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Government debt in Europe – analysis and  
options

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# Government debt in Europe

## I. THE SITUATION AS IT STANDS

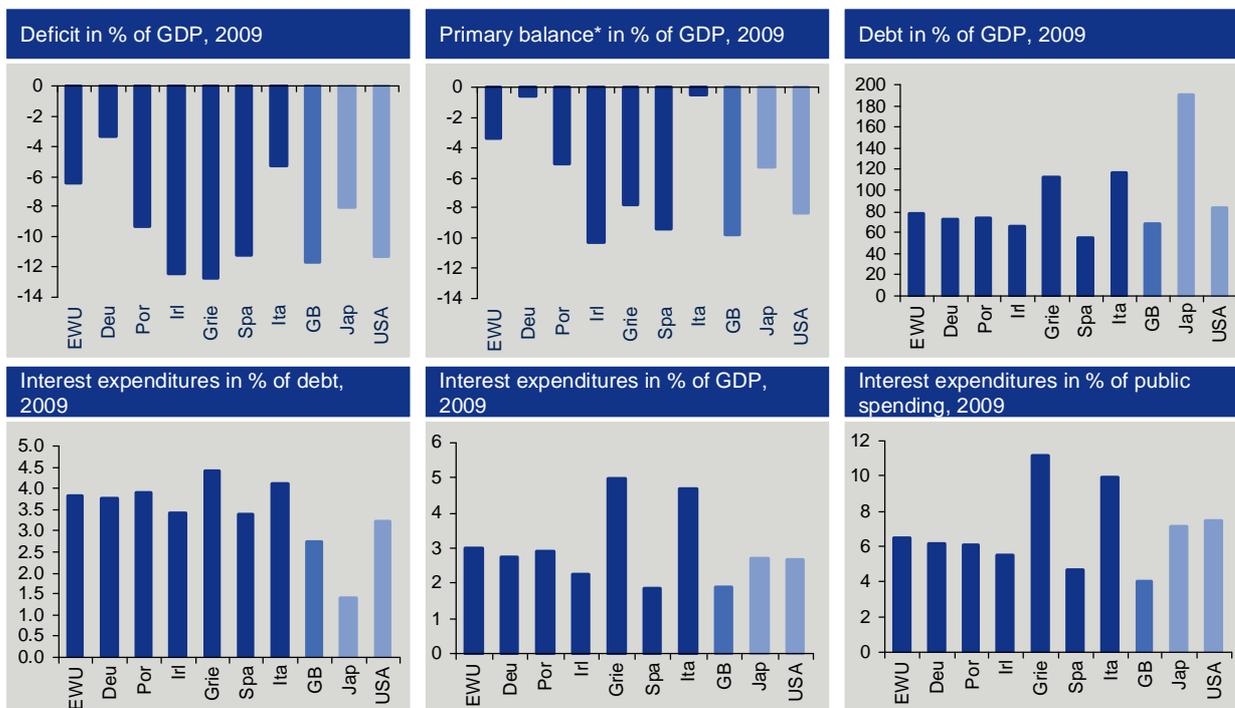
The fiscal policy credibility of European Monetary Union (EMU) and, in particular, of Greece has been thrust into the spotlight of current political and public interest. Any assessment of the state of the EMU public budgets requires a differentiated analysis of the countries in the public eye – including a comparison with industrialized nations beyond Europe’s borders.

Developments in Greece give cause for concern as far as all of the fiscal policy indicators are concerned. We do not, however, take the view that it is justified to lump the other countries taking center stage in the debate – Portugal, Ireland, Spain and Italy – into the same category as Greece.

With government debt that corresponds to 78.2% of gross domestic product (GDP), the euro area fares relatively well in an international comparison as far as its debt-to-GDP ratio is concerned (see Chart 1).<sup>1</sup> Japan, which has been locked in a spiral of debt for years now, had a debt-to-GDP ratio in the region of 190% in 2009. Even compared with the US (83.1%), the average debt shouldered by the EMU countries still appears moderate. In this context, the two sore thumbs that really stick out are Greece and Italy, where debt levels exceed 100% of GDP.

Chart 1

Fiscal picture 2009



Sources: Ameco, own calculations. \*) The primary balance is the difference between revenue and expenditure minus interest payments on outstanding debt.

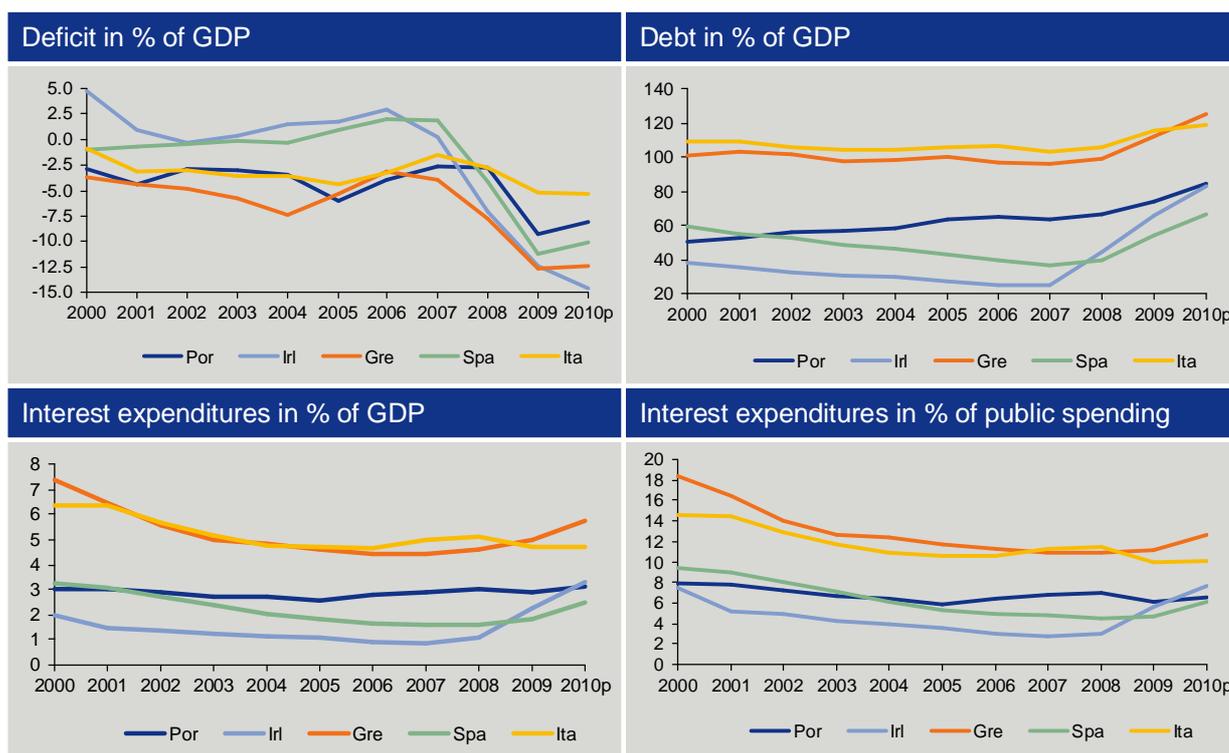
<sup>1</sup> Provisional Charts released by the European Commission.

