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Contents

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The front cover depicts the national motif on the German 50 cent coin: The Brandenburg Gate.

Preface

The Finnish economy is recovering from the deep recession into which it was plunged as a result of the global financial market crisis. As expected, the start of recovery was delayed. Finnish exports have traditionally focused on capital goods, demand for which is only just beginning to increase around the world. In many other countries the economy already began to recover towards the end of 2009.

Recovery is being led by the processing and intermediate goods industries. Since spring, world demand for the products produced by these industries has been strong. Domestic demand has also picked up in response to the revival of household consumption demand and housing investment. Exceptionally low interest rates and government action to support housing construction have supported the domestic market through the recession.

Although Finland has recently seen large figures for output growth, the recovery as a whole is not forecast to be particularly strong. Growth will run at just a good 2½% per annum in the immediate years ahead. The forest industries and electronics are still in the process of structural realignment, while the metal products and engineering sector is facing a process of adjustment to changing global demand and production structures.

The relatively moderate pace of recovery means the drop in output caused by the recession will not be closed until 2012. There can be no return to the pre-recession growth trajectory without structural measures to boost labour supply and improve productivity. Finland is not alone in this. As a result of the crisis, many other advanced economies are also facing the prospect of a lower growth trajectory than they were used to before the recession.

During the recession, employment in Finland has held up better than forecast. Unemployment has certainly increased, and people of working age have left the labour force, but, relative to the contraction in output, the decline in employment has been rather moderate. On the whole, the labour market situation has remained reasonable. There are a number of factors behind this positive picture. Domestic demand has supported employment, particularly in service sectors. At the same time, the use of layoffs has allowed many exporters to flexibly adapt to the strong fall-off in demand. Another important factor has been the low level of debt and strong profitability of many companies prior to the recession.

Although unemployment has recently begun to fall, employment is not returning quickly to the pre-recession level. Looking as far ahead as 2012, the expectation is that there will still be 35,000 less people in work than in 2008. From the perspective of the long-term growth outlook, however, it is positive that young people do not appear to have become displaced from the labour market as much as was feared.

The smaller decline in employment relative to output during the recession has meant a decline in productivity and increase in unit labour costs. Although productivity growth is forecast to accelerate as the economy recovers, weakened productivity will hamper Finnish companies' price competitiveness and make it harder for them to win new orders in the present tight competitive situation.

In addition to the decline in productivity, the price competitiveness of Finnish output is also hampered by previous immoderate wage developments. For several years, Finnish labour

costs rose faster than the average for the euro area. Although the most recent wage settlements have been much more moderate, this will be insufficient to correct the exaggerations of the 'crazy years'.

Finland's consumer price trend, too, has in recent years been faster than the euro area as a whole. At its height in 2008, inflation accelerated to over 4½%, and it is only in the past few months that it has returned close to the level of the euro area. Although other factors undoubtedly played a part, Finland's faster wages development relative to many other countries contributed to the accelerating pace of inflation. In the immediate years ahead, inflation in Finland is forecast to remain around 2%. As matters stand, the average price level in Finland will continue to be above the euro area average, and the hoped-for convergence does not appear likely.

The recession has brought a notable deterioration in Finland's general government finances. A budget surplus equal to more than 4% of GDP will give way in a short period to a deficit of just over 3%. The deterioration has been particularly marked in central government. Tax revenues have declined and expenditure risen. This has led to a large hole, which has had to be covered by borrowing. This, in turn, has led to rapid growth in general government debt. The mismatch between revenue and expenditure will start to be corrected as the economy recovers. The significance of cyclical factors should not be overestimated, however. A substantial part of the consolidation of public finances will have to be pursued by other means. In 2012, the general government deficit is forecast to still be close to 2½% of GDP. The size of the deficit is underlined by the fact that interest rates are exceptionally low, and thus clearly supportive of growth.

Consolidation of the public finances is already, of itself, a challenging task. However, there is also an additional need to place the public finances on a sustainable footing for the future: the expenditure pressures brought by an ageing population will gradually begin to place an increasingly heavy burden on the public purse. Calculations by different bodies – including the Bank of Finland – estimate that the deep recession has further exacerbated the general government sustainability gap. The need to reconcile public expenditure and revenues is, therefore, greater than before the recession. The recent recovery in the economy has not altered this basic fact. In addition to structural reforms, ensuring sustainability will probably also require changes in, for instance, the fiscal policy framework, including the expenditure ceiling system.

One key factor that has carried the Finnish economy through the recession is the present low level of interest rates. The European Central Bank has, like many other central banks, held its key policy rates at an exceptionally low level and in various ways supported the liquidity of the financial markets. Low interest rates have, on one hand, significantly reduced the interest expenditure of borrowers. On the other hand, they have simultaneously sustained growth in the debt burden on Finnish households. In particular, the amount of housing loans has continued to grow through the recession.

The growing levels of debt have recently been a source of general concern. It is not possible to draw a firm line that would indicate in all situations what is an appropriate level of

debt, and what is excessive. In the final analysis, this depends on numerous household-specific factors. From the perspective of households themselves, the greatest risks relate to not being properly prepared for a potential rise in interest rates, a sudden drop in their income or other unexpected situations that could undermine their ability to service their debts. With this in mind, it is very important that households conduct their own sufficiently rigorous 'stress tests' on themselves when considering taking out a loan. Households need to be able to service their debts in the event of interest rates becoming considerably higher than they are at present. This is also in the interests of the banks and other lenders. Finally, it is also important that households leave themselves sufficient room for manoeuvre in case of possible changes in their general income and expenditures.

The growth in the level of household indebtedness could also have significant negative effects on the wider economy. Prices of housing and other assets could rise to a level that is not economically justifiable. Moreover, a large debt burden weakens the ability of households – and, indeed, the economy as a whole – to adjust to disturbances of various sorts. In order to ensure stable development of the economy, it is vital to closely monitor debt levels.

24 September 2010

Bank of Finland forecasts

This special issue of the Bank of Finland Bulletin presents the Bank's macroeconomic forecast, which is prepared in the Monetary Policy and Research Department at the Bank. The forecast report examines recent developments in the economy and the outlook for the present calendar year and the next two years ahead. The forecast itself describes the most probable trends in the economy, while a risk assessment included in the report discusses uncertainties relating to the outlook.

The forecast report focuses on the Finnish economy, while also presenting the Monetary Policy and Research Department's assessment of future trends in the international economy, on which the Finnish forecast is based. The forecast assumes that interest and exchange rates will develop in line with market expectations.

The forecast for the Finnish economy and the related risk assessment are prepared using a macroeconomic model developed at the Bank of Finland plus a large body of other data and assessments on the direction of the economy.[1]

The Bank of Finland publishes its macroeconomic forecast twice a year, in March and September, in a special issue of the Bank of Finland Bulletin. It also participates twice a year in preparation of the Eurosystem forecast for the euro area as a whole.[2] The European Central Bank also publishes summations of the Eurosystem forecasts in the June and December editions of the ECB Monthly Bulletin.

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[1] *The forecast uses the latest version of a new macroeconomic model currently being developed. The previous version of the model is presented in 'Aino: the Bank of Finland's new dynamic general equilibrium model of the Finnish economy', an article by Juha Kilponen, Antti Ripatti and Jouko Vilmunen published in Bank of Finland Bulletin 3/2004, and in 'Labour and product market competition in a small open economy – Simulation results using a DGE model of the Finnish economy', another article by Kilponen and Ripatti published as Bank of Finland Discussion Paper 5/2006.*

[2] *The Eurosystem comprises the European Central Bank plus the national central banks of countries in the euro area, including the Bank of Finland.*

Forecast at a glance

During the second half of 2009, Finnish GDP began to grow from its lowest level at the depth of the recession. The economic recovery has gathered strength during the course of 2010. Output growth will flatten out gradually and remain fairly slow throughout the forecast period. Real GDP will grow 2.6% this year, 3.0% in 2011 and 2.5% in 2012. According to the forecast, the pre-recession level of real GDP will not be achieved until 2012.

Exports will continue to grow in response to brisk growth in the export markets. In the early part of the forecast period, Finland's exports will be subdued by their capital-goods-dominated structure. The improved employment situation and strong consumer confidence will boost households' willingness to consume. There will be a marked decline in the savings ratio, although it will still be higher than before the recession. Private investment growth early in the forecast period will be predominantly in housing construction. Fixed investment in productive capacity will continue to decline in 2010, but will accelerate substantially in the second half of the forecast period.

The situation on the labour market will begin to ease. The annual average number of employed will still decline in 2010, but will thereafter grow at an annual rate of almost 1%. The unemployment rate will decline slowly, reaching 7.7% in 2012.

Import growth will follow the trend in exports and strengthening domestic demand. The GDP ratio of the trade surplus on goods and services will remain at around 2.5%. The decline in the current account surplus during the forecast period will actually be a reflection of changes in the income account. General government finances will remain in deficit, and the debt ratio will rise throughout the forecast period.

In 2010, the pace of rise in the harmonised index of consumer prices (HICP) will average around 1.6%. Thereafter, it will accelerate to around 2%. Inflation measured by the national consumer price index (CPI) will be slightly faster than HICP inflation. In the forecast, the change in the CPI is expected to be 1.1% in the current year and 2.0% next year. In 2012, it is expected to accelerate to 2.2%.

