such taxes are recorded are therefore defined in a more flexible way. For instance, pay-as-you-earn taxes and regular prepayments of income taxes may be recorded in the periods in which they are paid while any final tax liability on income can be recorded in the period in which the liability is determined.

In Chart 3, government current revenue and its main components (direct taxes, indirect taxes and social contributions) are presented, following the same conventions used in Chart 2.

*Direct taxes* consist of taxes on personal income and company profits, including taxes on capital gains, and personal taxes on property and wealth. On average they represent about 27% of euro area government revenue. The amount of direct taxes recorded in each quarter varies more than for other government revenue on account of the administrative arrangements for collecting them. The variation within years, observed in the quarterly data, arises because some direct taxes are levied on the basis of activity over a whole year and become due for payment at certain dates during that year or the following year. That is also when these direct taxes are recorded in quarterly national accounts. This typically applies to taxes on company profits and self-employed people. The main part of direct taxes – pay-as-you-earn taxes, which are deducted from employees' monthly salaries – and regular prepayments

**Chart 3 Trends and quarterly changes in the main revenue items of general government accounts**

— four-quarter moving sum of the respective item (as a percentage of GDP)  
 ■ quarter-on-quarter change in real GDP (in percent)  
 - - - quarter-on-quarter change of the respective item (in percent)



Sources: ECB calculations based on Eurostat and national data.



## Box 3

**TRANSACTIONS INVOLVING THE EU BUDGET**

The government sector in each Member State does not include all of the EU budget transactions. For example, import duties, agricultural levies and a proportion of value added taxes (VAT) are treated as direct payments from residents to the rest of the world, not affecting the government account. Similarly, subsidies financed out of the EU budget are recorded as payments by the rest of the world, and as the receipts of the resident sectors that receive them. The inclusion of transactions between the EU budget and non-government residents in the euro area and the consolidation of transactions between national governments and the EU would add around 0.2% of GDP to the total revenue and expenditure figures quoted in this article. The exclusion of EU budget transactions from government revenue and expenditure raises problems when analysing trends in VAT receipts since a proportion is not recorded as government revenue. The VAT transferred to the EU institutions is not necessarily a stable share of the VAT collected within a country because any modification of the fiscal arrangements will have an uneven effect on the Member States as well as on the total sum of VAT transferred to the EU institutions. The remainder (VAT receipts of government) can therefore display an erratic pattern unconnected with transactions in products subject to VAT.

of income taxes show much less variability within the year.

*Indirect taxes* include value added taxes (VAT), excise duties on specific goods, other purchase taxes, certain types of levies and licence fees paid by businesses, and taxes on buildings and vehicles used by businesses and other organisations. These taxes are levied on specific transactions and represent nearly 30% of government revenue.<sup>2</sup> The seasonal pattern of indirect taxes is mainly affected by the seasonal changes in economic activity and shows a pronounced peak in the fourth quarter. This is mainly explained by the increase in consumer spending in the run-up to Christmas.

*Social contributions* consist of actual social contributions by employees, employers and the self-employed as part of social insurance schemes and imputed social contributions in respect of government occupational pension schemes. They represent about 35% of euro area government revenue. The seasonal pattern of social contributions is similar to that of direct taxes, with a significant peak in the fourth quarter. The volatility of social contributions is less pronounced because most social

contributions are collected from monthly salaries rather than annually as in the case of some direct taxes.

*Other sources of government revenue* are sales<sup>3</sup> (such as the sale of publications by government departments), property income from government lending and share ownership, and receipts from taxes on capital, such as inheritance taxes. Together, these categories represent about 10% of all euro area government revenue. They do not show a distinctive seasonal pattern.

**4 GOVERNMENT EXPENDITURE**

This section presents the main components of euro area government expenditure, composed mainly of intermediate consumption, compensation of employees, social benefits, capital expenditure and interest expenditure. As a general result, expenditure developments are less dependent on economic growth than

<sup>2</sup> The figures presented in this article exclude taxes paid to EU institutions (see Box 3).

