



FISCAL AND MONETARY POLICY IN  
BELGIUM, FRANCE, GERMANY, LUXEMBOURG,  
AND THE NETHERLANDS

Christian Fahrholz  
Philipp Mohl

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**Jean Monnet Centre of Excellence**

Freie Universität Berlin  
Ihnestr. 22, 14195 Berlin, Germany  
Phone: +49 (30) 838 – 54966  
Fax: +49 (30) 838 – 52357  
Email: [info@ezoneplus.org](mailto:info@ezoneplus.org)



The Eastward Enlargement of the Eurozone

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Abstract

This regional input analyses recent developments and future prospects of fiscal policy (part I) and monetary policy (part II) of Benelux, France and Germany (EMU-5) covering the period of 1997-2004. The fiscal policy part concentrates on budgetary effects of the eastward enlargement. Besides, socio-economic developments are considered, as well. In context of monetary policy affairs, the heterogeneity of EMU-5 members is surveyed. The brief analysis of two main aspects of the monetary union – the GDP growth rates and the inflation rates – indicates that diversity among the surveyed countries still prevails.

*JEL-Classification:* E5, F4, E 61, E 65,

**Keywords:** EU-budget costs, ECB, EMU, EU-enlargement, fiscal and monetary policy, heterogeneity, Stability and Growth Pact

Corresponding authors:

Christian Fahrholz, Research Fellow

e-mail: [fahrholz@zedat.fu-berlin.de](mailto:fahrholz@zedat.fu-berlin.de)

Philipp Mohl, Junior Research Assistant

e-mail: [philmo@zedat.fu-berlin.de](mailto:philmo@zedat.fu-berlin.de)

Freie Universität Berlin  
Dept. for Political and Social Sciences  
Innstraße 22  
D-14195 Berlin  
phone: +49/30/838-54966  
fax: +49/30/838-52357

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**Belgium, France, Germany, Luxembourg, and The Netherlands**

**Philipp Mohl and Christian Fahrholz**

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Regional Input on Monetary and Fiscal Policies**

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## **INTRODUCTION**

This regional input considers recent developments and future prospects of fiscal policy (part I) and monetary policy (part II) of Benelux, France and Germany (EMU-5) covering the period of 1997-2004. The survey on fiscal policy is structured as follows: After addressing the issue of sustainable budget policy, main characteristics in the five countries are surveyed. In doing so, the emphasis is on, firstly, budgetary deficit and public debt dynamics; secondly, on structural issues in particular the rising problem of ageing populations; thirdly, on recently adopted fiscal reforms. After that empirical overview the role of political cycles is surveyed. Finally, the possible impact of the enlargement process on the European institutional setting for fiscal policy-making is discussed. Part II on monetary policy deals with the following issues: After a short survey is given concerning the theoretical framework, the possibly existing heterogeneity is explored by investigating national diversity among EMU-5. Thereby, the focus will be on two of the most important economic dispersion factors, namely the synchronisation of business cycles of EMU-5 and the development of inflation rates.

### **PART I: FISCAL POLICY**

By the early 1990s the problem of unsustainable budget deficits had been widely recognised. Following the recession in the aftermath of Germany's reunification and the EMS-crises in the early 1990s, fiscal positions improved significantly. When consolidation became a priority within Europe, these efforts were even intensified by the run-up to European Monetary Union (EMU). The simultaneously required compliance with the Maastricht-criteria, enforced strict budgetary consolidation in 1993-1997. The creation of the Stability and Growth Pact (SGP) in 1997 committed national governments to aim at medium-term budgetary balance beyond the original convergence process of Maastricht.

Regarding this institutional setting, all five countries have made progress in fiscal consolidation improving their financial and primary balances in actual terms during 1997-2000 (see tables 1, 2, figures 1, 2). The progress, though, in cyclically-adjusted terms has been lower (see tables 3, 4, figures 3, 4). Furthermore, in all countries the gross public debt could be reduced as government net debt interest payments and gross and net financial liabilities decreased (see tables 5-7, 9 figures 5-7, 9). The achievements in controlling adverse public debt dynamics can partly be seen in the context of considerable progress made over the past two decades. However, concerns regarding fiscal sustainability have re-emerged in recent years. Fiscal positions seemed to have worsened in some countries mostly due to increases in total outlays (see table 8, figure 8). Moreover, with regard to the development of public debt,

France and Germany appear to loose track of fiscal consolidation (see table 9 and figure 9). Regarding the nearer future of the latter, the prospects are not that very optimistic. We will return to these prospects after reviewing the fiscal policy formation in the considered countries here.

## **1. Current and medium-term prospects of fiscal positions of Benelux, France and Germany**

### **1.1. Budgetary deficits and public debt dynamics (1997-2004)**

#### Belgium

Since the government introduced the Convergence Plan in 1992 to formalise the goal of meeting the Maastricht criteria, Belgian fiscal consolidation has been more regular. From 1997 to 2001, the budgetary position improved sharply and faster than in the Euro-area on average. The general governments financial balance moved from a deficit of 2 per cent in 1997 to a small surplus of 0.4 per cent in 2001 (see table 1) particularly in course of a reduction of governmental interest payments and total outlays (see tables 5, 8, figures 5, 8). An economic outlook predicts a deterioration in the next two years towards a balanced budget, before rising again to a slight surplus of 0.5 per cent of GDP in 2004 (see table 1). Furthermore, there is the gross public debt-rate, that is very high – compared with the Euro-area level, although shrinking steadily from over 120 per cent of GDP in 1997 to about 108 per cent in 2001 (see table 9). It is projected to further decrease to 97.3 per cent in 2004.

#### France

Similarly to Belgium, French public finances have undergone an intensive process of fiscal consolidation since the mid-1990s. The general governmental deficit was reduced from 3 per cent of GDP in 1997 to 1.4 per cent in 2001 (see table 1) whereas the level of taxes slightly increased (see table 10, figure 10). However, the initially envisaged budget deficit of 1.5 per cent of GDP in 2002 has not been achieved. A growth rate lower than projected, a decrease in non-tax revenues and a rise in social security spending deteriorated the budget deficit to an estimated 2.7 per cent of GDP in 2002 (see table 1). The OECD projected that the deficit will stabilise at about 2.5 per cent until 2004 (see table 1). At present, the excessive expenditures of the French government is a main concern. In this context, it is alluded to the public debt dynamics in France which may exceed the 60 per cent-threshold in 2004 (see table 9).

According to the IMF, however, the gross debt may keep in line with the Maastricht criterion until 2004 (see table 11).

### Germany

Fiscal consolidation is a key priority in Germany, too. As a result, the general governments financial balances could be turned – mainly through a reduction of general government outlays (see table 8) – from a deficit of 2.7 of GDP in 1997 to a surplus of 1.1 per cent of GDP in 2000 (see table 1). During the same period the primary balance rose sharply from 0.5 per cent of GDP to 4.1 per cent (see table 2) and the gross public debt decreased to 60.2 per cent of GDP (see table 9). However, since consecutive tax reductions (see below) were not backed by equivalent cuts in governmental spending, the specific 3 per cent-limit has been apparently exceeded in 2002. In course of lagging growth combined with unexpected additional expenses, for instance, on defence and security measures in course of 9/11 and the financing of recovery after the flood last summer<sup>1</sup>, the deficit arrived at 3.7 per cent of GDP (see table 1). The envisaged goal of balancing the budget seems unlikely to be met even in 2003.

### The Netherlands

The Netherlands attained a remarkable progress in fiscal consolidation during 1997-2000. Both the deficit in the financial budget balance and that of the cyclically-adjusted general balance have been turned into surpluses between 1997 and 2000 (see tables 1 and 3). Moreover the gross public debt could steadily be reduced to lower than that of the EU-average level of 55.8 per cent of GDP in 2000. In this respect, unexpected economic growth rates and revenue windfalls are a key factor in the Dutch medium-term orientated budgetary framework, aiming at sustainable budget dynamics (see below). Nevertheless, since 2001, the process of fiscal consolidation has been flagging due to an economic slowdown. Even if net debt payments and the percentage of gross public debt will further decline (see tables 5, 9, figures 5, 9), the projections are less optimistic. The financial balance is expected to turn into a deficit of 0.8 per cent of GDP in 2002 and recover only slightly to 0.3 per cent of GDP in 2004 (see table 1).

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<sup>1</sup> Due to the damages caused by the flood, a “reconstruction fund” totalling € 7.1 billion was constructed, financed by the federal government and the states (so-called Laender).

## Luxembourg

Luxembourg is a priggish within the EMU regarding the gross public debt remaining stable at about 6 per cent since 1997 (see table 9). The Coalition Agreement of 1999 implemented fiscal sustainability by announcing three main principles of public finance (see below). In comparison to other European countries, Luxembourg's fiscal policy formation has been rather convenient over the last two decades. During 1997-2001 the budget surplus rose from 2.8 to 6.1 per cent of GDP (see table 1). Last year, this surplus shrunk to 1.8 per cent of GDP due to sizeable tax cuts. Moreover, for this reason, OECD projects a further decrease to 0.5 per cent GDP in 2004 (see table 1). In this context, the OECD predicts an increase of governmental total outlays from 38.6 per cent in 2001 to about 44 per cent of GDP in 2004 (see table 8). Nevertheless, medium term prospects are quite comfortable.

### 1.1 Ageing population and health care

The rising costs of an ageing population cause severe problems which the countries surveyed here have to cope with. Prospective boosts in public health expenditure (see tables 12, 13) are attributed to increasing life expectancy (see tables 14, 15) and technological advances in health-care systems. Corresponding low mortality rates (see tables 16, 17) accompanied low fertility (see table 18) contribute to a constant growth of the elderly (see table 19), also expressed by the old-age dependency ratio (see table 20, figure 11). Public pension systems will be charged on this account (see table 21 and figure 12). In this context, specific problems of the considered countries are surveyed.

## Belgium

Ageing population is a serious concern in Belgium. The respective old-age dependency ratio<sup>2</sup> is expected to increase from the current 28 per cent to 50 per cent in 2050 (see table 20). A main factor of this considerable rise is the increasing life expectancy over the next 5 decades (see table 14). As a result, pension expenditure is projected to increment from 10 per cent (2000) to 13.3 per cent in 2050, which is compared with France, Germany and The Netherlands a relatively modest rise (see table 21). That effect can be traced back to the declining transfer ratio<sup>3</sup> (see table 22). In Belgium the transfer ratio has declined since 1990,

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<sup>2</sup> In contrast to the OECD definition, the Belgian Federal Planning Bureau (FPB) defines old-age dependency ratio as  $([60 +] / 20-59\text{-years old})$ . That is why the current level of old-age dependency ratio - according to FPB - amounts to 40 per cent, projecting an increase to 60 per cent in 2050.

<sup>3</sup> The transfer ratio is defined as:  $([\text{ratio of average pension per beneficiary}] / [\text{average GDP per worker}])$ .

mainly because pensions are indexed to prices, not wages and because of the past pension reforms (see IMF. 2003).

Even though new control mechanisms have recently been introduced, cost pressure from technological advances and those of an ageing population are likely to increase. According to specific projections based by the Belgian Federal Planning Bureau (FPB)<sup>4</sup> it is expected that health-care expenditures will rise by 3.1 per cent between 2000-2050 (see table 22). Overall, the fiscal costs of ageing are projected to increase as from today by 4.1 percentage points to 26.3 per cent of GDP in 2050 (see table 22). The risk of unsustainable pension financing may seem low at the moment as large primary surpluses have been built up over the past years. Nevertheless, Belgium faces an important fiscal challenge due to its high level of public debt (table 9).

#### France

The ageing population will significantly influence the long-term prospects for economic growth and the governmental budget in France, most notably as the old-age dependency ratio will nearly double from 26 per cent in 2000 to 53 per cent in 2050 (see table 20). Pension expenditures will probably rise from 12.1 per cent of GDP in 2000 to 15.8 per cent in 2040 (see table 21). A further aspect is the relatively expensive health system, for which nearly 10 per cent of GDP is allocated (see table 13). The Ageing Group of ECOFIN (AWG)<sup>5</sup> calculated that, including health and long-term care, the rise amounts to even 5.3. percentage points of GDP (IMF. 2002d). However, in this respect it has to be considered that the AWG assumes non-age related expenditure to be growing at the growth rate of GDP, which is probably an optimistic assumption compared to recent historical experience (see IMF. 2002d: 9). In order to analyse long-term effects of an ageing population, the IMF calculated two specific scenarios (see IMF. 2002d: 9). In a baseline scenario (policies left unchanged)<sup>6</sup>, the unsustainable development becomes apparent: After a short initial improvement of the fiscal balance, ageing and debt expenditure will constantly increase the deficit from 2 per cent of GDP in 2002 to about 12 per cent of GDP in 2050, aggravating the debt from about 60 per cent in 2002 to 200 per cent of GDP in 2050 (IMF. 2002d: 9). In a second sustainable scenario, taking into account savings from pension reform, the structural fiscal balance will

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<sup>4</sup> It is inter alia assumed that the employment rate will increase during the next five decades. These assumptions would imply significant structural reforms, particularly a pension reform reducing incentives for early retirement (see IMF. 2003: 23sqg).

<sup>5</sup> The projections of AWG are summarised in: IMF. 2002d: 9.

<sup>6</sup> The specific assumptions are listed in: IMF. 2002d: 9.



register small surplus during 2006-2016 and will probably decrease to a level of around 0.75 per cent of GDP in the long-run. At the same time, the debt ratio remains at about 27 per cent of GDP in 2050 (IMF. 2002d: 9).

Discerning the ageing problems, the French administration has set a mid-2003 deadline for a pension reform. A structural reform might greatly contribute to achieving the necessary fiscal consolidation in case public spending does not rise rapidly and revenues from higher growth are rather used to accumulate budgetary surpluses.

## Germany

Improving fiscal sustainability of the public pay-as-you-go system (PAYG) is a key issue in Germany. The projected rapid increase in the amount of old people in the population to 53 per cent in 2050 (see table 20) will aggravate the already existing problems of the benefit-related insurance system: According to IMF staff projections the total costs of age-related government spending will further increase by 6.7 per cent of GDP in 2050 (see table 23). At the outset of the now ruling government, the socialdemocratic-green administration introduced an energy tax for re-financing a cut in non-wage labour costs for PAYG in 1999. Then, in January 2002, the German administration adopted a pension reform, i.e. the so-called *Riester-Rente*<sup>7</sup>. This is a private funded system based on a voluntary principle and publicly co-financed. Though initially considered as a second pillar and a fundamental change in the German pension system, this reform entailed no significant effects on private savings so far.

Concerning the long-term horizon, further reforms seem essential. The reforms required do not have to be drastic, but need to cover all dimensions of welfare spending and should be implemented early (IMF. 2002c). The IMF suggests that the specific reforms should not necessarily infringe the provisions of the SGP (see table 24)<sup>8</sup>.

Another problem is the expensive health-care system, that accounts for 10.3 per cent of GDP in 1998, representing the highest level of the five countries (see table 13). The rise in spending contributed to a significant increase in non-wage labour costs over the last decade. Accordingly, Germany is also the country with the highest level of health expenditure per capita (see table 12). Consequently, new health reform measures came into effect in January 2000 (*Gesundheitsreform 2000*) keeping contribution rates stable. Specific measures comprised,

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<sup>7</sup> The share of private pension fund assets was only 5.8 per cent in 1996 (see table 25).

<sup>8</sup> The IMF assumed that the generosity of pensions, unemployment, and health programs are reduced; future retirement ages are raised and the length of education periods is cut down (see IMF. 2002c).

for instance, that spending by hospitals and physicians are subject to budget limits. In addition, a list of reimbursable pharmaceuticals has been developed to support spending restraint. However, some of these measures have already been reversed. At present, the re-elected government has set further reform on agenda.

### Luxembourg

In Luxembourg the old-age dependency ratio will nearly double from 23 per cent in 2000 to a level of 42 per cent in 2050 (see table 20). To be prepared for these challenges, the government adopted a pension reform in April 2002. As a main result, private pension benefits will be increased to an estimated annual fiscal costs of about 0.7 percentage point of GDP (IMF. 2002a: 12). Nevertheless, Luxembourg's generous PAYG-scheme might cause trouble in the long run. The IMF has calculated three alternative scenarios to study the effects of ageing population (see IMF. 2002a: 12). Given a baseline scenario<sup>9</sup> the contribution rate will probably increase after having implemented the reform to 23.4 per cent of labour income. Then the level of contributions will stabilise by 2030. Until 2050, the level will constantly decline to about 21 per cent of labour income. In contrast, in an according average growth scenario<sup>10</sup> a sharp rise of the contribution rate to 46.4 per cent by 2040 is expected. That increase might emerge in course of flagging growth and more additional spending due to the ageing population. Under the third scenario (ILO scenario)<sup>11</sup> the rise of the contribution rate is limited to 29.3 per cent in 2030 before declining steadily to around 27 per cent in 2050. Consequently, as the growth rates are likely to lie between the average growth scenario and the ILO in the long run, Luxembourg's pension system will be confronted with increasing contribution rates that will not be stopped by the current pension reform (IMF. 2002a).

### The Netherlands

The Netherlands' population is rapidly ageing, too. The number of people aged 65 and over will double between 2010 and 2030 (Carey, 2002: 5). As a result, economic growth will be reduced and resource transfers to elderly (i.e., on account for both pensions and health care) will be increased: The Netherlands Bureau for Economic Policy Ageing (CPB) projects that

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<sup>9</sup> Concerning the status quo scenario it is assumed that the real GDP growths are annually by 5 per cent, the employment increases by 3 per cent and the ratio of cross-border workers to resident workers to 6 per cent by 2050.

<sup>10</sup> The average growth scenario assumes the status quo until 2005 and no cross-border inflows thereafter, implying average GDP growth of 2.1 per year.

<sup>11</sup> The ILO scenario resembles the status-quo scenario but with 2 per cent employment growth and 4 per cent annual GDP growth.

public expenditure on pensions and health care will probably rise by 8.75 percentage points of GDP between now and 2040 (see table 26). Nevertheless, The Netherlands are better positioned than the other countries, as its relatively balanced population structure implies a small ageing shock<sup>12</sup>. Its debt-GDP ratio is with 50 per cent of GDP in 2001 below the EU average (see table 9), and the pension system is better diversified as it includes a large and well funded second pillar (see table 25). The Netherlands has by far the largest amount of private pension fund assets in EU countries: Assets of the Dutch pension funds increased to 121 per cent of GDP in 2001 and are expected to amount to nearly 200 per cent of GDP by 2040 (IMF. 2002b: 7).

The CPB produced two scenarios<sup>13</sup> calculating a deficit path that would ensure long-term fiscal sustainability without increases in taxes or security contributions. In short, the CPB suggests to finance additional costs by eliminating the national debt by 2025. Under the first baseline scenario leaving policies unchanged, the government debt will be reduced from 54 per cent of GDP in 2001 to 28 per cent in 2020 before increasing significantly (see table 26). Regarding this, the CPB concludes that even in the base case, public debt is reduced substantially over the next thirty years so that public finances appear sustainable during this period. However, after 2030 the budget deficit could exceed the Maastricht criterion and the debt path becomes explosive after 2040 (see IMF 2002b: 8). In contrast, a second scenario – calculating with preventive tax raises to account for prospective costs of ageing population – is characterised by an initial decline of the government debt, remaining constant between 8-13 per cent of GDP thereafter (see table 26). As a result, the national debt would be eliminated in 2025 and the budget nearly balanced in 2040 (IMF 2002b: 8). Furthermore the CPB projects that due to the expected increase in life expectancy (see table 14, 15) public expenditures on health care, pensions and disability could rise by nearly 9 percentage points of GDP between now and 2004, so that the share of these items in government spending might rise from 26 per cent to 38 per cent (see table 26). Nevertheless, the taxation of private-sector pension income offsets these costs and is estimated by the CPB to raise an additional revenue by 5.1 per cent of GDP between now and 2040 (IMF. 2002b: 6). However, these projections are highly sensitive to changes in the underlying assumptions, notably

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<sup>12</sup> The old-age dependency ratio will increase from 23 per cent in 2000 to 40 per cent in 2050, the lowest level of EMU-5 (see table 20).