Executive summary

Finland's economy is recovering

Finland's GDP began growing again in the second half of 2009.[1] The economic recovery has gained strength during the course of 2010. Growth has been strongest in traditional industries and in business sectors focused on the domestic market.

In the second quarter of 2010, output was up in all main economic sectors. Real industrial output was up approximately 8% on a year earlier, at the depth of the recession. In contrast to the first post-millennium decade, growth has been strongest in traditional export industries. It has been particularly strong in wood and paper product manufacturing and in metal processing. The chemical industry, too, has already experienced strong growth.

There has also been a rapid recovery in output for the domestic market. In the construction industry, a strong increase in new housing starts has been encouraged by government stimulus measures and low interest rates. Strong consumer confidence has also helped sustain the brisk activity on the housing market. Of other domestic market sectors, trade has closely followed the fluctuations in industrial output.

Growth slower than pre-crisis

The Bank of Finland forecasts that Finland's GDP will grow 2.6% this year and 3.0% in 2011. In 2012, the pace will ease back slightly to 2.5%. This means GDP growth will be slower than before the economic crisis. This somewhat more positive view of the pace of growth compared with the spring forecast does not alter the overall picture of the GDP trend: Pre-recession levels of output will not be achieved until the end of the forecast period in 2012.

The slow recovery in output to pre-collapse levels is a consequence of both the structure of Finland's export output and a change in the output structure of the Finnish economy as a whole. The country's export industry is geared strongly towards capital goods, demand for which will not recover more strongly until the recovery in international growth becomes firmly established. Export output will, therefore, approach the pace of growth in the export markets only in the second half of the forecast period. The overall pace of growth will also be dampened by the fact that the share of GDP and of employment accounted for by manufacturing industry, with its rapid productivity growth, has gradually declined since the turn of the millennium. At the same time, the share of service sectors, with their slow productivity growth, has grown.

Employment growth brisker than expected

The news from the Finnish labour market has recently been more positive than expected. At the end of 2009, the number of hours worked began to increase as output gradually recovered, and during the course of 2010 the number of employed has also begun to grow. The unemployment rate has come down during the year, to 8.3% in July. However, a worrying feature from the perspective of labour market functionality is the increase in long-term unemployment.

[1] This publication is based on statistical data available on 15 September 2010.

The latest data on employment among the youngest and oldest groups in the working-age population suggest the recession's impact on labour supply is turning out to be less prolonged and less significant than feared. The seasonally adjusted unemployment rate among young people has fallen since the spring, while the employment rate has risen. In addition, the duration of periods of unemployment among the young has stopped growing. Regarding the labour market position of ageing workers, there remain two distinct trends. Those who are still in working life appear to be continuing in work longer: the employment rate among this age group has risen, while the unemployment rate has fallen. At the same time, a considerable proportion of the oldest age cohorts are either unemployed or have left the labour force altogether.

Besides the effect of economic growth, the labour market will also be affected during the forecast period by population ageing and the fact that, during the recession, the level of labour input was adjusted by the use of layoffs. In 2010, the number of hours worked per person employed will continue to grow, but the average number employed will decline slightly from the previous year. In contrast, in 2011 and 2012, both hours worked and employment will grow by almost 1%.

The layoff system was a key reason why the increase in the unemployment rate during the recession was less than the contraction in output would have given cause to expect. Correspondingly, recovery in labour demand will be reflected initially in a decrease in layoffs, whereas reduction of unemployment will be a slower process. Unemployment will come down gradually, to 7.7% in 2012.

Growth in the export markets will boost Finnish exports

World trade developed strongly in the first half of 2010. Real world trade is, in fact, already returning to the pre-recession level during the course of 2010. Finland's export markets have also grown briskly, if not quite at the same pace as world trade in the first half of the year. The growth surge in world trade in early 2010 will, however, be short-lived. The acceleration was partly due to temporary factors, such as the need for companies to replenish inventories depleted during the recession. The pace of growth in Finland's export markets is forecast to ease considerably towards the end of the forecast period.

Finnish exports did not yet benefit from the growth in world trade in 2009. In the second quarter of 2010, however, there was a clear improvement, with real exports almost 13% up on the previous quarter. Exports have been led by the forest and chemical industries and the metals industry.

Global investment is typically slow to recover from a recession, when there is considerable unutilised production capacity around the world. Hence Finnish exports of capital goods will grow only moderately in the early part of the forecast period. Overall growth in Finnish exports in 2010 will be much slower than growth in demand in the

export markets. In 2011–2012, export growth will accelerate, but over the forecast period as a whole it will lag behind demand growth in the export markets.

Strengthening domestic demand

Early in the forecast period, domestic private investment growth will be focused strongly on housing construction. In 2010, there will still be substantial contraction in fixed investment in productive capacity. Recovery in output and a reduction in free production capacity will stimulate growth in fixed investment in 2011, but even by the end of the forecast period the amount of investment will be substantially less than in 2007.

During the forecast period, private consumption will be of key importance in sustaining economic growth. Private consumption growth during the period, at approximately 2.5% per annum, will be slightly faster than growth in household incomes. The improving employment situation will sustain strong consumer confidence, and by the end of the forecast period the savings ratio will have declined from the 4% recorded in 2009 to around 2%. Even so, it will still be higher than in the years immediately preceding the recession.

General government deficit to contract

The general government deficit is forecast to grow in the current year to 3.2% of GDP. In 2011, it will contract by almost 1 percentage point, as economic growth gathers force and fiscal policy moves from accommodating to tightening. In 2012, the deficit is forecast to remain at the same level as in 2011. By the end of the forecast period, general government debt will have risen to 55% of GDP.

External balance to weaken slightly

Import growth will accelerate in response to accelerating exports and domestic demand. The goods and services account surplus will continue at around 2.5% of GDP in the forecast period. Contraction in the current account surplus during the forecast period will reflect changes in the income account.

Price pressures moderate

Unit labour costs will decline in 2010, with rapid growth in labour productivity and only a moderate rise in wages and salaries. Unit labour costs will remain more or less unchanged in 2011 and begin to grow moderately in 2012. In 2011 and 2012, the employment situation will improve and productivity growth will flatten out at around 2%. Accelerating inflation will subdue growth in real wages in the forecast period.

Commodity prices rose substantially in 2009, but in 2010 the pace of rise has evened out. In the immediate years ahead, the price of imported energy is forecast to rise moderately, following the trend in oil prices, and there will also be a gradual rise in other commodity prices. Price rises in consumer and capital goods are expected to be rather muted. Import prices are estimated to rise moderately in 2011 and 2012.

The rise in the harmonised index of consumer prices (HICP) has slowed somewhat during the course of 2010. HICP inflation is forecast to average around 1.6% in 2010. The pace of rise in consumer prices will accelerate slightly in 2011 and 2012, to around 2%.

Both upside and downside risks to the forecast for the Finnish economy

Expansionary economic policy has been a key factor in the global recovery from the deep recession. It is, however, possible that the expansionary measures have not put the advanced economies on a sustainable growth path. The recent positive trend in the world economy is based partly on temporary stimulus measures and the restocking of inventories. Even a short-lived faltering in growth could precipitate a negative spiral in the global economy. On the other hand, a stronger-than-forecast trend in the global economy is also possible if the significance of emerging economies as engines of world growth turns out to be greater than expected. The strong economic growth in the emerging economies could reinforce growth in the advanced economies more than envisaged in the forecast. In such a scenario, commodity prices would also rise more strongly than assumed, and inflation would accelerate.

There are downside risks regarding the Finnish economy's recovery from the deep recession, most of which relate to developments in the international economy. A weakening international economic outlook and increased uncertainty would be rapidly communicated to the Finnish economy via international trade and the financial markets, and this would postpone the recovery from recession. The alternative scenario attached to the forecast examines the importance of strong public finances to the recovery from recession. If market confidence in Finland's ability to manage its public finances were to suddenly falter, the effects would impact strongly on the real economy.

A stronger-than-expected trend in the world economy could cause a faster-than-forecast increase in Finland's real exports. Domestic investment would then also increase faster than forecast and GDP growth would accelerate. Under this scenario, growing demand would be accompanied by faster import price inflation and rising labour costs, which would push up the pace of price rises within Finland.

Table 1.

