

FISCAL POLICIES AND FINANCIAL MARKETS

ARTICLES

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In the run-up to the introduction of the euro in 1999, interest rate spreads between euro area government bonds declined substantially. This is a normal feature of the creation of the single currency area and mainly reflects the progressive elimination of exchange rate risk and the decline in inflation risk. Other factors that have an impact on the interest rates on government bonds include financial market participants' assessment of the future sustainability of public finances. Monitoring by the financial markets can therefore have a disciplinary effect on the behaviour of fiscal policy-makers. The low level of interest rate spreads in the euro area despite continuing large differences in fiscal positions raises the question of whether this reflects fiscal factors or whether non-fiscal factors are also playing a role. This article finds that preconditions for market discipline, such as open capital markets and adequate fiscal statistics, are broadly in place in the euro area. Statistical analysis and econometric studies generally support the proposition that fiscal policies have an effect on interest rates. The fact that interest rate spreads are now relatively small despite substantial differences in fiscal positions may reflect low long-term interest rates prompting a search for yield and, in combination with this, changes in supervisory and accounting regulations concerning institutional investors. Statistical evidence on collateral use does not support the view that Eurosystem collateral policy has any significant effects on interest rate spreads on government bonds. As neither the financial markets nor governments always react in a timely and adequate manner to unsustainable public finances, a strict implementation of the European fiscal framework is indispensable to ensuring sound public finances.

I INTRODUCTION

Public finances and financial markets are closely interwoven. Government bonds play an important role in the financial markets not least because they define a benchmark for interest rates that others have to pay when issuing bonds. They also tend to dominate capital markets in quantitative terms as a consequence of the size of government debt. As a result, government debt can enhance the breadth and depth of financial markets, and it plays a significant role in the provision of collateral in private and public transactions. At the same time, investors in government debt assess the health of public finances, and translate this into a financial judgement. This in principle has an impact on the interest rates that governments have to pay to finance expenditure that exceeds their revenue. An increase in the perceived risk of a government not being able to meet its financial obligations in full can push up the interest rate it has to pay, as the credit risk component of the rate rises. In addition, increased deficit spending may lead investors to demand a higher compensation for increases in perceived risks of inflation and exchange rate depreciation. In

more severe cases, market participants may even restrict the government's access to financing by refusing to take up new long-term issues.

By differentiating between interest rates according to the degree of fiscal prudence shown by a country, markets financially "punish" and "reward" governments. This contributes to fiscal discipline, which is a vital element of EMU. However, given the currently high and persistent deficit and debt levels in many euro area countries, and marked differences in the extent to which ageing populations will soon begin to exert pressure on their spending levels, it is striking that there is little differentiation between interest rates governments have to pay. Budget balances for 2005, broadly ranging between a 2% of GDP surplus and a 5% deficit, and debt ratios varying from 7% to 108% of GDP are accompanied by differences in the interest rates on government bonds of around 30 basis points at most.¹ Ten years before, when spreads still included substantial exchange rate risk premia, they exceeded 600 basis points, with

¹ All budgetary data in this article are taken from the European Commission's autumn 2005 economic forecasts.

budget balances ranging from a 3% of GDP surplus to a 10% deficit, and debt ratios varying from 7% to 133% of GDP. Little differentiation between interest rate spreads raises the question of whether spreads fully reflect differences in current budgetary positions and the outlook for fiscal sustainability, or whether other factors conceal such influences.

This article addresses the role of financial markets in fostering fiscal discipline, with a particular focus on their willingness to discriminate among governments in the euro area. After discussing the main channels through which fiscal policies may affect interest rates and some conditions which must be met for these effects to produce effective market discipline (Section 2), the article takes a closer look at interest rate spread statistics and econometric evidence of fiscal policy effects on interest rates (Section 3). Section 4 discusses some non-fiscal factors which may explain why current long-term interest rate spreads are relatively low when considered in historical perspective. Section 5 concludes.

2 MARKET REACTIONS AND MARKET DISCIPLINE

Market discipline in general refers to financial markets inducing governments to ensure the sustainability of public finances. This is achieved by markets demanding interest rates that increase with credit risk and – ultimately – denying access to finance. Credit risk is also referred to as default risk, although a government in financial trouble, unlike a private corporation, cannot go into liquidation. However, it may decide to stop paying interest and/or repaying the principal of part or all of its outstanding debt. Since this is very unlikely to happen in the euro area, financial markets price in a very small risk. Changes in fiscal policies may slightly increase or decrease this risk, and with it the possibility of a downgrade or upgrade by a rating agency, which is reflected in changes in interest rates.

In addition to a credit risk premium, investors may also demand higher interest rates to compensate for increased inflation or exchange rate depreciation that could accompany or follow from a fiscal relaxation. The exchange rate risk premium, which is believed to have been a major determinant of interest rates before the introduction of the euro, has now disappeared. This channel from fiscal policies to interest rates will therefore not be discussed below. The inflation risk premium diminished in importance with the start of Monetary Union. In principle, high government debt levels could be seen as potentially undermining a monetary policy aimed at price stability. If outstanding debt is mostly not indexed to inflation, governments may be tempted to press for higher inflation to reduce its real value. Investors in well functioning financial markets would then demand a higher inflation risk premium to compensate for this risk. However, the high degree of independence of the ECB combined with a price stability-oriented policy has reduced inflation fears and the accompanying risk premium.

