



BANK OF FINLAND  
BULLETIN

EUROJÄRJESTELMÄ  
EUROSYSTEMET

1 • 2011

Monetary policy and global economy



## Contents

Monetary policy and the global economy.....	1
Finland's economic outlook 2011–2013.....	19
How can we indentify risks to macrostability?.....	38
Macroprudential policy and its relationship to monetary policy .....	52
New facilities help safeguard financial stability in Europe.....	67

### Bank of Finland Bulletin 1 • 2011

Vol. 85

Published 14 April 2011

The Bank of Finland Bulletin is published  
five times a year.

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#### Printed

by Multiprint Oy, Vantaa 2011

The contents of the Bulletin may be  
freely quoted, but due acknowledgement is  
requested.

ISSN-L 0784-6509 (print)

ISSN 1456-5870 (online)

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The cover picture depicts the national motif on  
the Finland's 50 cent coin: The Finnish heraldic lion.

# Monetary policy and the global economy

16 March 2011

The world economy has been recovering from the economic crisis during the latter part of 2010 and early months of 2011. According to the Bank of Finland's March 2011 forecast<sup>1</sup>, the world economy and world trade will continue to grow at a brisk pace, but with large divergencies. The outlook for emerging economies is still for strong growth, and recently prospects for the United States have also improved. Although recovery in Europe has continued, there is increased disparity in developments across the region. The rapid increase in world market prices for energy has fuelled inflation also in the slowly growing advanced economies, which need to pay close attention to their monetary policy settings. If the rise in energy prices due to supply concerns were to be elongated, this would also damage the outlook for the world economy. The natural disaster in Japan poses a new threat not only for the Japanese economy but for the global economy as a whole.

Following a surge in the early part of 2010, growth of the world economy waned slightly towards year-end. Around the end of 2010 and start of 2011, recovery regained momentum. Even so, growth still remains highly divergent in different regions, with the emerging economies under China's lead still firmly at the forefront. Advanced economies, in

turn, have witnessed continued slow recovery by historical standards, and unemployment has remained high. Recently, differences in growth have also started to appear across the advanced economies. While the economic outlook for the United States and partly for Europe has improved, prospects have remained very weak for some European countries. Public finances, badly weakened by the financial crisis, continue to weigh on economic activity and will require strong corrective measures in the coming years. In addition, within the financial sector, the improvement in banks' capital ratios is still pending.

The sustained robust growth in emerging economies has increased the demand for raw materials which has led to the elevation of their world market prices. This has fuelled inflation the world over. Emerging economies already face more broad-based inflation – not limited to commodity price increases – and have commenced with monetary tightening. Recovery has been slower and price trends more moderate in the euro area, Japan and the United States. These have also devoted greater attention to rising inflation, but price increases are seen as temporary and monetary policy has remained highly accommodative. Domestically-generated inflationary pressures in advanced economies have so far been held in check by economic slack, as reflected, for

<sup>1</sup> Bank of Finland forecast based on data available at 1 March 2011.

example, in low employment and capacity utilisation rates. Money supply growth and wage increases have also been subdued.

The risks to the world economic outlook reflect the current exceptionally high level of uncertainty. The main ongoing risk to growth prospects is that no comprehensive solution that would restore investor and public confidence will be found for the government debt crisis. New risks to growth are posed by the crisis in North Africa and the resultant concern about the adequacy of oil supplies, as well as the earthquake in Japan and its consequences for the Japanese and the global economy. As regards inflation, the risks are largely on the upside and relate to developments in commodity prices, pass-through of food prices to consumer price inflation and pressures for indirect tax increases.

*The divergence in growth between emerging and advanced economies will continue.*

### **World economic growth to continue at diverging rates**

The strongest recovery phase in the world economy occurred around the end of 2009. Growth levelled off in mid-2010. The slowing was due to the fading-out of factors related to the recovery from the economic crisis that had provided a temporary boost to growth. The halting of fiscal stimulus measures or a waning of its impact reduced demand in many countries. As, at the same time, adjustment of inventories had been completed in many countries, the

phase of temporary growth factors began to wind down.

Recent months have seen signs of a renewed pick-up in world growth. Stock prices and various confidence indicators, for example, have risen in advanced economies during the winter. However, the North African crisis and resultant concern about the adequacy of oil supplies have emerged as new factors casting a shadow over growth prospects.

The growth rate of the world economy is likely to remain fairly high over the next few years. Meanwhile, however, the divergence in growth rates, which began to separate the emerging and advanced economies in the 2000s, is likely to continue (Chart 1). Emerging economies are anticipated to post robust growth under China's lead. By contrast, advanced economies, struggling with the accumulation of public debt, population ageing and structural problems, are predicted to continue recovering at a slow pace by historical standards. The forecast projects that the emerging economies' share in the world economy exceed that of the advanced economies by the end of the forecast period (Chart 2).

The economic crisis constrained investment in most advanced economies, thereby lowering the rates of potential growth. As estimated by the OECD, the average potential growth rate for the OECD countries dropped from 2.7% in 2000–2007 to 1.6% in 2010–2015. According to

the Bank of Finland's forecast, advanced economies will not be able by 2013 to close the output gaps that developed during the crisis.

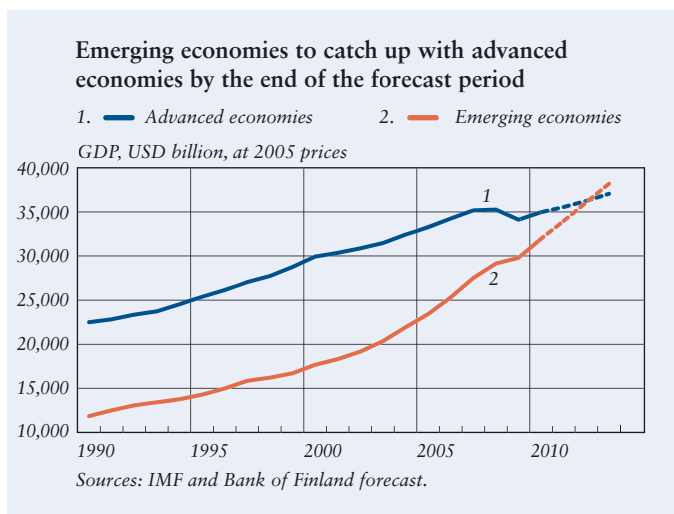
There are a variety of explanatory factors behind the rapid growth of emerging economies. Imports of more sophisticated technologies and better models of production have boosted productivity growth. In addition, their economic policy institutions have been upgraded and economic policy has become more coherent, while their production and export structures have become more diversified. Specifically in Asia, cross-border trade has increased vigorously, which has reduced their dependence on advanced economies to some extent. On the other hand, the expansion of regional trade in Asia is largely related to the fragmentation of production chains and intermediate goods trade; finished goods still mainly end up in the markets of advanced economies, notably the United States and Europe. Nevertheless, robust growth has meant a significant contraction in the standard of living gap between advanced and emerging economies. Higher income levels in emerging economies will improve their possibilities of generating more domestically driven growth based on consumer demand, thus reducing the countries' dependence on demand from advanced economies.

A strengthening of protectionism in different parts of the world, which

Chart 1.



Chart 2.



was feared during the crisis, remained relatively limited. World trade has expanded rapidly since the crisis, the volume already having reached the pre-crisis level. World trade growth is also expected to continue in the years

Chart 3.

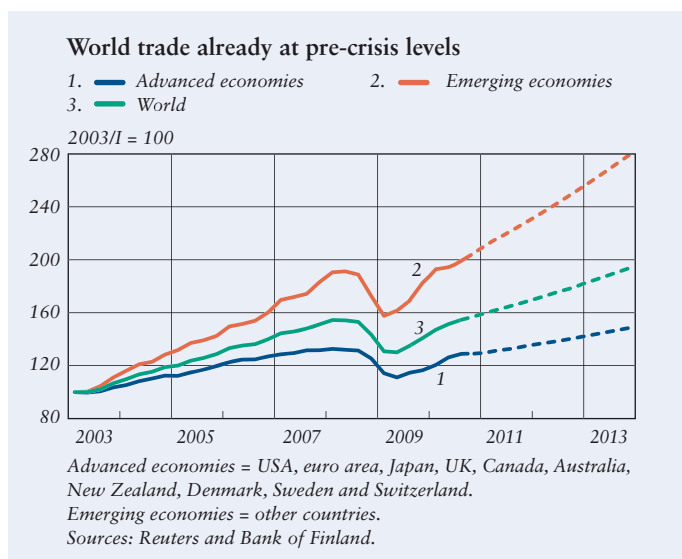
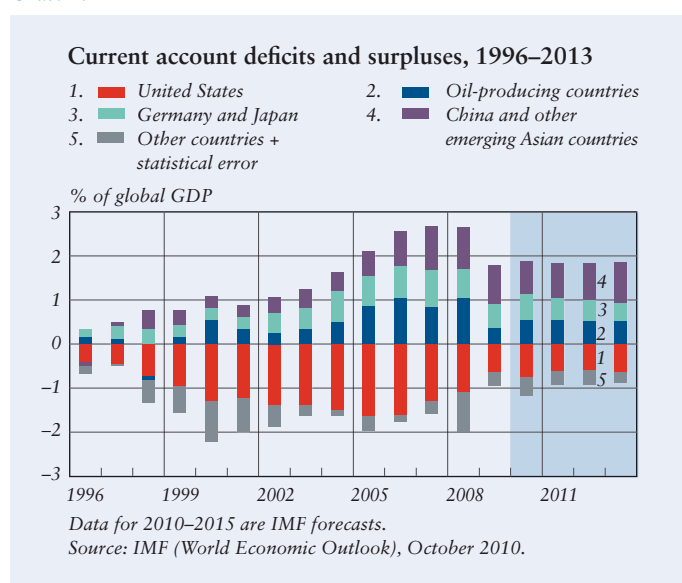


Chart 4.



to come, albeit at a more moderate pace than in 2010 (Chart 3). Emerging economies will continue to post much faster growth in trade than the advanced economies. The current account imbalances built up in the

world economy in the 2000s diminished during the crisis, but started to increase again in 2010. However, the imbalances are not expected to enlarge in the period ahead, but should stabilise at current levels (Chart 4). This is due in particular to China's economic growth becoming increasingly consumption-driven.

The situation in the financial sector, which was at the core of the financial crisis, has improved during the early months of 2011, and many firms in the sector have reported favourable earnings developments and prospects. Despite this amelioration, the strengthening of banks' capital ratios is still pending and risk premia are pronouncedly higher than before the crisis (Chart 5). Access to finance has improved, but growth in bank lending to the private sector remained subdued throughout 2010, in both Europe and the United States. In particular, there was almost no growth in loans to non-financial corporations last year. This is probably due mainly to firms' small borrowing requirements. As capacity utilisation rates and investment levels have been low and firms' earning capacity has been good, there has been little need for external funding.

In the **United States**, economic activity was favourable at the end of 2010, following the resumption of growth after the middle of the year. While economic recovery in many

other countries has been driven by export markets, growth in the United States during the winter has been based mainly on the strengthening of domestic consumer demand. Consumption has been primarily boosted by the spending out of savings, as the increase in household income has been modest. Employment developments have only slightly buttressed consumption growth, and the unemployment rate is still high. The unemployment rate declined slightly during the winter, but this was due mainly to a contraction in the labour force; the number of the employed rose only slightly.

The situation in the US real estate sector is still vulnerable, as recovery from the crisis advances sluggishly. Recently, new building permits have been granted in smaller numbers than ever before, and the rate of real estate occupancy has remained low. However, the fall in house prices appears to have bottomed out. As regards the financial sector, which suffered from the bursting of the bubble in the real estate sector, the situation has also improved during the winter. Banks' earnings have been good, and they have gradually loosened their lending policies. This notwithstanding, the stock of credit extended to industry and trade has not begun to increase.

The extensive taxation package decided in December is targeted mainly at supporting private consumer demand, which is of vital

Chart 5.

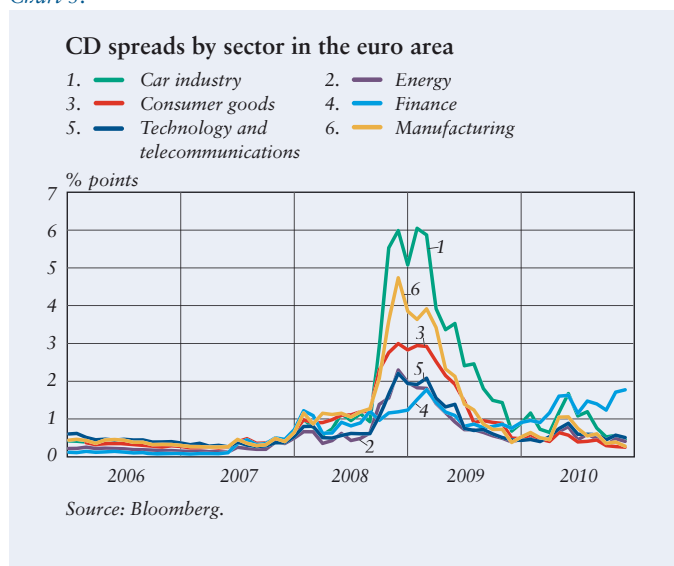
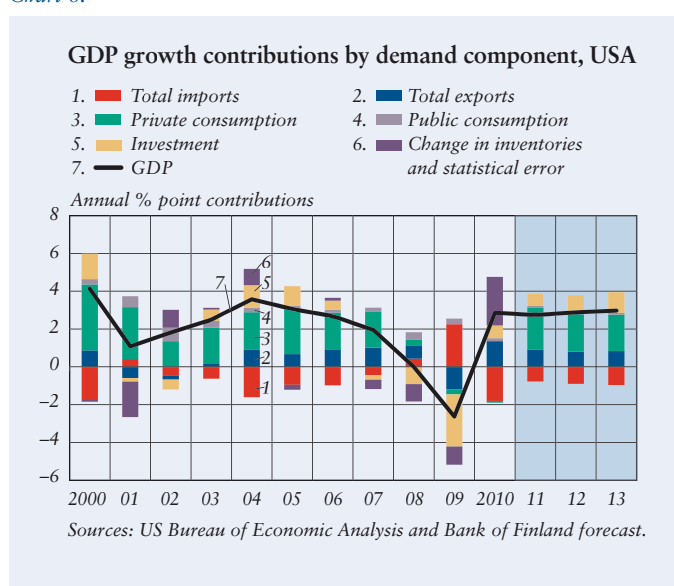


Chart 6.



importance for the US economy. The Bank of Finland's forecast sees the package as stabilising the country's quarterly growth at its current level of 0.7% (Chart 6). In the next few years, private consumer demand will

be a driver of growth, but growth in investment demand is also expected to gain traction. The stimulus programme means a long period of very large deficits in public finances, including the current year. Looking ahead, it will be necessary to reduce the deficit, and growth in public demand will remain muted.

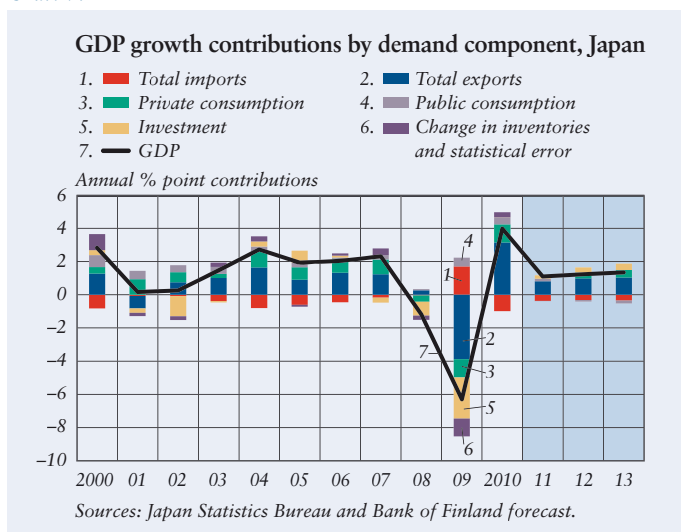
**Japan** bounced back from the financial crisis fairly quickly, supported by greatly expanded exports. In the first three quarters of 2010, growth also spread to domestic consumer demand, underpinned by the government stimulus programme. The temporary measures to support consumption were discontinued in September, which caused consumers to advance their purchases to the third quarter. At the same time, this led to a decrease in consumption in the fourth quarter, which also reduced total GDP. Owing to the

strong first three quarters, however, last year's GDP growth was almost 4% year-on-year, according to preliminary estimates.

The Bank of Finland's forecast foresees only slow growth in the Japanese economy in the coming years (Chart 7). The rapid growth in private consumer demand in 2010 is seen as exceptional, and consumer demand is projected to be weak in the near term. Unemployment is at a fairly high level by historical standards, and nominal earnings developments are predicted to be subdued. Instead of consumer demand, Japanese growth is expected to rely heavily on exports, as in many previous years. With the world economy rebounding, investment demand in Japan is also expected to increase. Moreover, the country will be forced to tackle the constant accumulation of public debt and deflation. The Japanese population is ageing rapidly, and the change in the population structure adds to the challenges of economic policy.

The Bank of Finland's forecast was completed prior to the onset of the earthquake in Japan. As the article goes to press, information on the consequences of the disaster is still so defective that it is impossible to undertake a reliable assessment of the scale of economic implications. They will be negative, but their intensity, duration and spillover to the rest of the global economy are still very unclear.

Chart 7.



**Emerging economies** have experienced a continuation of robust growth. Notably in **China**, the economy continued to record very high rates of growth; alongside domestic investment and consumer demand, demand for Chinese products in world markets has already risen to a higher level than before the crisis. Strong economic growth is also forecast for the period ahead, at the same time as the economy starts to migrate from current investment- and export-driven growth towards more consumption-driven growth (see Box 1). **India** is also on a path of robust growth, already witnessing a jump in economic growth to nearly 10% in 2010. In particular, strong growth is bolstered by urbanisation and investment-induced productivity growth, as well as increased private consumption. However, the long-standing large deficit in public finances, the current account deficit and higher inflation are on the list of concerns for the country's leadership as regards economic policy. Although India faces tough economic policy decisions, the economy is expected to post solid growth in the coming years as well.

The **Russian** economy, which contracted sharply during the crisis, began to recover slowly, with growth remaining clearly slower than expected in 2010. In previous years, growth in Russia has been closely linked with developments in the world market prices for energy, but the elevation of energy prices lent less support to the

Russian economy in 2010 than in the case of other oil-producing countries. The Russian economy was driven last year by domestic consumer demand, but investment also regained growth towards year-end. Higher domestic demand is also expected to boost economic growth in the period ahead (see Box 2).

**Latin America** has continued its rapid recovery from the financial crisis, led by **Brazil**. The region has pursued successful economic policies and benefitted from the rebound of the world economy, as higher world market prices for raw materials, for which the region is an important producer, have brought additional revenues, thus boosting growth in consumer demand. Meanwhile, the region has been an attractive target for investment. Growth is expected to remain strong in the years ahead, albeit slightly slower than the very rapid pace seen in 2010.

### **More divergence in Europe**

Despite widely reported difficulties encountered by peripheral European countries, a large part of Europe continued to recover in 2010. The divergence in economic performance between the countries became increasingly apparent. While Germany and its neighbouring countries experienced robust growth, the economies suffering from the debt crisis contracted or grew only very slowly. However, the growth decelerated towards year-end from

*China is forecast to continue its robust economic growth.*

the exceptionally high rates observed earlier in the year, as the temporary impetus from inventory replenishment, which had fuelled growth in the early part of 2010, began to recede. Simultaneously, the strong export growth also began to lose momentum. Nevertheless, growth in new export orders picked up again in the last months of the year, and survey results point to firms' expectations of a rebound in export growth in the early part of 2011. Firms' better prospects have also been passed through to the stock markets, which had been on the rise during the winter until the situation in North Africa came to a head.

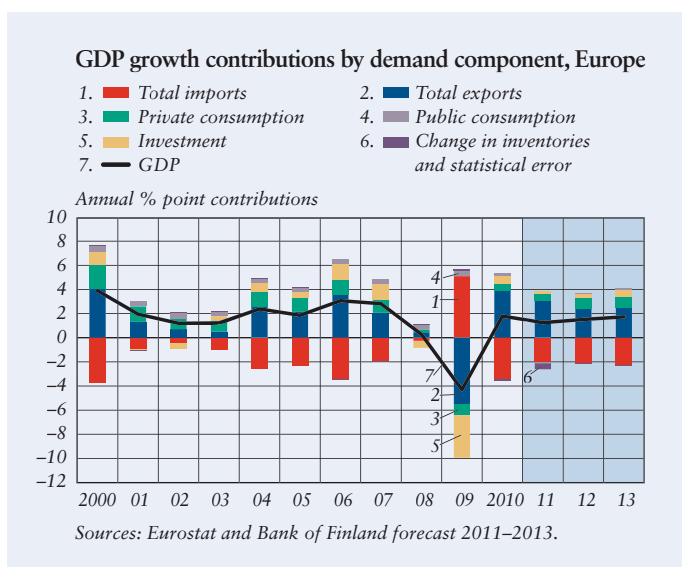
Consumption growth has been curtailed by high unemployment. Differences in unemployment rates between the countries are very large: in the Netherlands, the unemployment

rate is slightly over 4%, compared to more than 20% in Spain. High unemployment has also been reflected in sluggish earnings developments, which have had a constraining effect on consumption growth.

According to the Bank of Finland's estimate, Europe will continue to see sluggish economic growth in the coming years, as most European countries must reduce their public deficits (Chart 8). Deficit reduction will take place mainly in 2011 and 2012 and will impair the economic outlook. Although the aim is to reduce deficits mainly by cutting public expenditure, many countries will also need to raise taxes. The problems in rebalancing public finances also increase uncertainty in the economy, thereby impacting on consumer confidence. In an uncertain economic situation, consumers may start to display great caution and postpone their consumption decisions. In addition, the inventory cycle is entering a phase where it will curb GDP growth.

Underlying the robust economic growth of the largest European economy, **Germany**, is the strong pull of exports, enabled by continued strong competitiveness, which has lifted business confidence indices to all-time highs. However, a pick-up in investment demand is also expected, as industrial capacity utilisation rates have already risen to high levels. Despite expectations, Germany's robust growth has not yet spilled over

Chart 8.



to private consumer demand, which has expanded only moderately.

Ireland raced into difficulties in autumn 2010, as market confidence in the country's ability to cope with its banking sector problems collapsed. Thus, Ireland had to negotiate a broad-based financial plan with the International Monetary Fund and the EU. The crisis in Ireland resulted from the bursting of a bubble in the real estate sector. Banks that had financed the real estate sector ran into problems, which had finally to be taken on by the government. The fall in property prices continued as the year wound to an end. Even so, surveys point to a strong improvement in the condition of Irish manufacturing companies during the

winter. The situation in the service sector has also started to improve.