Forecast summary

Supply and demand

	2009	2008	2009	2010[f]	2011[f]	2012[f]
	At current prices EUR billion	*Volume, % change on previous year*				
Gross domestic product	*171.3*	*0.9*	*-8.0*	*2.6*	*3.0*	*2.5*
Imports	*59.8*	*6.5*	*-18.1*	*3.7*	*9.0*	*6.5*
Exports	*64.0*	*6.3*	*-20.3*	*5.7*	*8.3*	*5.8*
Private consumption	*94.0*	*1.7*	*-1.9*	*2.3*	*2.5*	*2.5*
Public consumption	*43.0*	*2.4*	*1.2*	*0.1*	*0.4*	*0.4*
Private fixed investment	*28.6*	*-0.3*	*-17.4*	*0.6*	*7.9*	*7.4*
Public investment	*4.8*	*-0.7*	*6.1*	*-3.5*	*-2.5*	*-2.6*

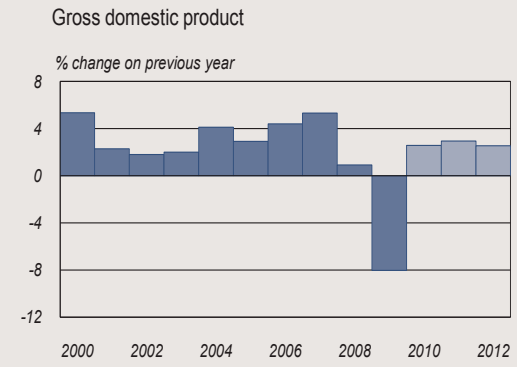
Key economic indicators

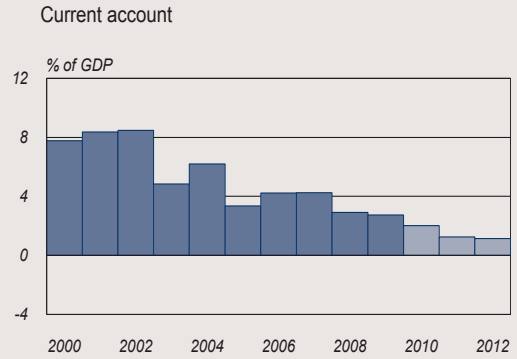
	2008	2009	2010[f]	2011[f]	2012[f]
% change on previous year					
Harmonised index of consumer prices	*3.9*	*1.6*	*1.6*	*1.9*	*2.0*
Consumer price index	*4.1*	*0.0*	*1.1*	*2.0*	*2.2*
Wage and salary earnings	*5.5*	*4.0*	*2.7*	*2.4*	*2.9*
Labour compensation per employee	*5.1*	*1.9*	*1.4*	*2.0*	*2.7*
Productivity per person employed	*-0.6*	*-5.3*	*2.8*	*2.0*	*1.7*
Unit labour costs	*5.7*	*7.6*	*-1.3*	*-0.1*	*1.0*
Number of employed	*1.6*	*-2.9*	*-0.2*	*0.9*	*0.8*
Employment rate, 15–64-year-olds, %	*70.6*	*68.3*	*68.0*	*68.9*	*69.8*
Unemployment rate, %	*6.4*	*8.3*	*8.4*	*8.0*	*7.7*
Export prices of goods and services	*-1.0*	*-7.4*	*5.2*	*2.6*	*1.4*
Terms of trade (goods and services)	*-2.8*	*0.6*	*-1.7*	*0.1*	*0.0*
% of GDP, National Accounts					
Tax ratio	*43.0*	*43.0*	*42.4*	*42.7*	*42.3*
General government net lending	*4.2*	*-2.7*	*-3.2*	*-2.4*	*-2.3*
General government debt	*34.1*	*44.0*	*49.3*	*52.4*	*55.1*
Balance on goods and services	*4.0*	*2.5*	*2.7*	*2.7*	*2.5*
Current account balance	*2.9*	*2.7*	*2.0*	*1.2*	*1.2*

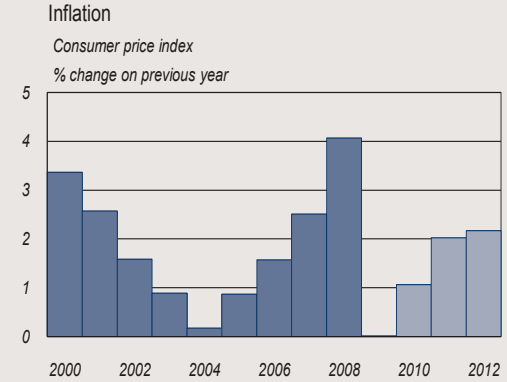
f = forecast
Sources: Statistics Finland and Bank of Finland.

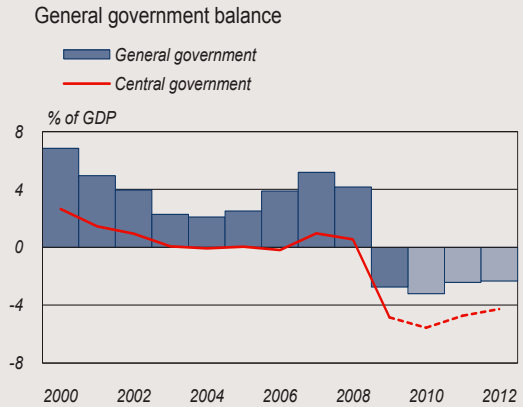
Chart 1.

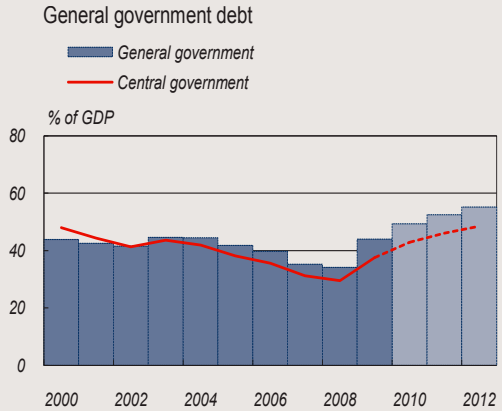
Key economic indicators











Sources: Statistics Finland and Bank of Finland.

Forecast assumptions

World trade and Finland's export markets

The global economy is continuing to grow, but the pace has slowed considerably since the end of 2009. World GDP is projected to grow by 4.6% this year and stabilise thereafter at about 4% in 2011 and 2012.[1] Growth is still concentrated in the emerging economies, while growth in the advanced economies will remain fairly muted over the entire forecast period.

World trade recovered faster than expected in the first half of 2010 and is expected to grow by about 15% over the year as a whole. However, the rate of growth will slow to below 7% in the coming years as the inventory adjustment cycle comes to an end and global economic growth fades. Finland's export markets will grow almost as quickly as world trade as a whole.

[1] *The assessments of international economic growth underpinning the domestic forecast are the Bank of Finland's own assessments and are discussed in greater detail in Box 6.*

Commodity prices

The economic recovery caused rapid rise in commodity prices in 2009. This year, the price of crude oil has been driven up by increased demand. The forecast assumption is for the price of Brent crude to follow the trend in futures price quotations as at 10 September 2010. Accordingly, oil price rises should be moderate during the forecast period.

The prices of industrial raw materials have continued to surge due to increased demand in China and global restocking of inventories. In addition, food prices have been pushed up in the past months by supply shocks. In the forecast period, commodity prices are expected to increase moderately overall. A more detailed analysis of developments in commodity prices is presented in the chapter 'Costs and prices'.

Foreign trade prices

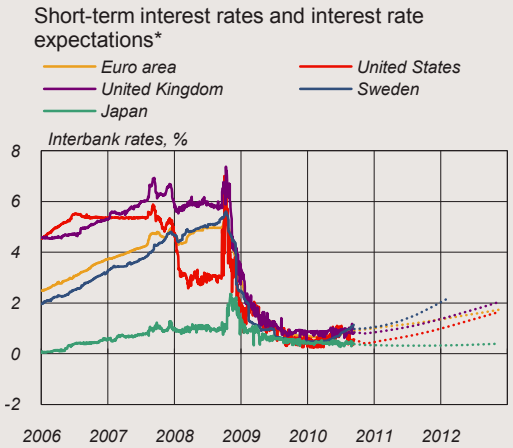
Developments in the export prices of Finland's key competitors are expected to rise moderately, at an annual pace of 1–3% over the next few years. The moderate export price developments are due to ample excess capacity and intense competition in the markets, which does not allow for price hikes and increases pressures to improve productivity.

Table 2.
Forecast assumptions

	2008	*2009*	*2010f*	*2011f*	*2012f*
Finland's export markets[1], % change	*3.4*	*-13.4*	*13.1*	*6.9*	*6.5*
Oil price, USD/barrel	*97.6*	*61.9*	*79.1*	*85.7*	*88.5*
Euro export prices of Finland's trading partners, % change	*-0.2*	*-4.7*	*7.5*	*2.9*	*1.0*
3-month Euribor, %	*4.6*	*1.2*	*0.8*	*1.1*	*1.5*
Yield on Finnish 10-year government bonds, %	*4.3*	*3.7*	*3.1*	*3.2*	*3.4*
Finland's nominal competitiveness indicator[2]	*107.0*	*107.6*	*101.9*	*100.1*	*100.3*
US dollar value of one euro	*1.47*	*1.39*	*1.30*	*1.28*	*1.28*

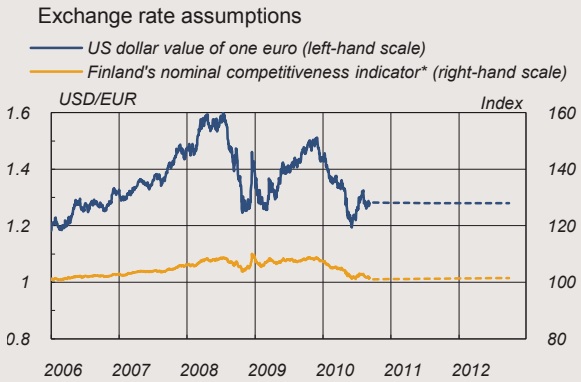
[1] Growth in Finland's export markets equals growth in imports by countries to which Finland exports, on average, weighted by their respective shares of Finnish exports.
[2] Narrow plus euro area, 1999 Q1 = 100
f = forecast
Sources: Statistics Finland, Bloomberg and Bank of Finland.