Greece’s massive government debt burden (which came in at 112.7% of GDP in 2009) means that the Hellenic state has an exceptionally high interest burden, accounting for just shy of 5% of GDP, or 11.2% of the entire government budget last year. This put Greece well above the euro-area average of 6.5%. In this respect, it is worth bearing in mind that the country’s interest payments, expressed as a proportion of GDP/the government budget, had been on the decline over the course of the last decade, before they started to edge up again as a result of the crisis (see Chart 2). Particularly in times when economic growth is low, however, continued government borrowing goes hand-in-hand with adverse long-term consequences.

Ireland – a country with a debt-to-GDP ratio that is below the EMU average at 65.8% – fell victim to the most hefty increase in the ratio of interest payments to both GDP (+1.2 percentage points) and its government budget (+2.5 percentage points) in 2009, albeit from a low level. This development stems from the high levels of net borrowing and primary balances clocked up in the course of the financial crisis (-12.5% and -10.2% in 2009).

Chart 2

Public-sector finances 2000-2010



Source: Ameco, own calculations

Italy’s sizeable interest expenditure also comes as little surprise against the backdrop of its substantial 115.8% debt-to-GDP ratio. Nevertheless, Italy’s relatively modest levels of new borrowing set it apart from Greece. At -0.5%, the country’s primary balance, expressed as a percentage of GDP, was actually well below the EMU average of -3.4%. The explanation lies in the fact that Italy’s state budget was virtually balanced when the financial crisis took root, as well as in the fact that, for many years, the country starved its economy of any stimulus in real terms.

Although their new borrowing levels are fairly high, Spain and Portugal also enjoy a far better starting position than Greece thanks to a much lighter interest burden (interest expenditure of 1.8% and 2.9% of GDP respectively in 2009). A glance at the low level of government debt, as a proportion of GDP, puts Spain's high deficit ratio (-11.2%) and sizeable primary balance (-9.4%) into perspective. As Chart 2 shows, Spain had managed to slice 20 percentage points off its debt-to-GDP ratio since the start of the last decade, bringing it down to below the 40%-mark and making a fairly solid reputation for itself in terms of fiscal policy credibility as a result (rather more cause for concern is Spain's low economic growth).

The primary balance is an ideal parameter for assessing current fiscal policy, because it leaves interest payments on outstanding government debt out of the equation. At -7.7%, Greece's primary balance shows that the country's 2009 fiscal policy also fueled a massive increase in government debt.

A comparison with non-EMU countries shows that, in terms of new borrowing, the United Kingdom (net borrowing rate of -11.7% and primary balance of -9.8% in 2009) and the US (-11.3% and -8.6%) are no better, or only marginally better, than their much-berated EMU counterparts. What is more, unlike many member states like Greece, a number of major industrialized nations have failed to make any explicit commitment to consolidating their government budgets.

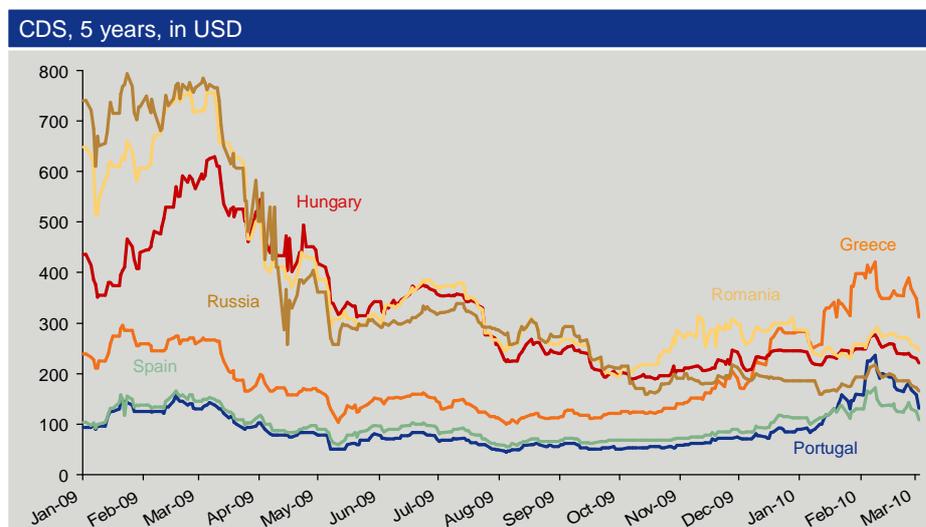
Our analysis of key fiscal indicators therefore leads us to two overarching conclusions: first, care should be taken not to jump in too soon and condemn the budget situation and fiscal policy credibility of Portugal, Ireland, Spain and Italy to the same ranks as the very serious situation that prevails in Greece. The fiscal policy problems facing these countries do not affect all of the fiscal indicators. Second, the fiscal difficulties hanging over the EMU countries are by no means any more harrowing than those facing the US or the UK.

The turbulence surrounding Greece is reflected in the risk premiums on the financial markets. Risk premiums on Greek government bonds, as well as on the bonds of other euro-area states, have soared. The increased premiums for credit default swaps (CDS) suggest that financial market players expect a higher probability of default, putting a higher price tag on hedging against default risks (see Chart 3). This means that the standing enjoyed by government bonds to date, namely as a relatively low-risk form of investment, is being put to the test on the financial markets.

The financial and economic crisis has been the first development to really expose the EMU's structural weak points. It no longer appears possible to finance the resulting fiscal burden in the environment of increased risk awareness that now prevails in the wake of the financial crisis. Into the bargain, doubts as to the viability of government finances are mounting as a result of extensive economic policy aid programs and the labored recovery on the real economy. The uncertainty surrounding possible rescue measures is another explanation for the lofty price of credit insurance.

Chart 3

## Hedging costs against default



Source: Reuters

In this respect, investors are making considerable distinctions as far as individual countries are concerned – the cost of hedging against default by Greece is now far higher than for the country's southern European neighbors (see Chart 3). Higher capital market premiums for bad debtors are part and parcel of the market's disciplinary mechanism, and should be supported as a general rule. What is important is that the right distinctions are made. At the moment, however, the financial markets are rife with contradictory and excessive behavior. One of the questions that spring to mind is to what extent the risk premiums on the capital markets are an appropriate mirror of the actual default risks of individual countries. The fact that the cost involved in hedging against default by some EMU countries has, in some cases, been higher than the default hedging costs for Romania and Russia over the past few weeks, virtually defies explanation. It is also important to steer away from projecting the scenario of potential state bankruptcy in Greece on to numerous other EMU countries. As explained above, Portugal, Ireland, Spain and Italy are certainly facing their own fiscal challenges, but they are nowhere near a situation that is as bleak as in Greece.