For financial markets to play a disciplinary role, certain conditions regarding governments' access to the capital markets, the preclusion of a bailout and fiscal information provision need to be fulfilled. Furthermore, financial markets have to react in a timely manner and fully in line with fiscal sustainability requirements, and governments must see the need to respond to higher interest rates by improving their financial position. These elements of market discipline are discussed below (Section 2.2), following a description of the main channels through which fiscal positions may affect interest rates (Section 2.1).

2.1 MARKET REACTIONS

Increasing government deficits and debt may have an upward impact on interest rates in euro area financial markets via a “crowding out” effect and via default risk, while a downward impact may come from a liquidity effect.

Deteriorating fiscal positions may affect the level of the risk-free real interest rate in the euro area, as higher budget deficits cause lower saving, driving up the interest rate level. Higher interest rates in integrated financial markets may spill over to other issuers, including other euro area governments, and can also crowd out private investment. This perspective assumes that neither capital inflows nor private savings fully compensate increased public dissaving (for instance because consumers do not fully anticipate future tax increases to pay for higher public spending now, and therefore do not sufficiently increase their savings). Acknowledgement of this crowding-out effect was one factor behind the inclusion in the Maastricht Treaty of rules requiring sound public finances – delineated by reference values for the government deficit (3% of GDP) and for government debt (60% of GDP) – as a condition for adopting the euro and a prerequisite for the proper functioning of EMU once the euro had been introduced. These rules, if implemented appropriately and credibly, reduce the risk of cross-border interest rate spillovers and of governments running into financial problems.

Fiscal policies may also affect interest rate spreads, i.e. the interest premium a country has to pay relative to other countries, reflecting its credit status. A larger supply of bonds due to an increase in the deficit of a particular government with already high debt may heighten markets' perception of the risk that the government may default, either partially or totally. This may cause investors to demand a higher premium to compensate for the increased risk of financial loss.

Liquidity effects may mitigate the upward impact of budget deficits and debt on interest rates and spreads. Market participants value being able to sell large quantities of bonds quickly at any moment, without this having a major impact on their price. A higher deficit ratio results in increased borrowing on the market, and higher debt usually implies a more active secondary market, although the link is not one-to-one in either case. Thus, countries

with a large fiscal deficit or debt relative to the size of the euro area market pay a lower liquidity premium. This gives rise to adverse incentive effects from the viewpoint of market discipline.

2.2 MARKET DISCIPLINE

For the market mechanism to operate effectively as a disciplining device, certain institutional and informational conditions need to be fulfilled, while financial markets and governments must make adequate responses.

Financial markets can only price government bonds correctly if a government has access to the capital markets on the same terms as other borrowers. Governments should not have preferential access to financing opportunities. There should thus be no compulsion or pressure to buy government bonds, and such bonds should not be given a more favourable tax treatment than bonds issued by other parties. Indirect pressure, for instance via government regulations providing incentives to favour public debt securities for specific purposes, might also reduce the role of market forces.

The Maastricht Treaty includes a number of articles that have the effect of enhancing market discipline by placing limits on preferential access for governments to capital market financing. In particular, the Treaty precludes any direct financing of public entities by the ESCB (Article 101) as well as any privileged access for such entities to financial institutions (Article 102). As a consequence, government financing in capital markets is in many respects subject to the same limitations and scrutiny as private borrowing.

A further condition is that each country must bear itself the full financial consequences of any default risk, which means that financial markets' assessment of the sustainability of that country's public finances must be fully reflected in the required interest rate. The

possibility of a debt takeover or bailout by another institution or a guarantee issued by other countries increases the expected recovery rate (i.e. the payout in the event of such problems). In a monetary union, the participating countries may be seen as having an incentive to bail out a country experiencing a severe worsening of its financial situation, for example because of the disruption this would cause in the financial markets. In such a case, the risk of debt service payment problems would not be fully incorporated in the interest rate that this country would have to pay for its public borrowing.

The Maastricht Treaty therefore contains a “no bailout” clause (Article 103), stipulating that neither the Community as a whole nor Member States are liable for the commitments of other Member States, nor should they assume such liabilities.

Market discipline also depends crucially on the availability of timely and accurate budgetary statistics on which financial markets can base their assessment of sustainability. Given the forward-looking nature of such an assessment, budgetary information should include unbiased projections of medium and long-term fiscal trends, even though such projections are inevitably more uncertain than shorter-term forecasts.

The EU Member States have made significant headway in harmonising the budgetary statistics they deliver in the context of the biannual excessive-deficit notifications and the annual updates of their stability and convergence programmes. Further work is ongoing, for instance regarding harmonised quarterly government finance statistics. Despite the progress achieved, however, one-off measures, creative accounting, overly optimistic economic growth assumptions and even statistical misreporting sometimes conceal underlying budgetary developments. In addition, long-term fiscal projections, as included in stability and convergence

programmes, are not always fully transparent and comparable.