Chart 2.



* 3-month market rates and interest rate expectations based on interest futures
Sources: Bloomberg and Bank of Finland.

Chart 3.



* Narrow plus euro area, January–March 1999 = 100
Sources: European Central Bank and Bank of Finland.

Interest rates and exchange rates

According to forecast assumptions based on interest rate futures quotations, short-term money market rates (including the 3-month Euribor) should rise very moderately in the next few years and thus remain low during the entire forecast period (Chart 2). Under an assumption based on currency forward quotations, the external value of the euro will remain largely unchanged during the forecast period (Chart 3).

The interest and exchange rate assumptions in the forecast are derived from market expectations on 10 September 2010. The underlying assumption concerning interest rates and exchange rates is purely technical and does not anticipate the interest rate policy of the ECB Governing Council nor include an estimate of equilibrium exchange rates.

Financial markets

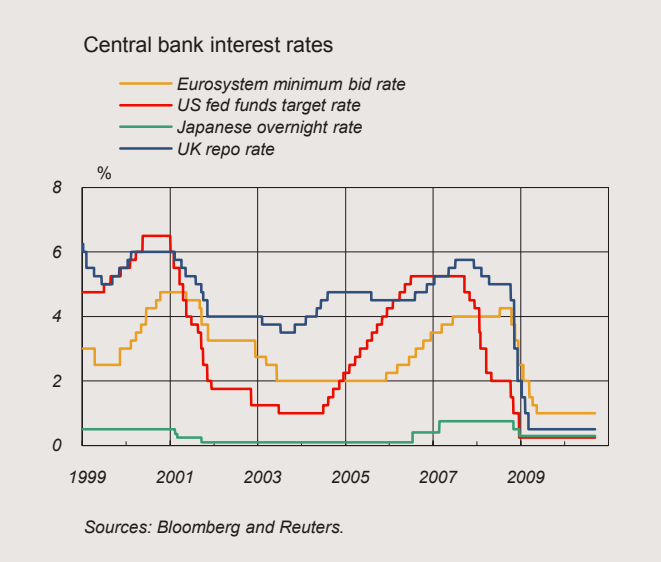
The sovereign debt crisis escalated in late spring 2010 to almost panic proportions. The situation was finally calmed as a result of determined action by the authorities. Monetary policy has continued to be exceptionally supportive of growth, and both short and long interest rates remain extremely low. The situation on the stock markets has developed unevenly. Banks in the United States and Japan have relaxed their terms of lending, but demand for credit remains weak across all the major economic regions. The housing market in many countries is showing signs of recovery.

The suspicion that had smouldered since the beginning of the year over the state of Greece's government finances escalated in late April and early May into an outright panic. At the same time, disquiet became ever clearer on the loan markets over other countries seen as vulnerable. Funding costs for Greece in particular, but also for Portugal, Spain and Ireland, rose dramatically, and there were doubts over whether they would be able to borrow at all.[1] As the sovereign debt crisis deepened, concern also mounted over the risks being borne by financial institutions, which led to a rise in their funding costs as well.

A further deterioration in the situation was successfully avoided through determined action by various authorities. A loan programme arranged by euro area countries and the IMF secured Greek funding for the immediate years ahead. Euro area countries further agreed to establish a stabilisation mechanism to preserve financial stability in Europe. In a number of countries, the timetable for balancing the public finances was accelerated. At the same time, the Eurosystem supported the bond markets through direct purchases and changing collateral policy in order to guarantee the collateral eligibility of Greek government bonds with the ECB. The condition of the banking sector was clarified by the publication of stress test results in July.

These steps prevented the further spread of disquiet and helped calm the markets through the summer. In the first half of August, risk premia on some government bonds and MFI loans began to grow again. There has, however, been no further sign of the situation spreading uncontrollably, with the financial markets functioning for the most part normally in late summer.

Chart 4.



Interest rates

Monetary policy has continued to be extremely supportive of growth across

[1] A more detailed chronology of the European sovereign debt crisis was presented in Bank of Finland Bulletin 1/2010, p. 26–27.

all major economic regions. In the United States and Japan, the key policy rate is close to zero, in the United Kingdom it stands at 0.5%, and in the euro area at 1% (Chart 4). Increased uncertainty over the sustainability of growth coupled with moderate inflation expectations have generally postponed market expectations over a rise in central bank interest rates. Of Finland's key export markets, Sweden's central bank has already raised its key rate twice since growth began to accelerate.

Under the prevailing conditions of relaxed monetary policy, short market rates have also remained extremely low in the major economic regions. In the United States, the mild rising trend in short-term rates ended in late spring amid increased uncertainty over the sustainability of growth. In the euro area, short market rates have risen slightly from their low point in the spring, but they are still exceptionally low.

The yield curve has edged down in both the United States and the euro area, as long-term rates have fallen sharply since the spring. Interest rates on low-risk German and US government bonds have fallen to an exceptionally low level, 2–3%, reflecting the weakness of long-term growth expectations and the moderating of long-term inflation expectations. Funding costs have risen only in those countries subject to growing doubts over their ability to service their debts (Chart 5).

Chart 5.

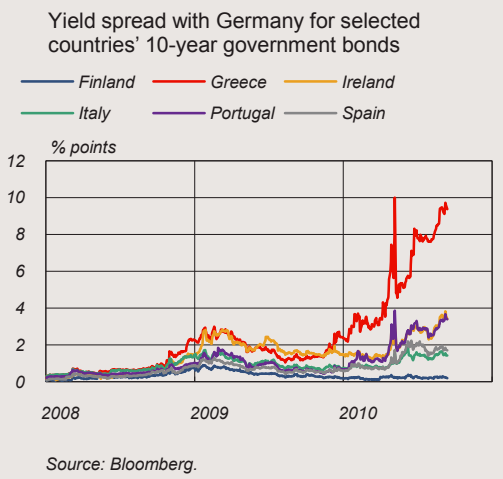
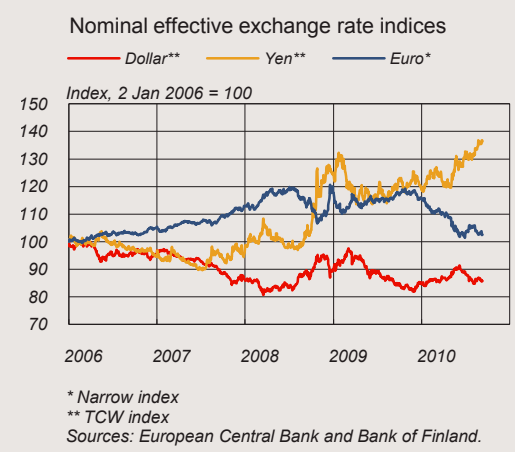


Chart 6.



Exchange rates

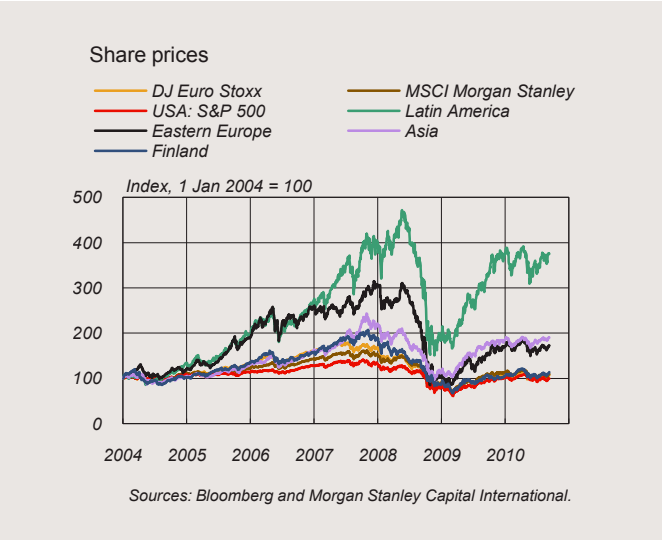
In the spring, concerns over the debt-servicing ability of some euro area governments led to a rapid depreciation in the value of the euro against both the US dollar and the Japanese yen. During the summer, market confidence in the European economy weakened further, despite the substantial measures taken by EU countries and the Eurosystem. At its lowest point, the nominal value of the euro fell below USD 1.20 in July. It was last at a similar level at the beginning of 2006 (Chart 6).

Of the major economic regions, particularly noteworthy is the strong appreciation of the Japanese yen. Japan's GDP growth in the current year has exceeded expectations. This has helped sustain demand for the yen as a secure currency and bolstered its value, particularly over the summer months. In fact, the yen's nominal value against the dollar is now the strongest it has been for almost 15 years.

In the United States, the economic recovery that began in the second half of 2009 has slowed substantially during summer 2010. Despite this, the dollar has also been bolstered by safe-haven demand on the international financial markets.

Of EU countries outside the euro area, both the United Kingdom and Sweden have seen their currencies appreciate against the euro. The pound has continued to gain, despite somewhat contradictory signals on recent trends in the UK economy. The news on the Swedish economy has been very strong.

Chart 7.