Given the above, the reaction of the capital markets looks overdone – the euro is better than its reputation. The market's tendency to overreact at times had already come to light in the form of the extremely steep hedging costs for eastern European bonds in early 2009, which was followed by a significant slump in CDS activity. Support offered by the international community, which is what the finance ministers have hinted at in their statement, will narrow the spreads. Given, however, that consolidation policy takes some time to bear fruit, it makes little sense to expect risk premiums to fall back to the level seen prior to the crisis any time soon.

## II. STRONG FISCAL CONSOLIDATION: A NUMBER OF SUCCESSFUL EXAMPLES

Both investors and the general public are very keen to find out exactly which budget consolidation measures might appear on the agenda. While identifying the likelihood of default is the most relevant parameter for investors in their quest for optimum asset allocation, the impact on tax and income is foremost on the minds of the general public.

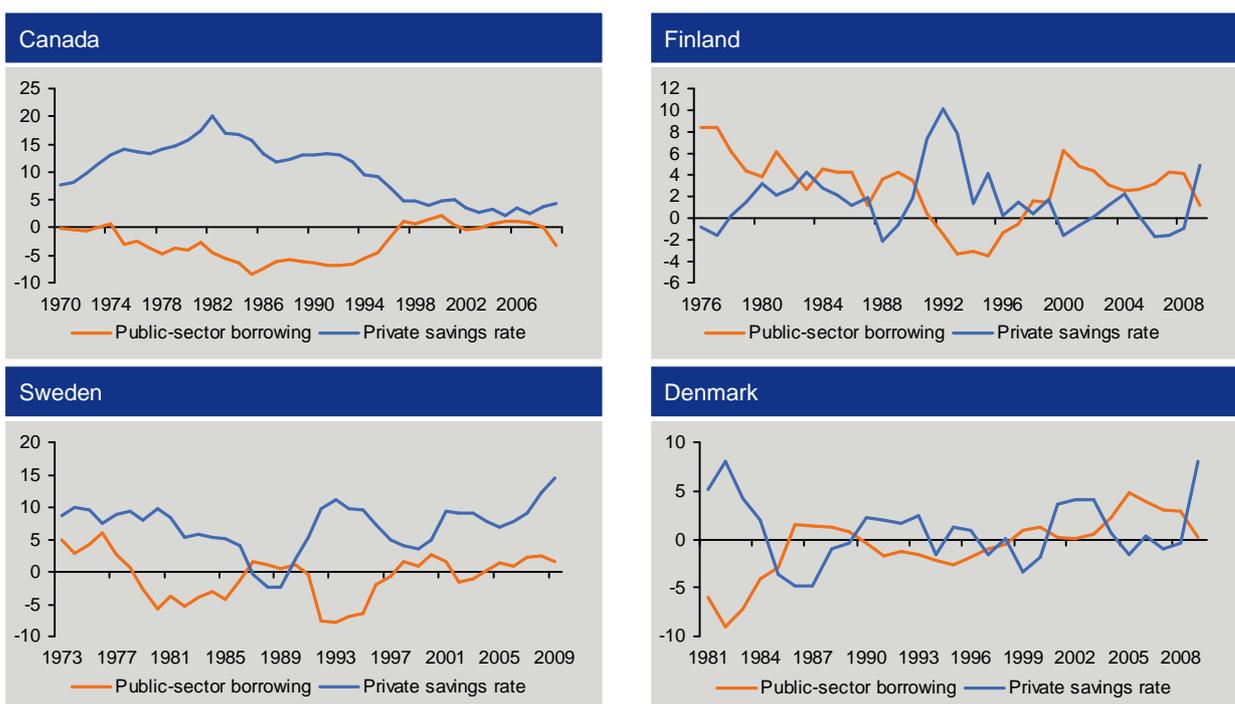
### Fiscal multipliers: country-specific differences

In 2009, the OECD dedicated an extensive study to investigating the likely impact of expansive fiscal policy in a whole number of different countries. It comes as no surprise that the results vary considerably from economy to economy. The impact is most apparent in Australia and the United States (between 1.2% and 1.6% of GDP over a two-year period). As far as other countries, such as Belgium, Holland and Slovakia, are concerned, the fiscal packages have only a minimal impact: every percentage point of GDP spent by the government only increases macroeconomic output by around 0.2% or less. Other studies, which we will look at in more detail below, show that the effect can actually be a negative one, even in years of fiscal consolidation.

The studies cited show that the fiscal multipliers can be neutral, or even negative. This means that restricting government spending can fuel an increase in macroeconomic output. But what is the economic explanation for this correlation? The main mechanism of action rests on the theory that a credible, permanent program aimed at cutting spending or taxes spurs private demand because it creates the expectation among the public at large that taxes will be lower in the long term. The increase in private spending, so the theory goes, is sufficient to compensate for the direct impact of the government spending cuts, meaning that the real effect of a restricted spending program is, in fact, positive as opposed to negative. In economic jargon, this would be described as “Ricardian behavior” on the part of private households. The chart set out further below shows how private households in selected countries adapt their savings habits to reflect government spending policy. The studies conducted by Giavazzi und Pagano (1990) and Barry Devereux (2003) reveal that, in the case of Ireland and Denmark in the 1980s and Canada in the late 1990s, significant fiscal contraction can actually promote economic growth. The main hypothesis referred to in these studies attributes the reaction in terms of overall demand largely to the positive effect that deficit reduction measures have on future tax expectations.

Chart 4

#### Public-sector borrowing and private savings rate in % of GDP



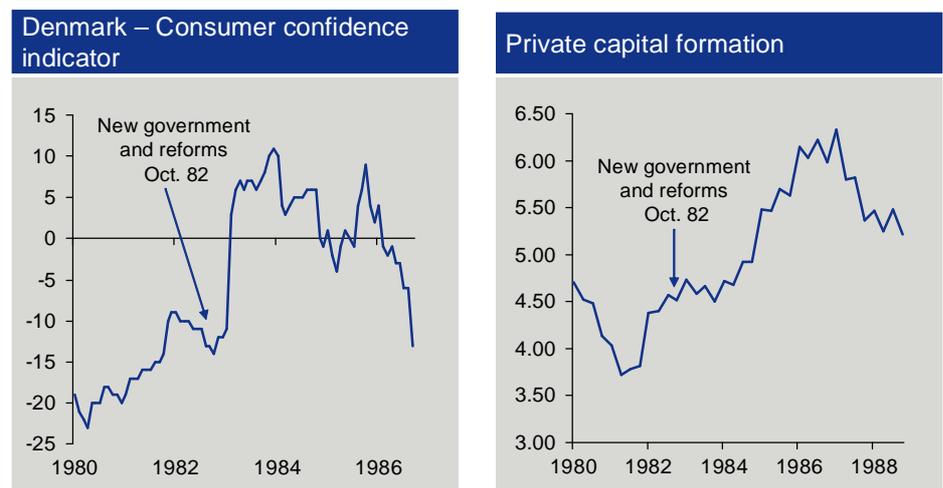
Sources: Reuters Ecowin/OECD.