Towards the end of 2010, economic activity was highly divergent across the other peripheral euro area countries that had encountered difficulties – Italy, Spain, Greece and Portugal. While, in the fourth quarter of 2010, the pick-up in economic growth in Spain was larger than expected, growth almost stalled in Italy. The Portuguese economy started to shrink towards the end of 2010, whereas Greece witnessed contraction throughout the whole year. These countries have in common weak international price competitiveness – a consequence of a long-sustained rise in labour costs exceeding productivity growth.

Table.

Bank of Finland forecast for world economy					
GDP	2009	2010	2011 <sup>f</sup>	2012 <sup>f</sup>	2013 <sup>f</sup>
United States	-2.6	2.8	2.7	2.9	3.0
EU (20)	-4.2	1.7	1.3	1.6	1.8
Japan	-6.3	4.4	1.1	1.2	1.3
China	9.2	10.3	9.0	8.0	8.0
Russia	-7.8	4.0	5.5	4.7	4.1
World	-0.7	5.0	4.2	4.1	4.2
Imports	2009	2010	2011 <sup>f</sup>	2012 <sup>f</sup>	2013 <sup>f</sup>
United States	-13.8	12.7	4.9	5.6	5.8
EU (20)	-11.9	9.7	4.9	4.6	5.0
Japan	-15.4	9.8	3.5	3.0	3.1
China	3.0	25.0	11.0	11.0	11.0
Russia	-30.4	25.4	15.6	9.5	9.0
World	-11.3	13.6	7.6	7.1	7.4

*f* = forecast  
 % change on previous year.  
 Sources: National statistical authorities and Bank of Finland forecast.

Following strong performance in the third quarter of 2010, the UK economy suddenly contracted in the fourth quarter, as hibernal weather conditions cut back construction and private consumer demand also contracted. The situation in the banking sector has improved since the crisis, but the sector's close links with Ireland give rise to uncertainty. Efforts are being made to reduce the large public deficit, which will be a drag on near-term growth.

For the Swedish economy, 2010 was a year of rapid recovery. GDP growth for the whole year was 5.5%. Although krona appreciation weakened the price competitiveness of Swedish products and dampened exports, the country's recovery did not depend solely on exports. Domestic demand also increased markedly. Despite a slowing from last year's exceptionally robust growth in the current year, the outlook remains favourable.

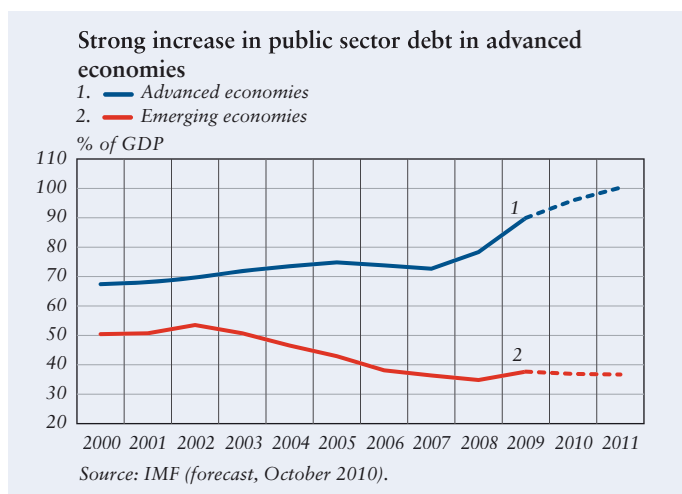
Like Germany, Finland experienced a strong rebound in 2010, although it started a little later than elsewhere in Europe, as global demand for capital goods increased. Finland's economic outlook is discussed in greater detail in the following section.

### Recent crisis poses a long-term challenge to fiscal policy

A rapid contraction of the tax base, large economic stimulus and in some countries the banking sector reliance on government support boosted government debt levels all over the world during the crisis. Accumulation of debt has been particularly pronounced in advanced economies (Chart 9). There, the public sector debt levels are already approaching 100% of GDP. Debt expansion will continue in 2011, as the public sector deficit in the European Union is estimated at about 5% of GDP, and remains close to 10% of GDP in Japan and the United States. Such a swift increase in debt levels in advanced economies is not sustainable, and the countries concerned will need to reduce their deficits in the years to come. Despite savings measures, the debt growth will continue over the next few years. Many emerging economies have also had to borrow for stimulus purposes in recent years, but rapid economic growth has held their debt ratios in check.

Balancing of the US federal budget has progressed more slowly

Chart 9.



than expected. In December 2010, Congress finally reached an agreement on taxation principles for the current and coming years. The deterioration of the economic outlook in the summer, persistent high unemployment and a difficult political situation led to an expansionary compromise, as a result of which the federal deficit is expected to return this year to close to its record level of 2009 – nearly 10% of GDP. The fiscal package includes further tax relief for households, lower employer contributions, extension of unemployment benefits and one-off tax deductions for investments. The US Congress is currently debating President Obama's February budget proposal for the coming years. The proposal is still very cautious about cutting the deficit, and the Republicans in particular are expected to argue for more budgetary discipline over the course of the debate.

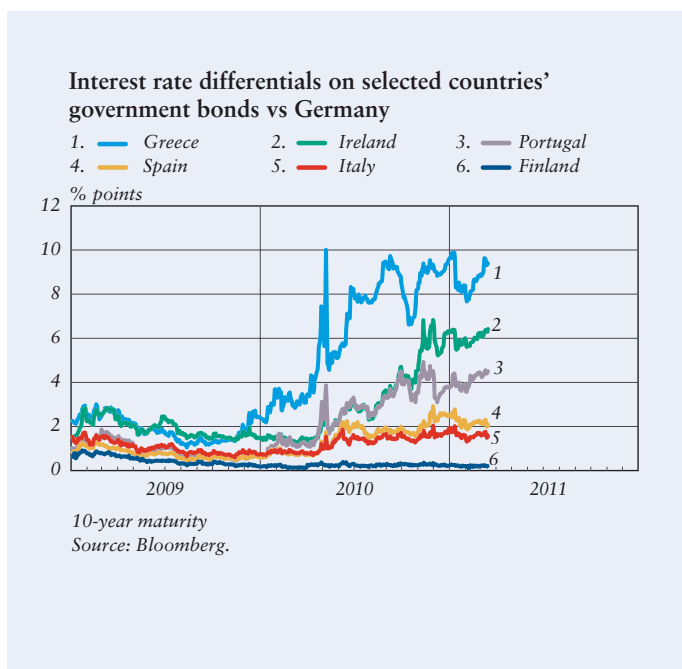
Debt problems have come to the fore especially in Europe, where in the past three years eight countries have already found it necessary to seek emergency funding from the International Monetary Fund. In 2010, emergency funding was also needed in euro area countries. Greece was the first to agree, in May, with the International Monetary Fund and the EU, on a comprehensive financial support package (EUR 110 billion), followed by Ireland in December (external financing amounting to

EUR 67.5 billion). The financial assistance packages were conditional on the countries' commitment to economic programmes aimed at stabilising public finances. Revisions carried out in autumn 2010 revealed a larger Greek central government deficit than earlier reported in respect of 2006–2009, in connection with the inclusion of state-owned companies in the government accounts. In addition to previously decided cuts in public expenditure, Greece has promised to announce by May new savings measures that should move the central government deficit below 1% of GDP in 2015. The markets continue to price Greek government bonds as having the highest risk among the euro area countries.

Yield differentials between government bonds have continued to widen in the early part of 2011, signalling market uncertainty regarding peripheral euro area countries (Chart 10). In those countries, where the sustainability of public finances is challenged by the markets, economic growth can no longer be supported by increasing public expenditures. Economic stimulus efforts via public expenditure would immediately raise the cost of debt servicing. Countries that can still raise funds easily from the markets have considerably wider scope for fiscal policy manoeuvre, enabling a slower, step-by-step consolidation of public finances. The weak condition of public finances

*Government bond yields for peripheral euro area countries have continued to rise in the early months of 2011.*

Chart 10.



and the measures to bring them into balance constitute the main uncertainty factor for economic performance in Europe in the coming years.

The outbreak of the government debt crisis led to efforts to strengthen European institutions so as to prevent crises from emerging and contribute to minimising the damages when they do occur. At the end of 2010, euro area governments agreed on the establishment in 2013 of a permanent crisis management framework, the European Stability Mechanism (ESM). The objective itself was warranted, but many of the elements envisaged for the ESM gave rise to uncertainty about the position of current holders of debt issued by the

governments of crisis-ridden countries, which complicated the handling of the ongoing debt crisis.

With respect to public finances, the emerging economies appear to be in a better position than advanced economies. However, compilation of government finance statistics is a difficult task, and this will be a challenge especially for emerging economies. In China, for example, public sector debt does not generally include local government obligations, which have increased considerably over the last five years. According to most estimates, they were in 2010 at least as large as the generally reported government debt (about 20% of GDP).

### Commodity price developments pose a challenge to monetary policy

Like economic performance, the rise in prices has been highly divergent across countries. Rapidly growing emerging economies already witnessed higher inflation in 2010, whereas price increases remained muted in the advanced economies. Robust growth and a spurt in demand for raw materials in emerging economies fuelled the rise in world market prices of commodities (Chart 11). At the same time, political instability in the important energy-producing regions of North Africa and Near East has increased the uncertainty about oil supplies and stepped up the rise in the world

market prices for oil. Food prices have also risen apace, as many countries have seen crops fall below targets because of difficult weather conditions. Higher food prices have a marked impact on consumer prices in emerging economies, as the weight of food in consumption baskets is often higher in emerging economies than in advanced economies.

Rising energy prices have pushed up inflation in both the United States and the euro area in recent months (Chart 12). However, the increase in consumer prices other than energy and food prices has been moderate in both regions, with underlying inflation (excl. energy and perishables) running just above 1%. In advanced economies, domestically driven inflationary pressure has so far been dampened by economic slack, reflected in, for example, lower employment and capacity utilisation rates. Monetary expansion and wage increases have also been moderate. But a pick-up in economic activity could lead to larger wage increases, which would be reflected in a higher rate of underlying inflation.

The rise in world market prices of energy has rapidly passed through to the energy component of consumer prices in the euro area, whereas there has been almost no pass-through from the rise in prices of unprocessed foods. Accordingly, in the period ahead, euro area inflation may rise faster than expected if world market prices of food start to filter with a lag

Chart 11.

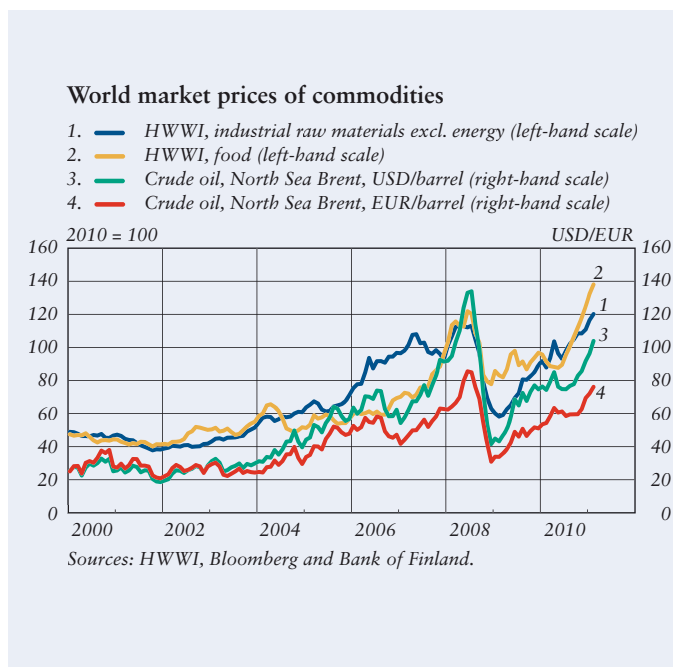
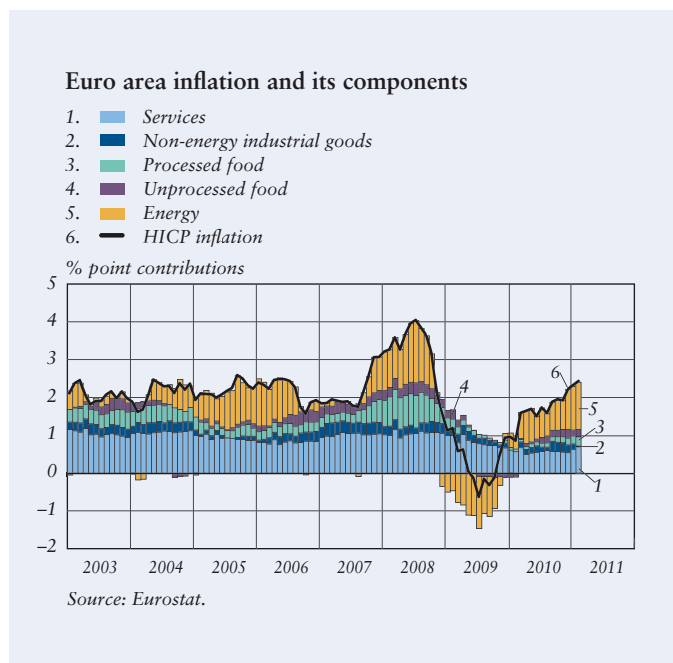


Chart 12.



into consumer prices. More expensive energy will also raise the costs of production and distribution for other products, which will be reflected in inflation with lag.

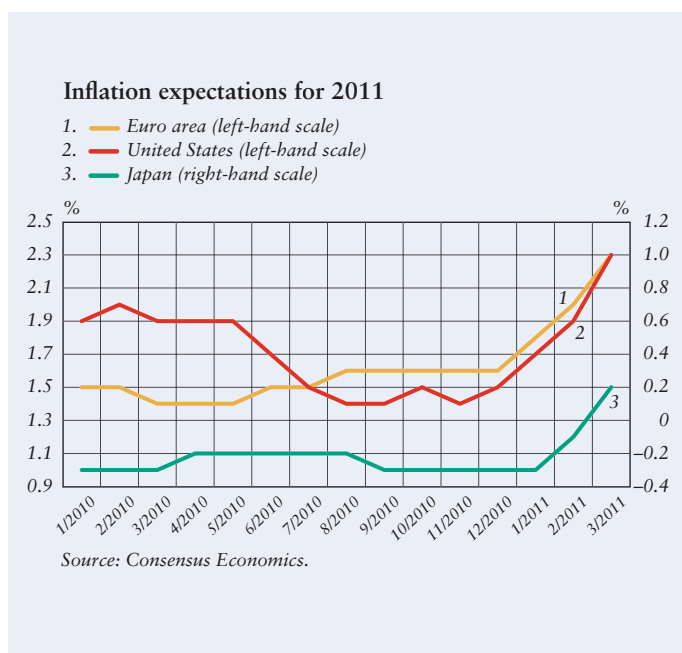
Key to monetary policy is the extent to which higher energy and food prices spread beyond pure changes based on cost increases into domestically-driven inflation dynamics. When most recently in 2008 there was a sharp increase in the world market prices of crude oil and food, domestic demand in the euro area was robust, as became evident in a rise in domestically-driven inflation. At present, with domestic demand in the euro area clearly more subdued and the output gap apparently still large, the risk of a

burst of domestically-driven inflation is smaller.

Higher raw materials prices will provide a notable temporary boost to euro area inflation in the coming years, and inflation forecasts have been revised upward during the winter (Chart 13). According to the March 2011 ECB staff projections, average euro area inflation will be between 2.0% and 2.6% in 2011 and between 1.0% and 2.4% in 2012. In the United States, inflation forecasts have also undergone upward revisions, but have remained fairly moderate. In Japan, the fall in prices is expected to come to an end in 2012. In China, inflation has already climbed to 5%, driven by rising food prices.

Because many emerging economies experienced robust economic growth and higher inflation in 2010, they have begun to tighten monetary policy. Many countries started the policy tightening relatively late, as they wanted to ensure ongoing domestic economic growth in a situation where the recovery of the world economy was still very fragile. Despite the tightening, the stance of monetary policy in most countries has remained accommodative, as witnessed by the fact that inflation, having increased despite rises in nominal interest rates, has kept real interest rates low. China, for example, began monetary tightening already around the end of 2009 and continued with greater intensity in

Chart 13.



autumn 2010. In addition to interest rate increases and higher reserve requirements for commercial banks, authorities have engaged in window guidance in order to restrict lending.

Questions regarding the formulation and timing of monetary policy pose a particular challenge to advanced economies, which are at the initial stages of fragile growth. In these countries, the rapid rise in the world market prices of energy has fuelled inflation, while more broad-based inflationary pressures have remained moderate so far. Tightening monetary policy too soon could jeopardise the nascent recovery. On the other hand, waiting too long to tighten could lead to an even worse outcome in terms of medium-term growth. If the credibility of the price-stability objective is weakened, the central bank, in order to restore credibility, may find it necessary to raise interest rates more than would be otherwise necessary.

In the United States, where the central bank's tasks include not only curbing inflation but also keeping unemployment at a moderate level, monetary policy has not been substantially revised. Compared with the long-term targets set by the Federal Open Market Committee (FOMC), both inflation and unemployment are still far from the targets. The Federal Reserve has kept the federal funds rate in a very low range of 0–1/4% since the end of 2008. Meanwhile,

the United States has continued the use of non-standard monetary policy instruments. A new programme for the purchase of US Treasury bonds (QE2) was launched in November 2010. The Fed has announced it will purchase, in this connection, USD 75 billion of Treasury bonds each month over a period of eight months.

In Europe, the Governing Council of the ECB has kept the rate on its main refinancing operations (MROs) at a record low 1% since May 2009 (Chart 14). Excess liquidity in the banking system declined in 2010, following expiry of longer-term refinancing operations (LTROs) (with maturities of six and twelve months) conducted to safeguard the transmission of monetary policy. The lower level of

Chart 14.

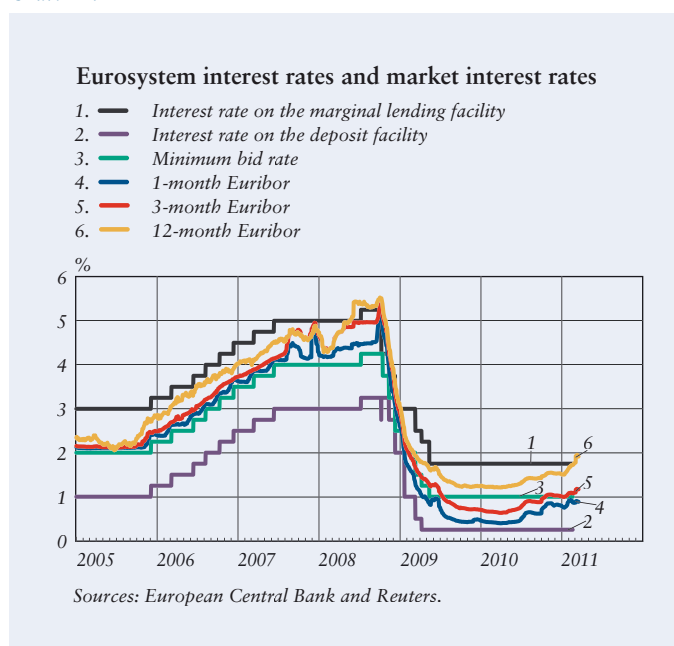
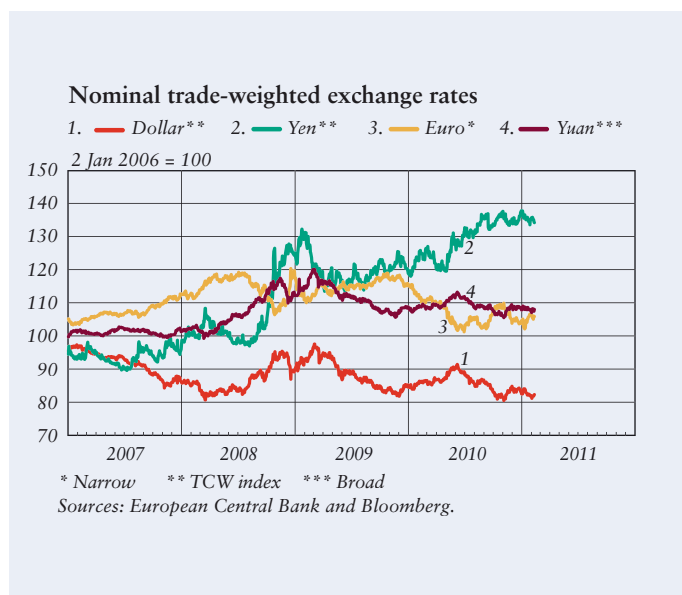


Chart 15.



liquidity has increased the price of money in the market, as the interest rate for market funds at the shortest maturity (EONIA, ie overnight interest rate) has risen from around 0.3–0.4% to close to the MRO rate. In the fourth quarter of 2010, the three-month EURIBOR rose above the policy rate, which had not happened for a long time, and the 12-month rate has risen to nearly 2%.

At its meeting held in early March 2011, the Governing Council of the ECB decided to keep the key ECB interest rates unchanged. It also decided to continue conducting the refinancing operations as tender procedures with full allotment. The main refinancing operations (MROs) and the fine-tuning operations will be carried out as fixed-rate tender procedures and the longer-term refinancing operations (LTROs) at the average rate of the MROs over the life of the respective LTRO, until the end of the second quarter. At the same time, however, the Governing Council noted that, owing to risks to price stability, strong vigilance is warranted in the future, in order to ensure that upside risks to price stability do not materialise and that inflation expectations remain firmly anchored at levels consistent with price stability.

*Key words: inflation, monetary policy, economic situation*

Box 1.

### Inflation forces China to dampen growth

China's GDP increased by 10.3% in 2010, which was in line with the Bank of Finland's previous estimate of late last summer. The outlook for the main trends in China's economic activity over the next few years also remains in place. China's GDP is expected to grow by 9% in 2011 and by about 8% in 2012–2013, which is close to the country's estimated growth rate for potential output.

Despite last year's rapid growth, China is in many respects only recovering from the exceptional circumstances caused by the global financial crisis. Following the investment spike due to stimulus measures and the related surge of lending, the Chinese authorities have had difficulties in curbing lending growth. On the back of relaxed monetary policy and rising food and commodity prices, inflation has picked up to a high level (5%) by Chinese standards. The policy tightening that commenced in 2010 is thus expected to continue until economic growth slows to a rate consistent with price stability.

After the investment-driven expansion of the crisis years, Chinese economic growth is anticipated to depend more on private consumer demand. In the crisis years, the contribution to GDP from consumer demand fell to about 35%, which is exceptionally low even in light of Chinese historical data. Developments in income and consumption will be

bolstered during the forecast period by a gradual improvement in employees' negotiating power, ongoing increases in minimum wages and a halt in working-age population growth. Appreciation of the yuan will also add to households' purchasing power. The contribution of investment to GDP growth rose to a staggering 46% in the crisis years. Looking ahead, however, investment is expected to increase at a slower pace than consumption.