In June, China announced the intention to permit its currency to move more freely against the US dollar, leading to a slight appreciation of the yuan. China's goods account has continued to record a substantial surplus, and the yuan continues to face pressures for revaluation. The rise of the Russian rouble against the euro came to a halt in the summer, since when it has fallen back slightly.

Stock markets

Since the beginning of 2010 there has been no clear direction on the stock markets. On all the largest stock markets in the advanced economies there has been only a very moderate rise in share prices. Stock markets with the weakest yields include those in the economies suffering debt problems, namely Italy, Spain, Ireland, Portugal and Greece. In contrast, the rapid recovery in emerging economies has seen a rise in share prices there (Chart 7).

The weak development of share prices has not been linked to corporate earnings development: results have been strong, particularly in those companies with business activities in the emerging economies. Indeed, as recently as early spring, share prices on stock markets in the advanced economies were also rising in connection with positive earnings surprises. However, the upward movements petered out due to the uncertainty over the sovereign debt crisis.

The increased uncertainty on the markets over the direction of share prices was reflected in late spring in a strong rise in implied volatility indices.

The VIX index, which provides data from US stock exchanges, has come down gradually since the acute phase of the sovereign debt crisis, reflecting an easing of uncertainty on the markets (Chart 8).

In Finland, the rise in share prices came to a halt in late April and early May. Price developments in 2010 have clearly been weakest in ICT sector shares, and strongest in the industry and finance sub-indices.

Loan markets

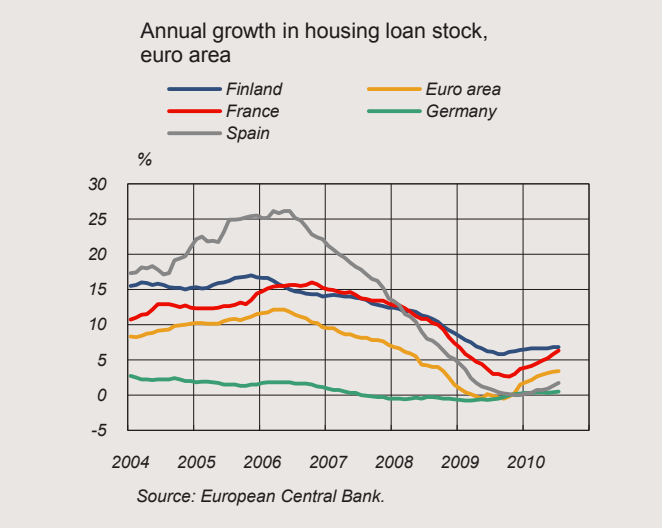
Access to MFI finance for companies and households has improved over the past half year in the major economic regions outside the euro area. In both the United States and Japan, survey data indicates that the conditions for bank credit supply have eased somewhat. Demand for bank credit in these countries has continued to be sluggish, and growth in bank lending has therefore been slow.

In the euro area, in contrast, loan market normalisation suffered a setback in late spring, when market confidence in the solvency of some euro area governments was shaken. A lack of confidence in the public finances undermined market confidence in governments' capacity to ensure the stability of their financial sectors, which also made it harder for banks to procure their own funding. This led to the banks tightening their own lending policies.

In summer 2010, the European Committee of Banking Supervisors, in cooperation with national supervisors and the European Central Bank, organised stress tests for banks in order to clarify their position and bring stability to the financial markets. The purpose of the exercise was to produce a realistic picture of the EU banking sector's ability to withstand adverse shocks and thereby increase confidence in the banks. The results of the stress tests did, in fact, calm the worst fears. Even so, many banks still remain fragile in the wake of the financial crisis and

Chart 8.

Chart 9.



the recession, which makes it more expensive for them to procure funding and hence slows bank loan market normalisation in the euro area.

Like the United States and Japan, demand for bank credit has also been sluggish in the euro area, and lending growth has therefore been slow. The corporate loan stock contracted slightly during the spring and early summer. The household loan stock has, in contrast, grown somewhat, primarily on account of the slight recovery in the housing market and hence housing finance (Chart 9).

Banks operating in Finland have been spared the effects of the disquiet caused by the sovereign debt crisis in some euro area countries. Banks' terms of lending, such as their credit margins, do not appear to have changed significantly in recent times. The interest rates on new loans to both households and businesses are still exceptionally low, at around 2%. Access to credit is not a significant constraint on the activities of households or businesses.

The corporate loan stock has grown steadily through 2010. There has been an increase particularly in large corporate loans of over EUR 1 million. This would suggest that the growth in the loan stock is related to the rapid recovery in the operations of larger corporations, and hence an increased need for finance during the spring.

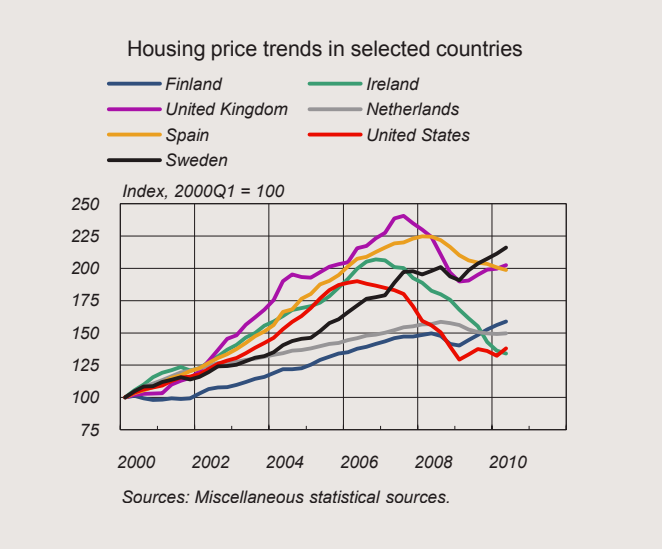
The household loan stock has grown approximately 3% during the current year. Growth has been fastest in housing loans, demand for which has been boosted by the strong recovery in the housing market. Consumption loans have grown more slowly. Households still prefer floating-rate, Euribor-linked housing loans. In recent months, the share of new loans linked to longer reference rates has grown slightly.

Housing market

The housing price trend has varied considerably across different countries in recent times. Outside the euro area, US prices have stood still, UK prices have risen somewhat and Swedish prices have risen strongly (Chart 10). In the euro area, housing prices in Ireland and Spain have been declining, while some other euro area countries have experienced rapid rises. Within the euro area, the fastest rises have been in Finland, Austria and Malta.

After their slump during the global economic crisis, housing prices in Finland began to rise again in the first half of 2009. The pace has been brisk, and the level of prices prevailing before the crisis has already been surpassed. In

Chart 10.

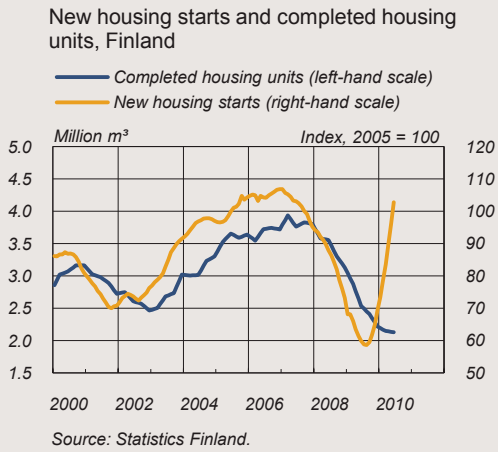


the second quarter of the current year the prices of old housing units were 10% higher than a year earlier and 1.8% higher than in the previous quarter. Prices have risen both in the Helsinki metropolitan area and elsewhere in the country.

There are a number of factors behind the recent rising trend in housing prices in Finland. Demand for housing has been bolstered by consumers' strong confidence in their own finances and in the country's economy. Statistics Finland's consumer confidence indicator has risen to a record high, and house-purchasing intentions are stronger than average. Housing demand is also being bolstered by the exceptionally low level of interest rates on housing loans. In addition to demand factors, the upward trend in prices has also been driven in part by the strong contraction in housing construction in recent years.

Construction of new housing has already begun to grow strongly from the period of slump during the crisis. The first to recover was the construction of housing for rent, but the main focus is now shifting onto non-subsidised owner-occupied housing. The growth in construction has not yet caused an increase in the number of completed housing units, but the pace of increase in construction is such that it is expected this will begin to be seen at the end of the current year. A recent report by a body under the Ministry of Finance that monitors the construction industry estimates that 2010 will see new starts on the construction of almost 30,000 housing units (Chart 11).[2]

Chart 11.



Housing supply will increase as a result of the strong growth in new construction, and this will have a moderating impact on the rise in housing prices. On the other hand, continued low interest rates in line with market expectations and the improving economic outlook will bolster housing demand and hence rising prices during the forecast period.

[2] Rakennusalan suhdanneryhmä (17 August 2010). Rakentaminen 2010–2011 ('Construction 2010–2011'; in Finnish only).

Box 1.

Recent monetary policy in the euro area

The Governing Council of the ECB aims to keep the inflation rate in the euro area, as measured by the harmonised index of consumer prices (HICP), below, but close to, 2% over the medium term. The Governing Council monitors and analyses the economic outlook for the euro area and sets its key interest rates at a level that best supports price stability over the medium term.