## Case studies:

### Denmark<sup>2</sup>(1983-86)

- Danish government debt was on a rapid ascent in 1982. Whereas debt accounted for 29% of GDP back in 1980, it reached the 65%-mark in 1982 on the back of high real interest rates and large primary deficits (3.1% of GDP).
- The high deficit was provoked by attempts to mitigate the consequences of the global economic recession.
- The turnaround came with a new government coalition that pushed through a draconian savings package. The adjustment costs were distributed fairly evenly between expenditure and revenue:
  - On the expenditure side, the country saved primarily on transfer payments and public-sector salaries. The main welfare benefit cuts were made in the areas of unemployment insurance and pension payments.
  - On the revenue side, the most marked increase in the tax burden hit direct taxes on the corporate sector and private households. Various social insurance contributions were also increased.
- The unions were explicitly ordered to exercise “wage restraint” in 1982. The concessions made by the unions included a five-month wage freeze, the suspension of wage indexing until 1985 and capping public-sector salary increases at 4% in 1983 and 1984.

Chart 5



Sources: Reuters Ecowin/OECD.

### The macroeconomic results:

- Budget surpluses helped to drive the debt ratio down. Both private investment and private consumption climbed rapidly, driven by lower interest rates, higher productivity and an increase in net assets.

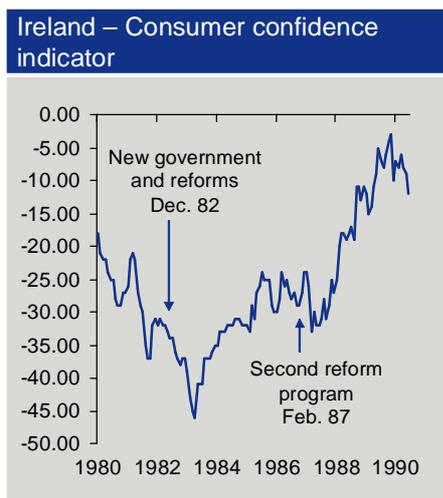
<sup>2</sup> Data from Giavazzi, F. and M. Pagano (1990): “Can Severe Fiscal Contractions Be Expansionary? Tales of Two Small European Countries, NBER Macroeconomics Annual 1990; and Alesina, A. und S. Ardagna (1998): “Tales of Fiscal Adjustment”, *Economic Policy* 13(27).

- Total government liabilities increased from 44% (1980) to 77% (1984) before falling, after a long period of ups and downs, to 32% of GDP in 2007.
- During the adjustment phase (1983-86), economic growth outperformed the G7 average and unemployment fell<sup>3</sup>.
- Average inflation-adjusted growth came in at 0.42% per quarter in the 5 years prior to October 1982, and then rose to 0.88% per quarter over the next 5 years.

**Ireland (1987-89)**

- In 1981, Irish public finances were in a worse state than Denmark’s. The budget deficit constituted 8.4% of GDP, debt servicing consumed 8.3% and government debt accounted for 87%. At the same time, the current account deficit came in at 10% of GDP.
- Following a somewhat hesitant attempt to bring the country’s government finances under control in 1982, 1987 saw the newly elected minority government led by Prime Minister Haughey launch “... the deepest cuts in spending that Ireland has ever seen” (Financial Times, 24 September 1987).
- The fiscal policy adjustments were almost entirely restricted to the spending side, with the biggest cuts being made in the areas of transfer payments (-2.6% of GDP compared to the period prior to 1987) and public-sector salaries (-1.5% of GDP).
- The government negotiated cuts in income tax rates across the board in return for centralized wage restraint. The top income tax rate was brought down from 65% to 56%, while the average income tax rate was trimmed from 35% to 32%.

Chart 6



Sources: Reuters Ecowin/OECD.

Key figures			
in %	1979-81	1982-84	1987-89
Growth public consumption	4.0	0.7	-3.7
Public investment	6.5	-6.0	-13.3
Growth private consumption	2.2	-1.2	3.6
Business investment	7.2	-1.2	3.6
Growth	7.2	-4.7	6.7
Exports	4.9	10.8	11.0

Source: Giavazzi and Pagano (1990).

**The macroeconomic results:**

- Debt, expressed as a percentage of GDP, reached an all-time high of just short of 120% (in 1987) and then fell to 90% (up to 1992).

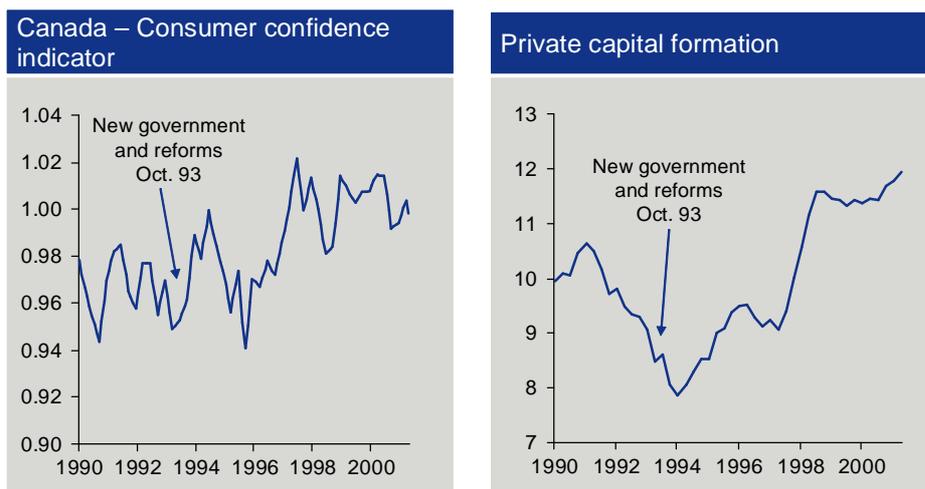
<sup>3</sup> Data from: Alesina, Alberto and Silvia Ardagna (1998): “Tales of Fiscal Adjustment”, *Economic Policy* 13 (27), p. 42.