<sup>13</sup> Both scenarios use the same macroeconomic assumptions: Both the inflation rate (2 per cent) and the real interest rate (4 per cent) as well as the labour productivity growth (1.75 per cent) are assumed constant and exogenous (for further information, see IMF. 2002b: 6sqq.).

concerning pension funds' capital market returns and the current cyclical component of the budget balance.

Moreover, the Dutch health care system suffers like health care systems in other EMU-member countries from rigidities and distorted incentives (OECD. 2000). Over the past couple of years, authorities have been engaged in gradually modifying the health care system. However, no considerable reform has been adopted yet.

## 1.2 Recent changes in fiscal frameworks

Recently, national governments adopted several reforms concerning fiscal policy which are surveyed in the following.

### Belgium

Within the framework of the SGP, the government adopted the Belgian Stability Programme covering the period of 1999-2002 (OECD. 2001b: 50sqg). This fiscal framework has been modified and updated several times. The authorities committed themselves to sustainable fiscal consolidation by setting permissible fiscal targets both for the budget of the federal government and the social security system spending (*Entity I*) and respectively for the regions, communities and local governments, too (*Entity II*)<sup>14</sup>. To date, these objectives have mostly been met (see IMF. 2003). The recently built up budget surpluses were used to cut personal income tax rates including the abolition of the additional crisis surcharge (OECD. 2003a: 55ff). The income tax cuts, particularly implemented by reducing the top rate from 55 to 50 per cent and introducing an earned income tax credit, will totally reduce the tax burden to 0.8 per cent of GDP by 2005 and to 1.3 per cent in 2006 (see OECD. 2003a: 32.) In addition, authorities also plan to reform the corporate tax system beginning in 2003, and expecting this reform to be revenue-neutral.

### France

French authorities have pursued a strategy of multi-year consolidation of public finances consisting of four main pillars that compound mainly the control of government expenditures (i.e., limiting growth of public expenditure to 1.5 per cent p.a.) and a cut in the relatively heavy tax burden.<sup>15</sup> The tax reform comprises, for example, a reduction of direct taxes and a

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<sup>14</sup> For more detailed information see: OECD. 2001b: 50sqg and OECD: 2003a: 29sqg.

<sup>15</sup> Further pillars of this multi-year strategy are the reduction of social insurance contributions, free play of automatic stabilisers and a balanced budget target for 2004 or thereabouts. See: OECD. 2001c.

lowering of the rates of corporate and personal income taxes. Thus, the actual amounts of the cuts in direct taxation are comparatively modest as these are amounted to 1 percentage point of GDP in 2000, 0.6 in 2001 and are expected to represent 0.5 in 2002 (OECD. 2001c). In July 2002 a new centre-right government took office. Enhancing potential growth by cutting taxes and implementing structural reforms is one of their key concerns. Further developments are still to be awaited.

### Germany

In Germany, the public finances have been heavily affected by the income and business tax reform phased in 1999. At its core is the “Tax Reduction Law” (*Steuersenkungsgesetz*) adopted in 2000. In this case, revenues lost are estimated to total more than 1 per cent of GDP in 2002 (OECD. 2003b: 58). In course of these tax cuts, corporate income tax revenues collapsed almost completely. This is mainly a result of tax refunds consistent with earlier reductions of corporate tax rates for retained profits. These cuts had to be mainly financed by the *Laender*, which had to cope without more than 8.3 billions in 2001 (Deutscher Staedtetag: 2001).

An important step towards a sustainable fiscal framework is the Domestic Stability Pact, agreed in 2002, that was mainly established due to the impending caution from Brussels. There are two essential points to make about this: First, budgeted deficits of a federal state’s government must not exceed their investment spending. Second, there is a commitment to balanced budgets.

### Luxembourg

Luxembourg’s recent development in fiscal policy was influenced by the Coalition Agreement, adopted in 1999. Thereby three main principles were formulated for sustainable fiscal policy. Firstly, the general government balance should remain in surplus. Secondly, the balance of central government should remain in equilibrium. Thirdly, current expenditure of central government should rise less rapidly than total government expenditure and nominal GDP equilibrium (OECD. 2001d: 31sq).

Furthermore, responding to large general government surpluses during recent years, national authorities implemented structural reforms comprising multi-year tax cuts and further expenditure restraints in 2001. The aim is to distribute the growth dividend widely, to further

increase the competitive position of Luxembourg and to address inactivity traps by raising tax thresholds<sup>16</sup>. These tax cuts reduced the GDP to about 3.4 percentage points (IMF. 2002a).

### The Netherlands

The main characteristics of Netherlands' fiscal framework introduced in 1994 are, multi-year orientated expenditure ceilings and cautious growth assumptions. The 1998 Coalition Agreement further entrenched that kind of policy, mainly by setting cautious projections of economic growth rate. Another important feature of the medium-term budgetary framework is the strict separation of windfalls on the revenue and expenditure side of the budget (for further information see OECD. 2002b: 39). Ceilings were imposed on the spending for the central government, social security and health care.

In 2001 a far-reaching overhaul of the tax system took place. It features a shift from direct to indirect taxes, a removing and reducing of tax exemptions, as well as a cut in replacement rates (detailed information see: OECD. 2000). Consequently, direct taxes on labour sunk by 2 per cent of GDP while indirect taxes and environmental taxes have been raised by 0.5 and 0.2 per cent of GDP. Moreover, a new system for a tax on income from wealth has been introduced, amounting to 0.5 per cent of GDP (OECD. 2002b: 47). Therefore, tax cuts amounted to 0.8 per cent of GDP, largely financed by constraints on expenditures (OECD. 2002b: 37).

## 2. Role of political cycles

Recently, the role of political cycles has often been discussed in relation to the Stability and Growth Pact. By establishing the 3 per cent of GDP deficit criterion and the limit of 60 per cent of GDP, the SGP had – as shown above – a strong implication on fiscal discipline. More recently however, the process of fiscal consolidation has stopped. Figure 13 displays the progress – or lack – towards lower public debts and deficits made during the initial years of EMU. On the horizontal axis the difference between the stock of public debt as a share of GDP and the 60 per cent Maastricht reference value is shown and on the vertical axis the difference between the budget deficit and the 3 per cent deficit ceiling<sup>17</sup>. Regarding this, the situation in 1998 and 2002 is being compared. Progress in fiscal consolidation is represented by a move to the left and as well as downwards. The figure makes clear, that since the launch

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<sup>16</sup> For further information see: IMF. 2002a.

<sup>17</sup> Such a comparison was also calculated for EMU-11 (with the exception of Luxembourg) by Butti and van den Noord. 2003.

of the Euro, there has been no significant progress in budgetary consolidation, especially concerning the deficit. The reason for this is perhaps mainly because of the economic circumstances, but on the other hand it shows that the SGP displays a significant structural problem: the lack of incentives towards a further policy of consolidation. This structural deficit may well strengthen in electoral periods. As there are hardly any consequences when exceeding the Maastricht criteria, authorities could intend to additionally charge the national budgets in order to increase the probability of getting re-elected.

Since the initial study by Nordhaus and Hibbs in the mid 1970s on political business cycles, there have been several contributions concerning politically motivated policies. More recently, Persson and Tabellini (2002a and 2002b) published two studies analysing the impact of different features of political systems on the running of fiscal policy. Here the results of the study by Buti and van den Noord (2003) are analysed.<sup>18</sup> In order to explore the behaviour of fiscal policy in the early years of EMU, Buti and van den Noord constructed an indicator of discretionary fiscal policy (DP). This indicator splits the primary fiscal balance up into two components, one part, which is consistent with a neutral stance of fiscal policy and the other, which can be attributed to fiscal stimulus or contraction.<sup>19</sup> With the help of that indicator they showed that fiscal policy had become easier over the time. Within this framework they distinguish three phases: non-election years, pre- or early election years and full-blown election years (a survey of EMU-4 is displayed in table 27) in order to investigate if the loosening of fiscal policy may be related to political cycles. In this way, they were able to show that the electoral budget cycle is alive in EMU. This shows that the creation of the EMU, implying the SGP, did not hamper politically motivated fiscal policy behaviour.

### **3. Possible impact of the enlargement process on the European institutional setting for fiscal co-ordination**

The enlargement of the EU by ten Central and Eastern European Countries (CEEC) in 2004 will charge the EU-15 budgets at least in the short run. There are several arguments in that respect. First, as so far enlargement processes have always led to a rise in EU expenditure (Baldwin et al 1997: 158). Secondly, the EU budget dimension: The current most important policies concerning the EU budget are the Common Agricultural Policy (CAP) and the Structural Policy covering over 80 per cent of the total expenditure (European Commission, 2000). Regarding the candidates, they are predominantly relatively poor (see figure 14) and

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<sup>18</sup> Due to a lack of erratic data Luxembourg is not considered by Buti and van den Noord.

<sup>19</sup> The exact way of calculation can be seen in Buti and van den Noord, 2002: 9.

agriculturally dominated (see figure 15). Consequently, the EU budget can be expected to encumber. Thirdly, political economy considerations suggest that current EU-expenditure per capita depends mostly on current national voting power per capita<sup>20</sup> (see table 28, figure 16). Due to the enlargement process, the voting power of the current EU-15 member states will be reduced and shifted towards the candidates. Further charges for the EU-15 are apparent. However, the actual size of corresponding transfers is being debated.<sup>21</sup> In the following, that size is analysed focusing on Belgium, France, Germany, Luxembourg and The Netherlands. All these five countries are net contributors within the EU (see table 31).

The first studies estimating the costs of enlargement were made in 1993.<sup>22</sup> Baldwin (1997) envisaged that in the course of the Visegrad-5<sup>23</sup> countries' accession to the EU that extra budget cost would amount to about 20 billions ECU. Accordingly, the largest share of costs (over 70 per cent) would be financed by the four "big" countries namely Germany, France, UK and Italy (see table 29). Moreover, Dicke and Foders (2000) estimated the additional costs of enlargement. They assume that the EU-15 have to pay the costs of enlargement by increasing the contribution rates without being capable of cutting the overall EU-budget. The results of these estimations are summarised in table 30. According to their calculations, Germany, once again, would have to bear the brunt (24.6 per cent). France would follow (17.2 per cent), whereas The Netherlands (6 per cent) and Belgium (3.9 per cent) would be less charged. Luxembourg would be almost free of charge (0.2 per cent).

Another way of calculating the future costs of enlargement is by estimating the changes of Europe's expenditure system, thereby taking into account reforms especially in respect to CAP and structural policy. One of the recent and detailed studies is Weise et al. (2003)<sup>24</sup>. He calculated four scenarios based on the model of current regulations for the allocation of structural and agricultural funds for both the EU-25 and the EU-27: "Moderate reform", "medium reform", "substantial reform", and "status quo" being a control.<sup>25</sup> These scenarios are calculated for the first and the last (expected) year of the next mid term financial perspective, i.e. 2007 and 2013.

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<sup>20</sup> The Shabley Shubik Index (SSI) gives a measure for calculating the voting power of each Member States roughly by calculating the relative number a country is a pivotal players. Here the SSI is calculated in the European Council per capita and compared with the total EU-expenditures by capita.

<sup>21</sup> Due to an declaration of intent expressed by the European Commission in the Agenda 2000, the costs of enlargement are not to exceed 10.59 billions of Euro, referring to 0.113 per cent of GDP of EU-15.

<sup>22</sup> For a survey and own calculations see Baldwin, 1994, see also Breuss 1995.

<sup>23</sup> Czech Republic, Hungary, Slovak Republic, Slovenia and Poland.

<sup>24</sup> See also Weise 2002. For alternative overall scenario see Hall/Quaisser 2002.

<sup>25</sup> For detailed specifications of each scenario see: Weise. 2001: 73sq.



The main financial consequences for the surveyed countries regarding 2007 (EU-25) are displayed in tables 32-34 (see figures 17, 18). Regarding 2007 (EU-25) the total expenditure is lower than estimated in Agenda 2000 mainly due to the smaller number of candidates joining (see table 33). Due to the enlargement of poorer candidates the EU-average GDP per capita will sink and the income positions of EU-15 rise relatively. After an enlargement, only 25 per cent of the EU-regions presently covered by objective 1 would remain within that group (Weise, 2002). As a result many regions will no longer be supported by EU funds. Overall, Germany will probably be charged most (about € 10 bn), especially if a moderate reform is implemented while Germany remains the second highest per capita beneficiary after Luxembourg. Furthermore, the highest relative increase of net contribution to the EU-budget will be on France: Presuming that a moderate reform will be adopted, the French net contribution would rise by € 6.5 billions. For all five countries the additional cost of enlargement will rise significantly. The effect on Belgium sizes about € 1 billion, the amount of The Netherlands' charge varies between € 1.4-1.7 bn. Luxembourg paying the most per capita will most likely have to disburse a total amount of net payments of about 0.1-0.2 billion.

## **PART II: MONETARY POLICY**

The introduction of the Euro and the creation of the European Monetary Union (EMU) in 1999<sup>26</sup> is a landmark event of singular importance to the European economy. The fact that 12 European economies have bound themselves to a common currency has had multifarious implications for the macroeconomic environment, monetary policy and financial markets. Optimistic points of view, therefore, expected this to strengthen further economic and financial integration. However, the birth of the EMU was also related to a substantial market segmentation, a regional diversity, as well as cultural, legal and institutional diversity (Corsetti 2000). In this context, the EMU does not appear to be an optimal currency area (Bayer 1999), but a union that could evoke difficulties, especially concerning a well-functioning European monetary policy. Regarding its future development, the launch of the Euro and the common monetary policy will possibly diminish current asymmetries over time. All currently available evidence however suggests that, in the nearer future, national heterogeneity and market segmentation are likely to prevail (Corsetti 2000).

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<sup>26</sup> In 1999 eleven members joined the EMU, namely Austria, Belgium, Finland, France, Germany, Ireland, Italy, Luxembourg, Netherlands, Portugal and Spain. Greece joined in 2001.

In the following, the heterogeneity of EMU-5 members<sup>27</sup> shall be surveyed. Have there been remarkable asymmetries among EMU-5 at the inception of the Euro? Have they been removed so far due to the process of European monetary integration? Or are there still asymmetric aspects in place, hampering the effectiveness of the European single monetary policy? The remainder is divided into two sections: First, a short survey is given concerning the theoretical framework. Secondly, the possibly existing heterogeneity is explored by investigating national diversity among EMU-5. Empirical studies on regional asymmetries within these countries should be taken with caution. The sample for the period since 1999 is too small for empirical testing, thus it is hardly possible to draw any final conclusions. Though, conservative empirical investigations may possibly point to some tendencies. The focus will be on two of the most important economic dispersion factors, namely the synchronisation of business cycles of EMU-5 and the development of inflation rates.

### **1. Theoretical background**

The debate on the creation of the European Monetary Union (EMU) in 1999 is closely related to the dispute on heterogeneity and the effects of exogenous shocks. In this context, Bayoumi and Eichengreen (1993) stress, that if the EMU were not an optimal currency area, exogenous shocks will distinctly lead to differential effects upon regions and countries. This dispute dates back to the definition of the geographical area in which shocks are more likely to occur. There are two important studies opening this dispute: Mundell (1961) pointed out that the absence of internal homogeneity among countries could impede the optimality of a currency area. Kenen (1969), on the other hand, argued that the internal diversity of countries forming a currency area might be damaging to the success of the initiative. Consequently, the heterogeneity increases the extent and the probability of shocks. Naturally, the amplitude of shocks also depends on national preferences towards macro-objective or national performances in growth dynamics and institutional differences between countries, specifically in fiscal systems and labour markets (Fazio 2001). However, one of the main reasons for shocks' occurrence lies in regional and structural differences among and within countries. Recently, several studies have addressed this debate once again. Von Hagen and Neumann (1992) noticed that the concept of optimal currency area is better defined with respect to regions rather than nations. However, de Grauwe and Vanhaverbeke pointed out that especially in case of long-run shocks strong divergences among economies are more likely to occur at the national rather than at the regional level. Overall, there is a broad consensus in

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<sup>27</sup> EMU-5 includes Belgium, France, Germany, Luxembourg and Netherlands.

the academic literature that the EMU does not represent an optimal currency area (Bayer 1999).

## **2. Heterogeneity among EMU-5**

### **2.1. Synchronisation of business cycles**

Studying the challenges of a single monetary policy with respect to EMU-5, firstly, the degree of business cycles synchronisation is inquired. Generally, a common monetary policy has small costs as long as economic activity among countries and each corresponding optimal policy mix are coherent (Mihov 2001). In this regard, it has been advantageous that the correlation of business cycle fluctuations was quite high at the launch of the Euro. At the outset of EMU in 1999 most member countries – with the exception of Luxembourg – had similar cyclical conditions (see table 35) and inflation rates (see table 36). Accordingly, it seems quite understandable that a single monetary policy has been considered as well-functioning. This might have been valid, even if other OCA-preconditions such as fiscal transfers and labour mobility were missing. In comparison to that optimistic point of view, scepticism has since then arose again, especially with respect to diverging growth rates and inflation disparity across EMU (see tables 35, 36). Thus, first economic trends shall be analysed here taking into account that the short period since the outset of EMU is hardly empirically satisfactory to determine the nature of these deviations<sup>28</sup>.

Relating to the synchronisation of business cycles of EMU-5, there are several appropriate indicators. Figure 19 shows the development of EMU-5 annual growth rates since 1986. At first glance it points at a sizeable fluctuation until 2000. Since 2001 the GDP growth rates of EMU-5 have run approximately simultaneously. This observation can be affirmed by comparing the standard deviations (see table 37, figure 20): From a relatively high value of 2.5 in 2000 it sunk sharply to 0.5 in 2001 and is expected to stabilise at above 0.8 until 2004. At the same time the effects on synchronisation of the real GDP cycle in EMU-5 were higher than those of EMU-12 (see table 35, 37), even if the standard deviation of EMU-12 was also reduced in 2001. However, when analysing the variation-coefficient, they show neither a significant change in deviation of EMU-5 nor of EMU-12 since 1999 (see tables 35, 37, figure 20).

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<sup>28</sup> The according data comprise only five years of observations, of which two years are projected by the OECD. Generally, the data used here is either by OECD Economic Outlook 2002 or from OECD Statistical Compendium Version 2001 and 2002.

Another simple measure of comparing differences of GDP growth rates is by calculating the absolute spread rates of GDP growth (see table 37, figure 20). This spread rate of EMU-5 varies between 0.9 in 1992 and 8.2 in 1986 until 2000 before sharply decreasing in 2001 and reaching the second lowest level of an estimated 0.9 in 2002 (see table 37, figure 20). Nevertheless it is expected to increase again to 2.0 in 2004. The broad fluctuation can mainly be traced back to the extraordinary growth rates of Luxembourg. Excluding Luxembourg from the sample, absolute spread rates are smaller. They vary between 4.1 in 1991 and 0.6 in 1995 and will further decrease to a projected 0.4 in 2004. Table 35 indicates that there has been a similar development relating this to the EMU-12. That development is characterised by a constantly sinking spread rate from 4.9 in 2000 to a projected 3.2 in 2004. This could be an evidence for a more homogenous development of business cycles between EMU-5. However, for a final conclusion a longer time horizon is necessary.