When the financial market crisis came to a head in autumn 2008, the Governing Council substantially reduced its key interest rates. Since May 2009, the rate on the main refinancing operations (MROs) has been 1%. In addition, non-standard measures were introduced to support the banking system and lending. As a result, key money market interest rates rapidly came down and stabilised at a low level. The shortest Euribor rates were for a prolonged period well below 1%, and the interbank Eonia rate was close to the rate on the ECB's deposit facility. As tensions on the financial markets have relaxed and banking system liquidity returned towards normal, the shortest money market rates have risen closer to the rate on the MROs.

Already in November 2009, the Governing Council indicated that conditions on the financial markets had improved to a degree that meant it could begin to gradually withdraw the non-standard measures introduced to increase liquidity, as these are not needed to the same extent as before.

In line with this decision, the Governing Council decided in March 2010 to return to variable rate tender procedures in the regular three-month longer-term refinancing operations (LTROs), starting with the operation to be allotted in April 2010, and to fix the rate in the six-month LTRO to be allotted at the end of March at the average minimum bid rate of the MROs over the life of the operation. The Governing Council further decided to continue conducting both the main refinancing operations and the special-term refinancing operations with a maturity of one maintenance period as fixed rate tender procedures with full allotment for as long as necessary, and at least until 12 October 2010.

Although general conditions on the financial markets improved during the course of winter and spring, confidence in the ability of the most indebted members of the euro area to fulfil their obligations began to falter and serious tensions began to emerge on government bond markets. The situation came to a head in May, leading to increased fluctuations in the prices of financial instruments, higher liquidity risk and sudden disruptions in the availability of market funding. In response, the Governing Council decided on a number of non-standard measures aimed at easing the tensions and reducing the spread of their unfavourable impacts through the economy.

The Governing Council decided to launch a securities markets programme, under which Eurosystem central banks began to purchase from the markets eligible marketable debt instruments issued by central governments, public entities and private entities in the euro area. The liquidity injected through the programme was to be re-absorbed later by special liquidity-absorbing operations. The Governing Council also decided to re-adopt a fixed-rate tender procedure with full allotment in the regular 3-month LTROs and to conduct a 6-month LTRO with full allotment, at a rate fixed at the average minimum bid rate of the MROs over the life of the operation. The Governing Council also decided to reactivate the temporary liquidity swap lines with the Federal Reserve and, in accordance with this, to resume US dollar liquidity-providing operations.

In September, the Governing Council decided to continue to conduct its MROs and special-term refinancing operations with a maturity of one maintenance period as fixed rate tender procedures with full allotment at least until the end of the year's

twelfth maintenance period on 18 January 2011. It also decided to conduct the 3-month LTROs to be carried out in October, November and December 2010 as fixed rate tender procedures with full allotment, but with the rates in these operations to be fixed at the average rate of the MROs over the life of the respective LTRO.

The Governing Council has stressed that all the non-standard measures relating to enhanced credit support are fully consistent with the ECB's mandate and, by construction, temporary in nature. The Governing Council has also underlined the fact that the monetary policy stance and the overall provision of liquidity will continue to be adjusted as appropriate in the future.

Economic growth in the euro area has strengthened during the course of 2010. In view of this, the earlier estimates by Eurosystem and ECB experts of this year's growth in the euro area have been revised slightly upwards. In September, ECB staff projected real GDP growth ranging between 1.4% and 1.8% in 2010 and 0.5% and 2.3% in 2011.

According to the Governing Council's assessment, growth will continue to be moderate both this year and next, and it will be unevenly distributed across different countries and sectors of the economy. The recovery in the global economy, the monetary policy stance and measures taken to normalise the functioning of the financial markets are all supportive of growth. However, balance sheet strengthening, a low capacity utilisation rate and the weak labour market outlook will continue to subdue growth. The outlook is also clouded by the continued tensions in some segments of the financial markets. Throughout the year, the Governing Council has stressed that the growth outlook is very uncertain.

The rise in energy and other euro-denominated commodity prices drove up the pace of inflation in the euro area in the first half of the year. Over the course of the year, Eurosystem and ECB staff have revised their projections for euro area inflation in 2010 and 2011 slightly upwards. In September, the ECB staff projection for euro area inflation was between 1.5% and 1.7% in 2010 and between 1.2% and 2.2% in 2011.

In deciding to leave its key rates unchanged in September, the Governing Council estimated that euro area inflation will remain moderate overall and price stability be maintained over the policy-relevant horizon. According to the Governing Council, the moderate demand outlook and plentiful supply of unused production capacity will subdue domestic price pressures in the euro area over the medium term. The data on economic agents' inflation expectations and growth in the euro area money supply and lending also suggest, in the view of the Governing Council, that prices will remain stable over the medium term.

Throughout the year, the Governing Council has assessed factors that could influence estimates of the pace of economic growth and price rises over the medium term. Euro area exports could grow faster than expected if global growth and international trade recover more strongly than anticipated. On the other hand, possible new tensions on the financial markets or a negative spiral between the real economy and financial markets of longer duration than previously estimated could weaken economic growth. Growth would also be slowed by a renewed rise in commodity prices, protectionist measures or the uncontrolled adjustment of global imbalances.

In the event of a renewed upward movement in commodity prices, euro area inflation could accelerate faster than anticipated. Moreover, in seeking to improve their general government balances, governments could raise indirect taxation and administrative charges more than expected in the years ahead. The Governing Council has considered the risks to domestic cost and price developments in the euro area to be slight.

Box 2.

Hanna Freystätter

Financial market disturbances and developments in the real economy in Finland

The global financial crisis has shown how large an impact a financial market disturbance can have, not only on the financial sector, but on the real economy as well. Recent studies have shown that the functioning of the financial markets and developments in the real economy are strongly interlinked; this is apparent not only for times of crisis, but also if we examine normal cyclical fluctuations in the economy. Moreover, financial factors can reinforce cyclical fluctuations, even when the original disturbance stems from somewhere other than the financial markets.

The functioning of the financial markets and disturbances in the financial sector also strongly affect cyclical fluctuations in the Finnish economy, as elsewhere.[1] A substantial proportion of cyclical fluctuation in investment, and hence output, in Finland is a consequence of financial market disturbances. In turn, the strength of cyclical fluctuations is affected by the financial accelerator mechanism,[2] which operates in the Finnish economy, too.

The financial accelerator operates in an economy in such a way that during an economic upswing risk premia decline and financial conditions relax, while in a downswing risk premia grow and financial conditions tighten. The financial accelerator amplifies a downswing, as corporate balance sheets and household finances weaken (due to the downswing), whereupon the affected groups have to pay larger risk premia on their loans. The risk premia grow because lenders seek compensation for borrowers' weakened ability to service their loans and the attendant higher risk of default. During an upswing, the situation is reversed, with strengthening balance sheets and declining risk premia due to the improvement in borrowers' ability to service their loans.

When the risk premia on both corporate and household loans grow (decline) unexpectedly and much more (less) than the cyclical juncture would give cause to expect, this is a sign of a financial market disturbance. Other terms and conditions of loans may also tighten (relax) and some businesses or households in need of credit be unable to get a loan at all (the set of borrowers grow). Thus, the growth in risk premia caused by a financial market disturbance differs from that due to the financial accelerator, the latter being a consequence of weakening balance sheets in a declining economy.

An unfavourable financial market disturbance is, thus, reflected in unexpected growth in risk premia, but the disturbance itself could have many different causes. Some financial market disturbances relate to problems with financial intermediation. For example, a decline in confidence on the interbank market could increase banks' own funding costs. This would be reflected in higher costs for borrowers and/or tighter loan conditions, even if the borrower's own financial position remained unchanged. We also talk of a financial market disturbance in the case of unexpected changes in asset prices, which could stem from eg the dampening of unrealistic positive expectations on the stock or housing markets. A decline in asset prices, whether caused by a financial market disturbance or in relation to an economic downturn, reduces the net wealth (assets minus debts) of businesses and households, which in turn leads to a growth in risk premia. Risk premia will remain high and hamper the economy's recovery from the downswing until borrowers' net wealth rises or, in other words, the level of indebtedness declines.

The development of the real economy is strongly linked to financing conditions. A rise in

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[1] *Freystätter, Hanna (2010): Financial market disturbances as sources of business cycle fluctuations in Finland. Bank of Finland Discussion Paper 5/2010.*

[2] *Bernanke, Ben, Gertler, Mark and Gilchrist, Simon (1999). The financial accelerator in a quantitative business cycle framework. Handbook of Macroeconomics, ed. Taylor, J B and Woodford, M. North Holland, Amsterdam.*

the cost of finance subdues aggregate demand and leads to slower growth. Higher risk premia have a particularly contractive effect on investment, as investment projects typically require external finance. Consumption demand may also recede if access to finance restricts household demand. Moreover, the cost and availability of finance also influence the activities of exporters. Declining demand causes a decline in asset prices, which weakens corporate balance sheets and household finances and further pushes up the cost of finance. The downwards spiral of a declining economy and tightening finance could lead to a steep deceleration in the economy. During an upswing the same mechanisms work in the opposite direction, feeding economic growth.