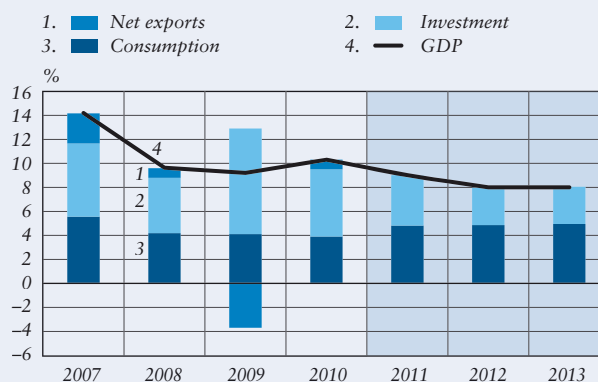
In the coming years, China's exports, which have expanded so as to make China the world's largest exporting country, are forecast to grow slightly faster than the 7% pa growth rate of world trade. Given the present considerably stronger GDP growth in China than in the rest of the world, imports are predicted to increase more rapidly than exports. Accordingly, the net

effect of foreign trade on GDP growth is expected to be limited. The country's current account surplus relative to GDP (5% in 2010) may decline to some extent in the period ahead, but developments are sensitive to price changes relevant to foreign trade.

Amid the burning problems of the world economy, China's economy appears to be on a strong footing. Even so, developments in the past couple of years portend some problems, of which inflation, housing price trends, credit expansion and local government finances have already come to the fore. Rapidly rising wages, deregulation of financial markets, and the more prominent international role of the yuan are natural elements of China's development, but they will also require a high degree of adaptability in the Chinese economy in the coming years.

#### Chart.

China's GDP growth and contributions of demand components



Sources: CEIC and BOFIT.

Box 2.

### Russian economy recovers from deep recession

Recovery of the Russian economy in 2010 was slightly slower than forecast: GDP grew by only 4%, due mainly to a strong rebound in imports and production losses caused by the historically hot and dry summer. Towards year-end, GDP was still some 5% below its pre-recession peak. From autumn 2008 to summer 2009, it declined by 11%, which is among the world's largest production losses attributable to the recent economic and financial crisis.

The Bank of Finland's forecast for Russia running up to 2011–2013 has remained in line with the Bank's previous prognosis of late last summer. The economy picked up in winter, and GDP growth is anticipated to be around 5% in 2011 and in 2012. Growth is expected to slow to close to 4% in the forecast period, assuming the price of oil does not go below USD 100 per barrel.

Russian imports rebounded in 2010 faster than forecast from severe contraction during the recession. Imports increased in volume terms by 25%. Growth levelled off in winter and is anticipated to slow in the future, thereby causing the economy's propensity to import to drop below the pre-recession level. This notwithstanding, imports are forecast to expand by about 15% in the current year and by some 10% over the next two years. The forecast points to a current account balance that will remain

at least slightly in surplus, even if import prices increase notably.

Economic growth is predicted to be driven largely by private consumption. Wages are expected to continue increasing at a fairly rapid pace. Increases in public-sector pay and pensions will be smaller than in the crisis years, although upward pressure will come from inflation and elections (for the duma in December 2011 and for president in March 2012). Driven mainly by rising food prices, inflation, which constrains the strengthening of purchasing power, has climbed to close to 10% pa and has led to monetary policy tightening.

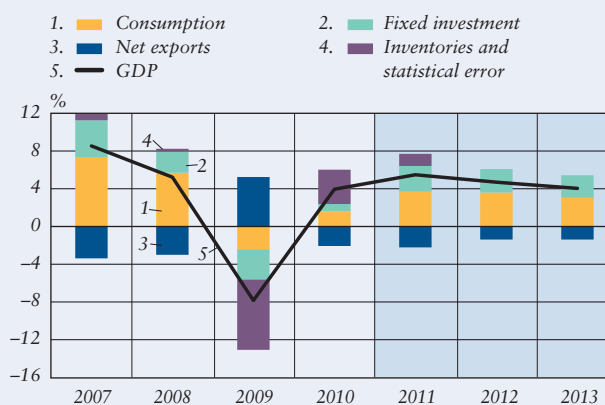
Public consumption may increase slightly, supported by additional revenue from higher-than-budget oil prices, which will also help boost government

finances from deficit (3.6% of GDP in 2010) to a position of balance. Russian export volume is estimated to grow slowly, as exports of crude oil and oil products are not expected to increase. This will be partly compensated for by growth in the exports of natural gas and other basic commodities. Investment has gradually risen from recession levels but is not expected to fully recover until 2011–2012, as firms still have more unused capacity than in the pre-recession period.

The risks to the forecast are mainly related to international energy and metal prices, which – favourably for Russia – may continue to rise. On the other hand, persistent high inflation could erode consumption growth. Investment recovery from the bottom of the recession may prove stronger than forecast.

**Chart.**

**Change in Russian GDP and contributions of demand components**



Sources: Russian statistical centre (Rosstat) and BOFIT.

# Finland's economic outlook 2011–2013

17 March 2011

**The Finnish economy will grow relatively briskly in the immediate years ahead. In 2011 the pace of growth will rise to almost 4%, but in 2012–2013 it will be much slower. Unemployment will fall only slowly, and general government debt will continue to grow during the forecast period. Inflation will accelerate this year to around 3%, easing back thereafter to 2% before the end of the forecast period.**

The Finnish economy recovered strongly in 2010, with growth bolstered by both domestic demand and exports. The substantial increase in output over the course of 2010 will also considerably boost the average growth figures for 2011. Growth will continue to be relatively brisk, but will slow noticeably towards the end of the forecast period. GDP will grow 3.9% in 2011, 2.7% in 2012 and 2.5% in 2013. The pre-recession level of output will be regained during the course of 2012, somewhat earlier than estimated half a year ago (Chart 1).

The recession has caused a contraction in the GDP share of industry, and conversely an increase in the share of service sectors, which are characterised by slower productivity growth. Over the longer term, this structural shift will weaken the growth potential of the economy.

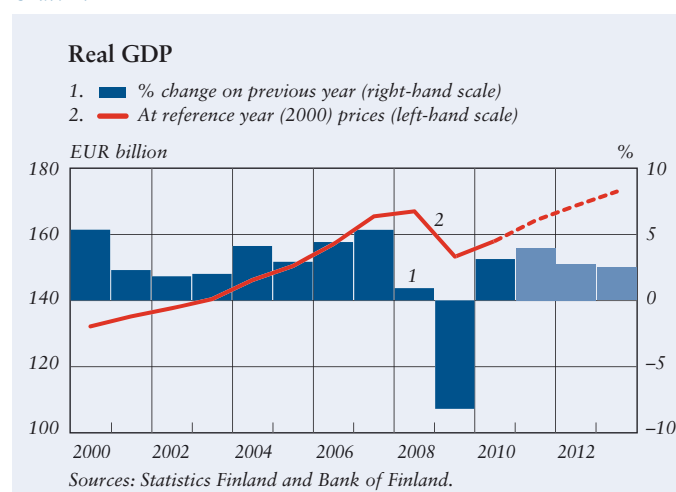
Export growth will be bolstered by stronger global demand for capital goods towards the end of the forecast period. On the domestic front, there will be brisk growth in construction

during the course of the current year due to an upswing in housing construction, but the pace of growth will ease somewhat thereafter. Corporate fixed investment will gather pace in the forecast period, but domestic demand will be restrained by the continued high household savings ratio. In the wake of the recession, the structure of aggregate demand has shifted towards the domestic economy, with a decline in the share of export demand.

The number of employed will increase with the brisk growth in output, and unemployment will come down by degrees to around 7% in 2013. Real wage earnings will decline slightly in 2011 due to an acceleration in the pace of inflation, but will increase thereafter by just under 1% per annum.

The general government deficit will contract, but government debt will not. At the end of the forecast period the general government deficit will be 0.8% and general government

Chart 1.



debt 54.0% of GDP. The current account will continue in surplus.

A rapid rise in commodity prices and increases in indirect taxation will drive inflation up to an average of around 3% in 2011. During the rest of the forecast period, inflation will gradually slow to around 2% per annum.

### Recent developments

Preliminary data indicate that Finland's GDP grew by 3.1% in 2010. The pace of growth was brisk, but total output by the end of the year was only at the level of 2006.

Recent developments in the Finnish economy have been mixed. On one hand, economic growth has strengthened and surveys indicate strongly improved confidence in the future. On the other hand, the rapid growth has touched only some sectors of the economy, and new areas of concern have emerged both internationally and domestically.

The recovery in industrial output has progressed at a very different pace in different industries. The chemical industry appears to have already recovered from the recession. Metal industry output, too, began to grow during the course of 2010, with particularly rapid growth in fabricated metals in response to export demand. There was only slow growth in electrical engineering and electronics, with output still almost 20 % below the level of 2008. There was brisk growth in forest industry output, but cuts in production capacity mean there

is no imminent prospect of a rapid return to the pre-recession level of output. Industrial output as a whole grew rapidly, particularly in the second and fourth quarters of 2010.

Finnish exports did not begin to recover until the second quarter of 2010, much later than the improvement in international trade. The prominence of capital goods in Finland's export structure meant that exports did not immediately respond to recovery in the export markets. There is still plenty of spare capacity in the global economy, resulting in only slow growth in fixed investment. The level of capital goods exports declined further in 2010 compared with the previous year, although exports did already begin to grow before the end of the year. The main drivers of Finnish exports in 2010 were forest and chemical industry products and fabricated metals.

In the early months of 2011, Finnish GDP growth appears to be continuing at a brisk pace. In addition to good early-year employment figures, this is also suggested by companies' continued positive expectations of the future. Order books have continued to strengthen, and the total value of new orders has grown. Order books are nevertheless still substantially below pre-recession levels, particularly in the metal industry. There was a marked improvement in the profitability of Finnish companies in 2010, which will also support the prospects for growth.

Consumer confidence levels recorded in Finland in 2010 reached a

*Finland's economic growth has strengthened, but new areas of concern have emerged.*

record high, even though the euro area debt crisis did at times cause uncertainty among Finnish consumers (Chart 2). Consumer purchasing power was bolstered in by an increase in household incomes, cuts in income tax, the improved employment situation and low interest rates. The increased purchasing power boosted car sales in particular, and also retail demand, with the latter returning to pre-recession figures. Consumption was also supported by rising asset prices.

The stronger confidence and continuation of low interest rates continued to encourage the taking out of new housing loans. Strong demand and scarcity of supply helped to push up housing prices, particularly in the early part of 2010. The pace of price rises eased in the second half of the year, when the number of new-build housing units coming on the market began to increase. Housing construction growth was exceptionally brisk in 2010. The trend in private fixed investment was, in contrast, weak. Construction of industrial and warehousing facilities showed signs of picking up towards the end of the year, with growth in the number of building permits. Investment in machinery and equipment continued to contract, with large amounts of unused production capacity available.

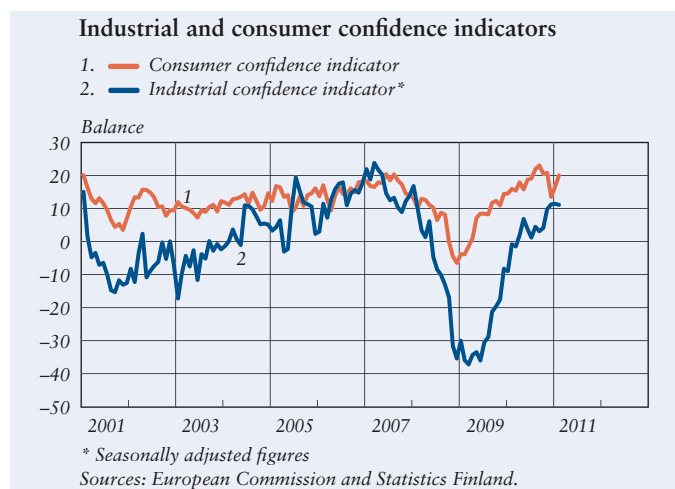
The labour market situation has been improving, but rather slowly. Growth in the number of employed was slower than expected at the end of 2010, and the unemployment rate has remained around 8% since last

September. The number of people laid off has, admittedly, been considerably reduced and the number of job vacancies has grown.

Inflation remained low throughout the early part of 2010, partly due to the statistical effect of the VAT reduction on foodstuffs in October 2009. In October 2010, inflation rose above 2%. From July 2010 onwards it was driven partly by a one percentage point increase in the general rate of VAT, although the inflationary effect of this was moderated by the simultaneous reduction in VAT on restaurant food.

As the financial crisis recedes, price developments have begun to regain momentum. Rapid rises in the prices of crude oil and other commodities, eg food commodities, during the course of 2010 have pushed up inflation all over the world. The rising price of crude oil, the energy tax hike in January and the rising price of food

Chart 2.



*The rising price of crude oil, the energy tax hike and the rising price of food have pushed up inflation.*

pushed Finnish inflation up to 3.5% in February 2011. Import prices have been rising rather quickly for several months, which, combined with the indirect effects of rising energy costs, is increasing inflationary pressures.

The key challenge for economic policy in Finland is to restore the sustainability of the public finances, weakened by the recession. The recession caused a deep reduction in both central and local government tax receipts and increased the level of government debt. In addition to the cost of servicing the debt, the general government balance will also be compromised in the future by increasing age-related expenditure.

### International background

The global recovery from the economic crisis progressed briskly in 2010. After a rapid phase in the early part of the year, however, the pace of recovery slowed towards the end of the year.

Over the year as a whole, world GDP grew 5.0%. The Bank of Finland forecast projects annual GDP growth globally of a full 4% over the years 2011–2013.<sup>1</sup> Annual growth in world trade is expected to ease back to a good 7% once the rapid recovery phase has run its course. Growth in the emerging economies is considerably faster than in the advanced economies. Finnish exports go predominantly to the more slowly growing advanced economies.

There was a considerable acceleration in the pace of commodity price rises in 2010. The price of crude oil has been driven upwards above all by the increased demand stimulated by the global recovery, but the unrest in Arab countries in recent months has also been reflected in oil prices, with concern growing over possible disruptions to supply. The forecast

<sup>1</sup> The Bank of Finland's new international economic forecast is presented above in the article 'Monetary policy and the global economy'.

Table 1.

Forecast assumptions					
	2009	2010	2011 <sup>f</sup>	2012 <sup>f</sup>	2013 <sup>f</sup>
Finland's export markets <sup>1</sup> , % change	-12.8	12.8	7.5	6.7	6.8
Oil price, USD/barrel	61.9	79.6	110.0	110.2	107.8
Euro export prices of Finland's trading partners, % change	-4.7	7.5	4.5	1.8	1.7
3-month Euribor, %	1.2	0.8	1.4	2.3	2.8
Yield on Finnish 10-year government bonds, %	3.7	3.0	4.0	4.2	4.3
Finland's nominal competitiveness indicator <sup>2</sup>	107.6	103.6	101.3	101.5	101.8
US dollar value of one euro	1.39	1.33	1.37	1.36	1.35

<sup>1</sup> Growth in Finland's export markets equals growth in imports by countries to which Finland exports, on average, weighted by their respective shares of Finnish exports.

<sup>2</sup> Narrow plus euro area, 1999 Q1 = 100

<sup>f</sup> = forecast

Sources: Statistics Finland, Bloomberg and Bank of Finland.

assumes oil prices will develop during the forecast period in line with the futures prices current on 1 March 2011. The price of Brent crude is accordingly expected to remain around USD 110 a barrel. The prices of other industrial commodities are expected to continue to rise fairly briskly in 2011, although the pace of rise in the years to follow is expected to be noticeably slower. The prices of food commodities in particular have risen over the past year due to the disturbances in supply caused by exceptional weather conditions.

The interest rate assumption contained in the forecast is based on the money market interest rate futures contracts current on 1 March 2011, based on which the 3-month Euribor will rise from 1.4% in 2011 to slightly under 3% in 2013. The external value of the euro is assumed to follow currency forward contracts and to remain fairly stable throughout the forecast period (Table 1).

### Non-financial corporations

The operating environment for businesses in Finland improved significantly in 2010. There was a considerable strengthening of demand in Finland's export markets and, on the home front, strong household confidence and stable income development both boosted demand for consumer goods and services and stimulated housing construction. Surveys indicate that the supply of funding eased, although there were still

more companies with financing and payment problems than in the years preceding the financial crisis. Despite the easing of the financial situation and the low level of interest rates, corporate investment contracted and demand for external funding was subdued. The recovery of demand from the sharp decline during the recession boosted the financial performance of companies operating in Finland.

During the course of 2010, Finnish exports began to benefit from growth in the export markets. According to Statistics Finland's preliminary data, goods exports were up 10 % over the year as a whole, but services exports continued to decline.

Exports are forecast to develop favourably during the years covered by the forecast (Chart 3). In 2011, the structure of growth in the main export markets is expected to still be unfa-

Chart 3.



*According to the forecast, export volumes will not recover to pre-recession levels until 2013.*

avourable for Finland's capital-goods-weighted export structure. The growth figures for exports in the current year will benefit from the substantial rise in exports that already occurred in 2010. In 2012 and 2013, global demand for capital goods will begin to accelerate, thereby helping to bolster Finnish exports. The contraction in exports in 2009 was historically strong. According to the forecast, export volumes will not recover to pre-recession levels until 2013.

No major changes are expected in the domestic operating environment for Finnish exporters during the years covered by the forecast. The upward trend in labour costs is expected to remain moderate, while the cyclical recovery in labour productivity should gradually flatten out. Growth in unit labour costs is forecast to accelerate slightly during the forecast period. In addition, the markets expect the effective exchange rate of the euro to continue almost unchanged throughout the forecast period. Hence, no significant change in the price competitiveness of export companies is expected during the forecast period.

The strong rise in the prices of commodities used as production inputs and the recovery in demand during 2010 were reflected in Finland's key export prices. The prices of fabricated metals rose in response to strong demand in China, while the price of various types of paper and sawn goods also rose over the course of the year. The upward

trend in industrial raw material prices is forecast to slow significantly during the forecast period. The rising trend in export prices will also slow, with unutilised capacity and stiff competition in key export sectors moderating price pressures.

Strengthening demand for the products of export companies and increasing output volumes will gradually raise the level of corporate fixed investment. The need for investment in machinery and equipment has grown as output recovers, as there was a strong contraction in this category of investment in 2009 and 2010. Investment growth during the forecast period will not, however, be very strong, as capacity utilisation rates are still well below normal despite the clear upward trend of recent months. Only in the forest and chemical industries are utilisation rates close to pre-recession levels. According to an investment survey by the Confederation of Finnish Industries, the value of fixed investment by industrial companies is expected to grow by 12% this year. The share of this attributable to replacement investment is, however, still exceptionally large, with only a quarter of fixed investment going to expand capacity. Access to funding is not expected to form a significant obstacle to investment, and companies' financial performance is expected to remain good. A rise in interest rates in line with market expectations will increase funding costs towards a more normal level, particularly towards the end of the forecast period.

The demand outlook for companies producing for the domestic market is also forecast to remain fairly favourable. Output in service sectors grew around 2% in 2010, and there was also a marked quickening in the construction sector. Housing construction investment was up by a fifth, while other construction also recovered over the course of the year.

Household incomes will develop fairly briskly in the forecast period, with growth in both earned and capital income and in current transfers. The positive incomes development will sustain growth in retail trade and demand for private services throughout the forecast period. In particular, there will be a substantial increase in the need for healthcare and social services, and, with local government increasingly turning to purchased services, there will be strong growth in the production of services by the private sector.

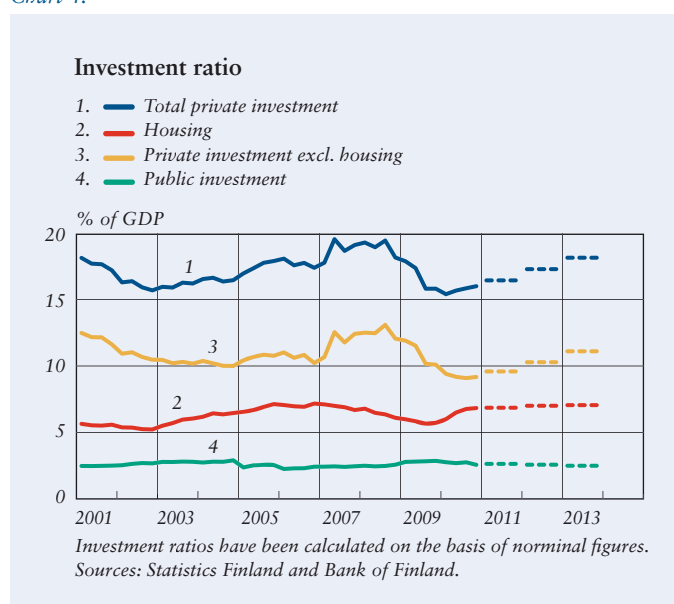
The growth in construction is forecast to continue, although, with housing construction already approaching the levels of the peak years, there will be a marked slowing in the pace of growth during the forecast period. This is partly because construction projects launched with the help of stimulus measures are nearing completion. A rise in interest rates in line with market expectations will subdue housing demand and moderate the upward trend in housing prices. Other construction will grow moderately in the forecast period as the recovery in output gradually boosts

demand for both office and business premises and industrial production plants. The local government need for investment in building repairs and renovations is considerable, but the tight funding situation in local government means public investment will grow only moderately.

The recovery in demand and growth in output both in export sectors and on the domestic market did not yet feed through in 2010 into growth in fixed investment. The GDP share of private investment declined to around 16%, despite the substantial increase in investment in housing construction. The investment ratio will increase during the forecast period as fixed investment picks up and housing construction continues to grow at a moderate pace (Chart 4).

*The investment ratio will increase as fixed investment picks up and housing construction continues to grow.*

Chart 4.



*It is estimated that the savings ratio will remain historically high.*

The brisk recovery in output in 2010 increased demand for labour input. The number of hours worked in the private sector increased by almost 2%, but, despite this positive turnaround, the number of people employed was slightly down on the previous year. In the forecast period, demand for labour will strengthen as output grows, and the number of employed will also increase by 20 000 – 30 000 persons annually. Growth in labour costs is forecast to accelerate to around 3% this year, and slightly more towards the end of the forecast period.