A more demanding approach in comparing business cycle was made by Mihov (2001). As data for European quarterly GDP growth rates are not available for the 1960s, he calculated the time-varying correlations of growth rates of industrial production for some countries. Here this pair-wise correlations are calculated for the EMU-5 and displayed in figure 21. The correlations closes to one (to zero) indicating that during the respective calculated ten-year period economic fluctuations were highly (or not) positively synchronised. The developments of this sample can be decomposed into four periods of interest. Before 1973, the correlations across countries were relatively low. After 1973, the influence of the first oil price shock contributed to co-movements across countries in terms of a significant increase of synchronisation of output fluctuations. In the third period, beginning in the mid 1980s, this synchronisation decreased again and the time-varying correlations differed more sharply. The last period is characterised by an increasing spread of pair-wise correlations. It should be taken into account that differences in the dynamics of the cross-country correlations may be traced back to changing stances of economic policy co-ordination in Europe. Accordingly, we would expect that the correlations between the EMU-5 should have risen in course of EMU. The creation of the EMU, enhancing the single market programme may have led to an increase in trade between member countries. In correspondence to this, asymmetries among them should have diminished or at least decreased. Figure 21 confirms this expectation in respect to Germany and France, whose time-varying correlations reached an all-time high of about 0.9 at the end of 2002. Accordingly, tighter trade linkages may explain that rise (cf. Frankel and Rose (1998) and Clark and van Wincoop (2000)). A similar dynamic, though less stronger, can be observed for Germany and Belgium: After the onset of EMU their

correlation increased from about 0.6 at the end of 1990s to nearly 0.8 in 2002. The same holds for Netherlands and Belgium (from 0.46 to 0.58) within the same period of time. However, there has been a decline in correlation for some countries while trade within the EMU-5 has not been decreasing: The correlations between The Netherlands and Luxembourg for example declined from 0.64 in 1999 to 0.47 in 2002. An even stronger decline can be observed in the correlations between France and Belgium. Since the launch of the Euro their correlation has diminished from 0.18 to about zero in 2002. Moreover, correlation of business cycles between France and The Netherlands turned even (slightly) negative to 0.11 in 2002.

Therefore, the introduction of the Euro does not seem to have really led to an increase in homogeneity among EMU-5, particularly with regard to the correlation of industrial production. In contrast, figure 21 even suggests that the spread is larger than ever among EMU-5 in 2002.

## **2.2. Inflation rate**

Another relevant source of calculating heterogeneity is related to inflation rates. In the following, developments of consumer price indices (CPI) are analysed. Figure 22 displays the dynamics of annual consumer price indices since 1986. Standard deviations of EMU-5 differ between 1.6 in 1987 and about 0.2 in 1997, the lowest level of the observed period (see table 38). In that respect, until today the introduction of the Euro does not seem to have brought any progress in aligning interest rates differentials. Comparing variation-coefficients of EMU-5 provides a similar result (see table 38, figure 23). After a remarkable decrease in 1987, they are likely to fluctuate between about 0.1 and 0.5 until 2004. Accordingly, a significant progress in homogenising interest rates differentials between EMU-5 has not been made.

However, turning to the dynamics of consumer price indices of EMU-12 leads to a piece of rather good news (see table 36). In that case, diversity among EMU-12 has been reduced since 1986, implying a decreasing of standard deviation from nearly 6.7 in 1986 to 0.7 in 1999 (see table 36). These effects result mostly from decreasing inflation rates of in Portugal and Greece due to their progressive compliance with Maastricht criteria. Since the launch of the common currency in 1999 the diversity increased only slightly again to a relatively low level of about 1.0 in 2001. Calculations of variation coefficients provide a similar result: After a sharp decrease up to 1999 the diversity rose again in 2000. However, this rise is a bit stronger than that of the standard deviation (see table 36).

Another approach of comparing the diversity of CPI is calculating the inflation rate dispersion (measured by the absolute spread). This approach has also been made by Maier and Hendrikx (2002), who especially concentrated on investigating regional diversity within three EMU countries concerning the development of inflation rates. Excluding Luxembourg, figure 24 points to a significant fall of the absolute spread of EMU-11: Since 1993 the inflation rate dispersion has fallen from a level of about 25 percentage points to a level below 5 percentage points since the end of 1999. This could be a signal of increasing homogeneity within EMU, particularly in course of the process of Maastricht convergence. Compared with the inflation rate-dispersion of EMU-4 (see figure 25), the inflation rate dispersion has sunk since 1983 from 13 percentage points to about 3 percentage points in 2001. However, the most significant decreases took place in the mid 1980s and can therefore hardly be related to the creation of EMU.

Summing up, since the creation of the EMU an alignment of inflation rates of the EMU-12 has taken place, whereas the effected development of the EMU-4 does not show significant changes. It must be considered however, that these results are mainly influenced by the strictly decreasing inflation rates of Greece and Portugal.

## **CONCLUSION**

The fiscal consolidation of the surveyed countries has recently slowed down, after a remarkable progress was made since Maastricht at the beginning of the 1990s. Until recently, this could also be traced back to the European Stability and Growth Pact. However, the process of fiscal consolidation has recently been stopped mainly due to an overall economic slowdown. In this respect, long-term future prospects will be further dampened by problems of an ageing population together with further expenditure in health-care and pension systems. In the short-run, the eastward enlargement will additionally strain the budgets of EMU-5. In context of monetary policy affairs, the diversity of EMU-5 members has been surveyed. Here, an attempt has been made to sketch recent developments since the launch of the Euro in 1999. The short comparison of two main aspects of the monetary union – the GDP growth rates and the inflation rate – indicates that diversity among the surveyed countries still exists. Contrary to initial expectations in academia, the heterogeneity especially with regard to the synchronisation of business cycles, does not seem to have been removed. However, it should be noticed that empirical investigations are to be taken with caution due to the short period since 1999.

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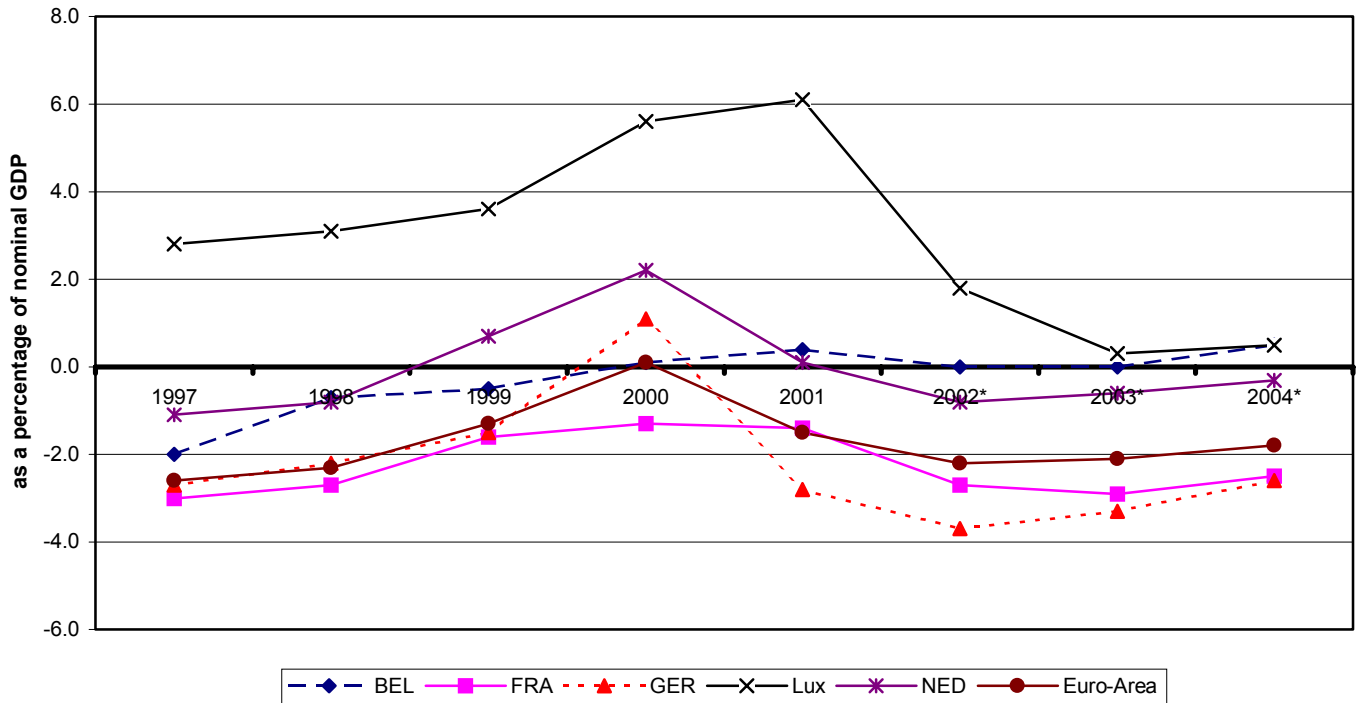
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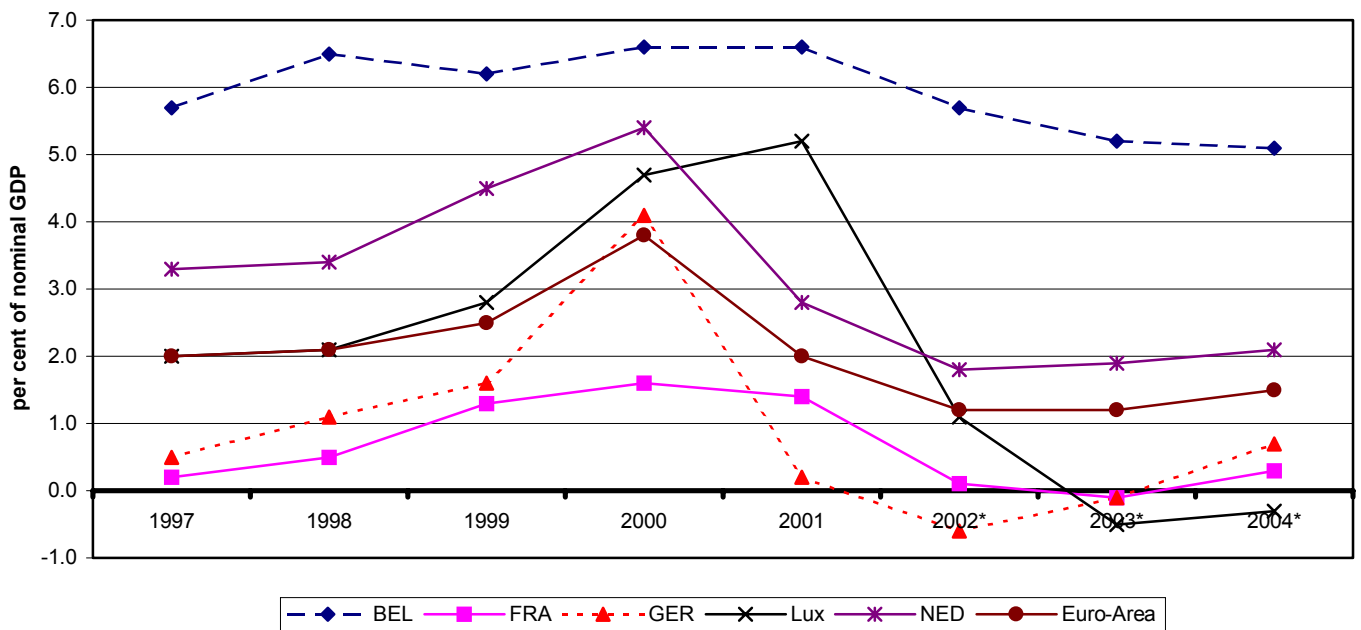
# FIGURES

Figure 1: General government financial balances



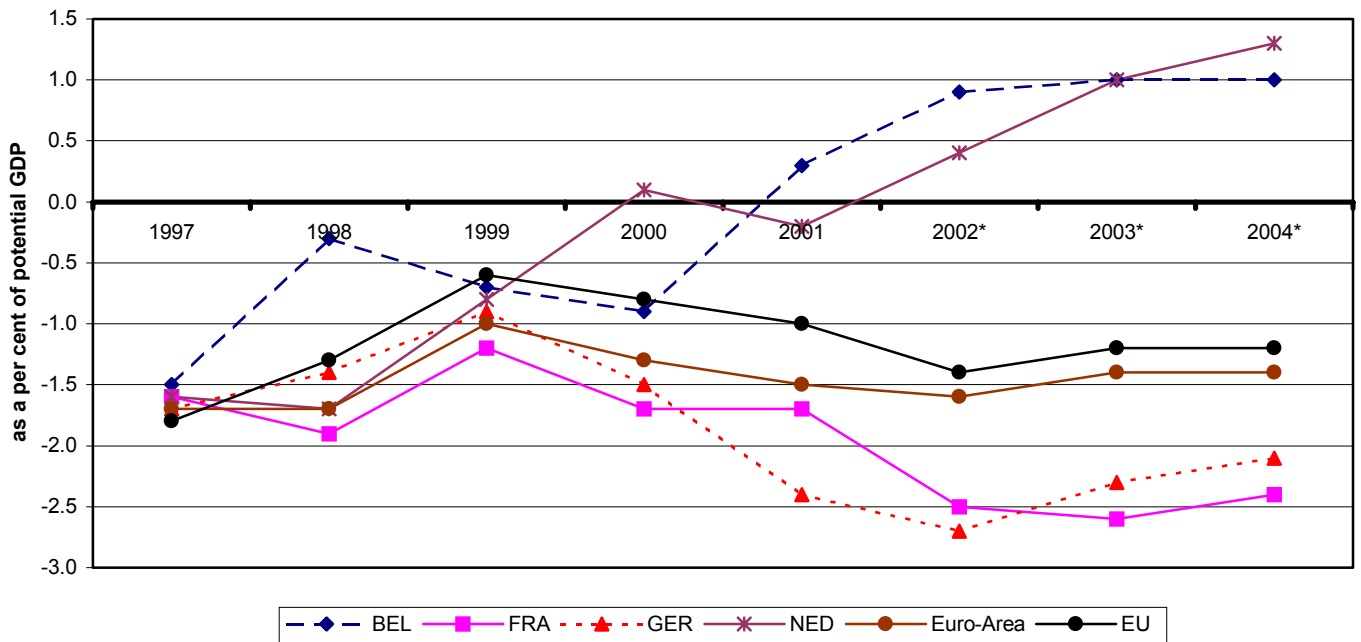
Source: OECD, 2002, Economic Outlook 72.

Figure 2: General government primary balances



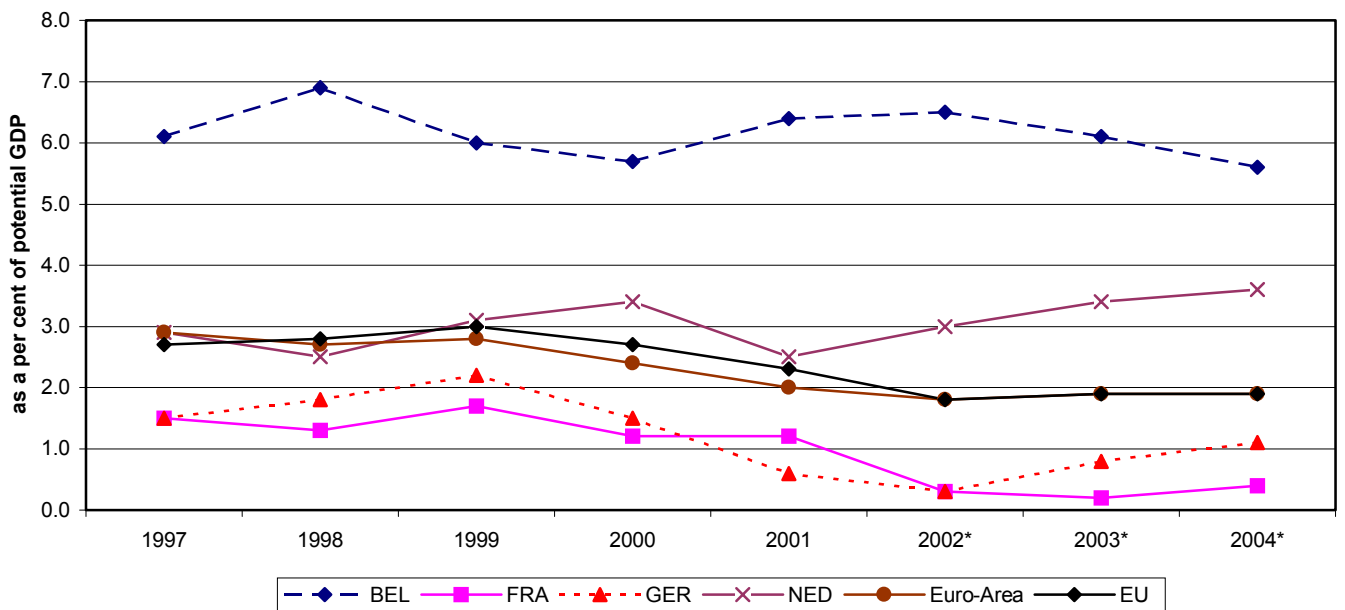
Source: OECD, 2002, Economic Outlook 72.

Figure 3: Cyclically-adjusted general government balances



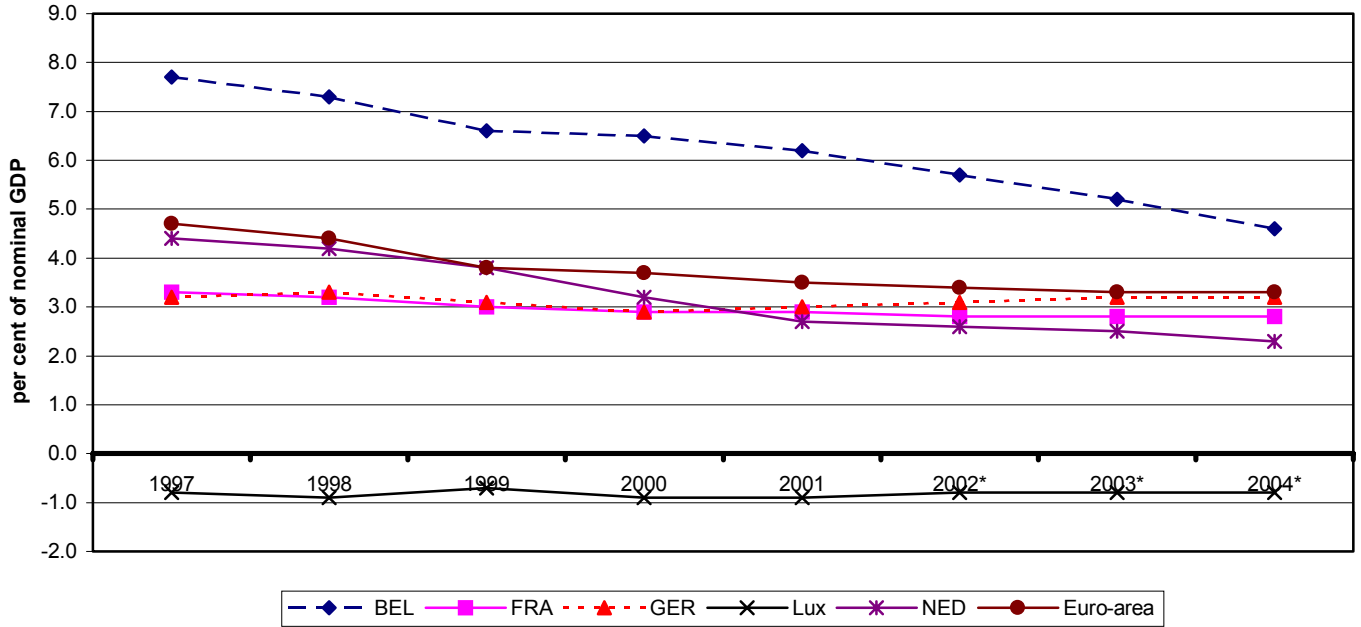
Source: OECD. 2002. Economic Outlook 72.