The global financial crisis hampered access to finance for Finnish businesses and households and also made finance more expensive, even although the disturbance did not originate on the Finnish financial markets. The tightening of finance both in Finland and worldwide was one factor that served to deepen the recession in the Finnish economy, although it is still too soon to assess the precise significance of financial factors in the current recession. The return to growth both in Finland and around the world means that asset prices will rise, corporate balance sheets and household finances will improve and the level of indebtedness will decline. The consequent reduction in risk premia will particularly stimulate investment both domestically and globally, which is important for Finland's capital-goods-weighted export sector. Moreover, Finland's financial sector is overall in good shape and presents no obstacle to economic recovery.

The international financial markets remain sensitive to a variety of possible disturbances that could unexpectedly push up the price of finance and hamper the recovery of the Finnish economy from recession. European financial markets are likely to be affected for a prolonged period by general government debt and the threat of a repeat of the recent sovereign debt crisis. On the other hand, many of the measures taken by the European Central Bank and other economic policy measures as well as, for example, publication of the results of banking stress tests have served to calm the financial markets in Europe.

Shocks stemming from the financial markets can, however, be expected to recur in the future. Financial conditions in Finland reflect eg changes in financial market regulation, competition in the Finnish banking sector, financial market developments and innovations and surprises in asset price movements. These are all examples of the sort of factors that could unexpectedly increase or decrease the cost of finance and affect its availability.

Box 3.

Risto Herrala

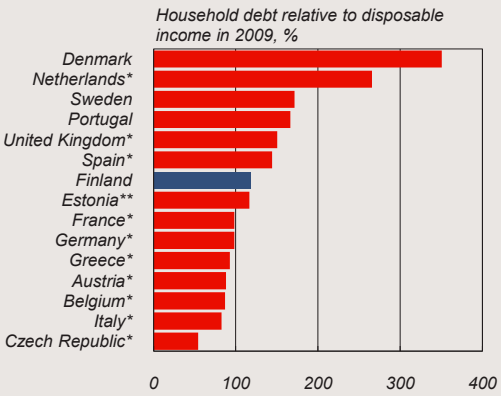
Household debt

Finnish households have continued to accumulate debt during the recession. In 2010, the household indebtedness ratio – the most common indicator of indebtedness – is estimated to rise to around 109%.[1] This means that household debt is slightly higher on average than households' annual disposable income. Measured by the indebtedness ratio, Finland is in a middle range in international comparison (Chart 12).

[1] *This figure does not include the estimated share of households in housing company debt.*

Chart 12.

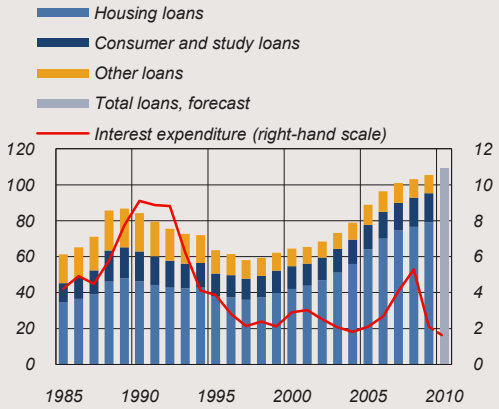
An international comparison of household debt



* 2008
** 2007
Source: Eurostat.

Chart 13.

Household indebtedness and interest expenditure in Finland*



* % of disposable income
Sources: Statistics Finland and Bank of Finland.

Even though Finnish households have accumulated debt rapidly in the past decade, the debt-servicing burden is currently low. The unexceptionally low level of interest rates has kept interest payments modest (Chart 13). In addition, longer loan maturities have reduced the repayment burden. For many households, longer loan maturities have meant the possibility of taking out bigger loans.

The low level of interest rates has considerably reduced payment difficulties related to the servicing of debt. Various repayment difficulty indicators have declined markedly in the past decade. In 2008, only 6% of households with a loan reported debt repayment difficulties.[2] Ten years earlier the corresponding figure had been 12%. Over the same period, the share of borrowers that considered themselves over-indebted fell by half, from 8% to 4% (Chart 14).

Debt servicing difficulties affect all population groups. They are most typical in low-income households, young households and single-person and single-parent households. In

[2] *Statistics Finland's income distribution data.*

the lowest income category, over a tenth of indebted households had encountered debt repayment difficulties in 2008 (Chart 15).

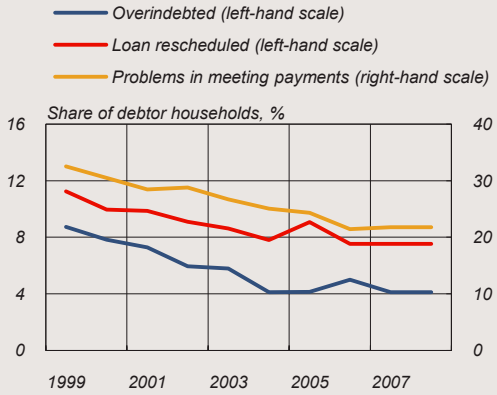
Due to good household solvency, the amount of non-performing household loans and related loan losses for banks have recently been low. According to the Financial Supervisory Authority, household sector loan losses accounted for about 0.6% of the loan stock in the second quarter of 2010. Approximately a quarter of loan losses are recognised as nonperforming loans each year. The situation differs radically from the recession of the early 1990s, when the portion of non-performing loans in household credit was almost twenty times the present situation. The difference is primarily explained by the level of interest rates, which are currently considerably lower than in the early 1990s.

It is very likely that debt-servicing difficulties will increase distinctly from their present low level when interest rates begin to rise again. How serious the problem of debt-servicing difficulties turns out to be for Finnish society at that time depends on many factors that are hard to predict. The pace and scale of the rise in interest rates is important, as is the general development of the economy. It is also hard to assess in advance the extent to which households will be able alleviate any increase in their debt-servicing burden stemming from higher interest rates by changes in their repayment schedules. Households' future solvency will also be affected by the extent to which households that are taking on a loan now are prepared for a possible rise in interest rates.

The recent rise in the indebtedness ratio has aroused discussion on households' over-indebtedness and raised fears of a repeat of the situation

Chart 14.

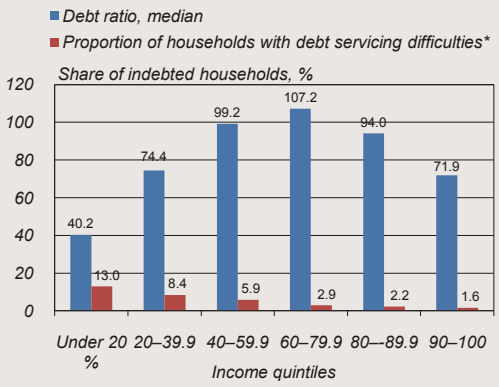
Finnish households' debt servicing difficulties



Source: Statistics Finland, income distribution service data.

Chart 15.

Level of debt and debt servicing difficulties by income group in 2008



*Based on households' own assessments
Source: Statistics Finland, income distribution service data.

experienced in the early 1990s. At the same time, statistics show that household solvency has remained relatively strong as a whole. The Financial Supervisory Authority has warned that some households have an alarmingly high burden of debt, yet the financial sector is assessed to be robust.[3] Estimations made with micro-simulation models indicate that households would cope fairly well even with substantial changes in their operating environment.[4]

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[3] *Financial Supervisory Authority press releases of 3 December2008 (VieL/21/2008; in Finnish only) and 22 September 2010 (13/2010) Financial position and risks of supervised entities 2/2010.*

[4] *Herrala, J (2008) Kotitalouksien maksuhäiriöt: tilannekatsaus ja ennusteita mikrosimulointimalleilla ('Household payment defaults: situation review and estimations with micro simulation models'), BoF Online 18/2008.*

Supply

Finland's economic output began to benefit extensively from world growth during the second quarter of 2010. Growth has been strongest in traditional industrial sectors and in business sectors producing for the domestic market. According to the Bank of Finland forecast, GDP will grow 2.6% in 2010, 3.0% in 2011 and 2.5% in 2012.

The average number of people employed will continue to decline in 2010, but the trend will be reversed in subsequent years. The employment rate will rise and the unemployment rate decline gradually, to 7.7% in 2012.

Output

According to National Accounts data on the second quarter of 2010, Finland has at last begun to benefit from world growth – more than half a year after the rest of the world. GDP was 1.9% up on the previous quarter and (adjusted for the number of days worked) 3.7% up on the same period a year earlier.

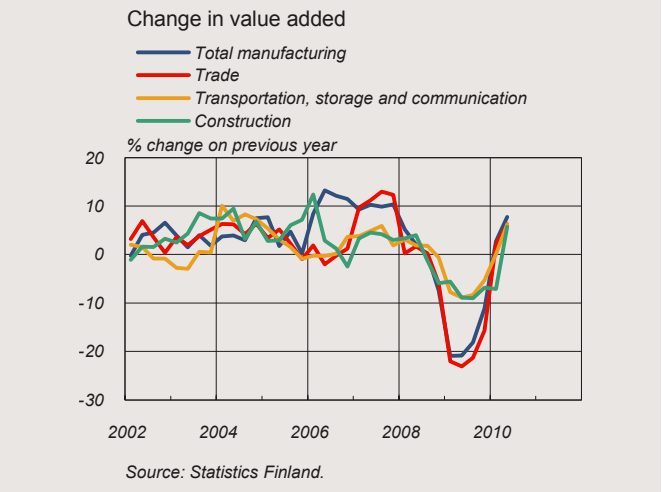
The growth in output has been broadly based. Second quarter output in the current year was up across all main business sectors (Chart 16). Real industrial output was up approximately 8% on a year earlier, at the deepest point of the recession. In contrast to the first decade of the new millennium, industrial growth has been concentrated in Finland's traditional export industries. Growth has been particularly strong in wood and paper product manufacturing and in metal processing. The chemical industry, too, has already experienced strong growth.