- Ireland was able to lift its growth rate from a level that was almost two percentage points below the G7 average to 3.6 percentage points above the average for the world’s major industrialized nations.
- Unemployment started to decline, breaking a 25-year upward trend.
- Market observations suggest that the conservative fiscal policy pursued was perceived by investors as a signal that triggered a surge in direct investment.
- Average inflation-adjusted growth stood at 3.1% a year in the 5 years prior to 1992 and then rose to 4.7% in the 5 ensuing years.

Canada (1996-98)<sup>4</sup>

- When the “Liberals” were elected in 1993, Canada’s fiscal policy was on a worrisome path. Both of the leading risk rating agencies, Moody’s and Standard & Poors, had downgraded Canadian bonds in 1993 and 1994. The chronic budget deficit, coupled with the resulting rise in interest rates, were pushing the country into the clutches of a self-perpetuating deficit spiral.
- The combined deficit of Canada’s central government and its provinces averaged 8% of GDP in the period from 1991 to 1993 – almost twice as high as the OECD average.
- The overhaul of fiscal policy was pursued on two fronts: First, the new budget planning process was based on realistic economic forecasts. Second, a progressive two-year budget plan was implemented, the medium-term aim being to arrive at a balanced budget. This involved defining specific target values that had to be adhered to in the short term as well.

Chart 7



Sources: Reuters Ecowin/OECD.

<sup>4</sup> Cf. also *Tractlet (2004): "Monetary and Fiscal Policies in Canada: Some Interesting Principles for EMU?", Bank of Canada, Working Paper 2004-28.*

#### The macroeconomic results:

- In 1996, Canada's deficit was lower than in any other G7 country with the exception of the US. One year later, the deficit had even been turned into a surplus<sup>5</sup>.
- Gross liabilities reached a peak of 101.7% of GDP in 1996 before falling to 71.6% (until 2005)<sup>6</sup>.
- Average inflation-adjusted growth was 0.2% per quarter in the 5 years leading up to October 1993, and then rose to 1.3% per quarter in the course of the next 5 years.

#### Sweden and Finland (1992-97)<sup>7</sup>

- In the early 1990s, three out of the five Scandinavian countries – namely Norway, Sweden and Finland – were hit by a severe systemic financial market crisis.
- The causes of the crisis were very similar in all three countries: the deregulation of the financial market caused the lending market to expand and fueled rapid economic growth. At the same time, price bubbles started to emerge on various investment markets – primarily on the real estate market – which then burst at the start of the 1990s.
- The slump in the real economy, measured as the difference between the GDP high and the GDP low, was more than 5% in Sweden and more than 12% in Finland<sup>8</sup>. The unemployment rate climbed within a short space of time from 2% to 11% in Sweden and from 5% to 18% in Finland. Government debt, in terms of GDP, rose from under 20% to 60% in Finland and from 50% to 90% in Sweden.
- Private households and the corporate sector (excluding the financial services industry) dramatically increased their savings ratios, which came in at a cumulative 19% of GDP in Finland and 24% in Sweden.
- A package of more stringent fiscal policy measures implemented on both the expenditure and the income side helped to bring Sweden's budget deficit down from 11.2% in 1993 (Finland 9.1% in 1992) to a balanced level in 1997.

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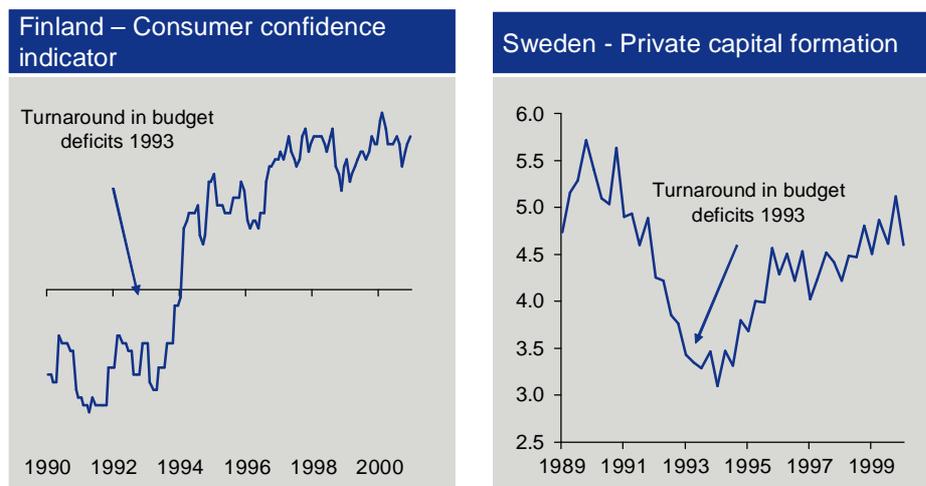
<sup>5</sup> Data taken from the speech made by Mr Gordon Thiessen, Governor of the Bank of Canada, 22 January 2001.

<sup>6</sup> Data from OECD Economic Outlook 86.

<sup>7</sup> For a detailed analysis of the Scandinavian banking crisis, see T. Moe, J. Solheim and B. Vale (2004).

<sup>8</sup> Charts provided by J.P. Morgan Economic Research (6 March 2009).

Chart 8



Sources: Reuters Ecowin/OECD.

#### The macroeconomic results:

- Swedish debt reached a high of 82.5% of GDP in 1998 and then dropped to 47.9% (up until 2007).
- Debt in Finland came in at a high of 64.4% of GDP in 1997, before falling to 45.2% (up until 2006).
- Average inflation-adjusted growth in Finland came in at 0.5% per quarter in the 5 years leading up to mid-1992, and then rose to 1% per quarter over the next 5 years.
- Average inflation-adjusted growth in Sweden was 0.8% per quarter in the 5 years leading up to mid-1993, before rising to just under 0.9% per quarter over the next 5 years.

#### Summary:

The country case studies set out above show that very restrictive fiscal policy programs have been successfully implemented on several occasions in the past. For one thing, this emphasizes that it is, indeed, possible, from a political perspective, to push through such tough spending cuts. For another – and this is probably far more important – the examples show that even the blow dealt by even the most draconian government savings drives can be cushioned by expansive investment and consumer spending by private households and the corporate sector.

In the case of some countries, one can go as far as to say that government spending cuts have offered considerable incentives and sent out positive signals to the economy, meaning that they actually laid the foundation for GDP growth as opposed to GDP contraction.

## Model calculation: consolidation of EMU households

The public sphere is awash with speculation that policymakers will be unable to react to the budget deficits, meaning that debt can only be expected to accumulate.