### Households

Household demand has recovered quickly from the recession. Growth in private consumption accelerated to around 3% during the course of

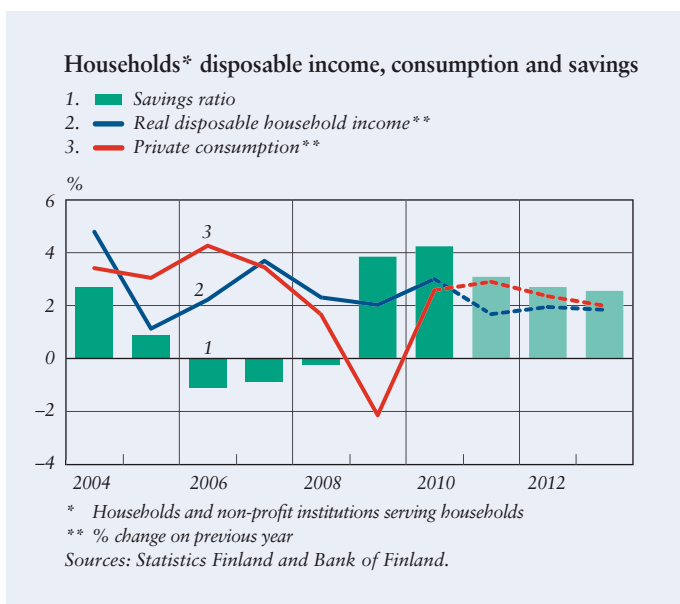
2010, with brisk activity in both car sales and house purchases. The savings ratio has, however, remained at the exceptionally high level it rose to in 2009 in response to the recession.

The prospects for stable growth in private consumption in the immediate years ahead are also good. The employment situation continues to improve, and wages are expected to grow steadily. Over the next few years, income formation will also be influenced by brisk growth in pension incomes as the number of pensioners grows and pension levels rise. Indeed, an increasing share of household incomes will comprise income redistributed within the household sector via the pension system.

Disposable household income will grow more or less at the pace of gross income, as the forecast envisages the impact of income taxes will be neutral. Admittedly, in 2011, growth in dividend income will boost household incomes to some extent. On average, disposable income will grow by a good 4% annually. The impact on purchasing power will, however, be subdued by accelerating inflation, and real disposable income will grow less than 2% per annum during the forecast period (Chart 5).

In addition to positive incomes development, private consumption growth will also benefit from the low level of interest rates. Real interest rates, in particular, remain exceptionally low. In 2011, real private

Chart 5.



consumption will grow much faster than disposable incomes. In 2012 and 2013 the savings ratio will decline slightly, but the forecast envisages that it will remain historically high.

The forecast incorporates the assumption that households are already preparing for the foreseeable future adjustment of general government finances. Uncertainty over precisely what steps will be taken to secure the sustainability of general government finances will increase precautionary savings. Thus, household savings will be supported by the expected adjustment that will for the most part occur beyond the present forecast horizon.<sup>2</sup> Apart from the expected tax hikes, households will also seek to prepare for a decline in pension benefits. Older age cohorts will also be preparing to fund their higher need for services.

Overall, private consumption growth will slow to around 2% per annum at the end of the forecast period. In 2011, the pace will be somewhat faster as consumption of durables returns to the pre-recession level.

## GDP and employment

### Structure of growth

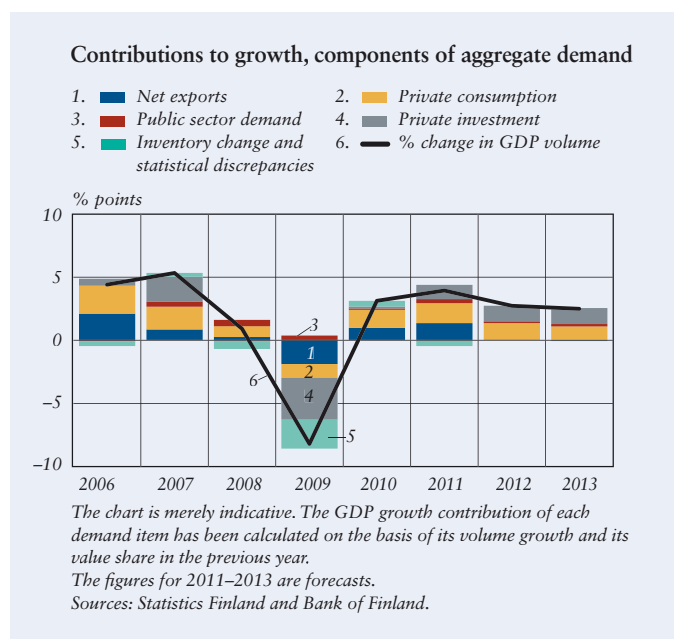
In 2010, Finland's GDP was a little over 3% up on the previous year. As

<sup>2</sup> The forecast for the public finances only takes account of fiscal policy measures already decided. It is thus based on the assumption that adjustment measures to secure the sustainability of general government finances will not commence during the current forecast period.

demand recovered, there was a rapid rise in output both in industrial sectors producing for export and in sectors targeting the domestic market. The strengthening of export demand boosted the growth impact of net exports, which became clearly positive. Private consumption gained from the positive trend in household incomes and solidity of consumer confidence. Despite strong growth in housing investment, the growth impact of private investment was zero. Inventory investment boosted GDP by over ½ a percentage point (Chart 6).

GDP will continue to grow relatively rapidly through the forecast period, but the pace will slow towards the end of the period. The 2011 figures for GDP growth will be

Chart 6.



*The structural realignment accelerated by the recession will weaken the longer-term growth outlook for the economy.*

boosted by an exceptionally strong carry-over effect of more than 2%. The potential output of the economy is estimated to have weakened considerably during the recession. Indeed, the projected growth of around 3% during the forecast period reflects a gradual restoration of output towards a new potential output growth trajectory on a lower level than before. The structural realignment accelerated by the recession will also weaken the longer-term growth outlook for the economy: industry's share of economic output has contracted, while the share of service sectors, characterised by slower productivity development, has grown.

Private consumption will provide stable support for growth throughout the forecast period. In 2011, the growth impact of net exports will remain strong and increasing private investment will bolster the importance of domestic demand as a source of growth. In 2012–2013, the significance of net exports will decline despite the briskness of export growth, as import growth will also pick up in response to reawakened domestic demand. The GDP impact of public demand will remain weak throughout the forecast period.

Real GDP is forecast to recapture the pre-recession peak of 2008 in 2012. Private consumption already reached pre-crisis levels in 2010, but the forecast envisages that export and investment volumes will

not reach their earlier peaks until 2013. Relative to the pre-crisis situation, the structure of the Finnish economy will tend more towards the domestic market. Private consumption's share of GDP will stabilise at well above the previous level. The share taken by exports will rise from the depths of the recession years, but will remain well below the peak years of the past.

#### *Labour market*

Employment did not decline very much during the recession considering the depth of the collapse in output. Unemployment growth was buffered by extensive use of lay-offs and employers' willingness to retain skilled labour. In similar vein, the post-recession growth in output has generated relatively few new jobs. In practice, the recovery in labour demand has largely meant a reduction in lay-offs and an increase in hours worked.

According to data from the Ministry of Employment and the Economy, the numbers laid off reached a maximum of approximately 90,000 in April 2009. In December 2010 there were still over 30,000 people laid off, which is about double the number before the recession. Thus, in 2011, the growth in labour demand will not yet be reflected in an equivalent increase in the number of employed.

Labour demand will grow throughout the forecast period. Output growth will still be focused

*The post-recession growth in output has generated relatively few new jobs.*

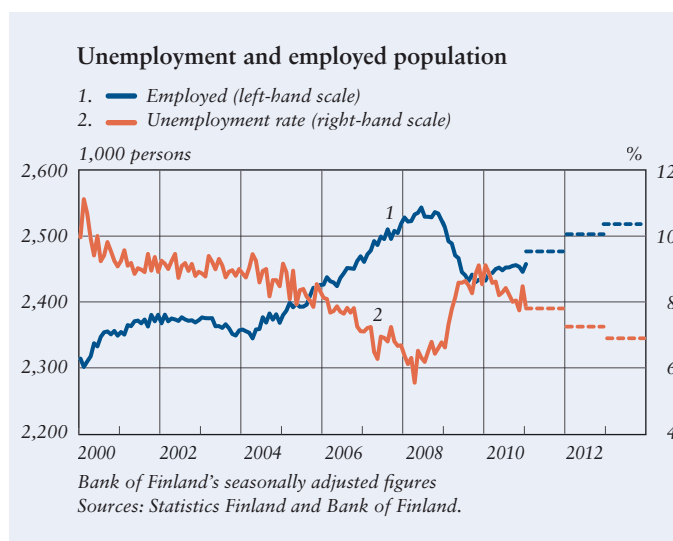
on labour-intensive service sectors and in construction, although industrial output will also grow. There will also be a significant need for new recruitment in local government, as it is estimated that almost 50,000 local government employees will retire during the forecast period.

Fundamental to the supply of labour will be the decisions taken by those age cohorts who already have the option of retirement. The forecast expects the labour force participation rate of ageing workers will continue to grow, compensating the impact of population ageing and keeping the size of the labour force more or less unchanged. On average, the participation rate will come down somewhat during the forecast period, because, as the working-age population gets older, this will increase the relative weighting of those older age cohorts with a lower average participation rate.

The labour market is considered to be recovering from the weak position of 2008 and 2009 without a significant outflow from the labour force. This view is supported by recent labour market trends: long-term unemployment has not become particularly sizeable, youth unemployment has begun to fall and periods of unemployment have become shorter.

The number of employed will grow during the forecast period by slightly under 1% annually. Hours worked will increase faster than the

Chart 7.



number of employed in 2011. Employment growth will depend on the private sector. The combined number of employed in central and local government will contract by around 0.4% annually. The employment rate will rise to 70.8%, ie to the pre-recession level.

The labour market will tighten during the course of the forecast period, but the forecast does not assume the emergence of significant bottlenecks or uncontrolled growth in labour costs. The unemployment rate will continue to be fairly high, averaging 7.8% in 2011, 7.2% in 2012 and 6.9% in 2013 (Chart 7). Labour supply could turn out to be more flexible than before, as many of those who are already in receipt of retirement pension could participate to some extent in working life. This would ease the employment situation in local government in particular.

### Productivity

During the recession, there was an exceptional collapse in labour productivity, with the contraction in labour input being much less than the contraction in output. In 2010, there was, by contrast, a considerable improvement in labour productivity, with GDP growth of around 3% and only slow growth in employment. Productivity growth, measured in terms of GDP per person employed, reached approximately 3½%. Hours worked grew faster than the number of employed, leaving the improvement in productivity per hour worked at just around 2%.

The relatively brisk growth in labour productivity in 2011 is still a reflection of the recovery from the deep recession. After the cyclical recovery has run its course, productivity growth will slow already to under 2% in 2012. Over the longer

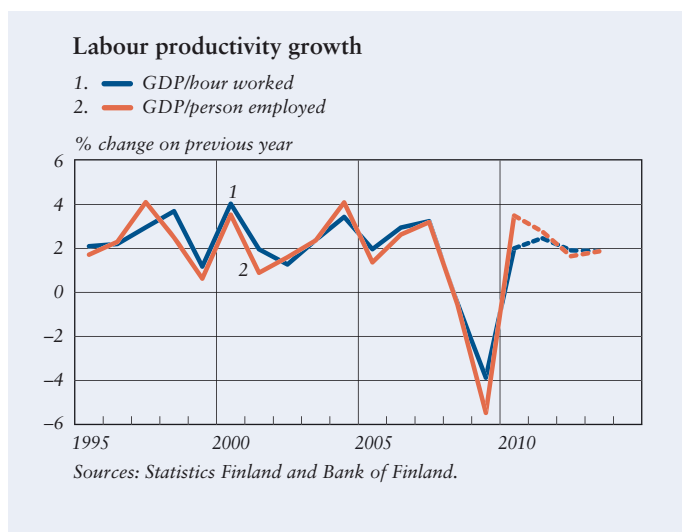
term, productivity development is not forecast to be particularly robust, although the level of productivity that prevailed in 2007 before the recession will be reached already this year.

The contraction in industry's GDP share, and in particular the declining significance of electrical engineering and electronics, will in future hamper productivity development across the economy as a whole. The recent scarcity of fixed investment will also tend to inhibit productivity growth towards the end of the forecast period (Chart 8).

### General government

In the absence of new fiscal policy measures during the forecast period, the general government deficit will contract only slightly. Despite brisk economic growth, central government finances will record a substantial deficit. The local government deficit, too, will be around ½% of GDP. The social security funds will continue to record a substantial surplus, although it will decline slightly towards the end of the forecast period. Overall, the general government deficit relative to GDP will be 1.3% in 2011, 1.0% in 2012 and 0.8% in 2013. At the end of the forecast period, the general government primary balance, ie the financial position excluding interest expenditure, will be marginally in surplus, but not sufficiently to halt the accumulation of more debt. The central government debt ratio will

Chart 8.



rise to 47.5% and the EMU debt to 54.0% of GDP in 2013 (Chart 9).

The projected contraction in the general government deficit is primarily due to an increase in taxable income as a consequence of the economic recovery. Growth in the wage sum is accelerating, and the improved performance of Finnish companies means higher corporate tax receipts. Corporate tax receipts will not, however, return to the pre-recession level relative to GDP, as the decline that occurred in these taxes was partly due to changes in the production structure of the economy. Incomes will also be boosted temporarily by the acceleration in inflation. This will boost revenue from indirect taxation, particularly in 2011. General government income on assets will also grow. Dividend income, in particular, will increase in 2011.

The forecast reduction in the deficit is also partly a result of increases in indirect taxation in 2011. Energy taxes were increased as of the beginning 2011, and the VAT increase in July 2010 will also boost the annual tax take in 2011.

On the expenditure side, the improved economic situation will have no real impact. Unemployment expenditure will, admittedly, be somewhat lower and growth in social security expenditure will be slower, but their significance to the development of expenditure as a whole is marginal. Real public consumption will grow by under 1% per annum during the forecast period,

but rising prices in the public sector mean that the GDP share of the value of public consumption will remain essentially unchanged. The price of public consumption will rise as labour costs rise, as the productivity of public service production is not expected to improve during the forecast period. Public investment growth will be sluggish due to the tight budget situation in local government.

The financial position of the social security funds remains strong in the forecast, even though population ageing will mean a substantial increase in pension expenditure. The surplus on the pension funds will be boosted particularly by growth in property income and from employee contributions. The number of pension recipients is assumed to continue to grow rapidly, if somewhat more slowly than in recent years. Pension expenditure will also be increased by the accelerating rise in the

Chart 9.

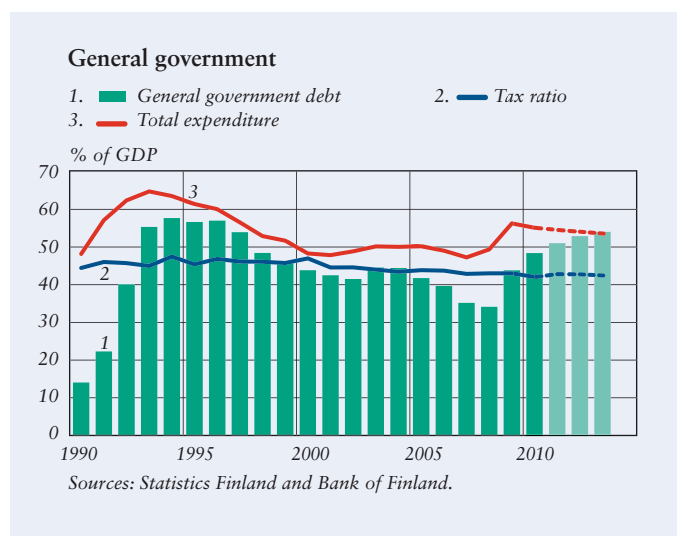


Table 2.

General government revenue, expenditure, financial balance and debt, % of GDP						
	2008	2009	2010	2011 <sup>f</sup>	2012 <sup>f</sup>	2013 <sup>f</sup>
General government revenue	53.5	53.4	52.3	53.2	53.1	52.8
General government expenditure	49.3	56.3	55.1	54.5	54.0	53.5
General government primary expenditure	47.9	54.8	53.7	53.0	52.4	51.8
General government interest expenditure	1.5	1.4	1.4	1.5	1.6	1.7
<b>General government net lending</b>	<b>4.2</b>	<b>-2.9</b>	<b>-2.8</b>	<b>-1.3</b>	<b>-1.0</b>	<b>-0.8</b>
Central government	0.5	-4.8	-5.4	-4.2	-3.4	-3.2
Local government	-0.4	-0.6	-0.3	-0.1	-0.3	-0.3
Social security funds	4.0	2.6	2.9	3.0	2.8	2.7
General government primary balance	5.6	-1.5	-1.4	0.2	0.7	1.0
<b>General government debt</b>	<b>34.1</b>	<b>43.8</b>	<b>48.4</b>	<b>51.0</b>	<b>52.9</b>	<b>54.0</b>
Central government debt	29.5	37.5	41.7	44.5	46.4	47.5
Tax ratio	43.0	43.0	42.1	42.8	42.7	42.4

*f* = forecast  
Sources: Statistics Finland and Bank of Finland.

*Despite brisk economic growth, central government finances will record a substantial deficit.*

pension index in response to inflation and a larger benefit ratio in commencing pensions (Table 2).

The forecast for the public finances demonstrates that the accumulation of central government debt cannot be reversed without permanent changes in the bases of income and expenditure. Despite accelerating economic growth, which in the forecast restores the GDP ratios of tax and asset income to their pre-recession dimensions, central government finances will remain in substantial deficit. The forecast thus contains within it unsustainable public finances in a situation of growing pressures for public expenditure.

The scenario envisaged in the forecast would mean the public finances would have to be considerably reinforced after the end of the forecast period. This would be essential in order

to meet the growing demand for public services brought by an ageing population going into the 2020s.

The timing of measures to reinforce the public finances will affect the distribution of the burden between generations. This is one of the reasons prompt action is vital. The longer the essential decisions on taxation, expenditure and structural measures are delayed, the larger the share of the burden on today's young people will be.

The social insurance system, too, is accumulating a growing burden on the young generations. Finland's social insurance system is based on increasing contribution rates and declining benefits, which means the return on pension insurance contributions will be much lower for younger age cohorts than for those currently approaching retirement age.

The more front-weighted the timing of the general government adjustment is, the larger the share of the costs that will be borne by those age cohorts who also stand to benefit most from the employee pension system. We should therefore seek to reduce the central government debt ratio as rapidly as possible.

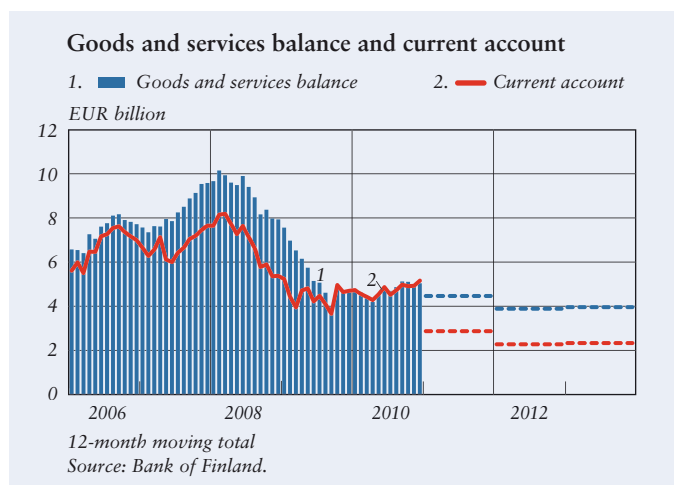
An additional constraint on policy options is the declining size of the labour force. In Finland, a sizeable proportion of the labour force is approaching retirement age and can make a genuine choice between continued participation in working life and retirement. In such a situation, it is essential that measures to balance the public finances do not reduce the supply of labour. Therefore, possible increases in taxes or charges should not be allowed to shift the focus of taxation in the direction of taxes on work.

### External balance

The contraction in the balance of payments surplus on goods and services came to a halt in 2010. Strong growth in the value of exports kept the goods account slightly in surplus, despite higher import costs due to the steep price rises for imported commodities. The surplus on the services account continued its slow growth trend, while, taken together, the other current account items were in balance. The overall current account surplus in 2010 was EUR 5.1 billion, or 2.9% of GDP.

The current account will continue in surplus in 2011–2013. The shift in the demand structure of the economy towards domestic demand and the weaker performance of the income account will push the surplus down to around 1% at the end of the forecast period. The goods and services accounts will weaken, partly due to a substantial deterioration in the terms of trade in 2011, as the prices of imported commodities, in particular, rise strongly from the previous year. The pace of rise in import prices is expected to gradually moderate, and the average rise in 2012 and 2013 will be muted. The forecast envisages only a moderate upward trend in export prices throughout the forecast period. Measured in terms of the volume of goods and services, foreign trade flows will be somewhat supportive of growth in the surplus. Real export growth will exceed real import growth particularly in 2011 (Chart 10).

Chart 10.



The forecast weakening in the current account balance in 2011 will be substantially influenced by the weakening of the income account. This recorded a clear surplus in 2009, due to extraordinary factors, namely the decision of some international companies to display a sizeable decline in their profits in their Finnish accounts. Preliminary data on the 2010 figures for the income account suggest that the surplus is still unusually large.

The continuing current account surplus indicates that, in Finland, the private sector funding surplus has been sufficient to cover the rapidly expanding general government deficit. Non-financial corporations in particular have recorded substantial surpluses. During the recession, the external balance also benefited from household savings, which grew strongly in 2009. In actual fact, Finnish households enjoyed a funding surplus in 2009 and 2010 for the first time since the immediate aftermath of the recession in the early 1990s. In the forecast period, the pick-up in investment will reduce the corporate funding surplus, but the continued relatively high level of household savings will keep their financial position stronger than in previous years.

### Price and wage trends

Import prices already rose at a rather brisk pace in 2010 and are expected to accelerate to over 7% in 2011. The

pace of rise is being fed by steep increases in the prices of energy and other commodities. The pace of import price rises is, however, expected to slow in 2012, and to slow further in 2013.

The pace of earnings growth eased back to 2.5% in 2010, compared with an average rise of 4% in the previous year. Real earnings growth came to a halt at the end of 2010 following the acceleration in inflation, and this has caused some degree of tension in the spring 2011 round of pay negotiations. Many of the collective agreements negotiated in 2010 incorporated pay agreements for just one year ahead, and these were due for renegotiation this spring. Agreement was reached on public sector pay in February 2011, with the cost implications of the agreement being around 2%. Pay increases on roughly the same scale have also been agreed in other sectors where agreement has been reached. According to the forecast, real earnings will not begin to grow again until 2012, and growth will continue at 1% annually in 2013.

The figures for average wages – ie employee compensation per employee – include overtime and additional work, and therefore provide a more comprehensive picture of overall earnings development than the index of wage and salary earnings. Average wages are forecast to rise nominally by 3.0% in 2011, and slightly more quickly in 2012–2013. Labour

productivity is expected to lag behind developments in average wages, and unit labour costs will grow by over 1% per annum in 2012–2013. Thus, developments in the forecast period will not compensate for the strong increase in unit labour costs in 2008–2009 (Chart 11).