Figure 4: Cyclically-adjusted general government primary balances



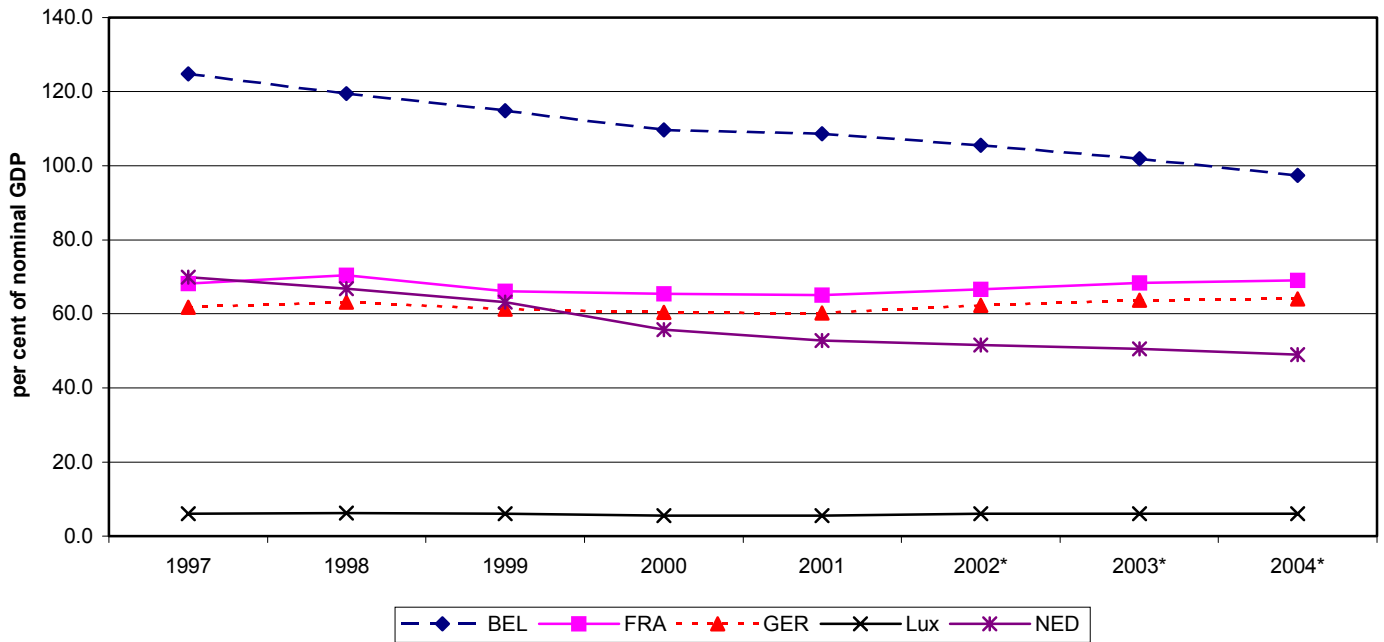
Source: OECD. 2002. Economic Outlook 72.

Figure 5: General government net debt interest payments, per cent of nominal GDP



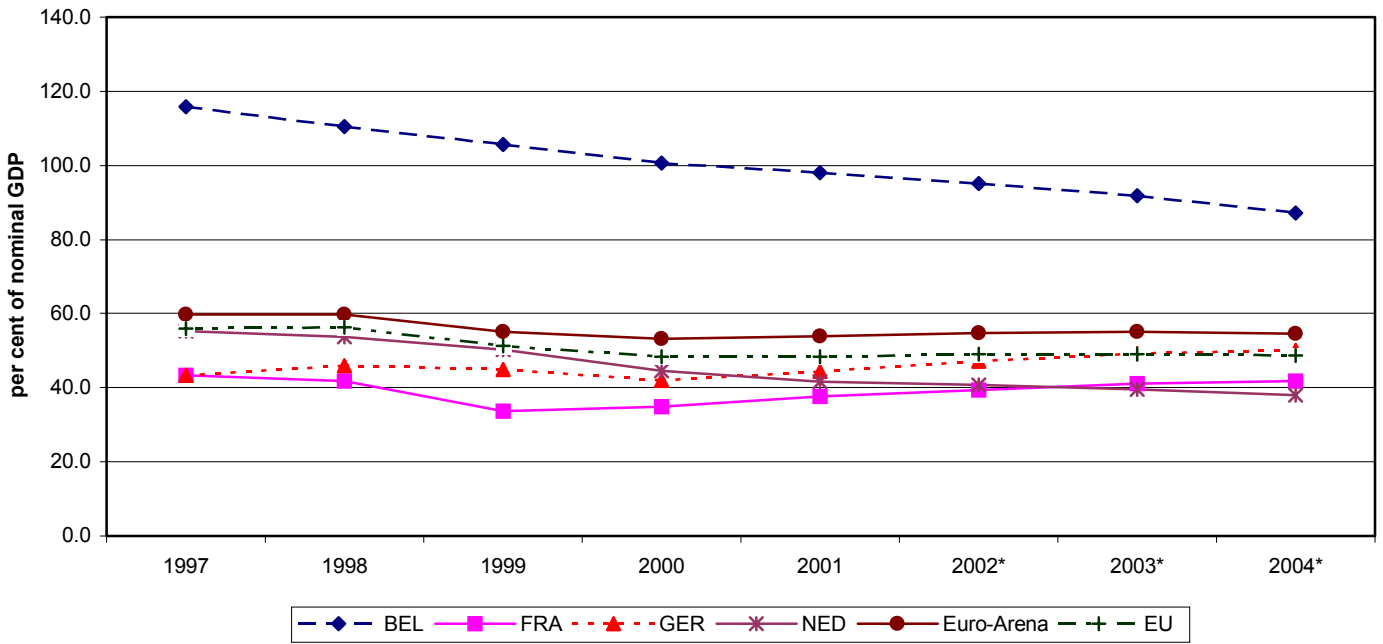
Source: OECD, 2002. Economic Outlook 72.

Figure 6: General government gross financial liabilities



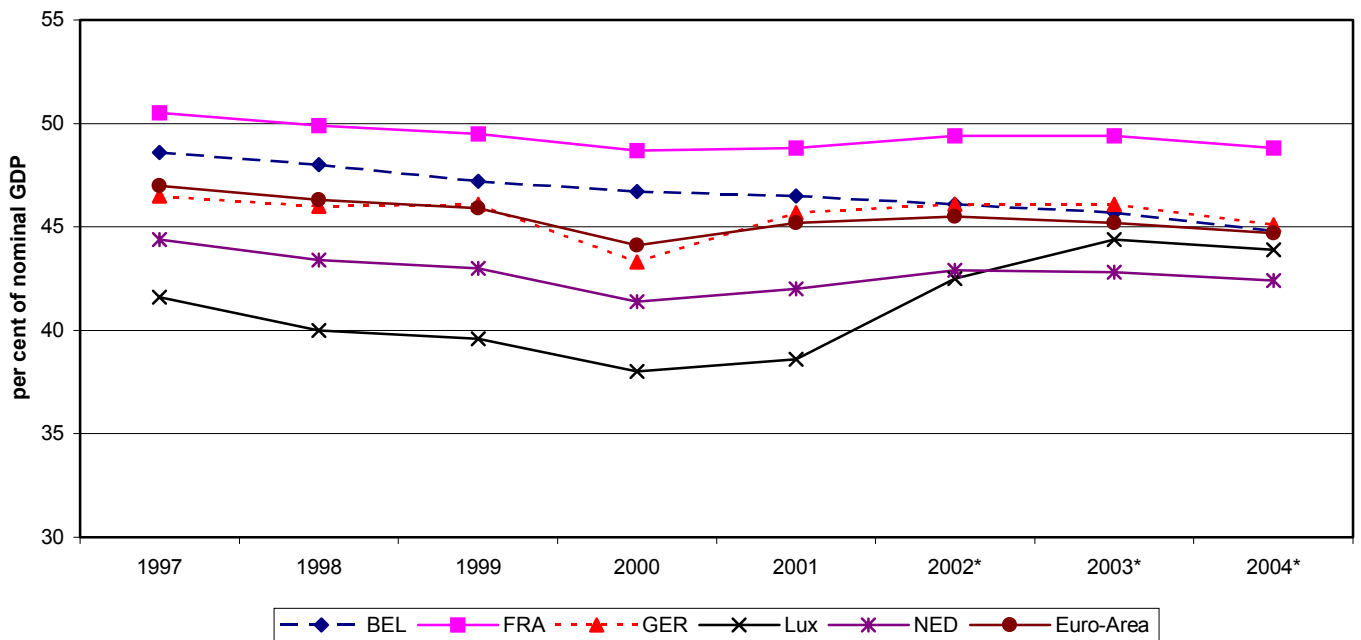
Source: OECD, 2002. Economic Outlook 72.

Figure 7: General government net financial liabilities



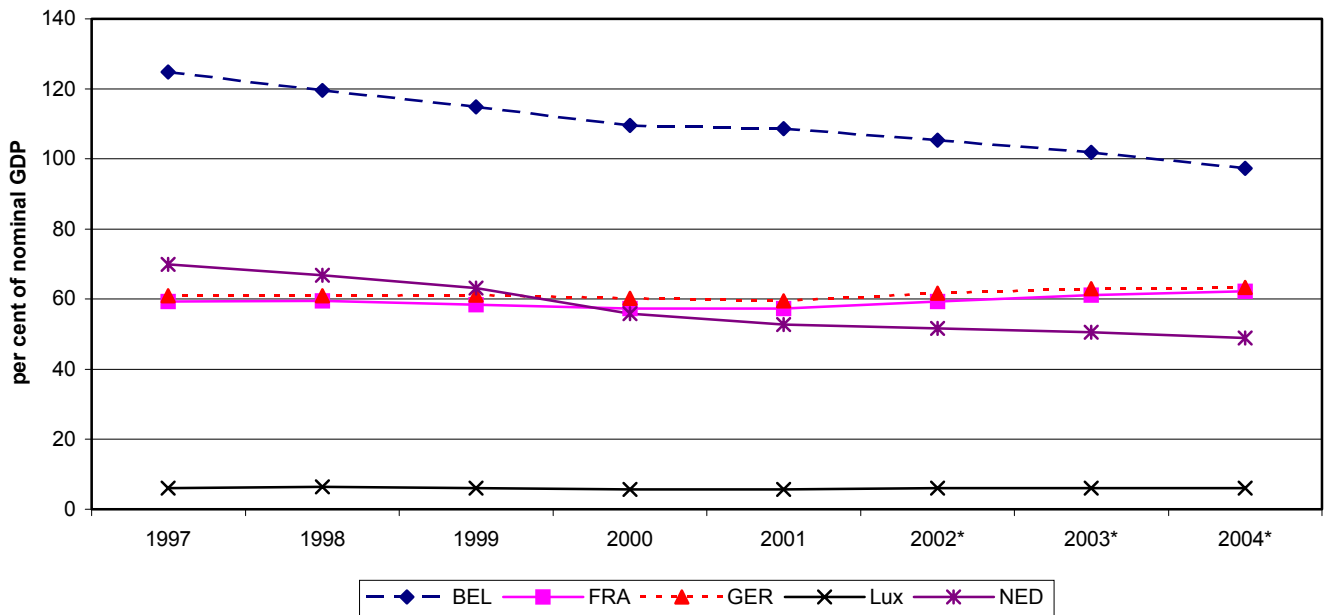
Source: OECD, 2002. Economic Outlook 72.

Figure 8: General government total outlays



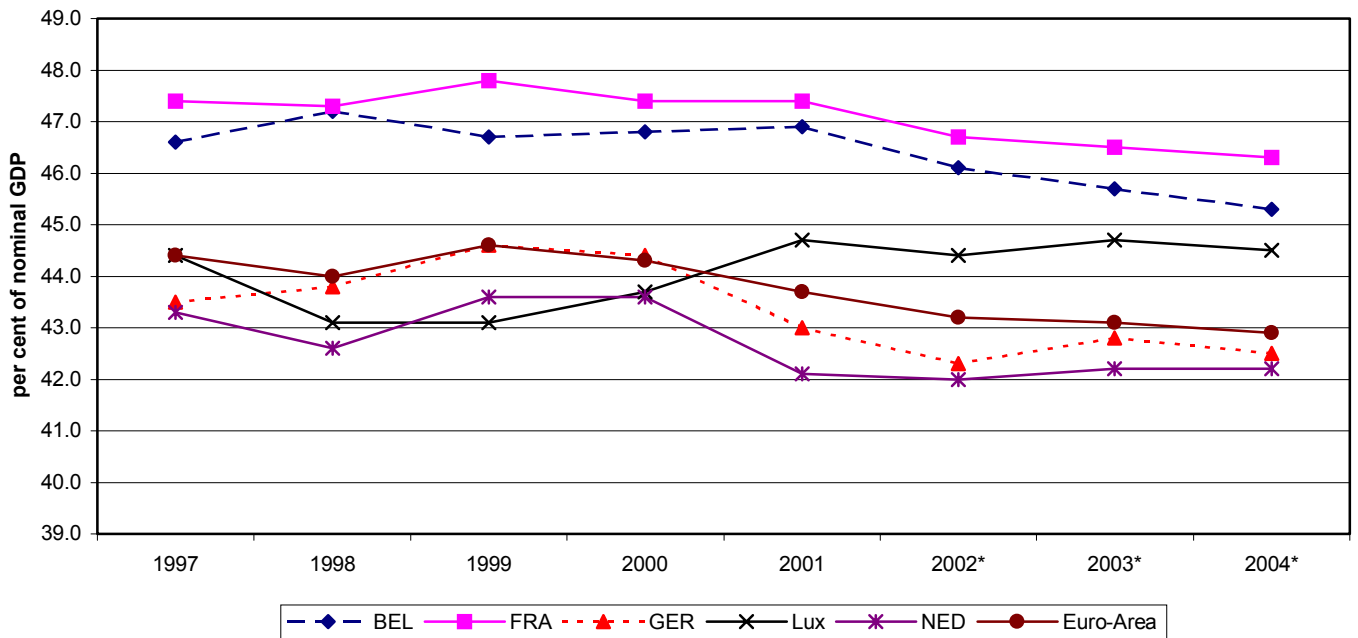
Source: OECD, 2002. Economic Outlook 72.

Figure 9: Maastricht definition of general government gross public debt



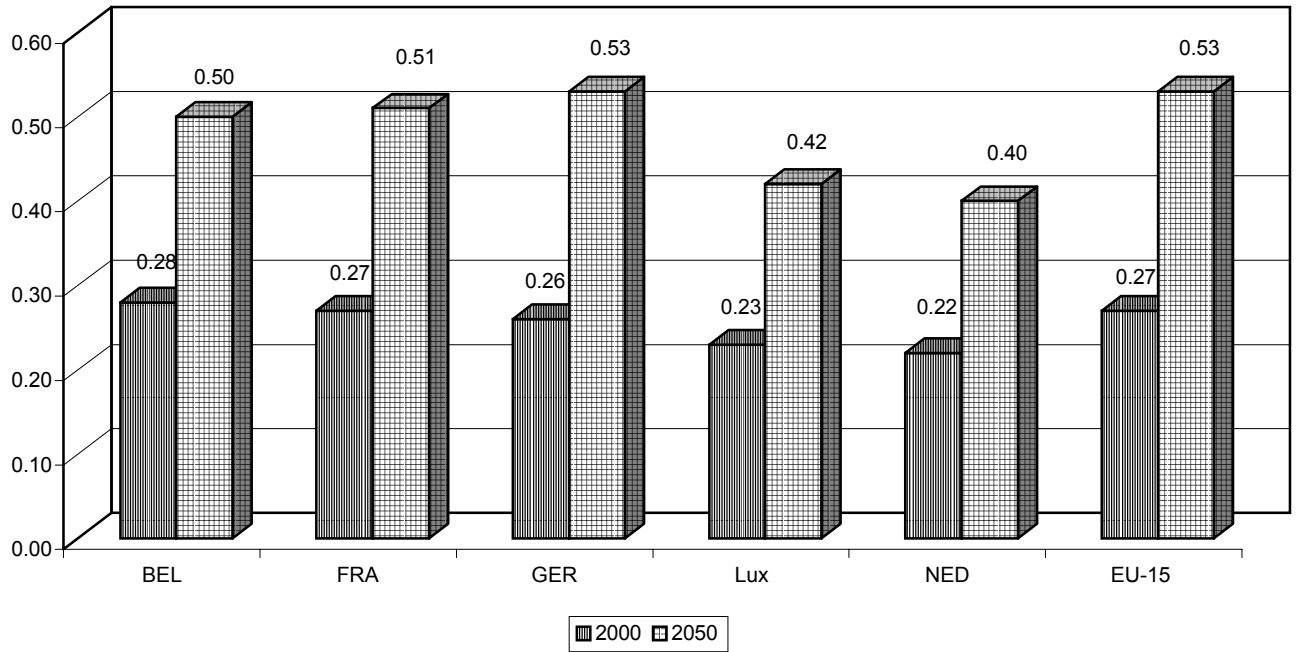
Source: OECD, 2001.

Table 10: General government current tax and non-tax receipts



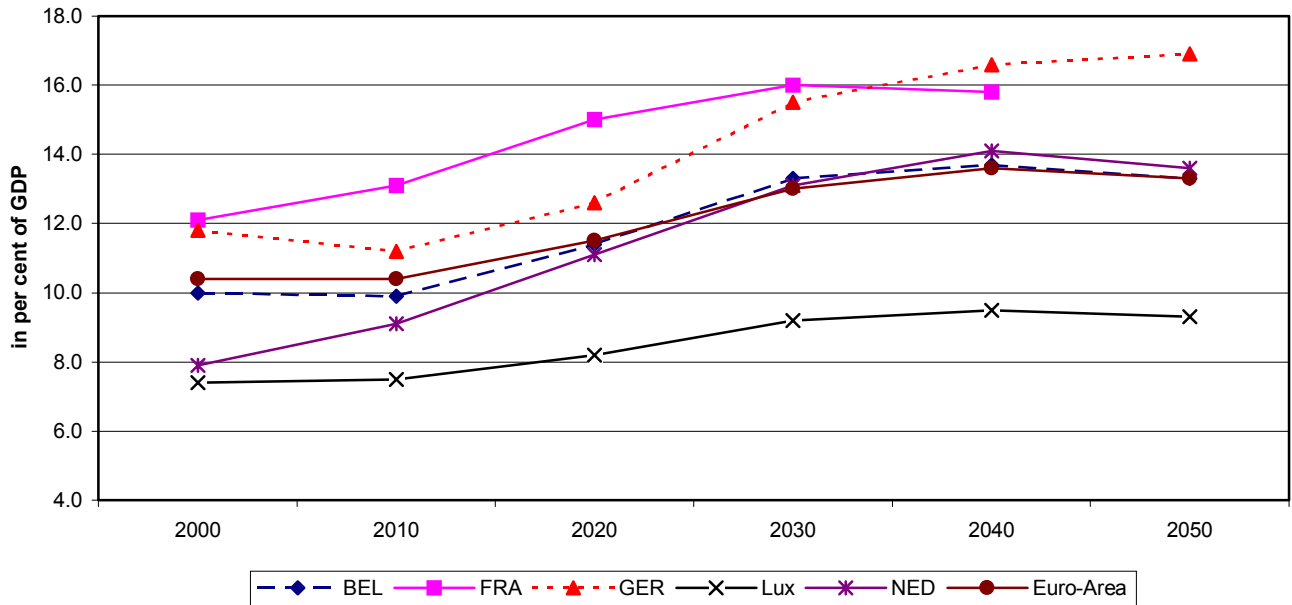
Source: OECD, Economic Outlook 72.