While fulfilment of the conditions regarding governments’ access to the capital markets, the preclusion of a bailout and the provision of adequate fiscal information facilitates the exercise of market discipline on EU governments, it may not be sufficient to generate an adequate response from the financial markets. Market reactions to a continuous deterioration of fiscal sustainability may be subdued within particular ranges of deficit and debt but then sizeable and abrupt in the aftermath of “trigger events” such as a rating agency’s decision to downgrade a country’s debt or a general change in risk attitudes. While higher interest rates after a trigger event help to discipline governments, sudden and sharp changes in financial conditions may entail large macroeconomic costs. Other (private) issuers may be faced with higher financing costs too, as interest rates on government debt set the benchmark interest rate at which corporations can borrow on the capital markets. Furthermore, the government may have to take drastic measures to restore confidence and reverse the unfavourable financing conditions. A more gradual development of interest rates, fully reflecting fiscal sustainability at any given point in time, would provide a more steadily advancing warning signal to the government concerned. This would provide more leeway for quality-enhancing consolidation measures without adverse economic or financial consequences.

Even if interest rates develop fully and in a timely manner in line with fiscal sustainability requirements, it is also essential that governments see the need to respond effectively to these market signals. Higher interest rates should lead governments to address sustainability concerns by improving current and/or future budgetary balances via tax increases or expenditure cuts. Nevertheless, short-term considerations or budgetary procedures may lead governments

Table 1 Euro area government debt characteristics, 1999-2004

(percentage of total debt unless indicated otherwise)

	General government debt (percentage of GDP)	Debt securities	Fixed-rate debt with an initial maturity of over one year	Non-domestic holders	Debt issued in currencies other than the euro
1999	72.4	76.7	81.9	31.9	2.8
2000	69.9	77.5	83.5	36.0	2.6
2001	68.6	78.4	84.7	38.0	2.2
2002	68.5	79.4	83.9	41.6	1.9
2003	69.8	79.9	84.0	43.4	1.4
2004	70.2	80.5	84.5	44.5	1.4

Source: ECB.

to ignore financial market signals, or at least to postpone the budgetary action they need to take. Consolidation measures may have negative income consequences for (groups of) citizens, which may induce governments to postpone adjustment. Upcoming elections tend to delay consolidation, as such measures risk making the electorate less eager to vote in favour of the ruling party. The timing and magnitude of the budgetary response also depends on the characteristics of national institutions. Econometric studies on the determinants of fiscal policies generally support the notion that governments strive for budgetary improvements when debt ratios and interest rates are high but that their reactions in other circumstances tend to be small.

Debt management plays an important role in determining the speed and magnitude of the transmission of interest rate effects on government finances. The sensitivity of government interest expenditure to changes in interest rates is related to the debt level, the debt maturity and the proportion of longer-term debt at floating interest rates (where interest payments are regularly revised in line with current interest conditions) or for which the fixed stream of interest payment obligations is exchanged against variable interest payments via interest-rate swap transactions. Regarding debt maturity, issuing long-term debt at fixed rates largely isolates the budget from short-term interest rate swings but usually costs more – given upward sloping yield curves – than short-term financing.

Issuing short-term debt, on the other hand, heightens refinancing risks and creates more volatility in interest payments.

Governments took advantage of the decline in long-term interest rates associated with the run-up to Monetary Union and expectations of price stability to improve the management of their interest payment obligations. For the euro area as a whole, the share of fixed-rate debt with an initial maturity of over one year in total debt has increased slightly since the introduction of the euro (see Table 1). In parallel, the proportion of debt bearing floating rates has been declining in several euro area countries since 1999. An increasing part of countries' government debt is held across national borders, while the share of foreign-currency denominated debt has declined since the introduction of the euro.²

Slightly lower debt levels than at the introduction of the euro and increased maturities have made interest payments on government debt in most countries somewhat less sensitive to changes in interest rates. Estimates suggest that the mechanical impact of a 1 percentage point upward shift in short-term and long-term interest rates on the average net interest payments of euro area governments would be around 0.1% of GDP after one year and 0.3% after two years.

2 More information on debt management developments in the euro area can be found in G. Wolswijk and J. de Haan, "Government debt management in the euro area – recent theoretical developments and changes in practices", ECB Occasional Paper No 25, March 2005.

In summary, while the technical conditions for market discipline in EMU are largely fulfilled, inertia in the reactions of both financial markets and governments may prevail. Budgetary responses to bring public finances into line with sustainability requirements may therefore be delayed beyond the point which may be seen as prudent from a long-term point of view. In combination with an increased risk of adverse cross-border effects of a lack of fiscal discipline in one country, this suggests that a determined implementation of the fiscal rules remains indispensable.

3 BOND SPREADS AND FISCAL DEVELOPMENTS IN THE EURO AREA

This section examines government bond market trends in the euro area in recent years and their link with fiscal developments. It subsequently presents a short overview of relevant econometric literature.