<sup>3</sup> Such as sales of government services, e.g. sewerage, refuse collection.

revenue. In addition, the quarterly ratios to GDP of most expenditure items show low seasonal volatility compared with the revenue items. Finally, a characteristic seasonal feature in the quarterly government expenditure profile is that the figures for the fourth quarter are always higher than the figures for the other quarters. Chart 4 offers a synthetic view of the most relevant expenditure items in euro area government accounts, with the same conventions as used in the previous charts.

*Intermediate consumption* consists of the purchase of goods and services by government for its own use, and so excludes government purchases of goods and services that are delivered directly to individuals. It represents about 10% of euro area government expenditure. The “end-of-year surge” (reflected in the fourth quarter expenditure peak) is likely to be an indication of the way in which budgets are executed. For example, there might be an increase in actual purchases near the end of the year to ensure that budgets are fully used up.

*Compensation of employees*, about 22% of government expenditure, consists of wages and employers’ non-wage costs such as social contributions. The increase of compensation of employees in the final quarter mainly reflects the annual Christmas bonuses paid to government employees in some countries.

*Social benefits* comprise payments by government and government’s purchase of goods and services that are delivered directly to individuals as part of social policy. It includes, for example, support for families on low incomes and for the unemployed, pensions, and the purchase of healthcare on behalf of individual citizens. Social benefits account for roughly 46% of euro area government expenditure. Social benefit payments are highest in the fourth quarter.

*Capital expenditure* includes government investment, and the net acquisition of non-financial assets such as buildings, machines, land and certain types of leases. Capital

expenditure constitutes about 7% of euro area government expenditure. It shows the same end-of-year surge as intermediate consumption.

*Interest expenditure on government debt*, which represents about 8% of euro area government expenditure, is shown in Chart 2. Like all other components in national accounts, it is measured on an accrual basis. This means that interest is recorded in the accounting period in which it “accrues”, i.e. when the value is added, regardless of whether it is actually paid in that period. This explains why interest expenditure is almost equally distributed between the quarters.

As with interest expenditure, the *other components of government expenditure*, comprising mainly subsidies and grants amounting to about 7% of euro area government expenditure, do not show any marked seasonal pattern.

## 5 GOVERNMENT FINANCIAL TRANSACTIONS

This section discusses the quarterly profile of financial transactions in government financial assets and liabilities and their relationship with government revenue and expenditure. The transactions in financial assets and liabilities are recorded net: in the case of financial assets, they represent the purchase minus the sale of assets; and in the case of liabilities, they show the incurrences minus the redemptions of liabilities. Compared with government revenue and expenditure, government financial transactions are small. For instance, the net issuance of long-term debt securities is still below 5% of GDP.

Quarterly financial transactions typically do not follow the quarterly patterns of revenue and expenditure, mainly for three reasons. First, while revenue and expenditure are predominantly based on accrual accounting, the transactions in financial assets and liabilities reflect government liquidity management. Second, a deficit may not only be financed by

**Chart 4 Trends and quarterly changes in the main expenditure items of general government accounts**

— four-quarter moving sum of the respective item (as a percentage of GDP)  
 ■ quarter-on-quarter change in real GDP (in percent)  
 - - - quarter-on-quarter change of the respective item (in percent)



Sources: ECB calculations based on Eurostat and national data.

incurring liabilities, but also by selling financial assets. Third, some transactions in financial assets and liabilities are made for policy reasons unconnected to the need to finance the deficit. Examples are the provision of low-cost loans to certain groups, such as students and small businesses, and the privatisation of public corporations. Such privatisations have had a temporary but significant impact in some countries and have led to a restructuring of the financial assets without affecting the government deficit.

Indeed, a regular quarterly pattern in financial asset transactions does not seem to exist, while impacts of special one-off events are clearly observable. For example, there was a significant increase in bank deposits held by government following the sale of UMTS licences.