Figure 11: Old-Age Dependency Ratios



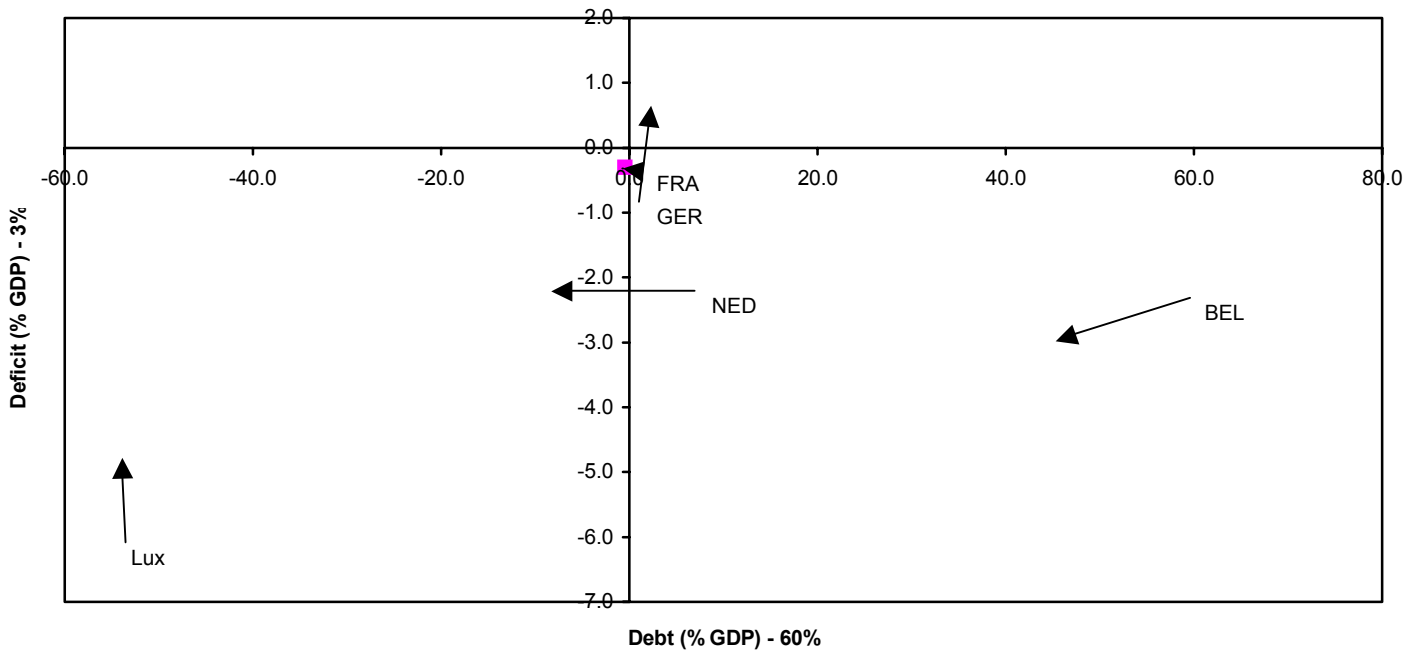
Source: OECD, 2001

Figure 12: Projections on Pension Expenditure, in per cent of GDP



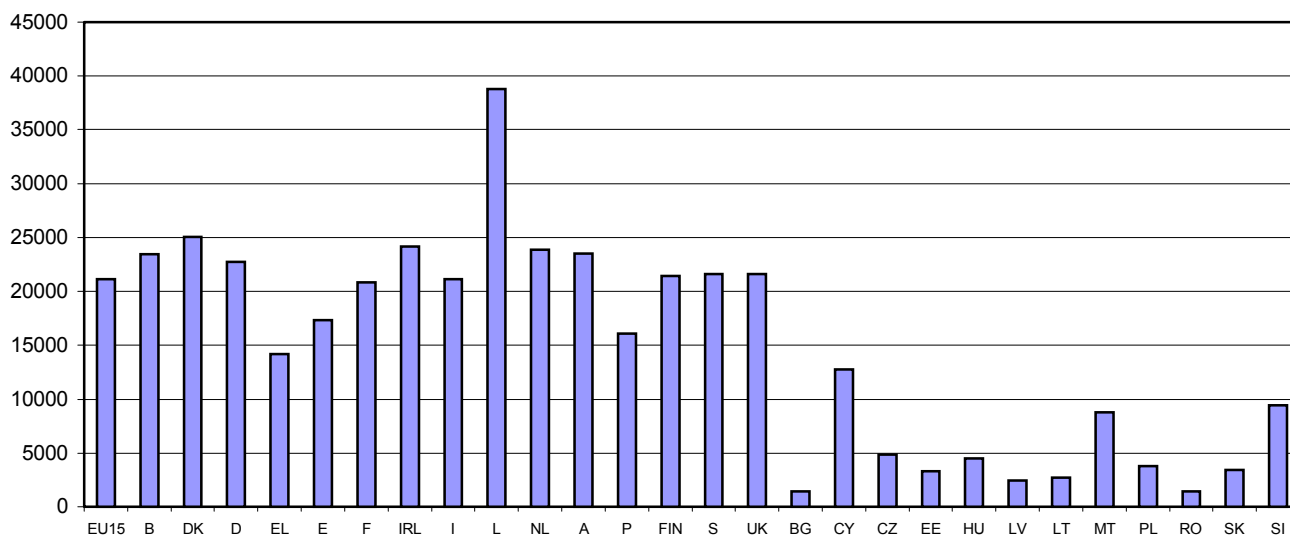
Source: IMF. 2003. Belgium. Selected Issues.

Figure 13: Budgetary room for manoeuvre, 2002-1998



Source: Data: OECD. 2002. Economic Outlook 72. Own calculations.

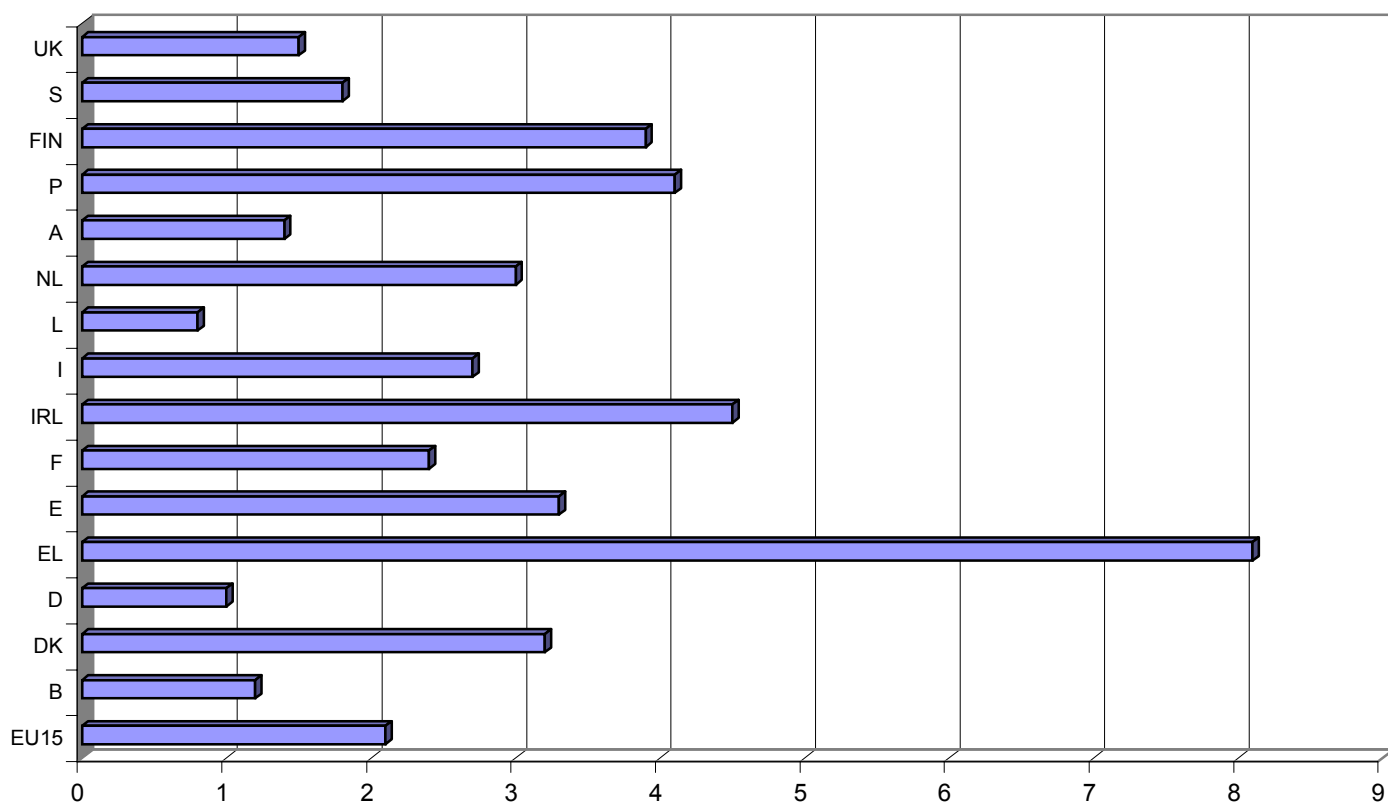
Figure 14: GDP per capita (in Ecu) (1999)



Source: Eurostat (eds.). 2000: Eurostat Jahrbuch. Der statistische Wegweiser durch Europa. Daten aus den Jahren 1998-1999.

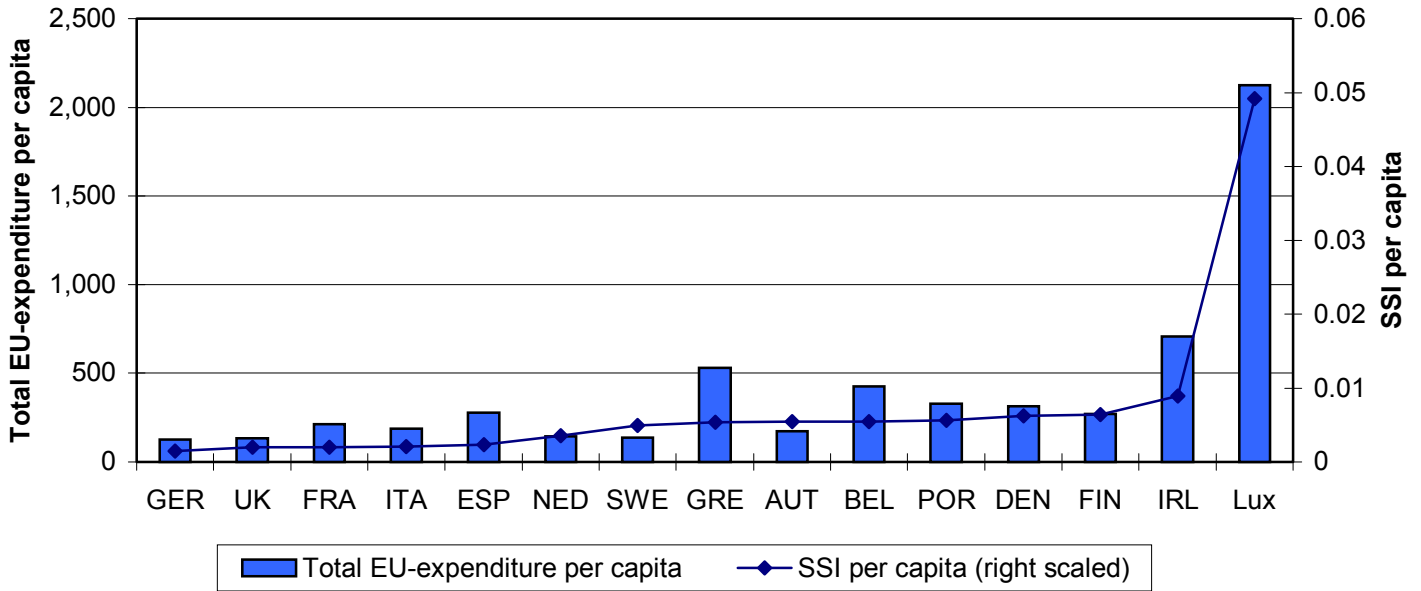


Figure 15: Agricultural Sector Share (in pct. gross value added) (1999)



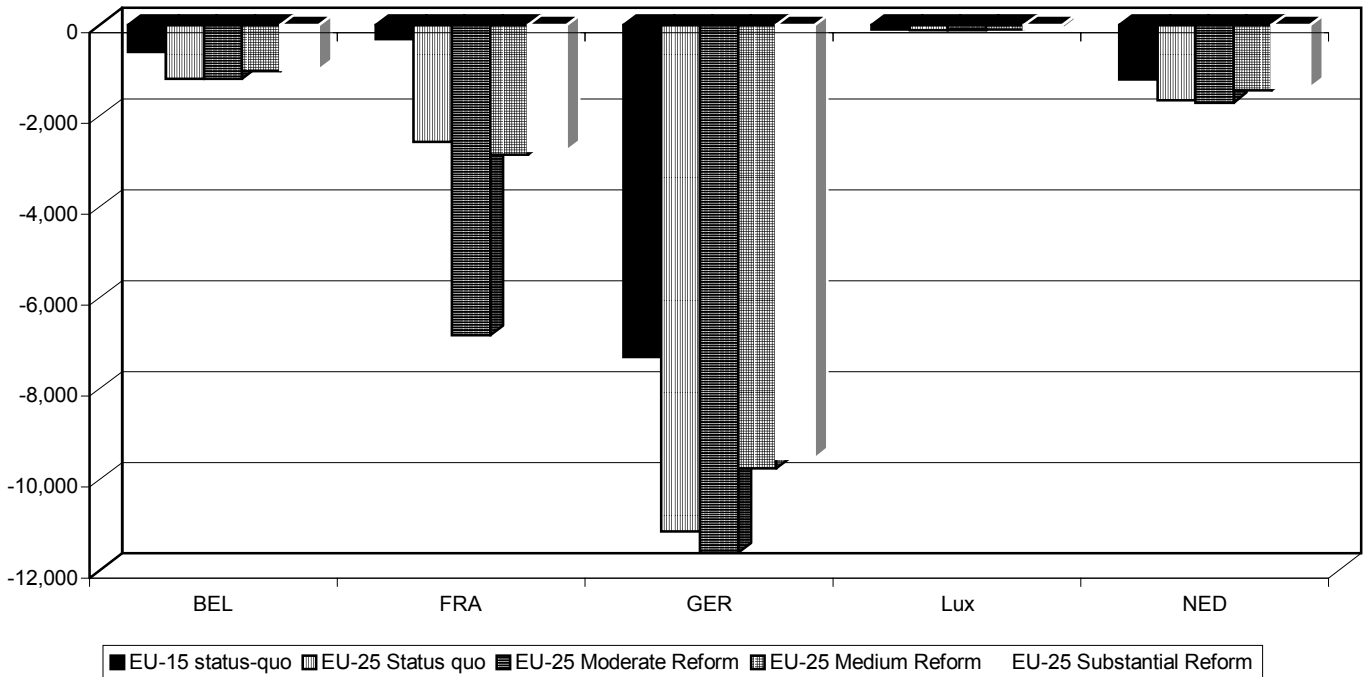
Source: Eurostat (eds.), 2000: Eurostat Jahrbuch. Der statistische Wegweiser durch Europa. Daten aus den Jahren 1998-1999.

**Figure 16: Total EU-expenditure per capita 2000 and SSI**



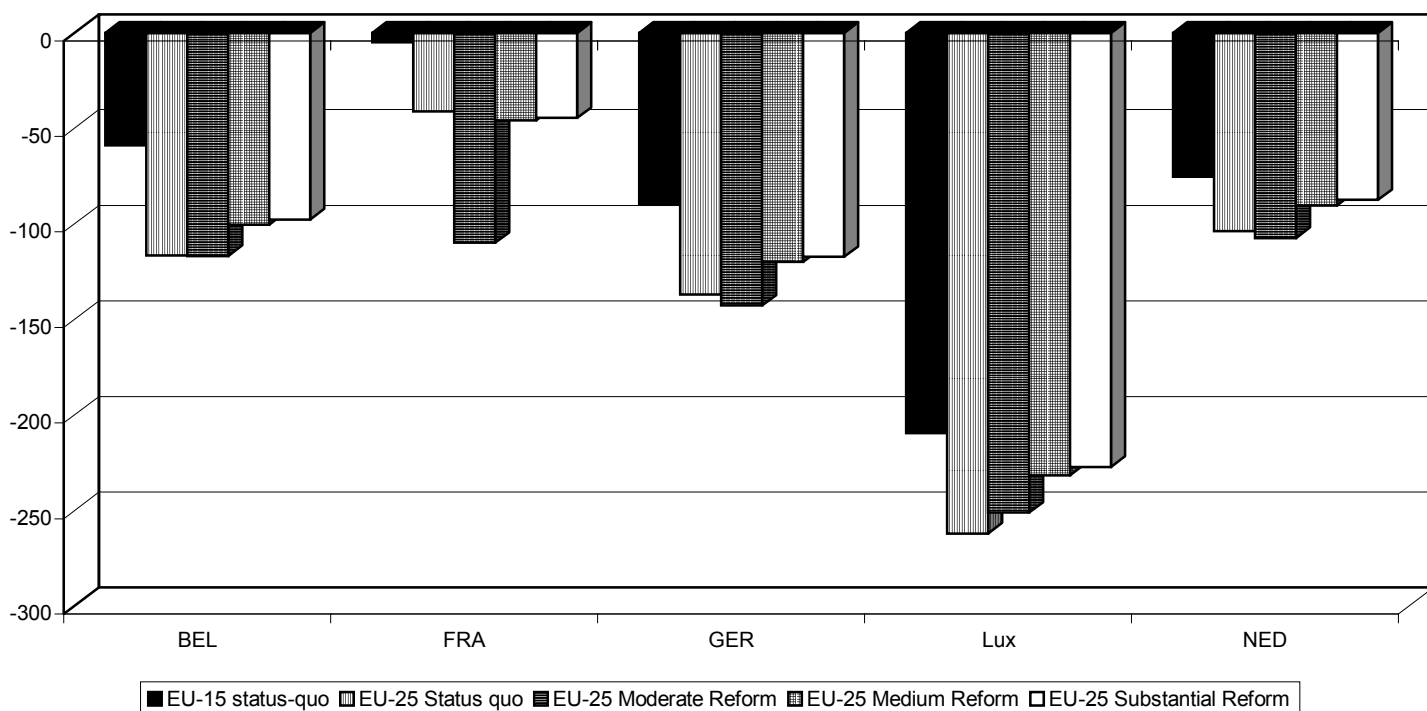
Source: calculations of the SSI are quoted from: Aleskerov. 2002, Data concerning Total EU-expenditures: EC. 2000. Own calculations.