Inflation calculated according to the harmonised index of consumer prices (HICP) accelerated to 3.5% in February due to the rapid rise in the prices of fuels and electricity. As well as crude oil prices, this was also due in part to the hike in energy taxes at the turn of the year. Food prices were pushed up by a number of factors, including rising commodity prices, an increase in excise duty on soft drinks and the introduction of excise duty on confectionery. HICP inflation is expected to average around 2.9% in 2011, falling thereafter to 2.2% in 2012. Inflation is forecast to slow further in 2013, to 2% (Chart 12). The national consumer price index (CPI) incorporates interest expenses on housing and consumption loans, which are expected to begin to rise over the course of 2011. National CPI inflation will therefore accelerate faster this year than HICP inflation, and will moderate more slowly in subsequent years, to an estimated 2.2% in 2013.

The indirect impact on consumer prices of the rise in the world market price for oil and the increase in energy taxes could be greater than estimated, leading to faster-than-

forecast inflation. A similar effect could come from price rises in food commodities, if prolonged. There are already some signs of this in retail food prices. Higher prices for energy

Chart 11.

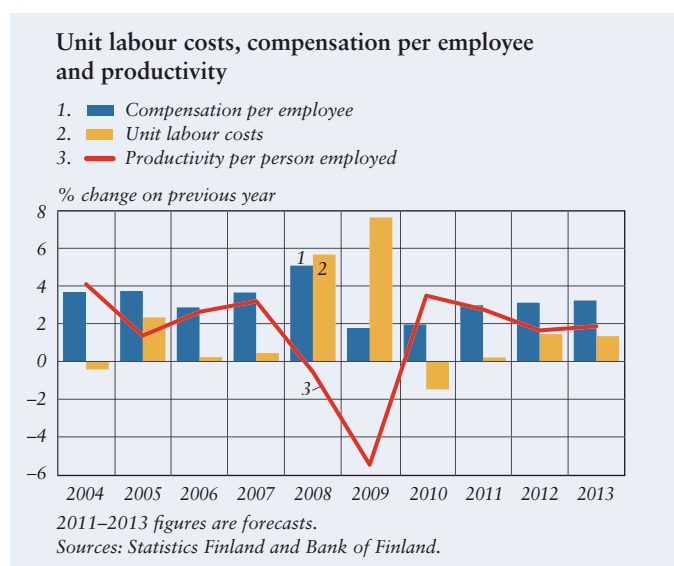
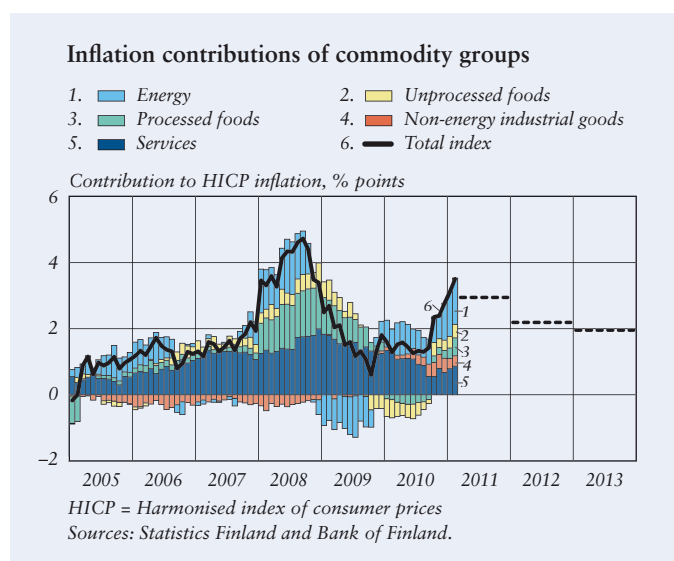


Chart 12.



could also impact on the costs of food production at different stages of the production chain, from fertilisers to transportation.

Consumer goods prices are forecast to rise faster than in recent years. The pace of rise will be increased by the higher prices of imported goods due to the trend in commodity prices and higher production costs. The pace of rise in service prices has slowed in recent months to under 2%, but the growing cost of energy is creating price pressures for services, too, such as transport services and rents. Higher food prices will be passed through into restaurant prices, and when the impact of the reduction in VAT on restaurant food drops out of the annual inflation figures in July, services inflation is expected to gather pace again.

The risks to the inflation forecast are on the upside, both in the short term and towards the end of the forecast period. In the short term, the indirect impact of commodity price rises and energy tax hikes could be surprisingly strong. The forecast only takes account of tax changes already

decided and their potential impact. Possible new increases in indirect taxation towards the end of the forecast period constitute an additional upside risk to the inflation forecast.

*Keywords: Finnish economy, forecast, GDP, inflation, unemployment, general government finances*

Table 3.

## Forecast summary

## Supply and demand

	2010	2009	2010	2011 <sup>f</sup>	2012 <sup>f</sup>	2013 <sup>f</sup>
	At current prices, EUR billion	Volume, % change on previous year				
Gross domestic product	180.3	-8.2	3.1	3.9	2.7	2.5
Imports	65.2	-17.6	2.6	4.2	6.1	7.0
Exports	70.2	-20.1	5.1	7.4	5.9	6.5
Private consumption	97.3	-2.1	2.6	2.9	2.4	2.0
Public consumption	44.2	1.0	0.4	1.2	0.5	0.8
Private fixed investment	28.5	-17.4	0.9	7.1	7.4	7.3
Public investment	4.9	6.2	0.1	1.0	0.7	-0.2

## Key economic indicators

	2009	2010	2011 <sup>f</sup>	2012 <sup>f</sup>	2013 <sup>f</sup>
<b>% change on previous year</b>					
Harmonised index of consumer prices	1.6	1.7	2.9	2.2	2.0
Consumer price index	0.0	1.2	3.1	2.6	2.2
Wage and salary earnings	4.0	2.5	2.9	3.3	3.2
Labour compensation per employee	1.7	2.0	3.0	3.1	3.2
Productivity per person employed	-5.5	3.5	2.8	1.6	1.9
Unit labour costs	7.6	-1.5	0.2	1.4	1.3
Number of employed	-2.9	-0.4	1.1	1.1	0.6
Employment rate, 15-64-year-olds, %	68.3	67.8	68.9	70.0	70.8
Unemployment rate, %	8.2	8.4	7.8	7.2	6.9
Export prices of goods and services	-7.4	4.1	2.6	1.5	1.5
Terms of trade (goods and services)	0.6	-1.4	-4.3	-1.0	0.1
<b>% of GDP, National Accounts</b>					
Tax ratio	43.0	42.1	42.8	42.7	42.4
General government net lending	-2.9	-2.8	-1.3	-1.0	-0.8
General government debt	43.8	48.4	51.0	52.9	54.0
Balance on goods and services	2.3	2.8	2.4	2.0	1.9
Current account balance	2.7	2.9	1.5	1.1	1.1

f = forecast

Sources: Statistics Finland and Bank of Finland.

# How can we identify risks to macrostability?

28 February 2011



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The events of recent years have shown how weak the management of systemic risk in the global economy really is. In addition to prudential supervision of individual institutions and market participants, what is desperately needed are policies that address the stability of the system as a whole. The definition and supervision of macrostability have rapidly emerged as one of the key areas of policy development for the future. This work is, however, in its infancy, and the necessary concepts have not yet become firmly established.<sup>1</sup> In this article we consider the principles that should underpin the prudential supervision of macroeconomic imbalances and macrostability so that in future we can identify crises early enough to be able to minimise their spread.

<sup>1</sup> Galati and Moessner (2011).

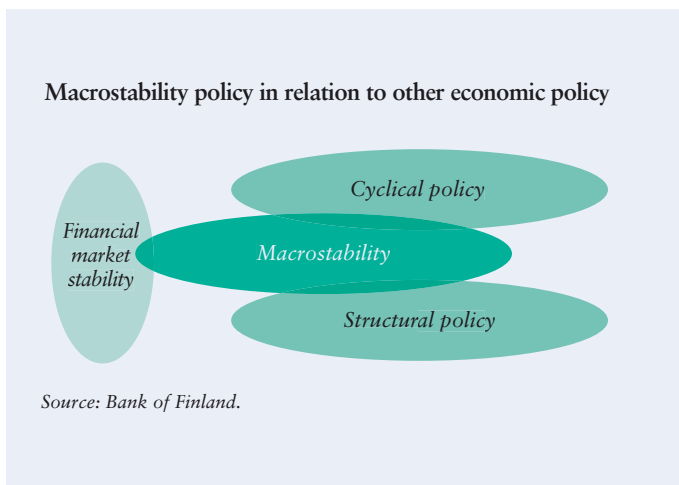
## What do we mean by macrostability?

Macro-stability as a concept includes a systemic dimension that brings together areas from both the financial markets and the macroeconomy. The interface between these two fields is rather broad and encompasses a large spread of interactive and feedback mechanisms. As the aim of macrostability oversight is to prevent financial crises from arising and to minimise the GDP losses they cause when they do arise,<sup>2</sup> it combines elements from both financial market stability oversight and structural and cyclical policy. In terms of both its aims and its means, macrostability policy to some extent overlaps with supervision of the financial markets and structural and cyclical policy, but it also includes its own entirely independent dimension (Chart 1).

One of the key factors that links the financial markets and macroeconomics is financial intermediation. Financial intermediation facilitates economic growth, but it also contributes to nascent exposure mechanisms through its role in debt accumulation. Debt and its accumulation link households and businesses together under the field of macrostability. Again, debt links asset prices under macrostability via stabilisation mechanisms, wealth effects and risk bearing. It is precisely this

<sup>2</sup> For more on this see the article below by Marko Melolinna and Jukka Vauhkonen.

Chart 1.



breadth and multilayered nature of macrostability and its interactive feedback mechanisms that causes problems for the practical implementation of oversight of macrostability.

### **Macrostability is the sum of stable financial markets and a balanced real economy**

Although there is no precise, commonly agreed definition of macrostability, from studies on the topic<sup>3</sup> we can derive key objectives that define the field. The aim of macrostability is to minimise systemic crises and their macroeconomic costs. As a perspective, the concept of systemicity means an approach that transcends sectoral boundaries, market boundaries and international borders.

This approach seeks to minimise systemic risks by devoting particular attention to transmission channels, joint sensitivities and vulnerabilities, and also to procyclicality in the financial system.<sup>4</sup> The objectives of macroprudential policy are discussed in more detail below in the article ‘Macroprudential policy and its relationship to monetary policy’.

To achieve the objectives that constitute macrostability, we need an analysis that primarily targets the identification of systemic risks. The analysis should deal not only with present risks, but also look ahead to

potential future risks and their impacts should they materialise.

In the global financial system, the issue of risk dispersal and channels of contagion is largely a matter of preserving confidence. When confidence prevails, the system works and the network disperses risks. When there is a shock and confidence is shaken, the same network becomes a network of contagion channels. Macroprudential supervision’s primary focus should be on preventing the interactive network from becoming a vehicle of contagion.

Stable financial markets and balanced development of the real economy are the two key factors in macrostability, the maintenance of which is also influenced by the interactive feedback mechanisms between these key factors. The expression ‘financial market stability’ is generally used in reference to the objective of securing stable and efficient financial markets. According to the Bank of Finland’s definition, this can be achieved by seeking ‘to identify risks to financial stability and contribute to the prevention of financial crises. As a means of achieving these objectives, the central bank conducts refinancing and payment operations, analyses threats to financial stability, including systemic weaknesses, and participates in systems development.’

The expression ‘real economic imbalances’, meanwhile, is used in

*The aim of macrostability is to minimise systemic crises and their macroeconomic costs.*

<sup>3</sup> See eg Galati and Moessner (2011).

<sup>4</sup> Eg Caruana (2010).

*Analyses of economic stability have been too optimistic.*

reference to both external and internal imbalances in the real economy. The European Commission has described the emergence of the present macroeconomic imbalances in the following terms.<sup>5</sup> Some euro area member states have accumulated large current account deficits and experienced losses in competitiveness. These trends have been closely associated with inefficient allocation of capital and labour, housing market bubbles and unsustainable levels of debt. In contrast, other member states with external surpluses have capitalised on the competitiveness of their export sectors, although their domestic demand has not kept pace. This has amplified the differences between surplus and deficit countries within the euro area, leading to the present macroeconomic imbalances.

### **Why the lack of success in anticipating crises?**

Each crisis has its own individual features. However, recessions that threaten macrostability always exhibit certain common features that are repeated from one crisis to the next. We seek below to identify those phenomena that occur in almost every crisis. As these phenomena are repetitive, we should develop some basic developmental indicators for them that can provide an analytical foundation for examining macrostability.

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<sup>5</sup> European Commission (2010).

The International Monetary Fund (IMF) has a long history in monitoring imbalances. Why, then, has it not been more successful in anticipating crises or providing advance warning of an impending crisis? A review of IMF publications confirms that since the turn of the millennium the Fund has followed at least partly the correct indicators: general government finances, current accounts and competitiveness have been analysed thoroughly. The weakening of these indicators has also been reflected in the Fund's recommendations and comments. The IMF analyses have, however, been predominantly optimistic. From the 2004–2007 analyses, it is clear the Fund's confidence in market stability and health was strong. Contagion risks from the advanced economies were underestimated. The advanced economies were not included in the Fund's vulnerability exercise introduced after the Asian crisis. Other partial explanations for the Fund's failures since the turn of the millennium include the fact that everyone thought the same way, the analytical tools were inadequate and the Fund's strong faith that a financial crisis in an advanced economy was highly improbable.<sup>6</sup>

The considerable and overlapping influence of asset markets, the banking sector and confidence on the entire economy has

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<sup>6</sup> IEO (2011).

also been relatively overlooked in the IMF's analyses. Private debt has also received relatively little attention. In the case of Ireland, in particular, the country report for 2007 still stated that the risks were small. The banking sector was considered healthy, although the overheating in the housing market was well known. There was, however, little fear of a collapse in the housing market, and the likelihood of problems funnelling through to the rest of the economy was considered small.

In what, with hindsight, can be seen as the IMF's overly optimistic recommendations, the core of the problem stands out clearly: it is very hard to determine when something stops being just a potential risk and becomes an actual problem. In the cases of Spain and Greece, for example, the Fund was long aware of these countries' problems and drew attention to them as risks.

### **The seeds of a new crisis are always sown during a period of stability**

The global economy has experienced numerous inflation crises, foreign exchange crises, banking crises and public finance crises. These have been possible because the signs of their development have not been noticed or have been underestimated.

The negative macroeconomic impacts of a crisis are greater than those of a normal recession. When a crisis hits, it is most often that case

that various imbalances have taken root in the economy that must be unravelled before the economy can return to a stable path. These imbalances will either unravel in an uncontrolled manner via a crisis, or steps can be taken to tackle them in a controlled manner before the crisis hits.

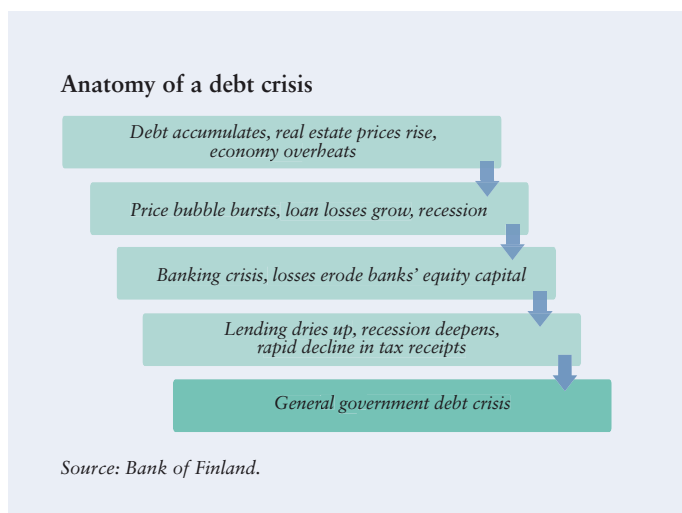
Viewed historically, it is highly unlikely that the crisis in recent years could have been unravelled before it broke. According to Reinhart and Rogoff (2009) it is typical of the period immediately preceding a crisis that people assume things will go differently this time. Crises are expected to hit somewhere else and affect other people. This is, in fact, a core symptom of the growth of macroprudential risks, as its effects are felt simultaneously in many key areas of macrostability. It is a case of overoptimistic expectations regarding emerging trends.

At both micro and macro levels, overoptimistic expectations cause problematic behaviour, as they lead to destabilising allocation decisions in the economy. The typical pre-crisis features in different sectors are as follows.

In the **real economy**, a stable growth environment, moderate inflation and low interest rates create expectations of stable growth. The level of vulnerability is increased if there is an innovation (technical development, financial system innovation, geographical switch in

*In a crisis, imbalances that have taken root in the economy unravel in an uncontrolled manner.*

Chart 2.



the focus of growth) whose real pace of growth is hard to assess. In a situation of stability, there is a greater likelihood that misplaced expectations will lead to growth potential being overestimated, leading to excessive risks and mistakes in allocating capital.

For **households and businesses**, overoptimistic expectations of a stable economic outlook and economic growth can lead to overly positive estimates of future income flows. This can lead to inefficient investments and overindebtedness, while also fuelling a rise in asset prices.

On the **financial markets**, overoptimistic expectations influence the allocation of capital, the acceptance and pricing of risk and the level of asset prices. Changes on the financial markets impact via financial intermediation both on the real economy and on households and businesses.

Thus, it could be argued that **expectations indicators** occupy a key position among the various indicators of macrostability.

### The connection between banking crises and sovereign debt crises

Historically, the highest economic costs are in relation to crises that involve both the financial markets and the real economy at the same time.<sup>7</sup> Analyses of warning signals have, however, almost without exception concentrated only on the separate analysis of risks to financial market stability or to macroeconomic stability. In previous crises, the **interactive feedback mechanisms** of relevance to macrostability have remained unanalysed. In a global system, the interaction between different actors and the channels of risk communication are many and varied. The force of a crisis is fundamentally influenced by the number of communication channels and feedback mechanisms: the more numerous and varied these channels and mechanisms are, the more channels of contagion and feedback loops there are. This affects the

<sup>7</sup> Reinhart and Rogoff (2009) have estimated the real economic impacts of serious financial market crises. According to their study, during recessions involving a banking crisis, unemployment rises an average 7%, output contracts an average 9% and the real level of government debt grows exceptionally strongly. According to Reinhart and Rogoff, the growth in the level of government debt is not due solely to the costs of saving the banking system; another highly significant factor is the provision of a fiscal policy stimulus at a time of declining tax revenues.

cumulative force of crises and makes it harder to manage them.

Banking crises often precede a crisis in general government finances and are themselves often preceded by strong growth in private debt (Chart 2).<sup>8</sup> This phenomenon has been repeated many times in economic history, and it also happened this time.

### Private debt growth a special feature of the recent crisis

Growth in private debt is one of the factors whose significance is often underestimated on the eve of a crisis. The trend of debt and its accumulation in an economy links the financial markets and the intermediation of market funding as key factors in macrostability.

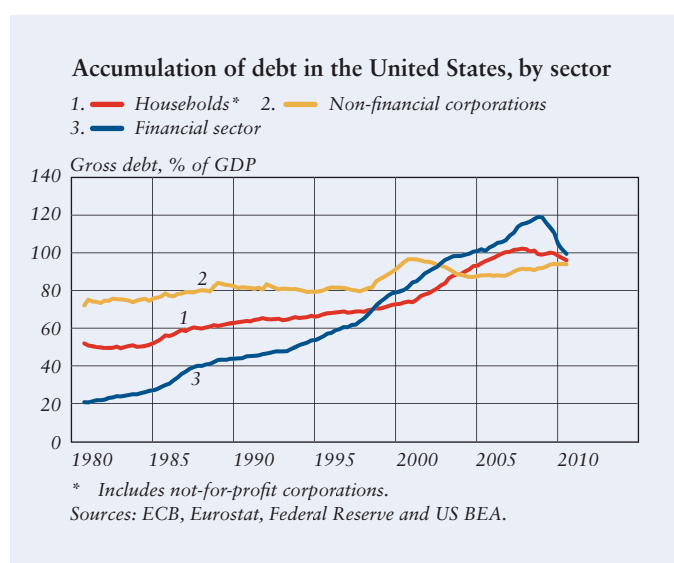
Growth in the level of debt relative to GDP or to disposable income unquestionably increases the vulnerability of the system, and large changes in these ratios are considered to be a sign of disturbance.

Although the fact that excessive indebtedness increases instability is not disputed, there can be a problem in recognising what level of debt is actually excessive, identifying precisely where the debt is and quantifying the attached risks. This was the key problem in the most recent financial market crisis. Securitisation caused a rapid expansion in the amount of liquidity in the

financial system. It also increased the wealth effects on households, as it allowed housing wealth to be transformed into a flow of income to boost consumption. The amount of liquidity in the markets fostered a rapid increase in the debt ratio, which was visible especially as growth in household and financial sector debt.

The key factors that facilitate an increase in the debt ratio are abundant liquidity and a rise in the price of assets eligible as collateral. A rapid rise in real estate prices links via collateral values to a sustained rise in valuations, although the price trend of other assets also has an effect on debt accumulation (or a change in the funding structure). Without exception, behind a growing level of debt there will also always be low interest rates, positive expectations and a plentiful supply of finance.

Chart 3.



<sup>8</sup> Reinhart and Rogoff (2010).

### **Banking crises contaminate general government finances through a number of different mechanisms**

The connection between the banking crisis and the accumulation of public debt is not limited simply to the costs of guaranteeing loans. Because in many countries the banking system occupies the key role in financial intermediation, its problems lead to a general slowing of growth across the economy as a whole. The channels of contagion are:

1. A banking crisis causes a slowing in the pace of growth in the global economy. In most cases this will hit exports and undermine the ability of the public sector in emerging economies to service their foreign debt.
2. Weak economic growth will often lead to lower prices for raw materials, and this, too, will weaken the ability of emerging economies to service their debt.
3. A banking crisis will often lead to a rapid drying up of lending, or at the least to a tightening of the terms and conditions of lending.
4. A banking crisis will often contaminate other sectors of the economy, as it will reduce willingness to take risks throughout the economy.
5. A banking crisis in one country can also reduce the level of confidence in another.<sup>9</sup>

<sup>9</sup> Eg Reinhart and Rogoff (2009).

6. The considerable GDP share of the banking sector can, in the worst case, pose an immediate threat to the entire national economy.

Of the above list, only number 2 is of no significance in the present crisis. All the other channels of contagion can also cause a sovereign debt crisis in an advanced economy if there is a sufficiently severe loss of confidence.