The country case studies referred to earlier on show that consolidation programs have been very successful in the recent past. These five examples (Denmark, Finland, Ireland, Canada and Sweden) show that the debt burden was reduced by between 3 and 5 percentage points per annum on average. All of the countries featured managed to cut their government debt ratio by well in excess of 20 percentage points within a 10-year period. We have also seen the positive impact that such credible consolidation programs can have on confidence, private consumption and investment behavior.

This makes it interesting to explore what momentum similar adjustments could bring for the euro area. The thought experiment that we want to perform here is based on the following assumptions: 1) The euro area countries agree that they want to adhere to the Maastricht criterion for government debt (60% of GDP). 2) In order to achieve this, the countries are willing to achieve a balanced primary budget in 2013, and to generate rising primary budget surpluses of up to 4% from 2014 onwards. The case studies that we have set out above, as well as a whole number of other economies (e.g. Brazil for prolonged periods of time), have shown that this is possible. 3) The budget consolidation measures will only have a minimal impact on the income side, because the most successful adjustment examples are testimony to the advantages of consolidation based on spending cuts<sup>10</sup>.

## Euro area – Public-sector debt 2009 – 2023

in % of gross domestic product, unless otherwise indicated

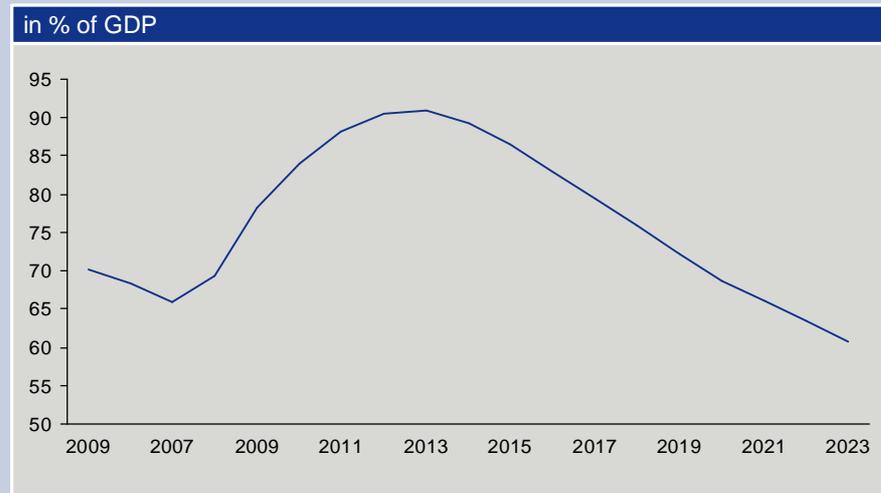
	Historical values 2009	2010	2013	2015	2020	2023
1 Baseline: Public-sector debt	78.20	84.01	90.88	86.51	68.68	60.77
2 Change in public-sector debt	8.89	5.81	0.32	-2.69	-3.60	-2.65
3 Debt-forming capital flows (4+7)	8.55	4.07	0.32	-2.69	-3.60	-2.65
4 Primary deficit	3.37	3.69	0.00	-3.00	-4.00	-3.00
5 Revenue	44.01	43.67	44.00	44.00	44.00	44.00
6 Expenditure (excl. interest)	47.39	47.36	44.00	41.00	40.00	41.00
7 Automatic debt dynamic/snowball effect <sup>9)</sup>	5.17	0.38	0.32	0.31	0.40	0.35
16 Residuals (2-3)	0.34	1.74	0.00	0.00	0.00	0.00
Interest expenditures in % of public-sector budget	5.98	6.30	7.96	8.37	7.05	6.10
Key macroeconomic and fiscal assumptions underlying baseline scenario						
Real GDP growth (in %)	-3.99	1.80	1.80	1.80	1.60	1.60
Average nominal yield on public-sector debt (in %)	4.23	4.14	4.20	4.20	4.20	4.20
Inflation rate in %	1.02	1.81	2.00	2.00	2.00	2.00

Projections (Ameco up to 2011 and own calculations)

<sup>9</sup> Snowball effect: The interest rate-growth differential which causes an increase in the debt ratio when the nominal GDP growth rate is lower than the rate of interest charged on government debt.

<sup>10</sup> In this respect, see: Alesina, Alberto and Roberto Perotti (1997): "Fiscal adjustments in OECD Countries: Composition and Macroeconomic Effects", IMF Staff Papers, Vol. 44, No. 2.

## Euro area – Public-sector debt over time



The table shows how the government debt ratio would develop over time based on the assumptions set out above. The mountain of debt reaches its peak in 2013 before falling continually to 60% of GDP in 2023. In this respect, we have opted not to consider either the potential negative feedback effects of spending cuts, or the positive effects (e.g. more investment thanks to raised expectations about the future). On the basis of the historical experience, however, we believe that the positive feedback effects would gain the upper hand in the long term, and that reducing government debt is a less painful process than it is often imagined to be.

We have kept the macroeconomic assumptions fairly conservative: with inflation that is stable at 2% in the long term, economic growth that is lower than the potential before the crisis, and a slight increase in average nominal interest rates on public debt to 4.2%.

### III. SCENARIOS FOR THE GREEK DEBT CRISIS

There is no doubt that Greece will be able to claw its way back out of the debt crisis primarily as a result of its own efforts. The only question is what particular way out the country will choose. In this section, we have provided a fairly pragmatic overview of the scenarios which we deem to be the most plausible at present.

All of the scenarios are based on the following assumptions:

- The Greek government will have to make massive budget cuts that will have a sustained impact on the country's growth prospects over the next few years.
- Since Greece does not have its own currency, which would offer some degree of flexibility vis-à-vis other currencies, the adjustments made to the current account will relate mainly to a pronounced contraction in imports as opposed to a rise in exports. At the same time, however, corresponding import substitution will be virtually impossible, suggesting that the economy will take a nasty tumble this year.

- All in all, Greece's real GDP is likely to contract far more than the government expects in 2010 (-0.3%). Contrary to the government's forecasts, 2011 is unlikely to be the bearer of good news on the growth front either.

### Scenario 1 – Consolidation without international financial assistance (probability: 40%)

- The Greek government will manage to implement its ambitious consolidation program in a short space of time, despite domestic political pressure.
- At the meeting of the Ecofin Council, which will be held in mid-March, the steps Greece has taken in order to overhaul its budget will be approved (in particular taking into account the additional consolidation measures that were recently announced).
- Together with the EU's guarantee declaration for Greece in mid-February 2010, the rapid implementation of the consolidation program will gradually help to steer the capital markets into calmer waters.
- Greece will be able to repay or refinance the bonds that are set to fall due in April and May without any major difficulties.
- The markets will be spared any other negative surprises, such as new holes in the country's budget or external shocks that would prompt another drastic increase in risk aversion on the financial markets as a whole.
- As planned, the Greek budget deficit will be reduced by 4 percentage points this year to 8.7% of GDP. Strict budgetary discipline will allow the country to achieve a further marked reduction in its deficit in the coming years despite weak real economic growth.