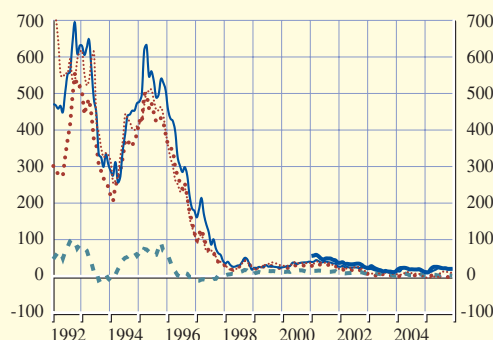
Chart 1 plots the development of interest rates on ten-year government bonds of selected countries relative to interest rates on German ten-year government bonds, which are the

benchmark in the European long-term bond market. Several factors contributed to the narrowing of spreads in the second half of the 1990s. By far the most important was the progressive elimination of the exchange rate risk premium. To a large extent, therefore, the fact that spreads between interest rates paid by different euro area countries are currently just a fraction of those prevailing in the first half of the 1990s should not come as a surprise. In addition, since countries were to give up full control over monetary policy, repayment of their debt through monetisation by the central bank (a “monetary bailout”) would no longer be a possibility. This should have reduced the inflation risk premium, although it may have had an upward effect on the credit risk premium to reflect a decrease in the availability of options for avoiding default. Changes in debt management practices, such as the harmonisation of issuing conventions, sustained efforts to improve the liquidity of secondary markets and the use of primary dealers in the distribution of government bonds, may also have played a role, as may the lengthening of the maturity of debt in several countries.

Chart 1 Ten-year government bond spreads against Germany

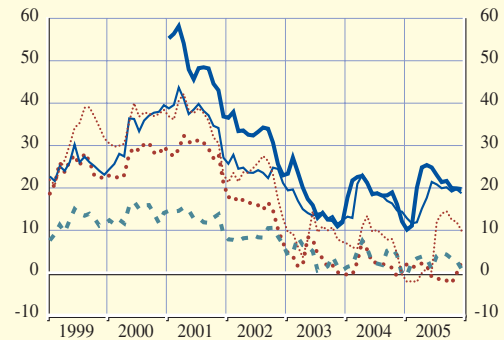
(basis points; monthly data)

— Greece
 Spain
 - - - France
 — Italy
 Portugal



Sources: National data, Reuters and ECB calculations.

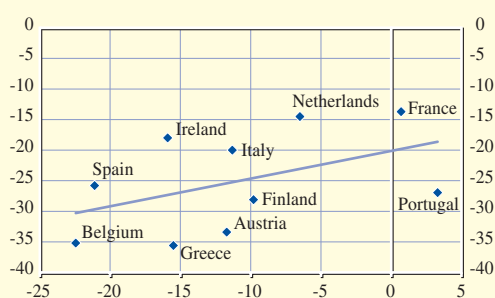
— Greece
 Spain
 - - - France
 — Italy
 Portugal



Sources: National data, Reuters and ECB calculations.

Chart 2 Changes in debt-to-GDP ratios relative to Germany¹⁾ and changes in yield spreads against Germany, 2001-05

(x-axis: percentage points; y-axis: basis points)



Sources: European Commission, Reuters and ECB calculations.
1) X-axis: difference between the change in the debt-to-GDP ratio and the change in Germany's debt ratio between 2001 and 2005 (figures for 2005 refer to the European Commission's autumn 2005 economic forecasts). Y-axis: change in the yield spread against German ten-year government bonds between January 2001 and December 2005.

Interest rate spreads have narrowed further somewhat since the introduction of the euro (see Chart 1). Although they increased slightly for some countries, spreads were more or less stable in most cases until early 2001, when a downward trend set in. In the course of 2005, interest rate spreads again increased somewhat in Greece, Italy and Portugal.

Fiscal factors may account for part of the observed reduction in spreads. The average deficit in the euro area declined from 5.0% of GDP in 1995 to 0.9% in 2000, but subsequently returned to higher levels (2.9% in 2005). The average debt ratio decreased from 73.5% of GDP in 1995 to 68.5% in 2002, but resumed its increase thereafter, to 71.7% of GDP in 2005. Thus, the most recent years have seen a deterioration in public finances, with five euro area countries in excessive deficit at the end of 2005 (Germany, Greece, France, Italy and Portugal).

Chart 2 gives a broad idea of the extent to which changes in interest rate spreads can be attributed to fiscal developments. It shows changes in interest rate spreads versus ten-year German bonds between 2001 and 2005 and compares them with changes in government debt ratios relative to the change in the German

debt ratio in that period. For instance, the decline in the Belgian debt ratio between 2001 and 2005 was 22 percentage points of GDP larger than the change in the German debt ratio, while the interest rate spread between Belgian and German ten-year government bonds decreased by 35 basis points over the same period.

The upward-sloping line in Chart 2, reflecting the outcome of a simple regression, indeed indicates that improvements in a country's debt ratio relative to the change in the German debt ratio are accompanied by decreases in interest rate spreads against Germany.

Focusing more particularly on the default risk premium contained in the interest rates paid by governments, which of all premia is most closely connected to the concept of market discipline, credit default swap rate statistics may provide useful information.³ These swap rates provide an absolute measure of default risk, thus allowing the problem of changes in the credit standing of the reference country to be circumvented. However, this approach also has clear limitations: low market liquidity means that data are not available for all euro area countries, while limited trading reduces the information content of the swap rates that are available. Reliable data are not available before 2004, preventing a longer-term perspective from being taken.