### **Possible portents of a dangerous twin crisis**

History has shown that it is surprisingly difficult to anticipate a crisis. Even when the portents of a developing crisis are recognised, for some reason the risks are most often underestimated.

In order to nip crises in the bud, the processes of monitoring, supervision and decision-making have to be in good order. It is essential to monitor the correct issues, and this must be coupled with an ability to recognise an imbalanced situation as it arises. The policy toolbox must also be in good order, and we must be able to take determined steps in good time.

Based on the lessons of history, the portents of a twin banking sector and public finance crisis threatening the balanced development of the economy are often visible well in advance. Oversight of macrostability should therefore focus on development trends that indicate the growing probability of a twin crisis. The indicators to be

developed for this work should be able to reveal the cumulative development of imbalances.

The symptoms of **unsustainable general government debt** are the following factors, which have preceded several of the crises seen to date:

1. A disproportionately large foreign debt. A large foreign debt ratio exposes a government to refinancing risks such as changes in risk tolerance and financing costs.
2. Short funding maturity. The simultaneous maturity of several loans makes a government vulnerable to financial disturbances. The significance of public debt maturity to crises in general government finances has not yet been researched to any significant degree, because short-term public debt is a relatively new phenomenon (began to emerge in the 1970s and 1980s).
3. A banking crisis. During a banking crisis developed economies are vulnerable to the crisis spreading via the capital markets and international trade.
4. Strongly correlated capital movements. This means the flow of capital into the same investments in the same geographical areas.
5. The potential materialisation of 'hidden debt', eg via a variety of guarantee arrangements.<sup>10</sup>

<sup>10</sup> For more on this topic see eg Reinhart and Rogoff (2010).

6. An enhanced role for new and strongly growing emerging economies participating in the international financial system.

Meanwhile, the key early warning signals<sup>11</sup> of **banking crises** include the following trends common to many crises:

1. Real exchange rates ('competitiveness indicators').
2. Real housing prices.
3. Short-term capital inflows relative to GDP.
4. Current account relative to investments.
5. Share prices.

For many of these variables it is possible to calculate threshold values

<sup>11</sup> Reinhart and Rogoff (2009); Goldstein, Kaminsky and Reinhart (2000).

Chart 4.

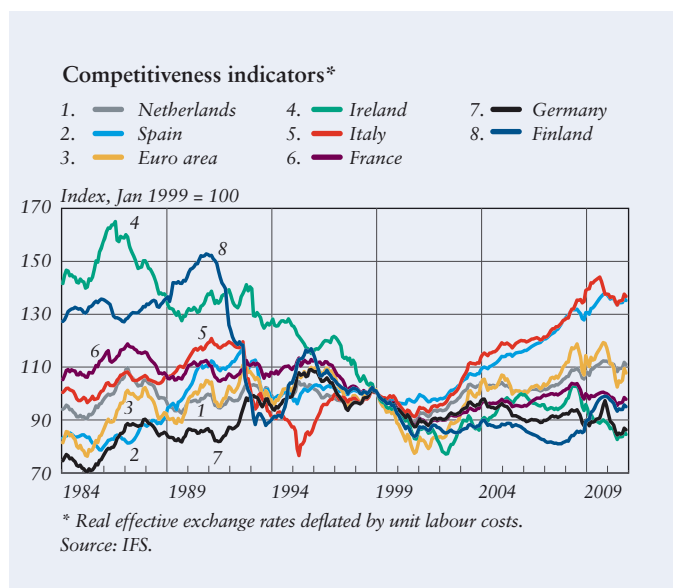
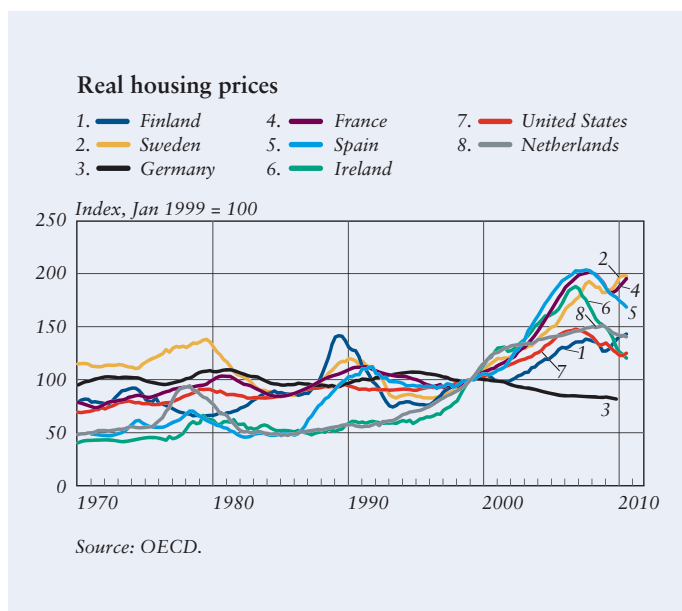


Chart 5.



and examine how well the variables have foreshadowed banking and exchange rate crises. Early warning signals are calculated as deviations from historical averages. Threshold values are selected in such a way that the noise-to-signal ratio is reduced to a minimum, i.e. the proportion of noise in the early warning signal is minimised.

A list of early warning signals of exchange rate crises would look almost identical to the above list. The most important signal is real exchange rates. The second most important signal is a banking crisis, followed by current account relative to GDP, share prices, exports and the M2 monetary aggregate relative to international reserves.

A substantial and sustained decline in a country's real exchange

rate relative to its competitors has in previous crises been the best indicator that the components of a crisis are gathering. Competitiveness and changes thereto indicate the level of sustainable debt accumulation. A decline in competitiveness reduces the long-term optimal level of debt accumulation.

A strong, sustained increase in real housing prices has historically been a good indicator of a build-up of imbalances and increased probability of a crisis. Housing prices have developed in a very similar manner in both advanced and emerging economies that have drifted into a banking crisis, although almost all other financial sector variables have been more volatile in emerging economies (Chart 5).

Short-term capital inflows have also historically indicated emerging crises. The same applies to the current account trend relative to investments and a strong bull market in share prices.

With the contemporary global financial system, however, it is worth asking if the monitoring of financial intermediation should be extended beyond the banking sector to a greater degree than is the case at present. It can hardly be appropriate to monitor only the connection between the real economy and banking crises, when financial intermediation in the economy happens to an increasing degree via market-based channels. Banks' own funding is also

## A good indicator of an impending crisis should have the following properties.

### *Indicators as alarm signals*

The primary function of an indicator is to serve as an alarm signal and tool. Their fundamental purpose can be considered to be to indicate the existence of problems and draw attention to specific phenomena in good time. Once this is done, the phenomenon will always need to be analysed in more depth to enable identification of what the problem really is.

### *Indicators should reveal slow changes*

Indicators should also be able to reveal slow changes in fundamental structures that could pose a risk to stability if taken too far. Any exceptionally large change relative to the historical record, or exceptional acceleration in the pace of growth or increase in a ratio, should awaken interest in studying the phenomenon more closely.

### *Indicators should be future-oriented*

Developing genuinely future-oriented indicators presents something of a problem. From the perspective of macroprudential supervision, this is just the type of indicator that is needed, as the resulting alarm signals

would come early enough to give supervisors and regulators time to respond and to find a solution to the problem using the tools at their disposal. The problem with the currently available tools is the relative slowness of impact that can be achieved with them.

### *Indicators can be simple*

The more complicated an indicator is, the more sensitive it will be to various changes, eg in parameters. Therefore, very simple indicators can give information on the development of risks of equal value to that provided by more structurally complex indicators.

### *Indicators should be easy to interpret: threshold values*

The use of indicators is, however, not without its problems. The first of these relates to how to interpret the signals they give. We must decide when an indicator can be considered to be giving an alarm signal that necessitates action. For this, we need to decide on threshold values. This involves a number of challenges. One is where the threshold should be located. Should we seek to minimise the chance that an imbalance will go unnoticed, or would placing the threshold too low lead to the indicator sounding

the alarm too easily, thereby undermining confidence in the value of the signal? On the other hand, how damaging would it be if the threshold values were set too high, whereby the indicators would not provide frequent enough signals of developing risks? Another key question is whether the same threshold values can be applied in all countries without adjustment or whether each country should have its own threshold values. Moreover, should the selected values change over time?

### *Indicators should facilitate the next step: action*

There are also problems in deciding what action should be taken. When the alarm bells ring, how should we react? It is scarcely necessary to take major steps in response to a single alarm signal, but there could be cause to analyse some particular issue a bit more closely. On the other hand, simultaneous alarms from a number of different signals would be strong evidence of accumulating risks and could even indicate the need for a rapid response. We can, however, consider the basic purpose of an indicator to be drawing attention to a possible need for more precise analysis.

strongly reliant on market funding rather than the traditional process of funding via the accumulation of deposits. Country-specific differences in financial intermediation must, however, be taken into account when considering channels of contagion. In future, the proportion and significance of market funding in financial intermediation could grow further if banking regulation is further tightened.

#### **Desirable properties of crisis indicators**

The elaboration of indicators that can warn of impending crises is challenging, because every crisis brings about a reorientation of research into such indicators. The components of the latest crisis always become the primary focus of research. In developing indicators, however, it is worth remembering the entire history of crises and all the possible causes of instability. Some of these may reoccur if the regulatory framework is not updated to restrict the possibility of crises.

It is important to select for monitoring variables whose trends have previously been observed to foreshadow instability. The trouble is that, although the problems may appear to be the same, their form could have changed. Although it is known that debt cycles are dangerous, securitisation was not immediately recognised as fostering a strong debt cycle. We need to be able

to recognise the precise form the factor of instability takes.

Every crisis and every period of economic history also has its own individual features. It is vital to get a sense of these contemporary forces of change, which means the set of indicators must have a certain flexibility vis-à-vis new phenomena. Because the indicators change with time, the structure of monitoring is vital. It is important how the indicators are monitored – not just what is monitored.

#### **Monitoring of macrostability in practice**

The practical work of monitoring macrostability requires a monitoring system that extends over aspects of both the macroeconomy and the financial markets as well as their transmission channels. Based on an examination of factors that threaten macrostability, we can name three key components in the development of instability: overoptimistic expectations, debt accumulation and changes in financial intermediation.

Each of these components incorporates both real economic variables and indicators that can be classed as belonging to the field of the financial markets (Chart 6).

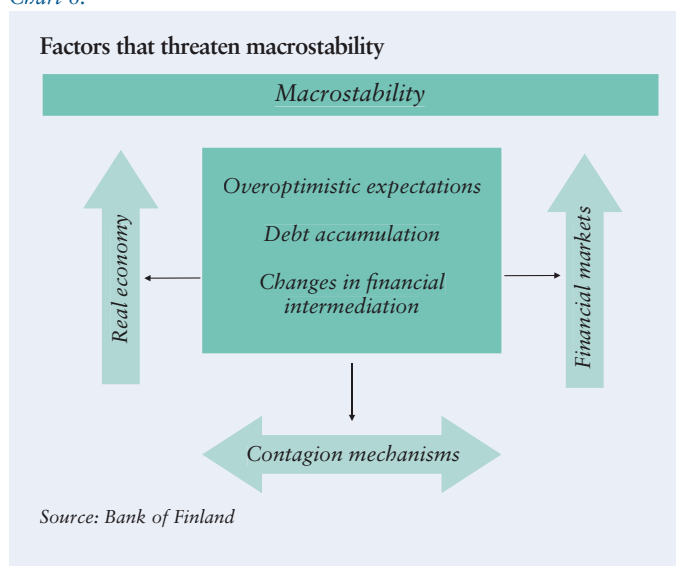
Bad allocation decisions by economic agents are always based on **overoptimistic expectations**. Such decisions destabilise the structures of the economy in terms of both the real economy and the financial markets.

Indicators of overoptimistic expectations exist in both the real economy and the financial markets. In the real economy, overoptimistic expectations can lead to excessive debt burdens relative to income or yield prospects and inflated expectations regarding asset price rises, which in turn contribute to the development of asset price bubbles. Overoptimistic expectations can also lead to substantial pay rises and undermine competitiveness if they are not matched by improvements in productivity. On the financial markets, meanwhile, overoptimistic expectations are reflected in the low pricing of risk and abundant liquidity.

Quantifying overoptimistic expectations presents a challenge. They always arise against a background of stable development in the real economy, which in itself already justifies such things as low prices for credit risk and confidence in economic growth. The difficult question is when precisely the expectations become overoptimistic and unsustainable.

Under the earlier approach, identifying the expansive cycle behind a financial crisis would have been extremely difficult, as the real economy and the financial markets were examined in isolation. When monitoring macrostability, it is possible to combine the messages of the separate indicators, and this can aid interpretation. The risk of expansive expectations grows when a

Chart 6.



stable real economic environment coincides with sustained exceptionally positive private sector expectations, low pricing of risk on the financial markets, strongly rising asset prices and abundant liquidity. The greater the number of indicators suggesting an unstable trajectory, the more likely it is that expectations have entered an expansive state that threatens macrostability.

Another factor harmful to macrostability is **debt accumulation**. As is well known, uncontrolled growth in private sector debt is a contributory factor in the genesis of banking crises, which in turn undermine the stability of the public finances. Factors that contribute to debt accumulation, besides overoptimistic expectations, include wealth effects, rising collateral values and abundant liquidity.

The third key factor with implications for macrostability is **financial intermediation**. Both positive and negative financial intermediation shocks reduce macrostability. Excessive liquidity and credit expansion overheat asset prices, cause inappropriate allocation of resources, lead to uncontrolled growth in debt and can very easily cause distortions in the pricing of risk. Negative shocks hamper refinancing and funding procurement and lead to a contraction in credit market activities, thereby undermining the prospects for real economic growth.

In a bank-centred financial system in which the alternative sources of funding are limited, instability in the banking system inflicts a strong shock on the real economy via the process of financial intermediation. Instability and shocks in the real economy, in turn, impact

strongly on the financial markets, eg affecting debt-servicing ability via their impacts on employment and collateral values. The changes in risk profiles caused by recession and shocks will, for their part, have a comprehensive impact on the intermediation and channelling of finance in the economy.

*Keywords: macrostability, macroeconomic imbalance, overoptimistic expectations, debt accumulation*

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# Macroprudential policy and its relationship to monetary policy

10 March 2011



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**Macroprudential policy is aimed at reducing the systemic risks that develop or gain strength within the financial system and whose realisation would have serious repercussions for the real economy. Successful macroprudential policy reduces the probability and potential severity of a financial crisis and thus promotes long-run economic growth. Macroprudential policy can increase the ability of the financial system to withstand a crisis eg by requiring financial institutions to maintain larger-than-normal capital and liquidity buffers during good times and allowing them to run them down when times are not so good. Having some common goals and transmission channels as well as occasionally being at odds provide a rationale for coordination of macroprudential and monetary policy.**

One of the key lessons of the global financial crisis is that authorities responsible for financial stability need better tools for timely identification of systemic risks and for reacting swiftly.<sup>1</sup> Moreover, the scope of financial regulation should be enlarged beyond increasing the resilience of individual financial institutions to include a deep concern

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<sup>1</sup> Identification of systemic risks and the metrics and tools for evaluating them are treated in more detail in the article below by Heidi Schauman and Katja Taipalus.

for strengthening the crisis-resistance of the entire financial system. The latter concern is the focus of macroprudential policy. This article examines macroprudential policy as regards its definition, tasks and links with monetary policy.

Events of recent years have shown that financial stability and thus the operating environment for macroprudential policy are influenced by a number of factors: international coordination of economic policies, current account imbalances in the global economy, risks associated with imprudent fiscal policies, the quality of financial regulation and supervision, and structural changes in the financial system. In this article we take a close look at the relationship between macroprudential policy and monetary policy.

There is a tight link between macroprudential and monetary policy because they share an ultimate goal: stable economic performance. Moreover, their impacts move through the same transmission channels, to affect demand, supply and terms for bank loans and other forms of finance. Because of similar goals and impact channels, macroprudential and monetary policy often reinforce each other. Nonetheless, in certain situations monetary policy aimed at price stability may not be consistent with financial stability. Later in this article, we examine the causes of these potential inconsistencies and the need to coordinate

monetary and macroprudential policies.

### What is macroprudential policy and how is it carried out?

At present, there is no well-established definition of macroprudential policy. The Bank for International Settlements (BIS) has defined it as the use of the traditional tools of financial regulation and supervision so that their announced and primary objective is to reduce both 1) the procyclicality and internal imbalances of the financial system and 2) the threats to normal operation of the financial system that inhere in common exposures and interlinkages within the

system.<sup>2</sup> In contrast, the primary goal of microprudential policy, ie traditional financial supervision and regulation, has been to increase the viability of individual financial institutions (for more on the differences, see Table 1).

<sup>2</sup> Procyclicality of financial system: system operates so as to reinforce fluctuations in the real economy. The financial crisis showed that dangerous internally-caused (endogenous) risks can develop within the financial system. These risks can accumulate eg when a large number of financial companies take on seemingly small but similar risks. Together, these risks may prove to be excessive for the financial system as whole. As an example, before the crisis, financial institutions invested in instruments tied to US subprime mortgages. Dangerous exposures also form when an individual financial institution becomes so large or complex that its default or other large problems cause serious spillover effects on the rest of the financial system and the real economy.

Table 1.

Macro- and microprudential perspectives compared		
	<i>Macroprudential</i>	<i>Microprudential</i>
<i>Proximate objective</i>	<i>limit financial system-wide distress</i>	<i>limit distress of individual institutions</i>
<i>Ultimate objective</i>	<i>avoid output (GDP) costs</i>	<i>consumer (investor/depositor) protection</i>
<i>Characteristics of risk</i>	<i>seen as dependent on collective behaviour (endogenous)</i>	<i>seen as independent of individual agents' behaviour (exogenous)</i>
<i>Correlations and common exposures across institutions</i>	<i>important</i>	<i>irrelevant</i>
<i>Calibration of prudential controls</i>	<i>in terms of system-wide risk; top-down</i>	<i>in terms of individual institutions; bottom-up</i>
<i>Cyclical connection</i>	<i>countercyclical</i>	<i>independent</i>
<i>Institutional distinctions</i>	<i>tighter scrutiny of systemically-important institutions</i>	<i>somewhat tighter for bigger institutions</i>

Sources: Borio (2010) and authors.

*The primary goal of macroprudential policy is to minimise society's output losses.*

An important objective of micro-prudential policy is to protect the assets of retail depositors and investors by reducing the risk of individual financial institutions falling into difficulties. Especially prior to the latest financial crisis, it was generally believed that risks to the financial system came largely from the outside and that supervision of viable institutions in combination with other economic policies would serve to maintain an adequate level of financial stability.

But from the macroprudential perspective, the instruments of financial regulation should be selected and used so as to achieve the core objective of minimising society's output losses by reducing the probability and severity of financial crises. Efforts in this direction can take the form of countercyclical financial regulation that becomes tighter during an upswing of credit, leverage and asset price cycles and leaner during a downswing of these cycles. Another tack is to apply tighter regulations to large and complex – systemically important – financial institutions than to other financial entities.

### **Goals of macroprudential policy**

The goals of macroprudential policy can be further divided into reducing the probability of systemic risks and enabling the system to better withstand the impact of a crisis. Risk-realisation probability can be reduced

eg by restraining bank lending or indebtedness, if they are judged to be excessive, by setting limits on the growth of lending or on the size of loans to households. The ability of the financial system to withstand a crisis can be strengthened eg by requiring banks to accumulate capital and liquidity buffers during good times and tapping into them when times are difficult.

Officials responsible for macroprudential policy need to decide on the weights to ascribe to those complementary goals. The BIS<sup>3</sup> argues that macroprudential policy should not be aimed primarily at reducing business cycle fluctuations, which it sees as an excessively ambitious goal at this stage. A more realistic goal is to strengthen the financial system's resistance to risk.

The BIS rationale is based partly on experiences to date with the employment of macroprudential policy tools. For instance, the dynamic loan loss provisioning employed in Spain and some Asian countries have not significantly dampened price fluctuations in housing loans and in the housing market, albeit they have made the financial institutions more resilient.<sup>4</sup> More effective constraint of financial gyrations would require an extensive degree of discretion in the use of macroprudential instruments,

<sup>3</sup> BIS (2010), p. 90.

<sup>4</sup> CGFS (2010).

something the BIS sees as unrealistic at this juncture.

Ideally, requiring banks to have extra-normal capital and liquidity buffers should serve to maintain banks' lending capacity even during economic downswings and prevent banks' solvency or liquidity problems from forcing them to sell assets in a falling market. In a country like Finland, in which banks are highly capitalised, a credit crunch and fire sales of assets are not currently listed among the major risks associated with financial cycles. An important domestic goal is to be able to deflate dangerous credit and debt bubbles sufficiently early and so to protect companies, households and the economy at large from the dire consequences of a bubble burst.<sup>5</sup>

### *The macroprudential policy toolkit*

The objectives of macroprudential policy must be taken into account when setting priorities among the tools. If the primary goal is to improve the risk-bearing ability of the financial system, a reasonable set of tools would include the above-mentioned countercyclical capital requirements and dynamic loan loss provisions.

National requirements regarding countercyclical capital buffers are part of the comprehensive revision of banking regulation carried out by the Basel Committee on Banking

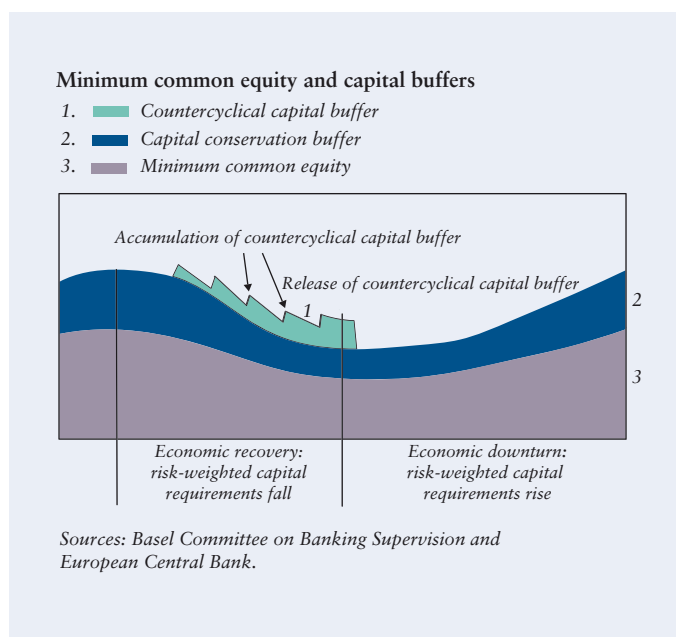
<sup>5</sup> This is clearly directly at odds with the BIS recommendation.

Supervision and known as Basel III. According to the projected regulations, national authorities will have discretionary power to invoke extra capital buffer requirements for banks if it is determined that the amount of credit extended to domestic customers is excessive.<sup>6</sup> The total amount of such a buffer is not to exceed 2.5% of the bank's risk-weighted assets.