### Scenario 2 – Consolidation with international financial assistance (probability: 55%)

- The EU's guarantee declaration, which promises help to Greece in the event of an emergency, is not enough to pacify the financial markets in the long term. Timing is a key aspect: April and May 2010 will see Greek bonds accounting for a total volume of around EUR 20.5 bn fall due. Since the Greek government will find it virtually impossible to provide any hard-and-fast evidence that its budget consolidation efforts are starting to bear fruit, the prices of Greek bonds will come under more and more pressure as the maturity dates draw closer.
- In order to avert imminent government default and to ensure the systematic consolidation of Greece's government finances, the EU takes swift action to deliver its promise and finalizes a specific aid package for Greece, albeit subject to stringent conditions.
- This aid package will be developed in cooperation with the IMF, although the input made by the latter will probably be limited to budget consolidation expertise. For fundamental political reasons, there would appear to be very little likelihood of financial assistance from the IMF, let alone of an aid package led by the IMF, at present.

- Possible features of the aid package (the package could also include a combination of the individual measures listed here):
  - Loan granted by the EU countries which is paid out in tranches (as is standard practice for IMF programs, too). Before the installments are paid out, the EU will check whether or not Greece has actually achieved the agreed interim objectives.
  - EU guarantees for Greek bonds.
  - EU countries like Germany will issue bonds and then pass the proceeds from the issue on to Greece, subject to an additional charge.
  - Purchase of Greek bonds by government institutions (by the state development bank KfW in Germany, for example).
  - Greece is given access to funds from the EU Structural Fund ahead of schedule.
- Even in this scenario, temporary setbacks and increased volatility on the financial markets would have to be expected. The budget consolidation efforts could well follow a pattern of intermittent stop-and-go, which would, for example, result in delays as far as the payout of individual loan tranches is concerned.

### Scenario 3 – Debt restructuring (probability: 5%)

- Debt restructuring as *ultima ratio*.
- Possible path leading to debt restructuring:
  - The consolidation attempts made by the Greek government fail. Even if the EU provides financial assistance in the meantime, this situation cannot be ruled out. One possible scenario, for example, is that the government comes under massive domestic political pressure and ultimately abandons its ambitious consolidation program as a result, which would obviously put the lid on any hope of financial assistance from the EU.
  - Risk premiums for Greek government bonds rocket.
  - This makes the capital market virtually inaccessible.
  - Greece is unable to repay or refinance the government bonds that fall due.
  - The Greek state declares itself insolvent.
  - Debt restructuring negotiations are launched with creditors (the topics of discussion include extending the term of existing debt, reducing coupon payments or even the possibility of the creditors waiving part of their claims).
  - Possibility of financial assistance from the EU and/or IMF which, in turn, is tied to the satisfaction of certain criteria.

### Quo vadis Greece?

In line with the probability scores that we have assigned to the different scenarios, we believe that the Greek government can avoid the worst-case scenario, namely debt restructuring. In our view, it has a 95% chance of achieving this. If we turn our attention to the question as to whether or not this will require international financial assistance, we would tend, at present, to say “yes”, which basically means that Greece will probably transition from scenario 1 to scenario 2 in the not-too-distant future. Whether or not this will actually happen, however, remains anybody's guess, and will depend, not least, on the extent to which the financial markets give Greece the time that it needs to show that its budget consolidation efforts are actually bearing fruit. In this respect, however, it is

also worth pondering how the financial markets will react to Greece's slide down the rating agency ladder – something that is already emerging. One thing is, nonetheless, certain: unless the financial markets settle down soon, financial assistance for Greece will become inevitable.

Both scenario 1 and scenario 2 are subject to the proviso that Greece manages to implement the consolidation program that it unveiled at the start of this year. As mentioned above, however, we expect the tighter strings on the country's purse to result in economic performance in 2010 that falls considerably short of the government's current expectations. 2010 is likely to see the economy contract not by a mere 0.3%, but rather by 3%. This means that, despite the implementation of the consolidation program, new borrowing is also likely to be somewhat higher than planned at 10% of GDP (planned: 8.7% of GDP), a trend that is likely to continue in the medium term, too. As a result, new borrowing will frustrate the government's plans by coming in above the 3% mark in 2012. In line with this trend, the debt-to-GDP ratio will continue to climb in the period leading up to 2012, accounting for more than 130% of GDP from 2011 onwards. This means that interest payments will consume an ever-expanding proportion of the government budget, namely an estimated 16½% in 2013 compared with 11.2% in 2009.

Chart 9

### Greece: Forecast of public-sector debt

Assumption: Consolidation program announced in January is implemented

	2000	2009	2010	2011	2012	2013
real GDP growth (in %)	4.5	-2.0	-3.0	-1.0	1.0	2.0
Public-sector deficit (in % of GDP)	-3.8	-12.7	-10.0	-7.0	-5.0	-4.0
Debt ratio (in % of GDP)	100.7	112.7	125.0	132.0	134.0	134.0
Interest expenditures (in % debt)	7.4	4.4	4.7	5.0	5.3	5.4
Interest expenditures (in % of spending)	18.4	11.2	12.5	14.0	15.8	16.5
Interest expenditures (in % of GDP)	7.4	5.0	5.9	6.6	7.1	7.2

Assumption: Consolidation program tightened as announced in March

	2000	2009	2010	2011	2012	2013
real GDP growth (in %)	4.5	-2.0	-5.0	-2.0	1.0	2.0
Public-sector deficit (in % of GDP)	-3.8	-12.7	-8.7	-5.6	-2.8	-2.0
Debt ratio (in % of GDP)	100.7	112.7	126.0	133.0	134.0	132.0
Interest expenditures (in % of public-sector debt)	7.4	4.4	4.6	4.8	4.9	5.0
Interest expenditures (in % of public spending)	18.4	11.2	12.6	14.2	15.3	15.3
Interest expenditures (in % of GDP)	7.4	5.0	5.8	6.4	6.6	6.6

Given the above, a need for additional improvements to the consolidation program would appear to be the logical consequence. This is exactly what Greece did of late when it announced additional savings proposals accounting for around 2% of GDP. Any more ambitious savings program will, however, put more of a damper on macroeconomic demand in 2010. If Greece manages to implement its more vigorous savings program in full, we expect the government to hit its target as far as reducing the budget deficit is concerned, but also predict a 5% slide in GDP. The economic downturn would likely start slowing down as early as 2011/2012. The markets would reward the country for reducing its new borrowing levels, and risk premiums on Greek government bonds would be cut considerably. Debt levels would likely start declining slightly as early as 2013. Although interest expenditure would also increase as a proportion of the government budget, it would reach a high of around 15% in 2012/2013. All in all, this means that, while Greece's government finances will remain in something of a predicament for some time to come, even if the country sticks to its rigorous savings regime, the rising tide of debt can be halted fairly soon.