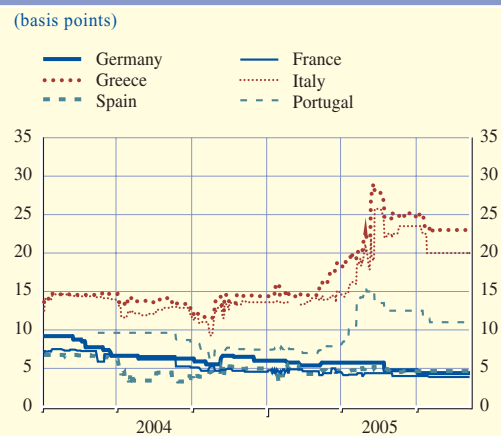
For the period covered by the data (January 2004 to December 2005), credit default swap spreads show a similar trend as interest rate spreads, indicating a high degree of

³ In credit default swap (CDS) contracts, a protection seller promises to buy a reference bond at its par value should a pre-defined credit event occur. In return, the protection buyer makes periodic payments to the seller until the CDS matures or the credit event is triggered. The periodic payments are determined as a certain percentage of the principal of the underlying contract. This rate of payment, measured in annualised terms and in basis points, is called a CDS spread. In theory, the CDS spread should approximately equal the corresponding yield spread between the reference bond and a risk-free bond. For more information see the box entitled "Recent developments in government bond yield spreads in euro area countries" in the September 2005 issue of the Monthly Bulletin.

consistency between the two markets (see Chart 3). Some swap spreads increased markedly in the second quarter of 2005 and remained at higher levels thereafter. This coincides with new information on fiscal setbacks in some of these countries, steps being taken against certain countries in the excessive deficit procedure, and negative assessments by rating agencies. The chart furthermore shows that the credit default swap spread for Germany has recently been slightly higher than that for France. This could be an indication that some of the decline in interest rate spreads against Germany, the benchmark country, may have been induced by a relative deterioration of the fiscal position in Germany.

Yield differentials may also be influenced by features of the euro area bond markets which still vary from country to country, such as the national regulatory and institutional environment and tax rules, as well as by a home bias in demand. The liquidity of government bonds is another factor that could help to explain the observed variance among spreads. Table 2 shows that bid-ask spreads, which serve as an approximation of liquidity, have declined since 1999 and stand now at broadly comparable levels across countries. Developments that may have contributed to the narrowing include the publication of auction calendars and the growth of electronic pan-European exchanges for debt securities.

Chart 3 Credit default swap spreads for selected euro area countries, January 2004-December 2005



Sources: The Dutch State Treasury Agency and Bloomberg.

While these statistical facts provide some indication of fiscal policy effects on interest rates, a thorough assessment of these effects needs to rely on econometric analysis. Most empirical studies in this area provide evidence of fiscal factors affecting interest rates, although the effect is usually not very large (see Box 1), at least for low to moderate government deficit and debt ratios. Non-linearity in market behaviour may mean that there is little reaction up to certain deficit and debt levels, while beyond a certain fiscal threshold the magnitude of responses may quickly increase.

Table 2 Bid-ask spreads for prices of long-term government bonds

(percentages of bond prices; annual averages)

	1999	2000	2001	2002	2003	2004	2005
Belgium	9.9	9.6	7.6	6.8	7.7	6.3	5.3
Germany	6.1	6.2	6.3	6.0	5.5	4.6	5.6
Greece	-	-	10.9	9.3	7.0	5.8	6.1
Spain	8.6	8.6	7.3	6.9	6.6	5.3	4.6
France	10.4	9.6	6.9	6.8	6.5	4.3	5.5
Italy	-	-	-	6.5	6.2	5.2	4.4
Netherlands	9.6	9.4	6.7	6.5	6.7	6.4	4.6
Austria	10.3	9.9	9.1	8.6	7.4	5.0	4.7
Portugal	13.9	9.7	8.1	7.1	7.5	7.6	5.3

Source: Reuters.

Box I

STUDIES ON THE LINK BETWEEN FISCAL POLICIES AND INTEREST RATES IN THE EURO AREA

The link between government fiscal positions and interest rate spreads is extensively examined in the empirical economic literature. However, many studies focus on other economic areas, notably the United States, which has characteristics that do not allow a one-to-one translation of the results to the situation in the euro area. US states or municipalities are often restricted in their ability to raise taxes (e.g. tax increases are subject to voter approval or a qualified majority in parliament), legislation usually contains formal bounds on governments' borrowing requirements, and factor mobility is much larger, which makes it more difficult for governments to raise taxes when in financial need. On account of these factors, interest rate spreads in the United States are larger than those observed in the euro area countries. Ideally, studies in a European context should take into account the changed institutional and market settings resulting from the Maastricht Treaty and the introduction of the euro, such as the elimination of intra-euro area exchange rates, increasing financial market integration and the "no bailout" clause.

Comparing outcomes of studies on this topic is hampered by differences in periods and countries covered, as well as differences in methodology (e.g. macroeconomic models, vector-autoregressions, single-equations) and data frequency (ranging from daily to annual). There is also considerable variety in the specification of the fiscal variables. Ratios of the deficit, debt and/or debt service to GDP are used to explain interest rate developments. The inclusion of the deficit can be motivated by its relevance for the annual net amount that a government needs to borrow, while debt levels should be a more appropriate measure for assessing the impact of fiscal policies on the default risk premium. Debt service payments as percentage of government income is somewhat similar to the debt service to cash flow ratio common in corporate finance. Interactions between deficit and debt variables have been included on the basis of the argument that deficits are only significant for interest rates once indebtedness is already high. Quadratic specifications of fiscal variables have been tested on the ground that financial market reactions may be non-linear: subdued when deficits and debt start to rise from low levels but more pronounced once higher levels have been reached. The forward-looking nature of financial markets has also led researchers to adopt expectations of government deficits and debt as variables driving interest rates, rather than ex-post outcomes. Part of the reason for these widely differing specifications is the limited use of formal models in this literature.