During an economic upswing, bank lending typically expands rapidly as banks lower their estimates of credit risk. The decline in estimated credit risk in turn reduces the banks' risk-based capital requirements (Chart 1). In a downswing, we see the

<sup>6</sup> For more on countercyclical capital buffers and Basel III, see Vauhkonen (2010).

Chart 1.



flipside: banks' measured credit risks and risk-based capital requirements increase. The tightening of capital requirements along with banks' possible loan losses may, in a downswing, chip away at banks' capital adequacy and at worst force banks to sharply curtail their lending. The aim of countercyclical capital buffers is to reduce the procyclicality of lending and risk-based capital requirements.

In Spain the operating principle for dynamic (statistical) loan loss provisioning is like that of countercyclical capital requirements: banks are required to increase their general loan loss provisions during an upswing, when specific provisions are usually small, and vice versa during downswings. In this way, dynamic loan loss provisioning reduces the

procyclicality of banks' loan losses and income.

If macroprudential policy's primary objective is not the building up and running down of banks' buffers but instead to halt excessive lending and indebtedness, tools that directly impact credit demand and supply or debt accumulation could be highly effective. Such tools might include maximum loan-to-value (LTV) ratios for banks, maximum debt-to-income (DTI) ratios for households, limits on the growth of banks' lending, and taxes on banks' short-term market-based funding (Table 2).

Macroprudential tools (Table 2) include both rules-based (permanent) and discretionary (flexible) tools. Rules-based tools are automatically countercyclical and work without policy decisions based on economic conditions. Dynamic provisioning is the best example of this type of macroprudential tool. Discretionary tools become operative only if macroprudential authorities make specific decisions to use them.

The use of some macroprudential tools can be both rules-based and discretionary. For example, under the Basel III reform, the basis for countercyclical capital buffers is the Basel committee's defining calculation rule, but national officials can also use their discretion in deciding on buffer requirements.

The table does not include numerous changes in financial rules

Chart 2.

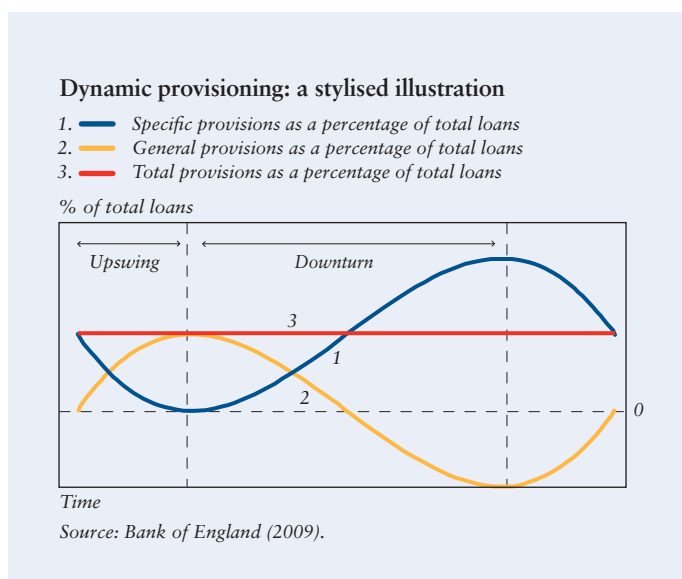


Table 2.

Examples of potential macroprudential tools	
Primary objective	Tools
Accumulation and run-down of countercyclical buffers	Countercyclical capital buffer requirements, dynamic loan loss provisioning, countercyclical haircuts on loan collateral, risk-based deposit guarantee premia
Restraint of lending	Limits on total amount of customer lending (LTV, DTI) or growth of bank lending, changes in risk-weights in capital adequacy calculation, banks' minimum reserve requirements
Restraint of banks' acquisition of short-term funding	Tax on short-term (or non-deposit) funding
Reducing incentive for banks' overall risk taking	Limiting discretion vis-à-vis salaries and dividends or taxing them
Regulations based on banks' systemic importance	Capital requirements or bank tax based on systemic importance

Source: Bank of Finland.

that are in the preparatory or planning stage, which will reduce systemic risks and strengthen financial institutions' ability to carry risk but which are not primarily aimed at reducing the procyclicality of the financial system. For example, the major part of regulations concerning banks' capital adequacy and liquidity are beyond the scope of this article.

We still have very little experience and analytical findings on the use of macroprudential tools.<sup>7</sup> One of the biggest challenges to macroprudential policy is to find policy tools that can target the key factors in the formation and realisation of systemic risks, that impact quickly,

and that work automatically or can be swiftly implemented.

#### *Conduct of macroprudential policy*

National authorities responsible for financial stability were not sufficiently aware of the risks facing the EU as a whole in the years immediately prior to the financial crisis. Based on the lessons learned from the crisis, it was decided to establish a Union-level body, the European Systemic Risk Board (ESRB), to monitor risks to the financial system as a whole. The board is part of the new European System of Financial Supervision (ESF), which includes three new EU-level groups of supervisory authorities.

The ESRB began to function at the start of 2011. Its task is to

<sup>7</sup> CGFS (2010).

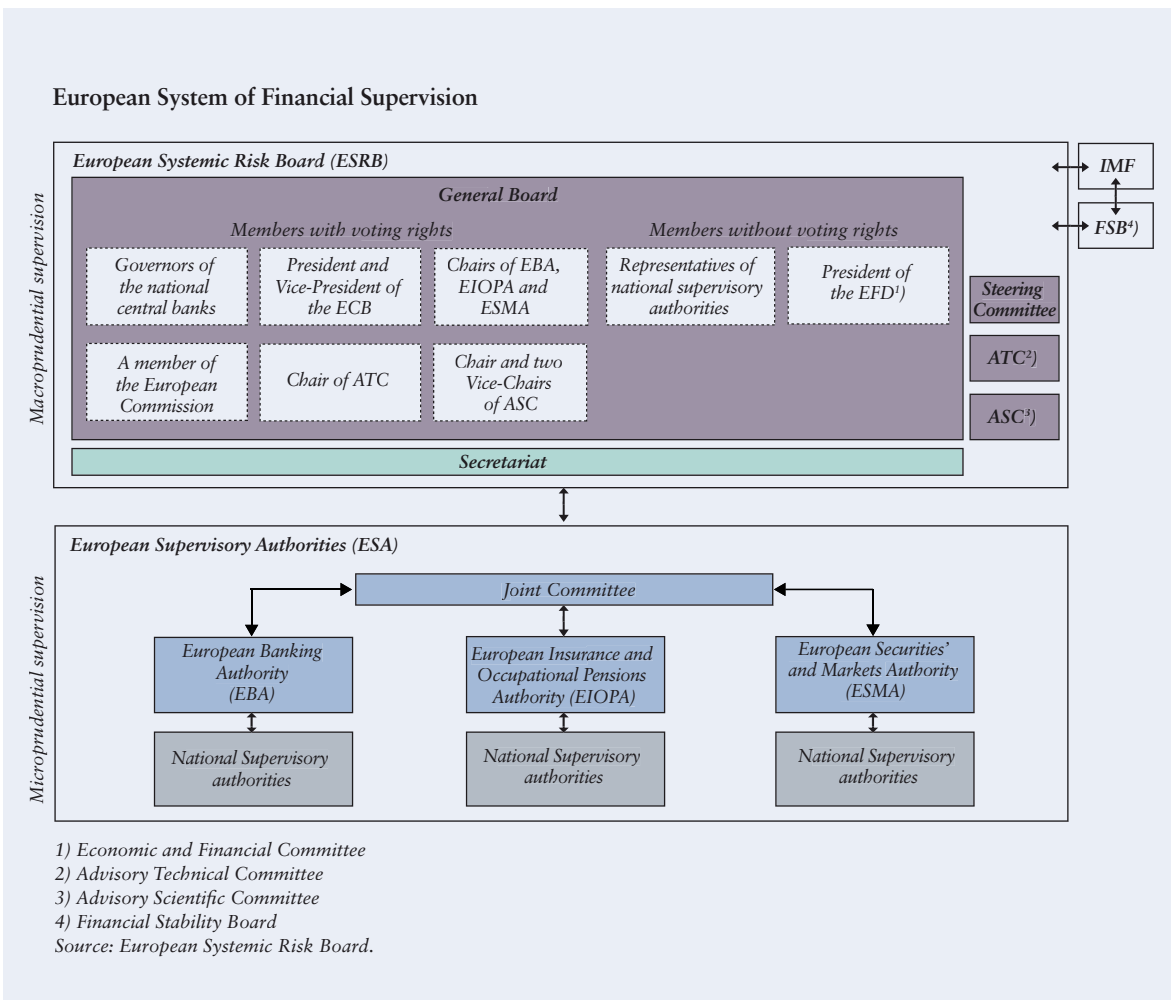
identify on-coming threats to the financial system. In order to prevent realisation of risks, the board can issue risk warnings and recommend measures to the EU as a whole, to individual or groups of member-states, to the new European financial supervisors, or to national financial supervisors.

The ECB and national central banks are at the core of the ESRB.

The President of the ECB serves as chairperson of the ESRB, and the governors of EU central banks and the Vice President of the ECB are voting members and supervisors of the ESRB.

Implementation of ESRB recommendations and other national macroprudential policy matters, however, remain in the hands of national authorities. The different

Chart 3.



countries are likely to have different frameworks for macroprudential policy. Alternative approaches include having a single authority or group (macroprudential committee) responsible for macroprudential policy.

### Monetary policy and financial stability

Recent experience of financial crisis and new research findings have shown that monetary policy based on a long period of low interest rates can be conducive to excessive risk taking by financial institutions and other economic agents, which would render it inconsistent with financial stability. Here, we examine, in light of theoretical and empirical findings, the types of mechanisms that incentivise banks' risk taking.

Events of recent years have restarted an older debate about the extent to which financial factors should be taken into account in monetary policy decisions. In an ideal world, macroprudential risks are effectively prevented by macroprudential policies, and monetary policy can be totally focused on price stability. But we will not be able – at least not in the near future – to ensure financial stability in all situations via macroprudential policy alone. For this reason monetary policy may have a place also in promoting the stability of the financial system. The scope of the debate includes difficult questions about the need for monetary policy to

'lean against the wind' (LATW)<sup>8</sup> and about the need to coordinate monetary and macroprudential policies.

### *Accommodative monetary policy may encourage excessive risk taking*

It is widely agreed that one of the central causes of the recent financial crisis was excessively accommodative monetary policy in the United States, which incentivised financial institutions and households to take on too much debt and too much risk. The effect of keeping the policy rate at a low level on financial institutions' incentive to take on risk is referred to as the risk-taking channel of monetary policy.<sup>9</sup>

The risk-taking channel is important from the perspective of macroprudential policy for at least two reasons. First, the price stability objective of monetary policy can at times be at odds with financial stability, especially if the risk-taking channel is quantitatively important. Secondly, the need to coordinate macroprudential and monetary policies is the more acute, the more pronounced the inconsistency between price stability-oriented monetary policy and financial stability.

<sup>8</sup> This refers to policy in which the central bank tries to take account of changes in asset prices in its policy-making. An LATW central bank may eg pursue monetary tightening more aggressively when asset prices are rising rapidly than would a central bank focusing on the traditional inflation objective.

<sup>9</sup> Borio and Zhu (2008).

The recent theoretical literature includes the modelling of several transmission channels by which monetary policy may influence banks' risk taking. A low level of interest rates may encourage some financial institutions to increase the weight of high-risk loans and investments in their portfolios in order to hit nominal-return targets.<sup>10</sup> Compensation systems based on nominal returns can have the same effect. A low level of interest rates can also induce financial institutions to relax the terms and granting criteria for loans.<sup>11</sup> But a certain type of asymmetrical monetary policy has also been found to encourage excessive risk taking by financial institutions. This can be the

<sup>10</sup> Rajan (2005).

<sup>11</sup> Dell'Ariccia and Marquez (2006).

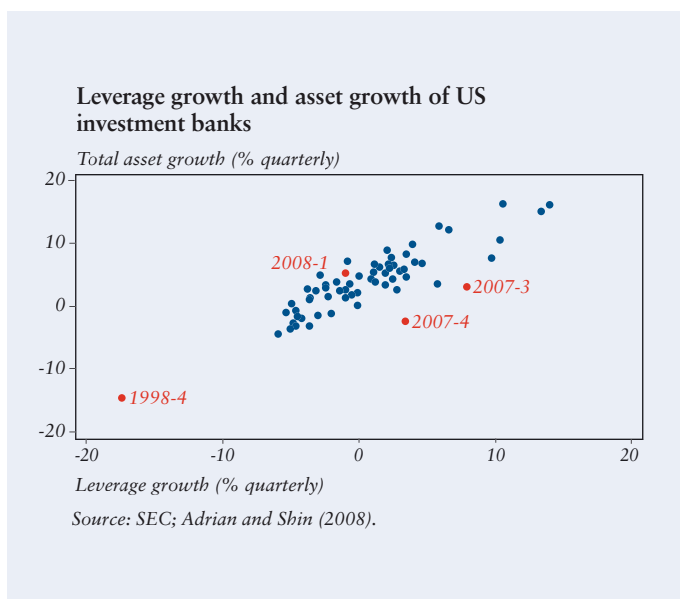
case if it is a known fact that the central bank acts in an asymmetric manner in the sense that it is passive during upswings in the financial cycle but active when problems began to appear.<sup>12</sup>

A low level of interest rates can also incentivise banks to excessively expand their balance sheets. A reduction in interest rates raises the value of assets and improves banks' profits, solvency, and possibilities to increase their collateralised funding. If banks aim at a fixed ratio of capital to assets, they will react to rising asset values by increasing their lending and investments.<sup>13</sup> Adrian and Shin (2008) find that banks aim at such a fixed 'leverage ratio' over the course of the business cycle. Empirical results show that the leverage ratios of US investment banks were actually procyclical in the years immediately preceding the financial crisis. In other words, these investment banks simultaneously expanded both their balance sheets and their indebtedness in the years just before the financial crisis (Chart 4).

<sup>12</sup> Farhi and Tirole (2010).

<sup>13</sup> According to the model of De Nicolò et al (2010), the effect of monetary policy on banks' risk taking incentive is more complex than is apparent in the literature. In their model, monetary policy affects the incentive to take risks not only via the search-for-yield but also via the reverse-effect of charter value. The latter works so that a fall in interest rates reduces banks' funding costs and thus raises the expected value of their earnings flows. An increase in charter value reduces the conflict of interest between a bank's shareholders and creditors and hence in its risk-taking proclivity. In certain economic conditions and certain types of banking systems, monetary easing may actually reduce banks' incentive to take risks.

Chart 4.



Recently published empirical studies have generally supported the above theoretical findings.<sup>14</sup> But these studies do not provide sufficient information on the key transmission mechanisms of monetary policy and their quantitative significance.

#### *What role for financial factors in monetary policy?*

The economics literature has recently grappled with the question of how macroprudential factors should be taken into account in the conduct of monetary policy. Typically, the issue is how factors relating to financial institutions' risk taking affect the rules of monetary policy<sup>15</sup>, with special concern for the relationship between leaning-against-the-wind and more traditional monetary policy, based solely on an inflation target or output gap. This literature often also examines how a particular tool of macroprudential policy might affect the calibration of monetary policy and what effects the policy combination would have on overall social welfare.

Recent studies contain good examples of how the modern New Keynesian macroeconomic modelling paradigm can be employed to explicitly study the relationship

between LATW monetary policy and macroprudential policy. According to Woodford (2010), monetary policy should take account of the growth of economic agents' high-risk debts, as part of an effort to prevent financial crises, even though the central bank is unable to predict the formation of an asset bubble. He also advocates the use of separate macroprudential tools in the same fight, which would increase the effectiveness of LATW monetary policy.

Some of the studies have also found that the relationship between monetary and macroprudential policy depends on the types of shocks that impact the economy. Kannan et al (2009) and Angeloni and Faia (2009) use a New Keynesian framework, and incorporate a banking sector and a simple tool of macroprudential policy (such as the growth rate of lending or a countercyclical capital buffer). A special concern of these studies is to find monetary policy rules that produce the best end results after specified shocks. One finding is that in the event of a shock to the banking sector the optimal result is obtained if both monetary and macroprudential rules are employed; whereas, in the event of a productivity shock, macroprudential policy is less useful. Because of the simplicity of the models, these findings are only indicative, but they do suggest that, in choosing a policy combination, a large role should be given to discretion, because the nature of a

<sup>14</sup> Eg Altunbas et al (2010) reviewed this literature.

<sup>15</sup> Rules of monetary policy include the Taylor rules, which have been incorporated into many macroeconomic models. According to these rules, monetary policy settings are typically determined by prevailing inflationary pressures (usually compared to a target-inflation rate) and the output gap (between actual and potential output).

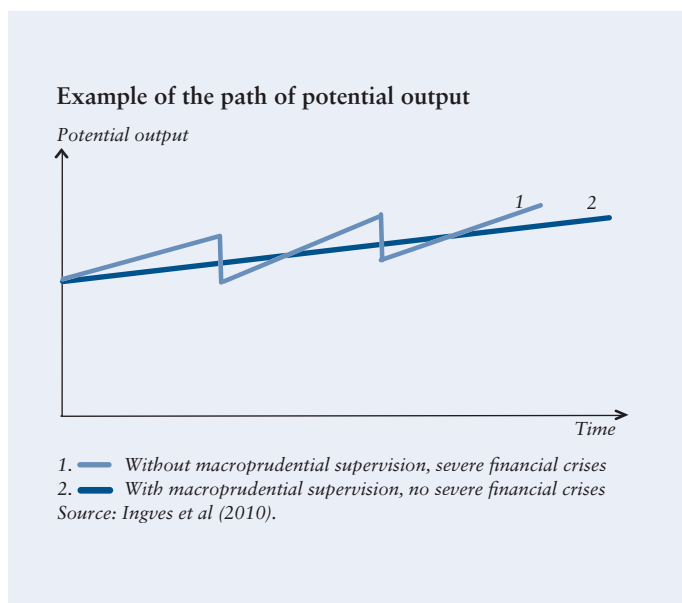
shock may differ greatly in different situations.

Considering the earlier studies leads one to ponder the extent to which the recent financial crisis has left a mark on the models presently employed. The current approach usually starts with the idea that excessive risk taking by banks is somewhat damaging as regards the maximisation of economic welfare and that such behaviour should be discouraged by means of LATW monetary policy or macroprudential policy. But is it possible that in non-crisis times such monetary tightening would produce, on average over the long run, a result that is worse in welfare terms than that produced by a monetary policy that gives less weight to macroprudential concerns?

This question has not received much attention in the literature. A kind of consensus has arisen that LATW monetary policy combined with a macroprudential aspect based on a simple metric may be more effective than traditional monetary policy. Nor does Woodford (2010) see any great danger that a traditional monetary policy rule would be undermined by a macroprudential aspect, which in terms of the central bank's objective would mean simply adding one more term to the rule equation, in addition to inflation and output gap.

Ingves et al (2010) looked at the relation between monetary and macroprudential policy specifically in terms of the implications of an increase in banking regulation for long-run stability of the economy and for welfare. Although output fluctuations are diminished, it is not clear that the average level of output rises when regulation is increased. It is possible that macroprudential policy instead would lead to a larger 'regulation premium' embedded in the true level of interest rates than would be the case for a traditional monetary policy regime, because banks' lending costs would increase also in non-crisis times (Chart 5), and would raise the economy's total financing costs. Overall, the academic literature is not yet able to give an unambiguous answer as to how the relative weighting of monetary and macroprudential policy affects overall social welfare.

Chart 5.



## Coordination of monetary and macroprudential policy

The relationship between monetary and macroprudential policy is closely related to the question of their coordination. Three issues are involved: 1) Is coordination necessary? 2) How should coordination be accomplished? 3) Who should be responsible for implementing macroprudential policy?

### *Is coordination necessary?*

In the recent economics literature, there has been a definite swing towards the idea that it would be useful to have a separate tool (in addition to monetary policy tools) for macroprudential policy. This conclusion does not seem to depend on whether monetary policy is of the traditional or LATW variety. The need for coordination also seems highly intuitive in light of the fact that the two types of policy affect each other. Hence it is difficult to imagine a situation in which the use of a tool of one regime would not affect the use of a tool of the other regime.

Whatever the need for coordination, the usual economic situation is one in which monetary policy and macroprudential policy would be mutually compatible. A typical example is that when there is economic overheating both inflationary pressure and macroprudential risks are on the rise, and both

policy tools need to be in tightening mode. At other times, a situation of conflict in the use of the tools may prevail, which will underline the importance of macroprudential policy.<sup>16</sup> This can occur eg if the need for traditional monetary tightening is muted because there is very little inflationary pressure while at the same time the macroprudential metrics are signalling a need to tighten (push me-pull you problem).

At worst, failure to coordinate could lead to a situation wherein a macroprudential policy failure causes overindebtedness of the economy, and when the bubble bursts the need to reduce indebtedness would compromise the economic-stimulus effect of accommodative monetary policy. Bean et al (2010) examined this problem using a simple New Keynesian model with the built-in assumption that monetary and macroprudential policies are conducted in an uncoordinated manner. The result was a non-optimal solution for the real economy, in which both macroprudential policy and monetary policy are overly aggressive. This result again underlines the need for coordination.

### *How should coordination be accomplished?*

If we accept the need for coordination, the question arises as to how to accomplish it. One theoretical approach is to apply the analogue of

*At worst, coordination of monetary and macroprudential policies could render an excessively indebted economy unable to benefit from monetary stimulation.*

<sup>16</sup> De Nicolo et al (2010).

monetary-fiscal policy coordination. Lambertini and Rovelli (2004) have presented an idea based on game theory: in a situation where the players (central bank and fiscal authority) take turns making their – individually optimal – moves, it is best for both that the fiscal authority would move first. Once the fiscal authority has made the first move, the central bank takes into account the new situation in deciding on its own move. This model is also intuitively reasonable because the decision mechanisms and transmission channels of fiscal policy are usually slower and more complex than those of monetary policy. This line of reasoning seems equally natural as regards the coordination of monetary policy and macroprudential policy: the stance of macroprudential policy can be treated as a given when a monetary measure is contemplated.

#### *Who should be responsible for implementing macroprudential policy?*

In a situation where monetary policy is conducted by a traditional central bank and microprudential policies are handled by financial supervisors, the question naturally comes to mind as to who should be responsible for macroprudential supervision. Based on our present knowledge, it is difficult to take a firm stand on the issue. The above-mentioned idea,<sup>17</sup>

<sup>17</sup> De Nicolo et al (2010).

that the connection between macroprudential policy and monetary policy is more complicated than generally understood, can be seen as an argument for having the central bank handle macroprudential policy. A similar rationale supports the idea that coordination of monetary and macroprudential policy requires much discretionary leeway to react to the different kinds of shocks that hit the economy.<sup>18</sup> On the other hand, the idea that macroprudential policy could divert attention from the price-stability goal if the central bank is responsible for both policy segments, argues for some other solution.