The most obvious quarterly pattern in transactions in liabilities is found in the issuance of long-term securities (government bonds). There is a regular peak in the net sale of government bonds in the first quarter of each year and in some countries also in the third quarter. The level of net issuance of liabilities is lowest in the fourth quarter. This is mainly because the fourth quarter (along with the second quarter) has the smallest deficits to finance.

The table provides a summary of the components of financial investment and the financing of the euro area government deficit. A deficit can be financed either by disposing of financial assets, such as bank deposits, or by incurring liabilities, such as issuing government long-term bonds and other securities or taking loans. In the first quarter of 2004, for example, the deficit was largely financed by the issuance of long-term debt securities amounting to 3.1% of GDP, and short-term debt securities amounting to 1.9% of GDP. The net issuance of debt exceeded the amount needed to finance the deficit by 0.6% of GDP.

## 6 RECENT DEVELOPMENTS IN PUBLIC FINANCES FROM A QUARTERLY PERSPECTIVE

This section highlights the main trends of government finances in the euro area in recent years as reflected in quarterly accounts. Quarterly data confirm the general picture painted by annual data, with more precise information on the timing. The increase in the euro area deficit has been driven by the cycle, several cuts in direct taxes and continuous upward pressure on social transfers since the second half of 2001.

Until mid-2000 government receipts in the euro area benefited from strong economic activity and the protracted asset price boom nurturing growth in direct taxes and social contributions. Primary expenditure as a ratio to GDP declined only marginally, despite the favourable growth conditions. Low unemployment gave rise to a modest slowdown in cyclically sensitive social transfer expenditure. However, other expenditure items did not follow this trend.

Thus, the euro area deficit ratio was still decreasing in the first half of 2000, which dominated the overall results for 2000. The annual outcome for the 2000 euro area deficit – adjusted for proceeds from the sale of UMTS licences – amounted to 0.9% of GDP compared with 1.3% of GDP in 1999.

From the second half of 2000, government revenue was mainly influenced by the negative effect of weakening economic activity. In addition, major cuts in direct tax revenue and social contributions, which were estimated to amount to roughly 1¾% of GDP throughout the period 2000-2003, contributed to the revenue decline. The relative increases in indirect taxes in Member States from mid-2002 to mid-2003 were mainly driven by technical moves on VAT collected on behalf of the EU budget. In one large Member State an “ecological tax reform” resulted in an increased ratio of indirect taxes. However, the negative revenue effect of tax cuts was aggravated by unexpected tax shortfalls, especially in corporate taxes. As a consequence,

the revenue ratio in the euro area decreased steeply between the second half of 2000 and the first half of 2002.

Since mid-2002 the subsequent worsening in the deficit ratio was driven by developments on the expenditure side. While intermediate consumption and compensation of employees developed roughly in line with GDP, the marked increase in social spending exceeded GDP growth from the second half of 2001 and is continuing unabated. In the first quarter of 2004 the deficit reached 4.4% of GDP, the same as in the first quarter of 2003.

## 7 CONCLUSION

A broad set of quarterly data for the government sector is now available, complementing annual data. They will be completed over the next two years to yield a full set of quarterly transaction accounts and a financial balance sheet for the euro area government sector.

As shown above, although the quarterly profiles for most revenue and expenditure items and for the deficit show large seasonal fluctuations, the quarterly patterns are reasonably stable from year to year. This means that a comparison of the latest quarter with the same quarter of the previous year can generally provide a reliable guide to the trends in the euro area fiscal position. Moreover, the seasonal pattern of revenue closely matches that of real economic activity, reflecting the co-movements of most revenue items and economic activity.

These general properties encourage the use of quarterly data for the government sector for fiscal forecasting and monitoring. Moreover, further improvements in the quality and availability of quarterly data are also likely to have a positive knock-on effect for the quality of annual data.