There is also substantial variety in other factors included as explanatory variables. Cyclical factors are sometimes included, on the basis of the expectation that spreads may increase in economic downturns. Some studies consider a measure of risk appetite/risk aversion, arguing that otherwise similar fiscal conditions may give rise to different market reactions depending on the markets' willingness to run risks. In periods of heightened uncertainty or of financial crisis, investors seek safe and liquid havens for their funds, usually bonds issued by governments of large countries.

The large majority of studies do find evidence of a statistically significant, although usually small, effect of the government deficit and/or debt on interest rate spreads for euro area countries.¹

1 Useful overview studies on interest rate effects of fiscal balances are provided by the OECD (A.-M. Brook, "Recent and prospective trends in real long-term interest rates: Fiscal policy and other drivers", Economics Department Working Paper No 367, September 2003) and the European Commission (2004, Public Finances in EMU).

Although the differences in methodology and in coverage of countries and periods call for considerable caution, the available econometric literature indicates that, roughly speaking, a 1 percentage point of GDP increase in a deficit of a euro area country relative to the German deficit increases its spread versus German ten-year bonds by between 15 and 35 basis points. Effects of debt ratios on interest rate spreads are usually much smaller. Bernoth, von Hagen and Schuknecht (2004) examined yield spreads of selected countries versus Germany and the United States, correcting for exchange rate effects. They concluded that fiscal effects on credit default risk premia have not weakened with the advent of EMU, pointing to increasing effects of debt service on interest rate spreads.² Another approach, adopted by Afonso and Strauch (2004), is to use high-frequency data. They consider market reactions in 2002 following news of deteriorating public finances in a number of countries and conclude that while some specific events had a temporary and limited impact on daily interest rate swap spreads, there were no strong and persistent effects.³

2 K. Bernoth, J. von Hagen and L. Schuknecht, "Sovereign risk premia in the European Government bond market", ECB Working Paper No 369, June 2004.

3 A. Afonso and R. Strauch, "Fiscal policy events and interest rate swap spreads: evidence from the EU", ECB Working Paper No 303, February 2004.

4 THE ROLE OF NON-FISCAL FACTORS IN INTEREST RATE SPREADS

While financial market indicators (interest rate spreads and credit default swap rates) and econometric studies generally support the idea that higher public deficits and debt translate into higher interest rates, low spreads between euro area sovereign issuers currently coincide with substantial divergence in public balances and debt ratios. This may partially reflect effects from some non-fiscal factors that so far have not been discussed in this article. This section highlights selected factors cited by financial market participants. The list is neither complete nor ranks the factors in order of importance.

Before discussing these factors, it is worth mentioning that the narrowing of interest rate spreads is not limited to the market for sovereign bonds in the euro area. As shown in Chart 4, corporate bond spreads declined in late 2001 and – more significantly – from 2003 until the beginning of 2005. A similar pattern was also observed in emerging economies.

LOW LONG-TERM INTEREST RATE LEVEL

The historically very low level of the average long-term interest rate currently prevailing in the euro area affects interest rate spreads. In

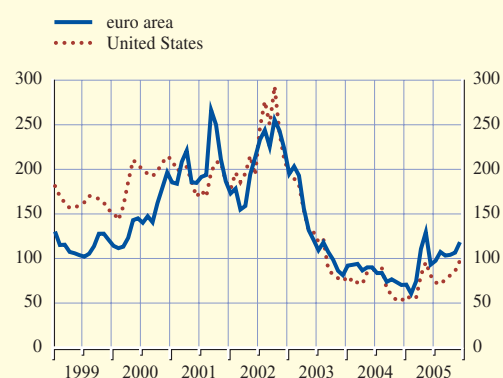
search of higher returns, financial market participants are investing in government bonds that deliver a slightly higher yield.

REGULATORY CHANGES FOR INSTITUTIONAL INVESTORS

Regulatory changes may also affect interest rate spreads, to the extent that investor demand is addressed towards the slightly higher-yielding government bonds. Institutional investors such as pension funds and insurance companies are major participants in capital

Chart 4 BBB-rated corporate bond spreads in the euro area and the United States

(monthly data; basis points)



Sources: Thomson Financial Datastream and ECB calculations.

markets, so changes in their portfolios can have a substantial impact on interest rate developments. These investors are now confronted with a number of regulatory changes that could have a profound effect on financial conditions in the euro area.

Recently, proposals have been made in certain countries for new rules on the valuation of assets and liabilities for supervision purposes. Some countries plan to change the basis on which pension liabilities are valued from (semi-) fixed interest rates to a market-based valuation. In the Netherlands, for instance, the euro area country with the highest pension assets as a percentage of GDP (around 94%), the liabilities of pension funds will from 2007 onwards be valued on the basis of a long-term market interest rate in place of a fixed 4% discount rate. For insurance companies, a similar trend is taking root. This change makes the liability side of the balance sheets of these institutional investors considerably more volatile. As a consequence, pension funds and insurance companies are undertaking a strategic asset benchmark reorientation. They are tending to put more emphasis on (long-term) bonds and on hedging liabilities via swaps. This is aimed at reducing the “duration mismatch” (i.e. the much longer maturity of liabilities than of assets, causing interest rate changes to affect liabilities more strongly) and also the risk of supervisory objections.