**Figure 17: Net payments, EU-25, in various scenario, 2007, in Euro (millions)**



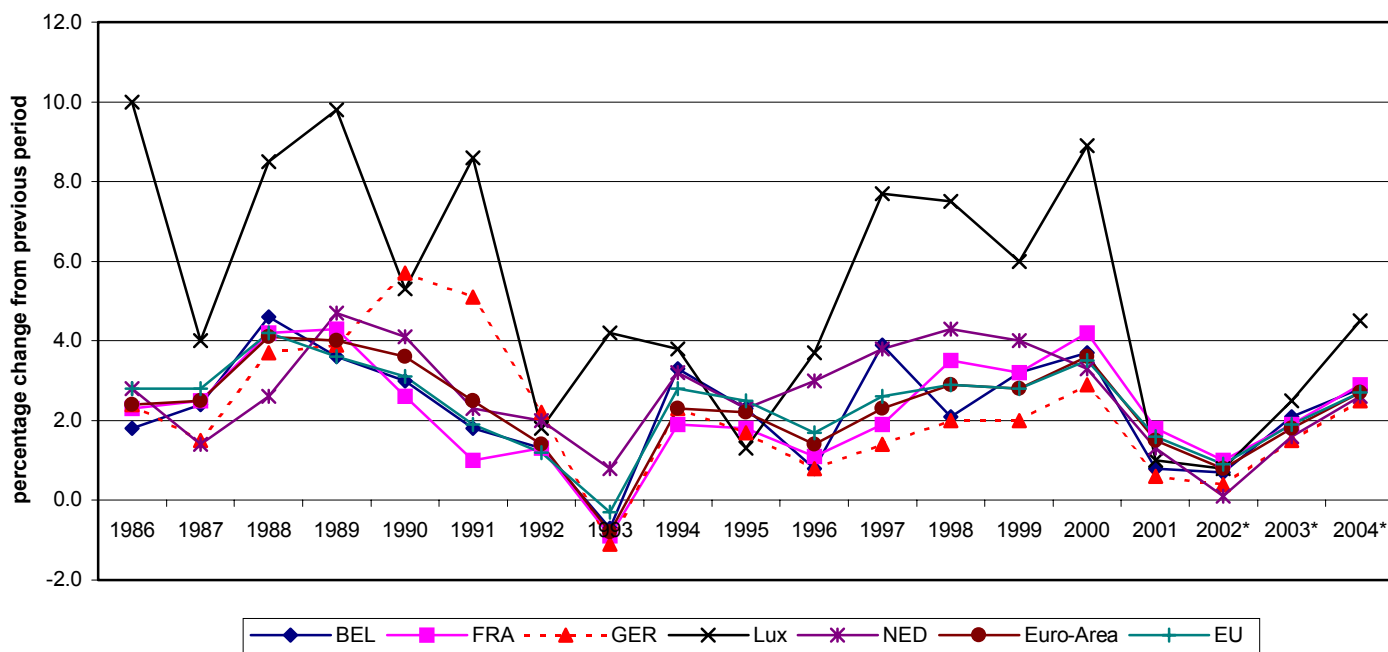
Source: Weise. 2003. Own calculations.

Figure 18: Net payments per capita, EU-25, various scenarios, 2007, in Euro



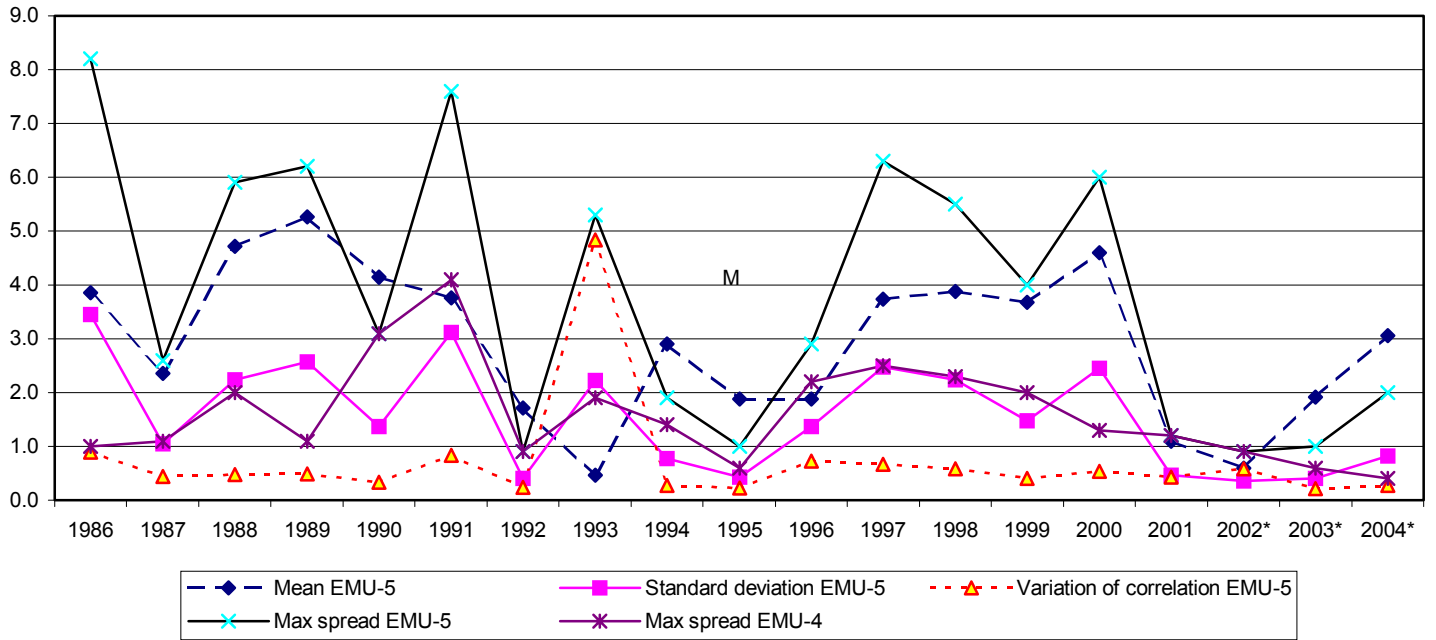
Source: Weise. 2003. Own calculations.

Figure 19: Real GDP EMU-5



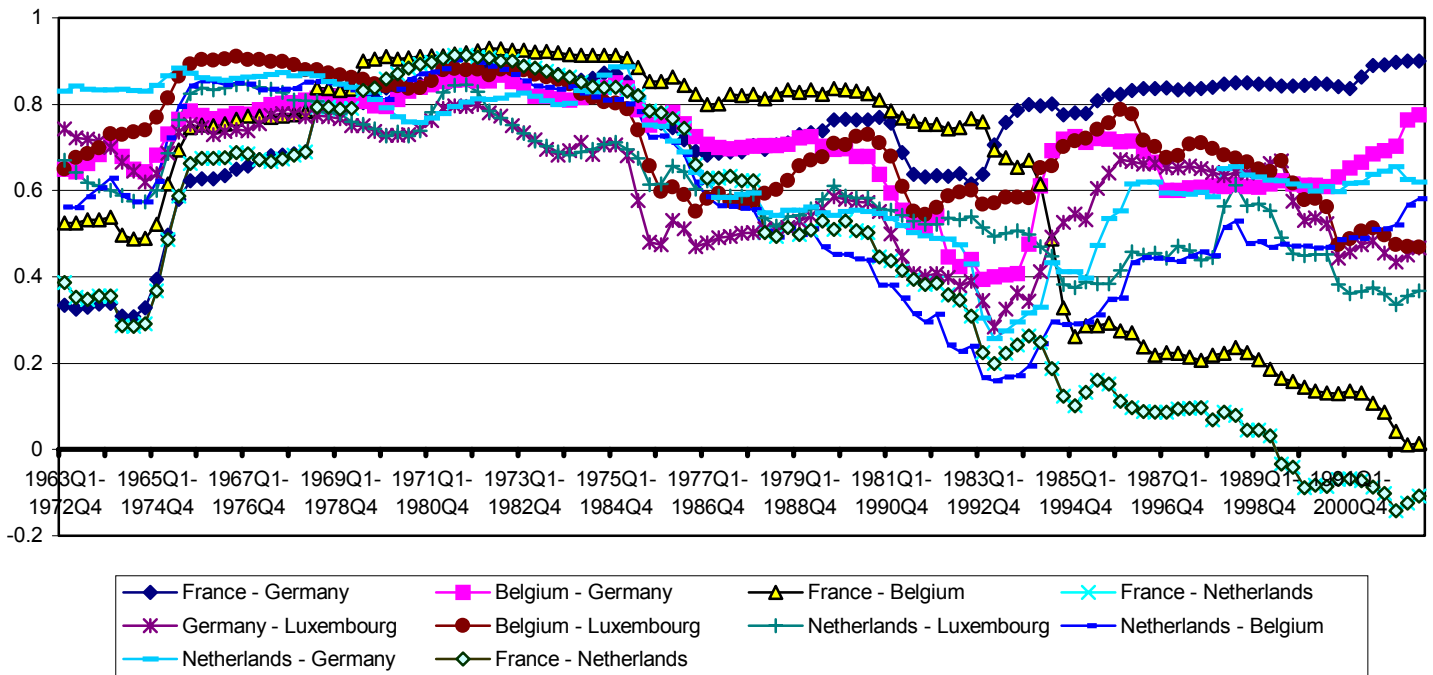
Source: OECD. 2002. Economic Outlook 72.

Figure 20: Statistical measures concerning GDP (EMU-5)



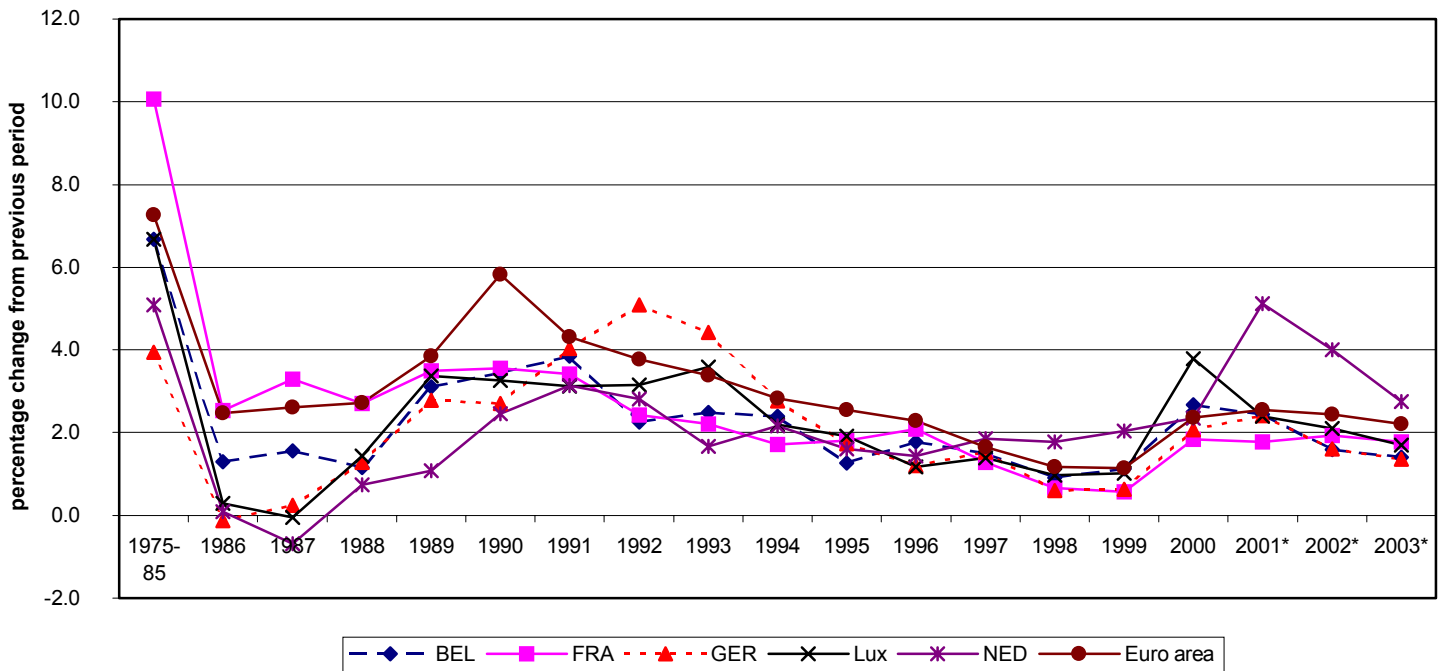
Source: Data: OECD. 2002. Economic Outlook 72. Own calculations.

Figure 21: Time-varying correlations of economic activity - seasonally adjusted



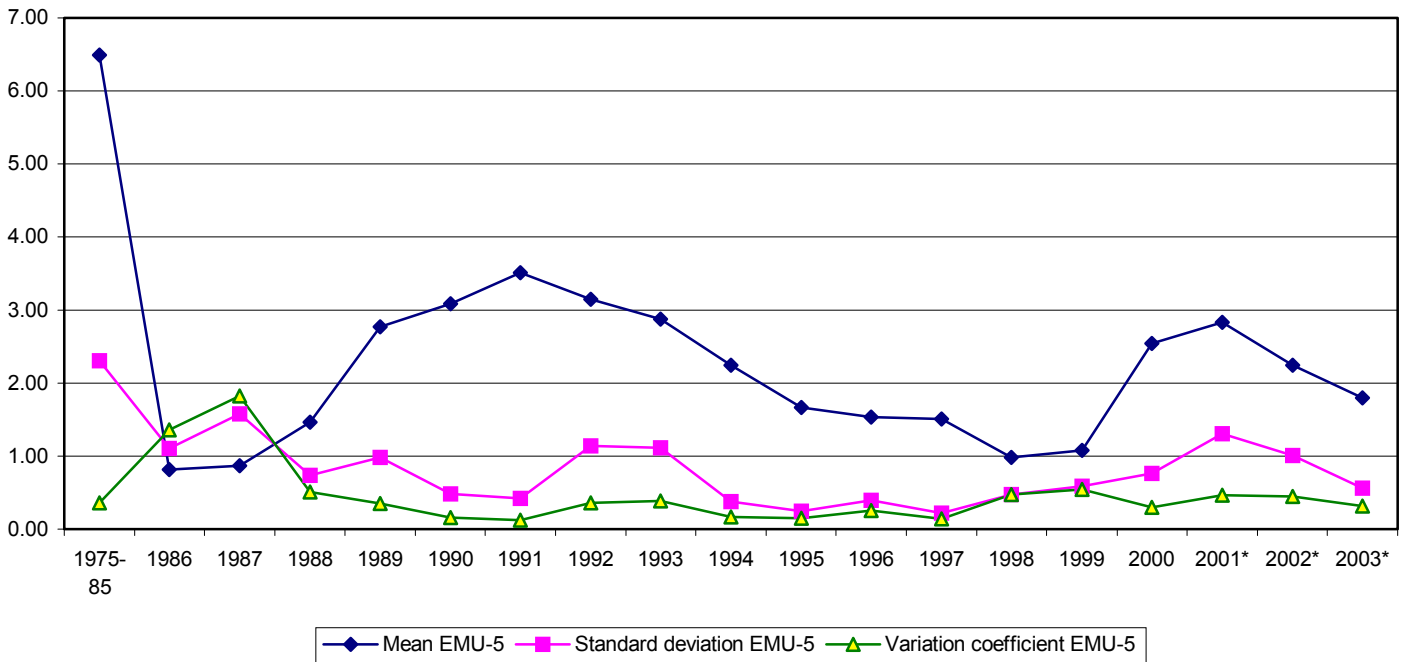
Source: Data: OECD Statistical Compendium. Version 2001. Own calculation.

Figure 22: Consumer prices indices EMU-5



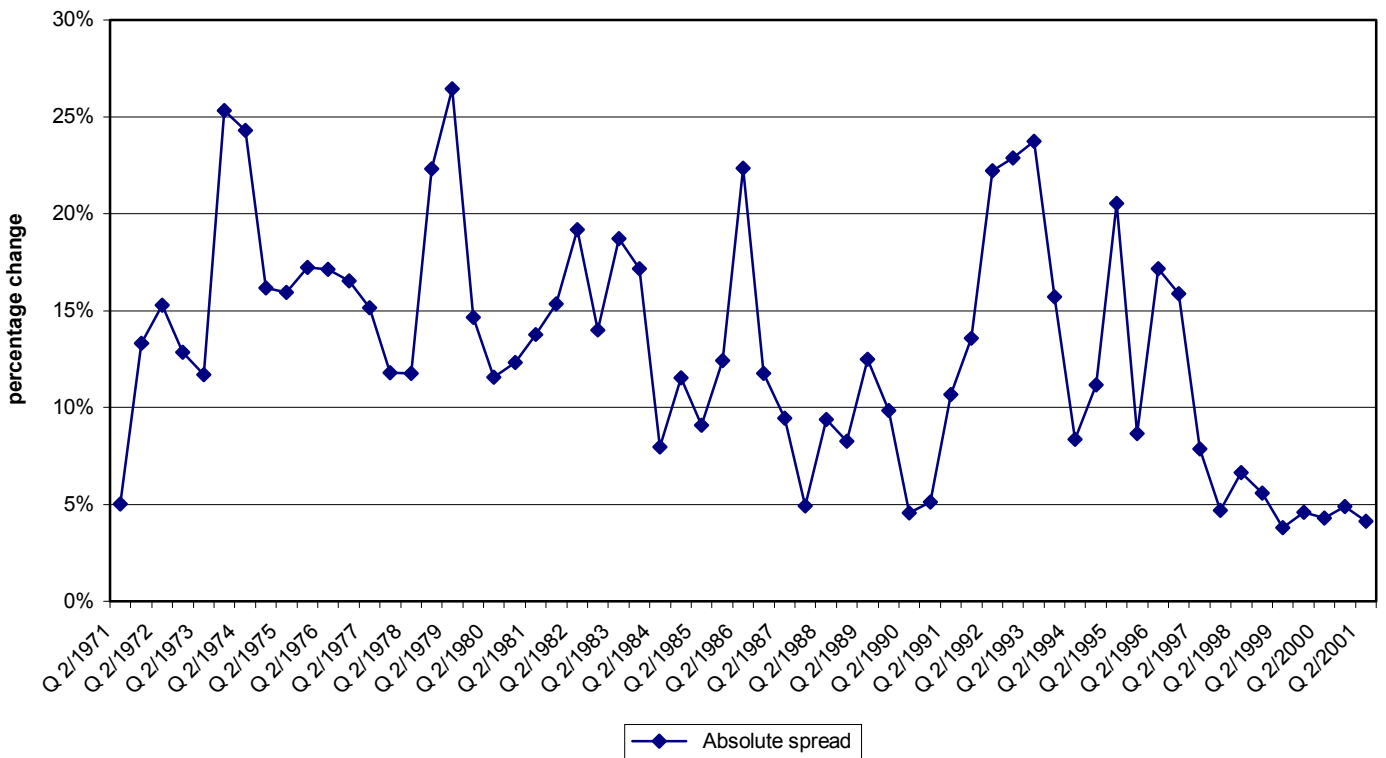
Source: OECD. Statistical Compendium Version 2002.