#### **Consensus on macroprudential policy is essential**

The analytical tools for identifying systemic risks and the policy tools for reducing them are currently a hot topic for research around the world. What is important is that we arrive at a consensus on the definition and primary goal of macroprudential policy. An overly broad definition of macroprudential policy could at worst blur the borders of responsibility between authorities, hinder the organisation of macroprudential policy, raise expectations too high regarding the effectiveness of macroprudential policy, and ultimately reduce the credibility of macroprudential policy.

<sup>18</sup> Kannan et al (2009); Angeloni and Faia (2009); Bean et al (2010).

The challenges related to coordination of monetary and macroprudential policies are central to the analysis of combined effects of the two policy segments. The need for coordination would seem most essential in two situations. The first is the above-mentioned scenario in which a long period of low-interest monetary policy creates significant threats to the stability of the economy. The second is where a lending and debt cycle is approaching culmination, and halting the process would require both tight macroprudential policy and LATW monetary policy.

The potential benefits of monetary and macroprudential policy coordination in these two situations depends acutely on the relative effectiveness of the two policies in preventing systemic risk. In an ideal world, macroprudential risks would be tackled by macroprudential policy

and monetary policy would be free to focus on price stability. The size of the gap between reality and the ideal as well as the huge costs to the macroeconomy that are engendered by a financial crisis argue for a broader-than-before focus on financial factors in making monetary policy decisions.

*Key words: macroprudential policy, macroprudential tools, monetary policy, monetary policy rules, European Systemic Risk Board*

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# New facilities help safeguard financial stability in Europe

28 February 2011

The unsustainable level of government debt in Europe began to threaten financial stability in 2010. Highly indebted governments agreed to adjust their finances, but a solution to the sovereign debt problems also required enhanced coordination of economic policy between EU countries and instruments for financing the adjustment programmes of the financially distressed countries. The negotiations over the support package for Ireland marked the beginning of new financial stability arrangements. Debt issuance by the European Financial Stability Facility and the European Financial Stabilisation Mechanism has got off to a good start, and the first loans to Ireland have already been paid via these channels. Even so, the financial markets still expect yields on euro area peripheral government bonds to remain high until a permanent, comprehensive solution to the sovereign debt problems has been found.

## Sovereign debt problems resolved with new facilities

In Europe, unsustainable sovereign debt burdens emerged in 2010 as the main current threat to the stability of the financial system and the economy. The most highly indebted euro area sovereigns found it increasingly difficult to access market funding, and the associated costs were rising right from the beginning of the year. For investors, government bonds are

one of the least risky instruments, as the probability of governments defaulting is low. However, the markets began to reprice the sovereign credit risk, and the yields on Greek, Irish, Portuguese and Spanish government bonds, in particular, began to rise strongly. In addition, trading in some segments of the euro area government bond markets was either disrupted or almost entirely dried up. With the escalation of the sovereign debt crisis in May 2010, the Ecofin Council decided to establish a mechanism to stabilise the European economy and financial system. The mechanism was two-fold, comprising the European Financial Stability Facility (EFSF) and the European Financial Stabilisation Mechanism (EFSM).

The EFSF is a special purpose vehicle owned by governments in the euro area.<sup>1</sup> Its purpose is to help preserve the financial stability of the euro area by granting fixed-term loans to euro area governments that are experiencing exceptional problems with their finances. The EFSF itself issues debt on the markets to raise funds for these loans. It is a temporary mechanism that can grant loans until June 2013.

The EFSM provides a mechanism for granting loans to EU member states experiencing serious



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<sup>1</sup> The European Financial Stability Facility was established in June 2010, and its activities as currently constituted will come to an end in June 2013.

*Loans granted under the financial stabilisation arrangements will have conditions attached.*

economic or financial disruption due to exceptional events.<sup>2</sup> The European Commission raises the funds for the credit arrangements either from the capital markets or direct from financial institutions. The maximum amount that can be lent via the EFSM depends on the volume of the EU's own funds, which accumulate from sources such as customs duties and agricultural levies. The Commission has estimated that total lending via the EFSM will be at most EUR 60 billion under the current EU budget.

Loans granted under both these stabilisation facilities will have conditions attached. The government receiving assistance must agree with the EU and the IMF on an economic and financial adjustment programme. Once this is agreed, the European Commission and the government concerned sign a memorandum of understanding listing, among other things, the economic and fiscal policy conditions attached to the assistance. Decisions on loans granted under the EFSF are taken on a unanimous basis by the euro area member states. Decisions on loans under the EFSM require a qualified majority in the Council of the European Union, which has representation from all EU member states. The European Commission, in liaison with the ECB, and the IMF monitor compliance with the terms of the loan arrangements.

<sup>2</sup> The European Financial Stabilisation Mechanism was established on 13 May 2010 under Council Regulation (EU) No 407/2010.

In May 2010, Greece became the first euro area member to agree a major economic adjustment programme. The EUR 110 billion support included therein comprises EUR 80 billion from the EU and EUR 30 billion from the IMF. Support by euro area countries was granted via bilateral loans. This meant the EFSF and EFSM were not yet activated at this point. The Commission does, however, administer the bilateral loans granted to Greece. Finland's share of the loan arrangement for Greece will amount to a maximum of EUR 1.6 billion.

The European financial stabilisation arrangements restored confidence to the financial markets only temporarily, and the sovereign debt crisis began to spread to other highly indebted countries in the euro area. Market sentiment weakened particularly in Ireland, where the banking sector was in difficulties, and in Portugal, due to its large public debt. Spain launched reforms to the savings bank sector, but there was seen to be a need for additional capitalisation. Italy's need for refinancing was also held to be considerable.

The situation in Ireland deteriorated when it was estimated that the banking rescue package announced by the government in September 2010 would take the general government deficit to over 30% of GDP. Although some of the additional expenditure was one-off in nature, market confidence in the

government's capacity to manage its debt and in the country's banking system deteriorated. At the end of November 2010, the EU and IMF agreed a financial support package for Ireland totalling EUR 85 billion.<sup>3</sup> The agreement included EUR 17.7 billion from the EFSF and a further EUR 22.5 billion from the EFSM. This marked the first time the financial stabilisation arrangements were activated.

### **Debt issued by the financial stabilisation arrangements is guaranteed by European governments**

In the context of the new financial stabilisation arrangements, euro area countries do not lend directly to each other, but instead guarantee the loans either directly (EFSF) or indirectly (EFSM). For example, to fund loan disbursements to Ireland, the EFSF issues debt on the markets and euro area countries guarantee the debt issuance. The EFSF holds guarantees to a maximum of EUR 440 billion. Each euro area country's share of the guarantees is determined according to their share of the ECB's subscribed capital, whereby Finland's share is approximately 1.8%, or EUR 7.92 billion.<sup>4</sup> Greece and Ireland do not provide guarantees, as they have been granted financial assistance.

<sup>3</sup> The package includes support to be paid via Ireland's pension fund and bilateral loans to Ireland from the United Kingdom, Sweden and Denmark.

<sup>4</sup> Once it joins the euro area, Estonia is also due to participate in the EFSF.

For the EFSF to be effective, it is important that borrowers repay their loans. It is therefore vital that each government that borrows is committed to their country's economic and financial adjustment programme. As the economies of the assisted countries recover, their ability to service their loans will also improve. If, however, a borrowing government fails to repay or is late in repaying the principal or interest on its loan, and this results in a shortfall of funds to repay interest and/or principal on the EFSF bonds, the EFSF will request payment from euro area governments on a pro rata and pari passu basis. The EFSF's creditworthiness is particularly enhanced by the fact that the bonds it issues must have guarantees amounting to 120% of their nominal value.

In addition to the government guarantees, the EFSF's creditworthiness is also enhanced by the cash buffers to be attached to the loans. In the first place, borrowers will pay a service fee equal to 0.5 percentage points of the total loan capital when taking out a loan from the facility. Secondly, borrowers will pay the net present value of an interest margin cash flow calculated on the total capital of their loan. Thirdly, the amount paid to loan recipients will be reduced by a loan-specific cash buffer. These charges will not lower the amount of the total loan capital, thereby accruing cash buffers within the facility. The EFSF will then invest

*The EFSF's creditworthiness is underwritten by government guarantees and cash buffers.*

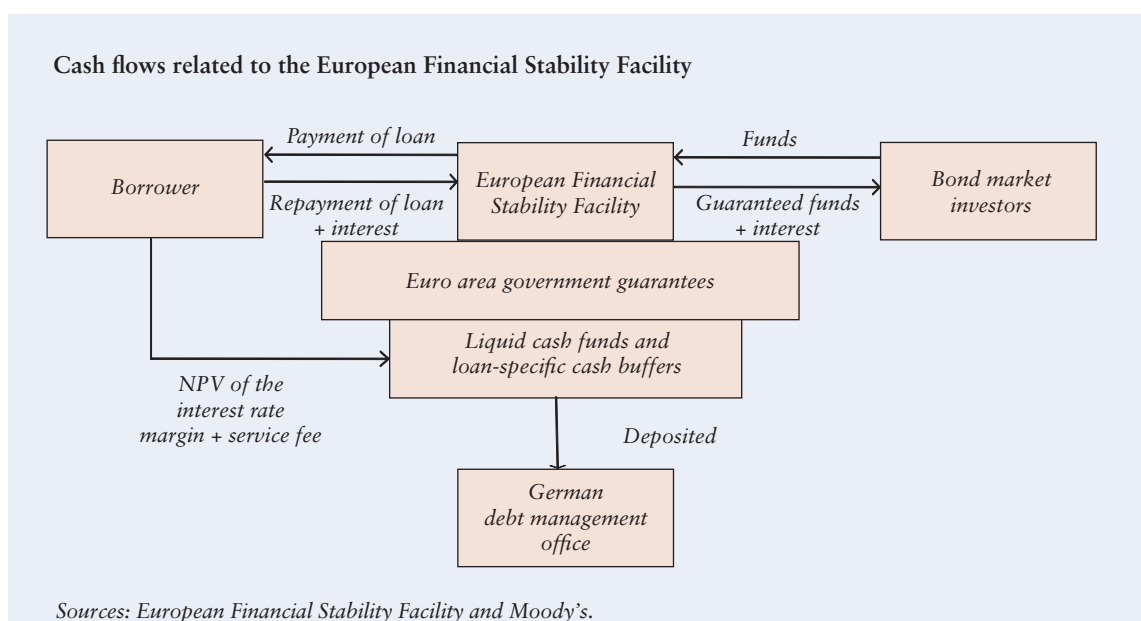
the cash in AAA-rated instruments. The facility will be able to use these cash buffers for repaying interest and principal only on bonds issued for funding the specific loan to which the buffers relate until the borrower has repaid the loan (Chart 1).

The EFSF will determine the size of the loan-specific cash buffers in such a way that the bonds it issues to fund a loan will always be covered by guarantees from AAA-rated governments and cash. Within the euro area, Germany, France, the Netherlands, Luxembourg, Finland and Austria all have the highest possible credit rating for their government bonds. Thanks to the government guarantees from euro area countries and the cash buffers on the loans granted by the EFSF, the

major credit-rating agencies have assigned the EFSF bonds the best possible credit rating (eg Standard & Poor's AAA rating). This is based on the fact that the guarantees and the EFSF's liquid cash funds together exceed its debt. In terms of creditor rights the EFSF has the same standing as the private sector and does not have the same sort of preferred creditor status as the IMF.

Guaranteeing EFSF bonds for more than their nominal value allied to the accumulation of cash buffers will reduce the capacity of the loan arrangements. With the present level of guarantees, it has been estimated that the EFSF will be able to offer the financially distressed countries loans totalling approximately EUR 250 billion, less than 60% of the

Chart 1.



guaranteed sums. The maximum amount that can be lent will, however, depend on a number of factors, including the credit ratings of the guarantors, the level of interest rates, and the maturity and other terms and conditions of the loan. As an example, of EUR 5 billion issued on the markets, the EFSF was able to lend EUR 3.6 billion to Ireland in February 2011.

Lending by the EFSM is indirectly guaranteed by all EU member states via the EU budget. Although the EFSM itself is new, the work it does, as such, is not, as the European Commission has in the past already issued debt in the name of and on behalf of the EU. It has used the funds raised by this debt issuance to finance balance-of-payments support and macro-financial assistance granted by the EU. The Commission cannot, however, finance its own activities on its own behalf.

The EU can grant medium-term financial support to member states experiencing serious balance-of-payments problems; at present the maximum support it can offer is EUR 50 billion. Balance-of-payments support is, however, available only to non-euro area member states, whereas the EFSM can also provide financial support to euro area countries. During the financial crisis, support has been provided via the balance-of-payments facility to Hungary, Latvia and Romania. At the beginning of 2011, approximately

EUR 12 billion was still outstanding on these loans. Macro-financial assistance, meanwhile, is granted by the EU to non-EU countries, of which EUR 600 million was still outstanding.

The credit rating of the EU's debt is not linked to the credit risk of countries in receipt of EU loans, as all the funding instruments are guaranteed by the EU budget. If the borrower is unable to repay the loan to the EU, the Commission will service its debt from the EU budget. Finland's share of the EU's own funds is under 2%. EU member states are under a statutory obligation to guarantee all the Union's debts, which is why EU issues have the best possible credit rating. In addition, loans granted by the EFSM incorporate – in the same manner as EFSF loans – a cash buffer, which is channelled back to the EU budget.

### **Debt issuance off to a good start**

The EFSF issues bonds on the markets in order to raise funds for re-lending to euro area governments. Debt is issued only in response to requests for assistance by euro area governments approved by the Eurogroup, and the funds are earmarked in such a way that the EFSF issues bonds solely to fund the adjustment programme of a specific country. Moreover, as it is currently constituted, the EFSF raises funds solely for governments. In connection with the Irish financial support package, however, it was agreed that the Irish government could use

*Demand for the first bond issued by the EFSF in January 2011 was high.*

EUR 35 billion of the total EUR 85 billion package to support the country's banking sector.

The EFSF issued its first bond, with a maturity of five years, at the end of January 2011. Demand for the bond on the primary markets was almost nine times the EUR 5 billion offered. According to market participants, this level of demand was the highest ever seen for a syndicated issue of this size. The average yield on the primary markets was around 2.9%, which at the moment of issuance was approximately 0.6 percentage points more than the yield on German government bonds of equivalent maturity and 0.3 percentage points more than the yield on Finnish government bonds. Japanese investors subscribed to 20% of the bond issuance, while the largest investor group was public entities. The yield spread vis-à-vis Germany is partly explained by the fact that the liquidity of EFSF bonds on the secondary markets is weaker than that of German government bonds. In addition, the use of EFSF bonds as collateral in interbank loans or interest rate derivatives is not so well established.

The financial markets saw the EFSF bond as attractive because the AAA-rating means the bond's credit risk is low. Moreover, considering the low level of credit risk, the bond's yield is superior to eg German or French government bonds. Its yield on the secondary markets has so far

held at slightly below 3%. Since it was issued, however, the yield spread to the corresponding German government bond has clearly narrowed, as yields on German bonds have increased and the EFSF bond's yield has remained relatively unchanged.

The EFSF has announced its debt issuance will total EUR 26.5 billion in 2011–2012. This is equivalent to the Finnish government's estimated gross funding needs for 2011. In addition to the issuance already concluded, the EFSF estimates it will in 2011 issue bonds to the value of a further EUR 11.5 billion, possibly in the form of two benchmark bonds. The facility will aim to achieve liquid markets for its bonds. The bond issuances are expected to be euro-denominated, but it could also issue bonds in other currencies. The German debt management office issues bonds on behalf of the EFSF and also invests the loan-specific cash buffers.

The Commission's debt issuance is also based on the terms of loans granted by the EU (back-to-back lending), which define eg the maturity of the bonds to be issued and their denomination, volume and value date. The EFSM, administered by the Commission, issued its first bond at the beginning of January 2011 to finance the loan arrangements for Ireland. Thus it was active in the markets before the EFSF. The maturity of this first bond was 5 years, and its average yield was priced at the

moment of issuance at around 2.5%, or 0.7 percentage points higher than the yield on 5-year German government bonds. Thus, the pricing of the EFSM bond corresponds to the bonds issued by the Commission in 2010, one of which was used partly to finance the balance-of-payments programme for Romania.

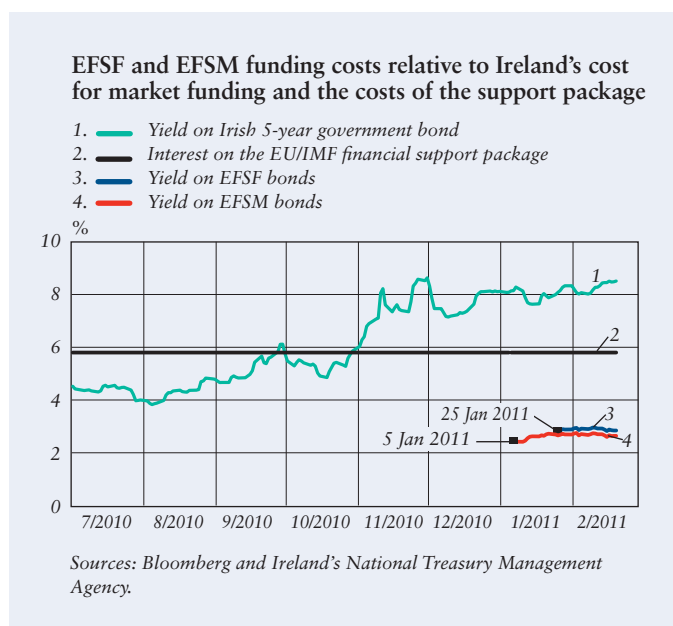
Demand for the EFSM bond was four times the amount issued (EUR 5 billion). Demand was worldwide, and 22% of the issue was auctioned to Asian investors. Almost half of all investors were banks or asset managers, 39% public entities and 12% insurance and pension funds.

The Commission is planning to issue in the name of the EU altogether almost EUR 20 billion euro-denominated 5–10-year bonds in 2011. Most of these, valued at EUR 17.6 billion, will be used to fund the EFSM loan to Ireland. The nominal value of the outstanding EU bonds at the end of 2010 was approximately EUR 12.5 billion, of which EUR 2 billion will mature in 2011. Thus the stock will more than double by the end of 2011.

The new financial stabilisation facilities will in practice almost entirely replace Irish sovereign debt issuance until 2013. Ireland aims, however, to preserve its access to market funding during the life of the support package. It is intending to issue bills and begin issuing bonds when market conditions permit. A comparison of Ireland's own funding costs and the costs of the financial

stabilisation arrangements (Chart 2) reveals that Ireland will pay interest of approximately 6% on the loan it receives from the EFSF, comprising the EFSF's own funding costs (at present around 2.9%) and a margin of around 3 percentage points. For the loan via the Commission's EFSM, Ireland will pay slightly less, approximately 5.5%. This comprises the Commission's own funding costs (around 2.6%) and a margin of 2.9 percentage points. According to Ireland's National Treasury Management Agency, the total costs of the country's EUR 85 billion support package are approximately 5.8%, and the average duration of the loans 7½ years. The interest rate is lower than Ireland's corresponding rate for market funding, which was

Chart 2.



around 8% at the beginning of 2011. The final interest payable on the support package loans will depend on the prevailing market rates.

### Permanent stabilisation mechanism in place after 2013

In December 2010, EU countries decided that the agreed interim financial stabilisation arrangements, such as the EFSF, would be replaced from the middle of 2013 by a permanent European Stability Mechanism (ESM). The decision was based on a previous Eurogroup position statement, which pointed up the need to clarify euro area countries' own responsibility in managing economic policy and the participation of private investors in credit arrangements.

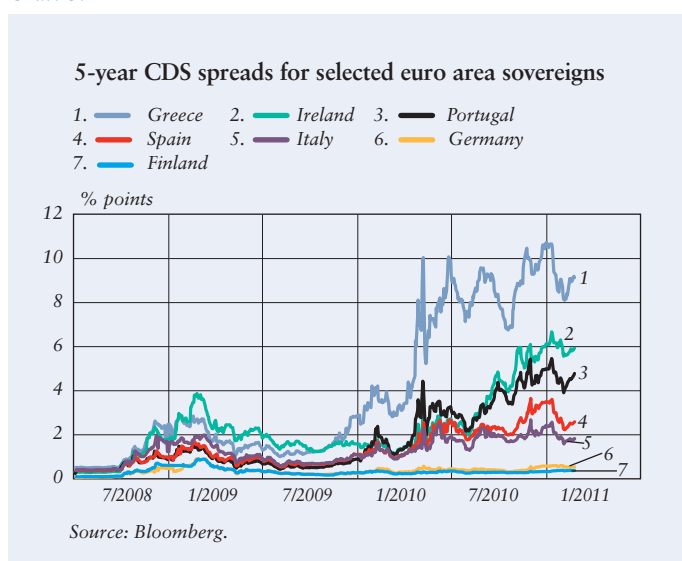
In future, the ESM will assess on a case-by-case basis whether the debt

position of a government seeking assistance is sustainable. Governments facing liquidity problems will be eligible for a loan in the same manner as with the EFSF at present. The granting of a loan will require the agreement of all euro area countries, and any loans granted will be conditional on the aims of the recipient government's adjustment programme.

The ESM will incorporate collective action clauses that will facilitate the possible negotiation process with creditors. It will have preferred creditor status relative to private creditors, although not relative to the IMF. This means the ESM will be able to assume a significant role in the management of debt restructuring. It will also be able to provide liquidity support during the restructuring process. Only new debt securities issued after 2013 by euro area governments will contain collective action clauses.

The establishment of a permanent financial stabilisation mechanism is part of the drive for reinforced economic surveillance in Europe. Within the EU, there are ongoing discussions over how economic policy coordination can be enhanced by improving administrative and monitoring systems for general government finances. Also still undecided are the details of the ESM. There have been discussions as to how the lending capacity of the present EFSF could be increased or its

Chart 3.



mandate expanded, eg to enable it to purchase government bonds on the secondary markets.

In early 2011, expectations grew on the financial markets that Europe would find a comprehensive solution to the debt crisis. Confidence in the peripheral euro area was enhanced by the high demand for the EFSF and EFSM bond issues and the successful debt issues by individual governments, despite stubbornly high yields and credit default swap premia on the government bonds of the most heavily indebted countries (Chart 3). In order to sustain financial market confidence, it is essential to achieve a credible, comprehensive solution to the debt problems.

*Keywords: general government finances, European Financial Stability Facility, government debt issuance, financial markets*



# Organisation of the Bank of Finland

11 March 2011

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