The introduction of International Accounting Standards (IAS) for companies listed in the EU in 2005 is another regulatory change that affects institutional investors. These new standards require both realised and unrealised surpluses and deficits to be incorporated into companies’ profit and loss accounts. Thus, a foreseen pension deficit requires a firm to make a provision on its balance sheet. Companies are looking for ways to diminish the volatile impact of pension funds on profits. Among the measures contemplated is the shifting of a larger part of pension fund assets into long-term bonds, reducing balance sheet volatility by diminishing the duration mismatch.

The factors described above have contributed to a substantial shift in the portfolios of institutional investors from equity to bonds. Between December 2000 and March 2005, pension funds and insurance companies in the euro area invested €535 billion in bonds, which includes euro area government bonds but also corporate bonds and bonds issued by non-euro area governments. This represents an increase in the share of bonds in the total assets of these institutional investors of about 7½ percentage points, mainly accounted for by a decrease in the share of equity and of loans. To put the amounts involved into perspective, bond purchases by pension funds and insurance companies over this period represent 6½% of euro area GDP, which compares, for instance, with a cumulative euro area budget deficit of 10% over the 2001-04 period. While no detailed information is available on the type of bonds that have been purchased, anecdotal evidence suggests that government bonds with higher yields may have benefited more, thus contributing to a compression of interest rate spreads. Factors supporting such a shift towards higher-yielding government bonds include the search for yield in the current low-interest rate environment and funding gaps in some pension schemes, as well as a limited, although increasing, supply of very long-term government bonds.

EUROSYSTEM COLLATERAL POLICY

Some observers have argued that the collateral policy of the Eurosystem contributes to a narrowing of interest rate spreads. The collateral policy defines the assets that the Eurosystem accepts as collateral for the credit it provides to MFIs. It is argued that the Eurosystem does not sufficiently differentiate among the bonds of the euro area governments. Treating all government bonds equally is seen as favouring bonds of lower-rated governments, which would contribute to keeping interest rate spreads low.

Without discussing this policy in detail, it is worth noting that a number of risk mitigation measures are in place to protect the Eurosystem from incurring financial losses.

These measures, which apply equally to private and public collateral, take financial market assessments fully into account. First, to be accepted by the Eurosystem as collateral, all assets offered by MFIs have to meet a number of criteria including high credit standards based on assessments made by leading credit rating agencies. The minimum credit rating threshold is at least A- from Standard and Poor's or Fitch Ratings or at least A3 from Moody's. Second, collateral supplied to the Eurosystem is valued on a daily basis using market prices. Thus, changes in the private sector's assessment of a government leading to a drop in bond prices will reduce the collateral value of those bonds. MFIs will then have to provide more collateral in return for a given amount of central bank financing.

One implication of the argument that the Eurosystem collateral framework contributes to a narrowing of interest rate spreads is that lower-rated government bonds should be over-represented in the pool of assets that is used as collateral for Eurosystem monetary policy operations: bonds with the highest ratings should be used more frequently in private-sector market operations, while lower-rated debt should be used more often as collateral for central bank credit. Box 2 provides some statistical information on the use of collateral, which shows that government bonds of the lower-rated countries are under-represented compared with their share in the total pool of public and private sector collateral, and are proportionally represented compared with their share in the pool of public collateral.

Box 2

THE USE OF GOVERNMENT DEBT AS COLLATERAL IN EUROSYSTEM CREDIT OPERATIONS

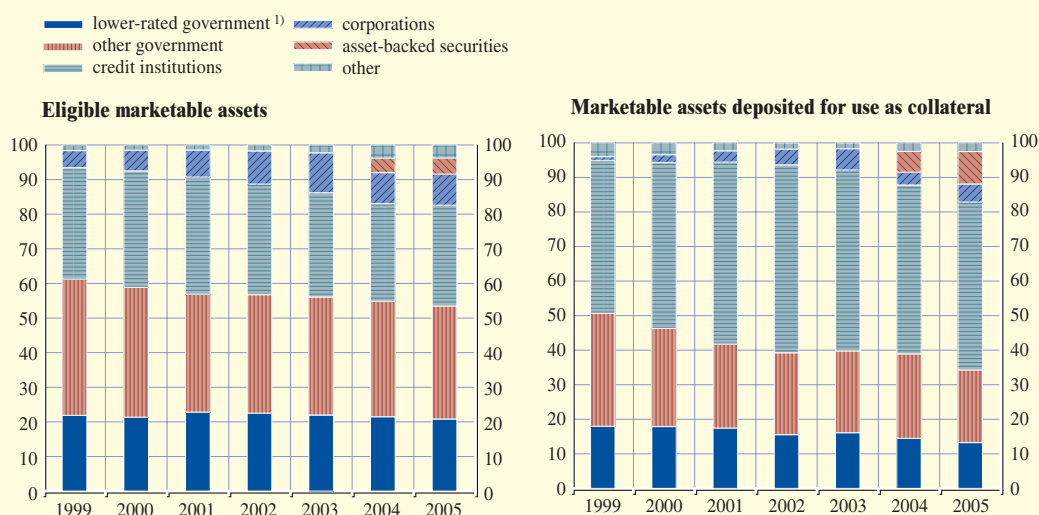
Article 18.1 of the Statute of the ESCB requires all Eurosystem credit operations (i.e. liquidity-providing open market operations and the provision of intraday credit) to be based on adequate collateral. In order to protect the Eurosystem from incurring losses, the collateral assets have to fulfil certain eligibility criteria which are defined by the Eurosystem, and the list of assets which fulfil these criteria is published daily on the ECB's website. The Eurosystem accepts a very broad range of collateral, not only euro area government debt instruments but also many other types of euro-denominated debt instrument issued by other governments and by the private sector (such as bank bonds, corporate bonds and asset-backed securities). In 2005 the total outstanding amount of available collateral was approximately €8.2 trillion,¹ of which 54% (or €4.4 trillion) was EU Member States' general government debt (see chart). Government debt of the four euro area countries which do not have an AAA rating from any of the three international rating agencies (Belgium, Greece, Italy and Portugal) accounted for 21% of the total outstanding amount of available collateral (or 39% of the pool of government debt). Most of the remaining 46% of the total collateral pool consisted of the debt of private-sector issuers: covered and uncovered bank bonds (30%), corporate bonds (8%) and asset-backed securities (5%). Other issuers, such as supranational organisations, made up the remainder.