Figure 23: Statistical measures concerning CPI (EMU-5)



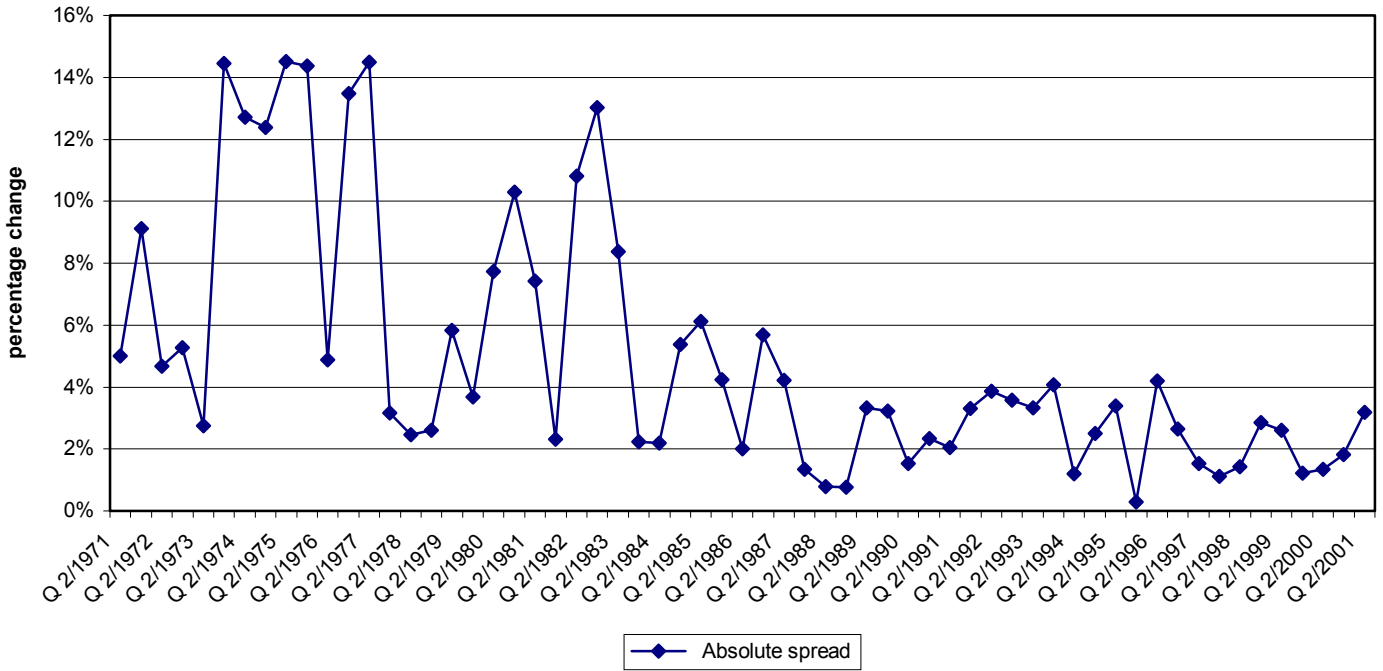
Source: OECD. 2002. Economic Outlook 72. Own calculations.

Figure 24: Inflation rate dispersion (measured by the absolute spread) across EMU-11



Source: OECD. Statistical Compendium. Version 2001.

Figure 25: Inflation rate dispersion (measured by the absolute spread) across EMU-4



Source: OECD. Statistical Compendium. Version 2001.

**TABLES:**

**Table 1: General government financial balances**

Surplus (+) or deficit (-) as a percentage of nominal GDP

	1997	1998	1999	2000	2001	Estimates and projections		
						2002*	2003*	2004*
BEL	-2.0	-0.7	-0.5	0.1	0.4	0.0	0.0	0.5
FRA	-3.0	-2.7	-1.6	-1.3	-1.4	-2.7	-2.9	-2.5
GER	-2.7	-2.2	-1.5	1.1	-2.8	-3.7	-3.3	-2.6
Lux	2.8	3.1	3.6	5.6	6.1	1.8	0.3	0.5
NED	-1.1	-0.8	0.7	2.2	0.1	-0.8	-0.6	-0.3
Euro-Area	-2.6	-2.3	-1.3	0.1	-1.5	-2.2	-2.1	-1.8
EU	-2.5	-1.8	-0.8	0.8	-1.0	-2.0	-1.9	-1.6

Source: OECD. 2002. Economic Outlook 72.

**Table 2: General government primary balances**

Surplus (+) or deficit (-) as a percentage of nominal GDP

	1997	1998	1999	2000	2001	Estimates and projections		
						2002*	2003*	2004*
BEL	5.7	6.5	6.2	6.6	6.6	5.7	5.2	5.1
FRA	0.2	0.5	1.3	1.6	1.4	0.1	-0.1	0.3
GER	0.5	1.1	1.6	4.1	0.2	-0.6	-0.1	0.7
Lux	2.0	2.1	2.8	4.7	5.2	1.1	-0.5	-0.3
NED	3.3	3.4	4.5	5.4	2.8	1.8	1.9	2.1
Euro-Area	2.0	2.1	2.5	3.8	2.0	1.2	1.2	1.5
EU	2.0	2.4	2.8	4.2	2.3	1.2	1.2	1.5

Source: OECD. 2002. Economic Outlook 72.

**Table 3: Cyclically-adjusted general government balances**

Surplus (+) or deficit (-) as a percentage of potential GDP

	1997	1998	1999	2000	2001	Estimates and projections		
						2002*	2003*	2004*
BEL	-1.5	-0.3	-0.7	-0.9	0.3	0.9	1.0	1.0
FRA	-1.6	-1.9	-1.2	-1.7	-1.7	-2.5	-2.6	-2.4
GER	-1.7	-1.4	-0.9	-1.5	-2.4	-2.7	-2.3	-2.1
NED	-1.6	-1.7	-0.8	0.1	-0.2	0.4	1.0	1.3
Euro-Area	-1.7	-1.7	-1.0	-1.3	-1.5	-1.6	-1.4	-1.4
EU	-1.8	-1.3	-0.6	-0.8	-1.0	-1.4	-1.2	-1.2

Source: OECD. 2002. Economic Outlook 72.

**Table 4: Cyclically-adjusted general government primary balances**

Surplus (+) or deficit (-) as a percentage of potential GDP

	1997	1998	1999	2000	2001	Estimates and projections		
						2002*	2003*	2004*
BEL	6.1	6.9	6.0	5.7	6.4	6.5	6.1	5.6
FRA	1.5	1.3	1.7	1.2	1.2	0.3	0.2	0.4
GER	1.5	1.8	2.2	1.5	0.6	0.3	0.8	1.1
NED	2.9	2.5	3.1	3.4	2.5	3.0	3.4	3.6
Euro-Area	2.9	2.7	2.8	2.4	2.0	1.8	1.9	1.9
EU	2.7	2.8	3.0	2.7	2.3	1.8	1.9	1.9

Source: OECD. 2002. Economic Outlook 72.



**Table 5: General government net debt interest payments**

Percent of nominal GDP

	1997	1998	1999	2000	2001	Estimates and projections		
						2002*	2003*	2004*
BEL	7.7	7.3	6.6	6.5	6.2	5.7	5.2	4.6
FRA	3.3	3.2	3.0	2.9	2.9	2.8	2.8	2.8
GER	3.2	3.3	3.1	2.9	3.0	3.1	3.2	3.2
Lux	-0.8	-0.9	-0.7	-0.9	-0.9	-0.8	-0.8	-0.8
NED	4.4	4.2	3.8	3.2	2.7	2.6	2.5	2.3
Euro-area	4.7	4.4	3.8	3.7	3.5	3.4	3.3	3.3
EU	4.5	4.2	3.6	3.4	3.3	3.2	3.1	3.1

Source: OECD Economic Outlook 72, 2002.

**Table 6: General government gross financial liabilities**

Percent of nominal GDP

	1997	1998	1999	2000	2001	Estimates and projections		
						2002*	2003*	2004*
BEL	124.8	119.5	114.8	109.6	108.6	105.4	101.9	97.3
FRA	68.2	70.4	66.2	65.4	65.0	66.7	68.4	69.1
GER	61.8	63.2	61.2	60.5	60.2	62.4	63.7	64.1
Lux	6.1	6.3	6.0	5.6	5.6	6.0	6.0	6.0
NED	69.9	66.8	63.1	55.8	52.8	51.7	50.6	49.0

Source: OECD, 2002. Economic Outlook 72.

**Table 7: General government net financial liabilities**

Percent of nominal GDP

	1997	1998	1999	2000	2001	Estimates and projections		
						2002*	2003*	2004*
BEL	115.9	110.4	105.6	100.7	98.1	95.2	91.8	87.2
FRA	43.3	41.7	33.6	34.9	37.7	39.4	41.0	41.7
GER	43.4	46.0	44.8	41.9	44.3	47.2	49.2	50.1
NED	55.3	53.7	50.2	44.5	41.6	40.8	39.6	37.9
Euro-Area	59.7	59.8	55.1	53.2	53.9	54.7	55.0	54.5
EU	55.9	56.2	51.3	48.4	48.4	49.0	49.1	48.6

Source: OECD, 2002. Economic Outlook 72.

**Table 8: General government total outlays**

Percent of nominal GDP

	1997	1998	1999	2000	2001	Estimates and projections		
						2002*	2003*	2004*
BEL	48.6	48.0	47.2	46.7	46.5	46.1	45.7	44.8
FRA	50.5	49.9	49.5	48.7	48.8	49.4	49.4	48.8
GER	46.5	46.0	46.1	43.3	45.7	46.1	46.1	45.1
Lux	41.6	40.0	39.6	38.0	38.6	42.5	44.4	43.9
NED	44.4	43.4	43.0	41.4	42.0	42.9	42.8	42.4
Euro-Area	47.0	46.3	45.9	44.1	45.2	45.5	45.2	44.7
EU	46.0	45.2	44.7	43.0	44.5	44.8	44.6	44.3

Source: OECD, 2002. Economic Outlook 72.

**Table 9: Maastricht definition of general government net gross public debt**

Percent of nominal GDP

	1997	1998	1999	2000	2001	Estimates and projections		
						2002*	2003*	2004*
BEL	124.8	119.5	114.8	109.6	108.6	105.4	101.9	97.3
FRA	59.3	59.5	58.5	57.3	57.3	59.3	61.2	62.2
GER	61.0	60.9	61.2	60.2	59.5	61.7	63.0	63.4
Lux	6.1	6.3	6.0	5.6	5.6	6.0	6.0	6.0
NED	69.9	66.8	63.1	55.8	52.8	51.7	50.6	49.0

Source: OECD, 2002. Economic Outlook 72.

**Table 10: General government net current tax and non-tax receipts**

Percent of nominal GDP

	1997	1998	1999	2000	2001	Estimates and projections		
						2002*	2003*	2004*
BEL	46.6	47.2	46.7	46.8	46.9	46.1	45.7	45.3
FRA	47.4	47.3	47.8	47.4	47.4	46.7	46.5	46.3
GER	43.5	43.8	44.6	44.4	43.0	42.3	42.8	42.5
Lux	44.4	43.1	43.1	43.7	44.7	44.4	44.7	44.5
NED	43.3	42.6	43.6	43.6	42.1	42.0	42.2	42.2
Euro-Area	44.4	44.0	44.6	44.3	43.7	43.2	43.1	42.9
EU	43.5	43.5	43.9	43.8	43.5	42.8	42.8	42.7

Source: OECD Economic Outlook 72, 2002.

**Table 11: France - Main Economic Indicators**

	1998	1999	2000	2001	2002	Projections	
						2003	2004
<i>Public sector accounts</i>							
Revenue	51.2	51.8	51.4	51.1	51.2	50.7	50.7
Expenditure	53.8	53.5	52.7	52.6	53.9	53.6	52.9
General Government balance	-2.7	-1.6	-1.3	-1.5	-2.6	-2.8	-2.3
Structural balance	-1.5	-0.9	-1.6	-1.6	-2.0	-2.0	-1.6
Primary balance	0.9	1.7	1.9	1.7	0.5	0.3	0.8
Gross debt	59.5	58.5	57.3	56.9	58.4	59.3	59.2

Source: IMF, 2002d.

**Table 12: Health expenditure per capita (US\$ economy-wide PPP), 1998**

	1998	Annual growth rates 1970-1998
BEL	2,050	n.a.
FRA	2,043	3.8
GER	2,361	3.4
Lux	2,246	5.2
NED	2,150	2.6

Source: OECD. 2001. Health at a Glance.

**Table 13: Expenditure on health as a percentage of GDP, 1998**

	1998	Change 1970-1998
BEL	8.6	n.a.
FRA	9.4	3.7
GER	10.3	4.0
Lux	6.0	2.5
NED	8.7	1.5

Source: OECD. 2001. Health at a Glance.

**Table 14: Life expectancy at birth**

	Females		Males	
	2000	2050	2000	2050
BEL	81.4	85.5	75.3	80.5
FRA	82.8	87.0	74.8	80.0
GER	80.8	85.0	74.7	80.0
Lux	80.5		73.7	
NED	80.9	85.0	75.5	80.0

Source: OECD, quoted from: Dang. 2001.

**Table 15: Life expectancy at age 65, 1998**

	Females		Males	
	1998	% change 1960-1998	1998	% change 1960-1998
BEL	19.8	33.8	15.6	25.8
FRA	20.8	33.3	16.3 <sup>1</sup>	30.4
GER	19	30.1	15.3	23.4
Lux	19.2	n.a.	14.7 <sup>2</sup>	n.a.
NED	18.7	22.9	14.7	5.8

Source: OECD. 2001. Health at a Glance.

<sup>1</sup> Data from 1997

<sup>2</sup> Data from 1995

**Table 16: Infant mortality**  
deaths per 1000 live births, 1999

BEL	5.3
FRA	4.3
GER	4.6
Lux	4.7
NED	5.2

Source: OECD. 2001. Health at a Glance.

**Table 17: Average annual decline in infant mortality rates 1960-1999**

BEL	-4.4
FRA	-4.6
GER	-5.0
Lux	-4.8
NED	-3.1

Source: OECD. 2001. Health at a Glance.

**Table 18: Fertility**  
children per woman

	2000	2050
BEL	1.54	1.80
FRA	1.73	1.80
GER	1.40	1.50
Lux	...	...
NED	1.71	1.80

Source: OECD, quoted from Dang, 2001.

**Table 19: Share of population aged 65+, 1999**

	1999	% growth rate 1960-1999
BEL	16.8	40.0
FRA	15.9	37.1
GER	16.8	55.6
Lux	14.3	32.4
NED	13.6	51.1

Source: OECD, 2001. Health at a Glance.

**Table 20: Old Age Dependency Ratios<sup>1</sup>**

	2000	2050
BEL	0.28	0.50
FRA	0.27	0.51
GER	0.26	0.53
Lux	0.23	0.42
NED	0.22	0.40
EU-15	0.27	0.53

<sup>1</sup> The old-age dependency is defined as the number of people over 65 divided by those 20 to 64 years old.

Source: OECD, 2001.

**Table 21: Projections of Pension Expenditure EMU-5**  
Percent of GDP

	2000	2010	2020	2030	2040	2050	Changes during	
							2020-2030	2020-2050
BEL	10.0	9.9	11.4	13.3	13.7	13.3	3.3	3.3
FRA	12.1	13.1	15.0	16.0	15.8	...	3.9	...
GER	11.8	11.2	12.6	15.5	16.6	16.9	3.7	5.1
Lux	7.4	7.5	8.2	9.2	9.5	9.3	1.8	1.9
NED	7.9	9.1	11.1	13.1	14.1	13.6	5.2	5.7
Euro-Area	10.4	10.4	11.5	13.0	13.6	13.3	2.6	2.9

Source: OECD. Quoted from: IMF, 2003.

**Table 22: Belgium - Projections of Fiscal Costs of Aging, Base case**  
in per cent of GDP

	2000	2010	2020	2030	2040	2050	Change during 2000-2050
<i>Fiscal cost of aging:</i>							
Public Pensions	8.8	8.2	9.5	11.1	11.8	11.8	3.1
Public health care	6.2	6.9	7.5	8.2	8.9	9.3	3.1
Unemployment benefits & other	7.3	6.2	6.1	5.7	5.3	5.2	-2.1
Total	22.3	21.3	23.1	25.0	26.0	26.3	4.1
<i>Implied ratios:</i>							
Old-age dependency ratio	0.41	0.44	0.53	0.63	0.66	0.69	0.28
Eligibility ratio	0.94	0.90	0.93	0.99	1.04	1.03	0.10
Transfer ratio	16.2	15.3	14.9	14.4	13.9	13.5	-2.66
Employment ratio	1.4	1.4	1.3	1.2	1.2	1.2	-0.16

Source: Belgian Federal Planning Bureau; and Fund staff projections, quoted from: IMF. 2003.

**Table 23: Germany - Evolution of Age-Related Government spending**

	2001	2015	2030	2050	2001-50
Public pensions	9.7	10	13.5	14.8	5.1
Public sector employees' pensions	1.4	1.7	2.3	2.4	1.0
Public health care	7.3	7.8	8.2	8.6	1.3
Long-term care for the elderly	0.9	1.1	1.2	1.5	0.7
Child-related expenditure	4.4	3.9	3.5	3.0	-1.4
Total	23.7	24.5	28.7	30.4	6.7

Sources: German authorities; IMF staff projections. Quoted from: IMF. 2002c.

**Table 24: Germany: General Government Operations, 2001-50**  
Entitlement Reform Scenario

	2001	2005	2015	2030	2050
<i>Revenue</i>	45.5	44.2	43.8	45	45.1
<i>Expenditure</i>					
Age-related	23.7	23.1	23.1	25.7	26.7
Unemployment support <sup>1</sup>	1.4	0.9	0.8	0.8	0.8
Interest	3.2	3.2	2.4	1.8	2.0
Other	20.0	18.5	17.2	17.2	17.2
Total	48.3	45.8	43.5	45.5	46.6
Balance	-2.8	-1.6	0.3	-0.5	-1.5
Public debt	59.5	59.9	44.0	34.0	36.7

<sup>1</sup> Unemployment benefits and assistance as well as other payments to the unemployed, excluding social security contributions on their behalf.

Sources: German authorities; IMF staff projections. Quoted from: IMF. 2002c.

**Table 25: Private Pension Fund Assets**

	Assets as percentage of GDP	Year
BEL	4.8	1998
FRA	5.6	1996
GER	5.8	1996
Lux	19.7	1996
NED	87.3	1996
NED	121.0	2001

Only the Netherlands have mandatory private pension schemes.

Source: OECD and CPB. Quoted from IMF. 2002b.

**Table 26: The Netherlands - Budget Projections Under Alternative Scenarios<sup>1</sup>**  
as a per cent of GDP

	2001	2010	2020	2040	2060	2080
<b>Base case scenario</b>						
<i>Revenues</i>						
Income tax + social security contributions	20.7	21.7	22.5	24.2	24.1	23.8
<i>of which: from pension income</i>	1.8	2.1	2.9	4.9	4.9	4.9
Corporate tax	3.6	3.2	3.2	3.2	3.2	3.2
Indirect taxes & other	19.2	19.5	20.0	21.2	21.2	21.2
<i>of which: from pension income</i>	1.5	1.7	2.3	3.5	3.5	3.5
Revenue from asset (e.g. Gas)	2.3	2.1	2.0	1.6	1.3	1.4
Total	45.8	46.5	47.7	50.2	49.8	49.6
<i>Expenditure</i>						
Social security	10.9	12.4	13.9	15.9	15.3	15.4
Public pensions	4.7	5.4	6.8	9.0	8.3	8.5
Disability benefits	2.7	3.3	3.6	3.4	3.5	3.5
Unemployment benefits	1.5	1.7	1.6	1.6	1.6	1.6
Other	2.0	2.0	1.9	1.9	1.9	1.9
Healthcare	7.0	7.7	8.6	10.6	10.3	10.2
Education	4.4	4.6	4.4	4.6	4.5	4.6
Other primary expenditure	19.1	19.5	19.5	19.5	19.5	19.5
Interest payments	3.5	2.1	1.7	2.9	5.5	8.8
Total	44.9	46.3	48.1	53.5	55.1	58.6
Budget balance (EMU definition)	0.9	0.2	-0.4	-3.3	-5.3	-9.0
Primary balance	4.4	2.3	1.3	-0.4	0.2	-0.2
Government debt (EMU definition)	54	36	28	51	98	157
Net government wealth	27	42	45	18	-31	-90
<b>Adjustment scenario</b>						
<i>Revenues</i>						
Income tax + social security contributions	20.7	21.7	22.5	24.2	24.1	23.8
<i>of which: from pension income</i>	1.8	2.1	2.9	4.9	4.9	4.9
Corporate tax	3.6	3.2	3.2	3.2	3.2	3.2
Indirect tax & other	19.9	20.2	20.7	21.9	21.9	21.9
<i>of which: from pension income</i>	1.5	1.7	2.3	3.5	3.5	3.5
Revenue from asset (e.g. Gas)	2.3	2.1	2.0	1.6	1.3	1.4
Total	46.5	47.2	48.4	50.9	50.5	50.3
<i>Expenditure</i>						
Social security	10.9	12.4	13.9	15.9	15.3	15.5
Public pensions	4.7	5.4	6.8	9.0	8.3	8.5
Disability benefits	2.7	3.3	3.6	3.4	3.5	3.5
Unemployment benefits	1.5	1.7	1.6	1.6	1.6	1.6
Other	2.0	2.0	1.9	1.9	1.9	1.9
Health care	7.0	7.7	8.6	10.6	10.3	10.2
Education	4.4	4.6	4.4	4.6	4.5	4.6
Other primary expenditure	19.1	19.5	19.5	19.5	19.5	19.5
Interest payments	3.5	1.7	0.8	0.4	0.8	0.6
Total	44.9	45.9	47.2	51.0	50.4	50.4
Budget balance (EMU definition)	1.6	1.3	1.2	-0.1	0.1	-0.1
Primary balance	5.1	3.0	2.0	0.3	0.9	0.5
Government debt (EMU definition)	54	28	12	8	13	10

<sup>1</sup> Same macroeconomic assumptions applied to both scenarios.