#### IV. OPTIONS FOR CRISIS PREVENTION

The Greek debt crisis comes as a major watershed for European Monetary Union. What conclusions will have to be drawn so that member states can avoid similar difficulties in the future?

The recent events have brought those voices skeptical of European Monetary Union back to life. The economist Nouriel Roubini has even warned that monetary union could disintegrate completely, with a number of economies marred by fiscal imbalances and dwindling competitive appeal. The critics believe that the recent events have confirmed their conviction that the economic differences within the euro area are too stark to allow monetary union to survive without other far-reaching coordination and adjustment mechanisms being embedded in economic policy.

At the core of the debate is the "no bailout" clause, which prevents EMU member states from assuming liability for the debt of other member states. The idea behind the clause is that responsibility for ensuring solid state finances should remain in the hands of the national governments, even within monetary union. There is no doubt that the latest promise of assistance for Greece in the event of an emergency leaves the EU treading a very fine line as far as the "no bailout" clause is concerned. From a political perspective, the commitment has shaken the very core of the clause. But if this does, in principle, imply that every EMU state is promised the help of the community in the event of an emergency, it is all the more important to ensure that a recipient's decision to make use of this help comes at a price. Otherwise, the offer of help would be tantamount to a reward for bad political decisions.

A number of proposals have come up for discussion in this respect. One of these proposals is the idea of a European Monetary Fund, which would grant loans to countries experiencing financial difficulties subject to certain conditions. This would require the establishment of an institution that would monitor the policies pursued in the EMU states. In our view, the main problem surrounding this idea is the fact that yet another EU institution would have to be set up, tying up budgetary funds in the long term and with a remit that would most likely overlap with the responsibilities of the international organizations that are already in place.

But an even more compelling argument is the fact that the availability of a permanent rescue fund would eliminate the incentive for member states to aim for genuinely

systematic policies, causing the moral hazard problem to rear its head. The euro area should be a region of unconditional stability. As a result, we believe that the debate should start by focusing less on how to manage debt crises, and more on how to prevent them in the first place. A whole host of improvements could be made in this respect. It is not even as if the EU would have to reinvent the wheel. The Stability and Growth Pact has a preventive arm that could be expanded.

In our view, it is important to bear in mind that high levels of new borrowing in the wake of a financial crisis only become problematic for a country if debt levels were high even before the crisis. In addition to its lack of credibility, it is precisely this long-standing heavy debt burden that is Greece's main problem. Interestingly enough, all of the excessive deficit procedures (EDPs) launched within the EU to date have been successful in the sense that the countries affected have managed to push their new borrowing down to less than 3% of GDP within the space of a few years. Nevertheless, this has done nothing to change the high debt levels of some countries. Accordingly, the primary goal of any crisis prevention program must be to reduce debt levels, which are now well above 60% of GDP in the majority of EU countries. It will not be enough to simply adopt the EDP requirement of reducing new borrowing to less than 3% of GDP. The 3% threshold was set at a time when Europe was operating in a different macroeconomic environment – high growth, higher inflation – to that which prevails today. In a climate of lower growth and very low inflation, however, budgets have to be as good as balanced over a prolonged period before the debt-to-GDP ratio can be reduced to any considerable degree.

Each and every EU country already has to draw up income and expenditure projections for the current year, and the next three years, showing how it intends to achieve the medium-term objective of eliminating any structural budget deficit. In our view, however, asking every country to submit projections does not go far enough as a means of prevention. As a result, we propose the following:

- The incorporation of a clearly worded debt ceiling into EU agreements stipulating that, from a certain year onwards (preferably 2016), all EU countries must have a zero deficit (after adjustments for economic fluctuations). States could be asked to submit country-specific medium-term plans.
- The debt ceiling should be supplemented by specific spending regulations. One such regulation could state that the countries in question have to ensure that the average annual increase in government spending is at least two percentage points lower than the nominal GDP growth rate. Differences from country to country could be taken into account here, too. The German Council of Economic Experts (Sachverständigenrat) referred to positive experience with spending regulations in European countries in its most recent annual report.

In the long term, countries with hefty debt burdens will have to face sanctions if their budget is not balanced and/or if they fail to take sufficient measures to reduce their debt. Thought should also be given to the idea of “rewarding” countries that are particularly successful in curbing debt. This could involve providing them with financing from European Community bonds, which would be launched specifically for this purpose, based on favorable conditions.

As far as crisis prevention is concerned, it is also crucial to look beyond the horizons of government finances. High foreign trade deficits can flag up countries that are “living beyond their means” and struggling in terms of competitiveness, factors which hinder economic recovery after a slump and stand in the way of successful state consolidation

moves as a result. This is why reducing high foreign trade deficits should be incorporated into the preventive arm of the Stability Pact.

All of these precautionary measures are likely to be largely futile as long as the transparency surrounding government finances remains inadequate. The way in which Greece manipulated the statistics has shown that the Statistical Office of the European Union, Eurostat, has to be given extensive monitoring powers over the national statistics offices in the future. Effective crisis prevention will never make it into the realms of possibility unless national rights are restricted – at least not until all member states are equally committed to ensuring stability.

Furthermore, the processes set out in the Stability and Growth Pact are too long-winded and too complicated. The excessive deficit procedure described in Article 104 of the EU Treaty, for example, involves seven stages (1. Report on excessive deficit, 2. Decision on excessive deficit, 3. Recommendation on how to reduce the deficit, 4. Identification of insufficient measures, 5. Notice, 6. Non-interest bearing deposit, 7. Fine), and sanctions are not imposed until several years have elapsed. There is no doubt that this procedure is far too complex and involves a continual to-and-fro between the European Commission and the Ecofin Council, with the Council responsible for making the ultimate decisions. Many of these steps could be shortened or even dispensed with entirely.

Radical moves to streamline the procedure, coupled with the involvement of a commissioner responsible for coordinating and monitoring the financial policy of the member states is one possible reform model. This commissioner should be endowed with far-reaching powers, including the right to inspect countries' medium-term financial plans down to the small print, imposing requirements as regards amendments to these plans, identifying deviation from income and expenditure plans and, where appropriate, demanding that corrections be made and imposing sanctions. It goes without saying that the creation of a position with powers on this scale would make considerable inroads into the financial policy sovereignty of the EU states. Nevertheless, we believe that sweeping changes of this nature are a must for the Stability and Growth Pact if the EU wants to win back the lost confidence in the Pact's effectiveness.

These assessments are, as always, subject to the disclaimer provided below.

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