The amount of collateral deposited for use in the Eurosystem's credit operations during 2005 was on average €853 billion, approximately 10% of the total amount of eligible assets. Government bonds accounted for 34% of the collateral deposited (see chart). Using the percentage share of government bonds in the total pool of eligible assets as a benchmark, government bonds are under-represented by 20 percentage points. The bonds of the four lower-

¹ All figures for available and deposited collateral are annual averages. For 2005, the average is calculated over the first three quarters only.

Marketable assets eligible and deposited for use as collateral in Eurosystem credit operations, by issuing sector

(percentages of total)



Source: ECB.

Note: Data for 2005 refer to the first three quarters of that year.

1) Lower-rated government debt refers to debt of Belgium, Greece, Italy and Portugal.

rated governments, which represented 21% of the total pool of available collateral in 2005, comprise only 13% of the total collateral deposited for use and are therefore under-represented by 8 percentage points. Furthermore, data for the last six years show that there has been a shift away from using government bonds, including the bonds of the lower-rated governments, towards private sector issuers. The decrease was strongest from 1999 to 2002, when the share of government bonds deposited for use as collateral declined from 50% to 39%; between 2002 and 2004 it remained relatively stable, before declining further in 2005. The use of private sector issuers has expanded in parallel to this decline. For example, the share of asset-backed securities rose from practically zero in 1999 to 9% by 2005. These assets are therefore more than proportionally used compared with their nominal outstanding amount.

Thus, contrary to the arguments put forward by some commentators, there is no evidence that government bonds of the lower-rated countries are more than proportionally represented: in fact, the data suggest the opposite. Furthermore, looking solely at the €291 billion of euro area central government bonds deposited for use as collateral on average in 2005, the four lower-rated euro area governments account for 39%. As the bonds of these four governments also account for 39% of all available central government debt, this shows that, even within the pool of euro area government bonds, there is no substitution of higher-rated by lower-rated bonds. The fact that counterparties are indifferent between using the debt of the lower-rated governments and that of higher-rated governments could be partially attributed to common practice in the private-sector repo market (for example, in Eurepo transactions), whereby all euro area government debt is equally acceptable as “general collateral”. This market practice has tended to equalise the opportunity cost for counterparties – in terms of the alternative uses in the private-sector market – of using different euro area government debt as collateral in Eurosystem transactions.

5 CONCLUSION

Market forces can in principle play a useful role in encouraging euro area governments to act in line with fiscal sustainability, supplementing the fiscal framework in place. As recognised by the designers of the Maastricht Treaty, these forces are not necessarily strong and timely enough to preserve sound public finances and thereby facilitate the attainment of the monetary policy objective of price stability. A credible fiscal framework and its strict implementation are therefore essential to achieving sound public finances in EMU, as a means to strengthening the conditions for price stability and providing a stable macroeconomic environment. Moreover, measures that negatively affect conditions for market discipline, for instance by reducing the credibility of the Maastricht Treaty's "no bailout" clause, should be avoided.

Interest rate spreads in euro area countries decreased very substantially in the run-up to the introduction of the euro, driven by the progressive elimination of the exchange rate risk between the national currencies concerned and the decline in inflation risk. Spreads after the introduction of the euro in January 1999 seem to capture mainly the credit default risk premium, which markets are pricing at a relatively low level for all countries even though fiscal positions differ significantly from country to country. Still, it is clear, on the basis of present observations, that any deterioration or improvement in the credit standing of a public bond issuer is incorporated in this premium, as reflected in the credit default swap market and in the spreads observed in the bond markets. Additional factors may have contributed to the current low level of interest rate spreads, including the desire of investors to buy higher-yielding government bonds and changes in supervisory and accounting rules for pension funds and insurance companies. Statistics on collateral use indicate that Eurosystem collateral policy does not have any significant effects on interest rate spreads.