Sources: CPB and the IMF staff estimates, quoted from IMF. 2002b: 13.

**Table 27: Elections in Euro area countries 1999-2002**

	1999	2000	2001	2002
Belgium	General elections	-	-	-
France	-	-	Pre-election year	General election
Germany	-	-	Pre-election year	General election
Netherlands	-	Pre-election year	General elections	-

Source: Quoted from Buti and van den Noord. 2003.

**Table 28: Total EU-expenditures (per capita) by member states and SSI**

	Operat. expenditures		Administration		Total EU-expenditures		Popul. (in Mill.)	Total EU-Expenditures per capita		Shabley-Shubik Index <sup>1</sup>	SSI per capita
	1995-99	2000	1995-99	2000	1995-99	2000		1995-99	2000		
AUT	1,134	1,385	12	14	1,145	1,399	8.078	141.74	173.19	0.044	0.0054
BEL	1,953	1,958	2,192	2,400	4,146	4,358	10.203	406.35	427.13	0.056	0.0055
DEN	1,546	1,615	34	40	1,580	1,655	5.301	298.06	312.21	0.033	0.0062
ESP	11,629	10,901	27	27	11,656	10,928	39.371	296.06	277.56	0.093	0.0024
FIN	806	1,380	14	16	820	1,396	5.153	159.13	270.91	0.033	0.0064
FRA	11,846	12,188	193	266	12,039	12,454	58.848	204.58	211.63	0.119	0.0020
GER	9,673	10,233	130	143	9,803	10,376	82.024	119.51	126.50	0.119	0.0015
GRE	5,233	5,571	14	19	5,247	5,590	10.516	498.95	531.57	0.056	0.0053
IRL	3,000	2,600	15	25	3,015	2,625	3.705	813.77	708.50	0.033	0.0089
ITA	7,862	10,771	92	109	7,954	10,880	57.583	138.13	188.94	0.119	0.0021
Lux	114	106	776	802	890	908	0.427	2084.31	2126.46	0.021	0.0492
NED	2,154	2,227	42	50	2,196	2,277	15.700	139.87	145.03	0.056	0.0036
POR	3,739	3,246	12	11	3,751	3,257	9.899	378.93	329.02	0.056	0.0057
SWE	936	1,195	14	20	950	1,215	8.851	107.33	137.27	0.044	0.0050
UK	6,062	7,768	89	128	6,151	7,896	59.237	103.84	133.30	0.119	0.0020
EU-15	67687	73141	3655	4069	71342	77211	37.490	1902.98	2059.53	1	

<sup>1</sup> Source: calculations of the SSI concerning the voting power in the European Council since 1995 and are quoted from: Aleskerov. 2002. Data concerning Total expenditures: European Commission. 2002. Own calculations.

**Table 29: Possible distribution of extra budget costs (Baldwin)<sup>1</sup>**  
(ECU in billion extra contributions to EU budget)

	Straight line	Straight line without poor-4 paying extra	Gains share pro rata (from Table)
AUT	0.5	0.6	0.5
BEL-Lux	0.9	1.0	0.5
DEN	0.4	0.4	0.4
ESP	1.4	0.0	1.4
FIN	0.3	0.3	0.3
FRA	3.7	4.1	3.9
GER	6.2	7.0	6.8
GRE	0.3	0.3	0.3
IRL	0.2	0.0	0.1
ITA	2.3	2.6	1.7
NED	1.2	1.4	0.9
POR	0.3	0.0	-0.1
SWE	0.5	0.5	0.8
UK	2.0	2.2	2.8
EU-15	20.0	20.0	20.0

<sup>1</sup> Costs calculated by Baldwin. 1997.



**Table 30: Fiscal effects of enlargement until 2006**

	Rate of contribution 1999	Fiscal costs of EU-enlargement per annum (contribution rate 1999)
AUT	0.027	0.3
BEL	0.039	0.5
DEN	0.020	0.3
ESP	0.069	0.9
FIN	0.014	0.2
FRA	0.172	2.2
GER	0.246	3.4
GRE	0.015	0.2
IRL	0.010	0.1
ITA	0.130	1.7
Lux	0.002	0.0
NED	0.060	0.8
POR	0.014	0.2
SWE	0.029	0.4
UK	0.135	1.7
EU-15	1.000	13.0

Source: Dicke and Foders. 2000. Quoted from: Spannbauer. 2002.  
p. 91.

**Table 31: Net payments per capita 1995-  
1999 p.a. in Euro**

BEL	-11.5
FRA	-11.9
GER	-116.4
Lux	-145.6
NED	-78.9

Source: Weise. 2002.

**Table 32: EU budget according to Expenditure Categories in various Scenarios, 2007 and 2013, in Euro (billions)**

		Total Expenditures		
		in billion Euro	in per cent of GDP	
2007	EU-15	Status quo	71.640	0.77
	EU-25	Status quo	85.306	0.88
		Moderate Reform	65.311	0.67
		Medium Reform	72.989	0.75
		Substantial Reform	72.013	0.74
	EU-27	Status quo	88.920	0.91
		Moderate Reform	68.750	0.70
		Medium Reform	76.401	0.78
		Substantial Reform	75.552	0.77

Source: Weise. 2003.

**Table 33: Net Payments in various Scenarios, 2007**  
in Euro (millions)

	EU-15		EU-25		
	status-quo	Status quo	Moderate Reform	Medium Reform	Substantial Reform
BEL	-597	-1,180	-1,182	-1,016	-988
FRA	-316	-2,562	-6,823	-2,843	-2,769
GER	-7,305	-11,127	-11,604	-9,754	-9,537
Lux	-96	-120	-115	-106	-104
NED	-1,196	-1,646	-1,701	-1,431	-1,387

Source: Weise. 2003.

**Table 34: Net Payments per capita in various Scenarios, 2007**  
(in Euro)

	EU-15		EU-25		
	status-quo	Status quo	Moderate Reform	Medium Reform	Substantial Reform
BEL	-59	-117	-117	-100	-98
FRA	-5	-41	-110	-46	-45
GER	-90	-137	-143	-120	-117
Lux	-210	-262	-251	-231	-227
NED	-75	-104	-107	-90	-87

Source: Weise. 2003. Expanded by own calculations.

**Table 35: Real GDP EMU-12**  
percentage change from previous period

	average																	Estimates and projections		
	1975-85	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002*	2003*	2004*
AUT	2.4	2.1	1.6	3.4	4.2	4.7	3.3	2.3	0.4	2.6	1.6	2.0	1.6	3.5	2.8	3.0	1.0	0.7	1.9	2.6
BEL	2.1	1.8	2.4	4.6	3.6	3.0	1.8	1.3	-0.7	3.3	2.3	0.8	3.9	2.1	3.2	3.7	0.8	0.7	2.1	2.8
FIN	2.9	2.5	4.2	4.7	5.1	0.0	-6.3	-3.3	-1.1	4.0	3.8	4.0	6.3	5.3	4.1	6.1	0.7	1.6	3.2	3.8
FRA	2.3	2.3	2.5	4.2	4.3	2.6	1.0	1.3	-0.9	1.9	1.8	1.1	1.9	3.5	3.2	4.2	1.8	1.0	1.9	2.9
GER	2.2	2.4	1.5	3.7	3.9	5.7	5.1	2.2	-1.1	2.3	1.7	0.8	1.4	2.0	2.0	2.9	0.6	0.4	1.5	2.5
GREC	2.1	0.5	-2.3	4.3	3.8	0.0	3.1	0.7	-1.6	2.0	2.1	2.4	3.6	3.4	3.6	4.2	4.1	3.6	3.9	3.8
IRE	3.5	-0.4	4.7	5.2	5.8	8.5	1.9	3.3	2.7	5.8	10.0	7.8	10.8	8.6	10.8	11.5	6.0	3.6	3.6	4.4
ITA	3.0	2.5	3.0	3.9	2.9	2.0	1.4	0.8	-0.9	2.2	2.9	1.1	2.0	1.8	1.6	2.9	1.8	0.3	1.5	2.5
Lux	2.4	10.0	4.0	8.5	9.8	5.3	8.6	1.8	4.2	3.8	1.3	3.7	7.7	7.5	6.0	8.9	1.0	0.8	2.5	4.5
NED	1.9	2.8	1.4	2.6	4.7	4.1	2.3	2.0	0.8	3.2	2.3	3.0	3.8	4.3	4.0	3.3	1.3	0.1	1.6	2.6
POR	3.0	4.1	6.4	7.5	6.4	4.0	4.4	1.1	-2.0	1.0	4.3	3.5	4.0	4.6	3.8	3.7	1.6	0.4	1.5	2.3
ESP	1.6	3.3	5.5	5.1	4.8	3.8	2.5	0.9	-1.0	2.4	2.8	2.4	4.0	4.3	4.2	4.2	2.7	1.8	2.5	3.0
Euro area	2.3	2.4	2.5	4.1	4.0	3.6	2.5	1.4	-0.8	2.3	2.2	1.4	2.3	2.9	2.8	3.6	1.5	0.8	1.8	2.7
European Union	2.3	2.8	2.8	4.2	3.6	3.1	1.9	1.2	-0.3	2.8	2.5	1.7	2.6	2.9	2.8	3.5	1.6	0.9	1.9	2.7
Mean EMU-12	2.5	2.8	2.9	4.8	5.0	3.6	2.4	1.2	-0.1	2.9	3.1	2.7	4.3	4.3	4.1	4.9	1.9	1.3	2.3	3.2
Standard deviation EMU-12	0.5	2.5	2.3	1.7	1.8	2.4	3.4	1.6	1.9	1.2	2.3	2.0	2.8	2.1	2.4	2.7	1.6	1.2	0.8	0.8
Variation coefficient EMU-12	0.2	0.9	0.8	0.3	0.4	0.7	1.4	1.3	-16.7	0.4	0.8	0.7	0.7	0.5	0.6	0.6	0.8	1.0	0.4	0.2
Maximum spread EMU-12	2.0	10.4	8.6	5.8	6.9	8.5	14.9	6.7	6.2	4.8	8.7	7.0	9.4	6.8	9.3	8.6	5.4	3.5	2.4	2.1

Note: The adoption of new national account systems, SNA93 or ESA95, has been proceeding at an uneven pace among OECD member countries, both with respect to variables and the time period covered. As a consequence, there are breaks in many national series. Moreover, some countries are using chain-weighted price indices to calculate real GDP and expenditures components.

Source: OECD, 2002, Economic Outlook 72.

**Table 36: Consumer prices indices**  
Percentage change from previous period

	Average																	Estimates and projections	
	1975-85	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001*	2002*	2003*
AUT	5.0	1.7	1.5	1.9	2.6	3.3	3.1	3.5	3.2	2.7	1.6	1.8	1.2	0.8	0.5	2.0	2.3	1.7	1.6
BEL	6.7	1.3	1.6	1.2	3.1	3.4	3.9	2.2	2.5	2.4	1.3	1.8	1.5	0.9	1.1	2.7	2.4	1.6	1.4
FIN	9.4	2.9	4.1	5.1	6.6	6.1	4.6	3.2	3.3	1.6	0.4	1.1	1.2	1.4	1.3	3.0	2.7	1.7	2.0
FRA	10.1	2.5	3.3	2.7	3.5	3.6	3.4	2.4	2.2	1.7	1.8	2.1	1.3	0.7	0.6	1.8	1.8	1.9	1.8
GER	3.9	-0.1	0.2	1.3	2.8	2.7	4.0	5.1	4.4	2.8	1.7	1.2	1.5	0.6	0.6	2.1	2.4	1.6	1.4
GREC	18.4	23.0	16.4	13.5	13.7	20.4	19.5	15.9	14.4	10.9	8.9	7.9	5.4	4.5	2.1	2.9	3.7	3.8	3.3
IRE	13.2	3.8	3.1	2.2	4.0	3.3	3.2	3.1	1.4	2.3	2.5	2.2	1.2	2.1	2.5	5.3	4.0	4.7	4.3
ITA	15.0	5.8	4.7	5.1	6.3	6.5	6.2	5.0	4.5	4.2	5.4	4.0	1.9	2.0	1.7	2.6	2.3	2.5	2.3
Lux	6.7	0.3	-0.1	1.4	3.4	3.3	3.1	3.2	3.6	2.2	1.9	1.2	1.4	1.0	1.0	3.8	2.4	2.1	1.7
NED	5.1	0.1	-0.7	0.7	1.1	2.5	3.1	2.8	1.7	2.2	1.6	1.4	1.9	1.8	2.0	2.3	5.1	4.0	2.7
POR	23.3	11.8	9.4	9.7	12.6	13.4	11.4	8.9	5.9	5.0	4.0	2.9	1.9	2.2	2.2	2.8	4.4	3.5	2.8
ESP	15.4	8.8	5.2	4.8	6.8	6.7	5.9	5.9	4.9	4.6	4.6	3.6	1.9	1.8	2.2	3.5	2.8	3.5	3.0
Max spread	19.3	23.1	17.1	12.8	12.6	18.0	16.4	13.6	13.0	9.3	8.5	6.8	4.3	3.9	1.9	3.4	3.3	3.1	2.9
Euro area	7.3	2.5	2.6	2.7	3.8	5.8	4.3	3.8	3.4	2.8	2.6	2.3	1.7	1.2	1.1	2.4	2.5	2.4	2.2
Mean	11.0	5.2	4.1	4.1	5.5	6.3	6.0	5.1	4.3	3.5	3.0	2.6	1.9	1.6	1.5	2.9	3.0	2.7	2.4
Standard deviation	6.1	6.7	4.8	3.9	4.0	5.4	4.9	3.9	3.4	2.6	2.4	1.9	1.2	1.1	0.7	0.9	1.0	1.1	0.9
Variation coefficient	0.6	1.3	1.2	0.9	0.7	0.9	0.8	0.8	0.8	0.7	0.8	0.7	0.6	0.7	0.5	0.3	0.3	0.4	0.4

Source: OECD, 2002, Economic Outlook 72.

**Table 37: Real GDP EMU-5**  
percentage change from previous period

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	Estimates and projections		
																	2002*	2003*	2004*
BEL	1.8	2.4	4.6	3.6	3	1.8	1.3	-0.7	3.3	2.3	0.8	3.9	2.1	3.2	3.7	0.8	0.7	2.1	2.8
FRA	2.3	2.5	4.2	4.3	2.6	1	1.3	-0.9	1.9	1.8	1.1	1.9	3.5	3.2	4.2	1.8	1	1.9	2.9
GER	2.4	1.5	3.7	3.9	5.7	5.1	2.2	-1.1	2.3	1.7	0.8	1.4	2	2	2.9	0.6	0.4	1.5	2.5
NED	2.8	1.4	2.6	4.7	4.1	2.3	2	0.8	3.2	2.3	3	3.8	4.3	4	3.3	1.3	0.1	1.6	2.6
Lux	10	4	8.5	9.8	5.3	8.6	1.8	4.2	3.8	1.3	3.7	7.7	7.5	6	8.9	1	0.8	2.5	4.5
Mean EMU-5	3.9	2.4	4.7	5.3	4.1	3.8	1.7	0.5	2.9	1.9	1.9	3.7	3.9	3.7	4.6	1.1	0.6	1.9	3.1
Standard deviation EMU-5	3.5	1.0	2.2	2.6	1.4	3.1	0.4	2.2	0.8	0.4	1.4	2.5	2.2	1.5	2.5	0.5	0.4	0.4	0.8
Variation of correlation EMU-5	0.9	0.4	0.5	0.5	0.3	0.8	0.2	4.8	0.3	0.2	0.7	0.7	0.6	0.4	0.5	0.4	0.6	0.2	0.3
Max spread EMU-5	8.2	2.6	5.9	6.2	3.1	7.6	0.9	5.3	1.9	1.0	2.9	6.3	5.5	4.0	6.0	1.2	0.9	1.0	2.0
Max spread EMU-4	1.0	1.1	2.0	1.1	3.1	4.1	0.9	1.9	1.4	0.6	2.2	2.5	2.3	2.0	1.3	1.2	0.9	0.6	0.4
Euro-Area	2.4	2.5	4.1	4	3.6	2.5	1.4	-0.8	2.3	2.2	1.4	2.3	2.9	2.8	3.6	1.5	0.8	1.8	2.7
EU	2.8	2.8	4.2	3.6	3.1	1.9	1.2	-0.3	2.8	2.5	1.7	2.6	2.9	2.8	3.5	1.6	0.9	1.9	2.7

EMU-4: without Luxembourg.

Source: OECD. 2002. Economic Outlook 72 and own calculations.

**Table 38: Consumer prices indices EMU-5**  
Percentage change from previous period

	Average																Estimates and projections		
	1975-85	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001*	2002*	2003*
BEL	6.7	1.3	1.6	1.2	3.1	3.4	3.9	2.2	2.5	2.4	1.3	1.8	1.5	0.9	1.1	2.7	2.4	1.6	1.4
FRA	10.1	2.5	3.3	2.7	3.5	3.6	3.4	2.4	2.2	1.7	1.8	2.1	1.3	0.7	0.6	1.8	1.8	1.9	1.8
GER	3.9	-0.1	0.2	1.3	2.8	2.7	4.0	5.1	4.4	2.8	1.7	1.2	1.5	0.6	0.6	2.1	2.4	1.6	1.4
Lux <sup>a</sup>	6.7	0.3	-0.1	1.4	3.4	3.3	3.1	3.2	3.6	2.2	1.9	1.2	1.4	1.0	1.0	3.8	2.4	2.1	1.7
NED	5.1	0.1	-0.7	0.7	1.1	2.5	3.1	2.8	1.7	2.2	1.6	1.4	1.9	1.8	2.0	2.3	5.1	4.0	2.7
Euro area <sup>b</sup>	7.3	2.5	2.6	2.7	3.8	5.8	4.3	3.8	3.4	2.8	2.6	2.3	1.7	1.2	1.1	2.4	2.5	2.4	2.2
Mean EMU-5	6.49	0.82	0.87	1.46	2.77	3.08	3.51	3.14	2.87	2.24	1.66	1.53	1.51	0.98	1.08	2.54	2.83	2.25	1.80
Standard deviation EMU-5	2.31	1.11	1.58	0.74	0.98	0.48	0.42	1.14	1.12	0.38	0.25	0.39	0.22	0.47	0.59	0.76	1.31	1.00	0.56
Variation coefficient EMU-5	0.36	1.36	1.82	0.51	0.35	0.16	0.12	0.36	0.39	0.17	0.15	0.26	0.14	0.48	0.55	0.30	0.46	0.45	0.31

Source: OECD. 2002. Economic Outlook 72.