In many sectors of industry, the capacity utilisation rate is still rather low, meaning there is potential to expand output. Only in the forest and chemical industries is the capacity utilisation rate beginning to approach pre-recession levels. In the pulp and paper industry, in particular, recent years have seen a rapid shedding of capacity, which will restrict output growth going forward.

Output for the domestic market has also recovered quickly. The increase in new housing starts has been exceptionally strong, bolstered by government stimulus measures. Strong consumer confidence has also helped to sustain brisk activity on the housing market. In the second quarter of 2010, housing construction rapidly recovered the ground lost during the recession and is already approaching pre-recession levels.

Regarding other domestic market sectors, trade has closely followed the fluctuations in industrial output. Other sectors – in practice predominantly public sectors such as education, healthcare and administration – have

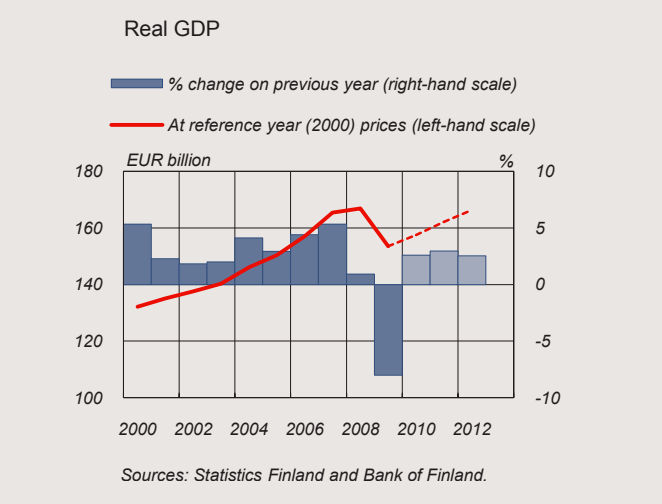
Chart 16.



grown fairly evenly, at around 1% per annum.

Indicator data suggests output will continue to grow briskly in the immediate future. Expectations of industrial output have been positive throughout the current year. However, with the exception of the paper and chemical industries, order books are much smaller than during the years of economic expansion prior to the recession. The situation is particularly difficult in the electronics industry, where orders and output have not recovered from the collapse experienced in early 2009. The volume of new orders has increased in all main industrial sectors, while still remaining approximately a quarter less than the peak figures recorded in 2008. According to surveys conducted by the Confederation of Finnish Industries (EK), general business confidence remains reasonable across all main sectors. With the exception of construction, confidence is already higher than the long-term average. There was a strong increase in new housing starts in the first half of the year, but other areas of construction continue to suffer from weak order books.

Chart 17.



The Bank of Finland estimates that Finland's GDP will grow 2.6% in the current year and 3.0% in 2011. In 2012, the pace of growth will ease back to 2.5%. GDP growth will thus be slower than before the recession. This somewhat more positive view of growth since the previous forecast does not alter the overall picture of the trend in output: the pre-recession level of output will not be achieved until the end of the forecast period (Chart 17).

The slow restoration of pre-recession output levels is due both to the unfavourable structure of Finland's export output and to the ongoing change in the structure of output across the economy as a whole. Capital goods manufacture accounts for a large slice of the export industry. With the market for capital goods developing more strongly only once international growth has become firmly established, export output will not achieve the pace of growth in the export markets before the second half of the forecast period. The increasing dominance within the output structure of activities with slower-than-average productivity growth is contributing to slower output growth. Since the turn of the millennium, the share of output and employment accounted for by manufacturing, with its rapid productivity growth, has gradually declined. At the same time, the share of service sectors, with their low productivity growth, has grown (see Box 5).

Employment and labour force

During the course of 2010, the Finnish labour market has been the source of

positive news. The number of employed has begun to grow and the unemployment rate has fallen very slightly. Moreover, there appears to be renewed cautious growth in the employment rate at the older end of the working-age population. It also seems that the employment situation among the young has not deteriorated any further. However, a worrying feature from the perspective of labour market functionality is the increase in long-term unemployment.

The gradual return to output growth was initially reflected on the labour market at the end of 2009 as an increase in hours worked. During the course of 2010, output growth has generated new employment. According to Statistics Finland's labour force survey, there were 26,000 (or 1.1%) more people employed in July 2010 than a year earlier. Measured by hours worked, labour input in the period January–July was an average of 0.5% up on a year earlier. When measured according to a time series adjusted for seasonal and random fluctuations, the unemployment rate came down from 8.9% at the beginning of 2010 to 8.3% in July (Chart 18).

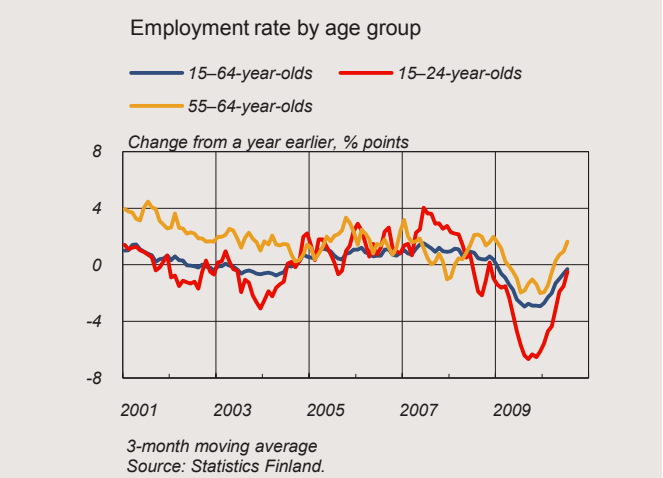
In labour policy, the key concern has been that the recession could lead to the displacement of young people from the labour market as in the recession years of the 1990s.[1] Another concern has been that the prolonged rise in the employment rate at the upper end of the age spectrum could be halted or even reversed. This would have considerable implications for the potential labour force in the immediate years ahead, as the working-age population is now at its oldest, due to the baby-boom generation.

The latest data on employment rates among those at the beginning and the end of their working lives suggest that the impact of the recession is not turning out to be as great as had been feared. Employment rates among both young and old rose sharply in the first half of 2010 (Chart 19). In July, the average employment rate for 15–64-year-olds was 70.6%.

The (seasonally adjusted) unemployment rate among young people,

Chart 18.

Chart 19.



[1] Grönqvist, C and Kinnunen, H (2009) Taantuman vaikutus työvoiman tarjontaan: 1990-luvun kokemuksia ('Impact of the recession on labour supply: experiences from the 1990s'; in Finnish only). BoF Online 1/2009. Bank of Finland.

which was still rising strongly at the beginning of 2010, began to decline faintly in March. Employment office statistics also suggest that young people's periods of unemployment are no longer lengthening.

Regarding the labour market position of older workers, there remain two distinct trends. Those who are still in working life appear to be continuing in work longer, but, at the same time, a considerable proportion of those in the older age groups have left the labour force altogether. The employment rate among older workers has risen, and the unemployment rate fallen. However, at the same time, around 10% of 55–59-year-olds were registered as unemployed job-seekers, meaning they were in practice in the 'unemployment pipeline'. These people are not fully taken into account by the unemployment figures in the labour force survey, as some of them are not actively seeking work.

The immediate employment outlook is positive. In the business tendency survey published by the Confederation of Finnish Industries (EK) in August, the employment expectations for the next few months in all major sectors of the economy were rising. The change was particularly strong in industry. On the other hand, of all the sectors, it is jobs in industry that have been most depleted. The sector still employs around 70,000 less people than at the end of 2008, before the recession.

Besides the impact of economic growth, the labour market will also be affected during the forecast period by population ageing and the fact that, during the recession, the level of labour input was adjusted by the use of layoffs. There was a sharp reduction in the number of hours worked per person employed, reflecting employers' expectations that the recession would be short-lived and there was therefore no need to shed labour by firing people. According to the forecast, this will indeed be the case, and labour input will begin to slowly grow.

In 2010, the hours worked per person employed will continue to grow, but the average number of employed will not increase at all from the previous year. In contrast, in both 2011 and 2012 both hours worked and employment will grow by just under 1% per annum.

The employment rate, which began to rise in the first half of 2010, will continue its upward trajectory throughout the forecast period. The average employment rate for 2010 will, however, be lower than the previous year. Thereafter, it will rise, reaching approximately 70% in 2012. The employment rate at the end of the forecast period will thus be almost at the same level as before the recession. As indicated in Statistics Finland's population forecast, the working-age population (15–74-year-olds) will continue to grow in the forecast period. In contrast, labour force participation will decline slightly, as a higher proportion of the working-age population will be over 64, after which age the participation rate is very low.

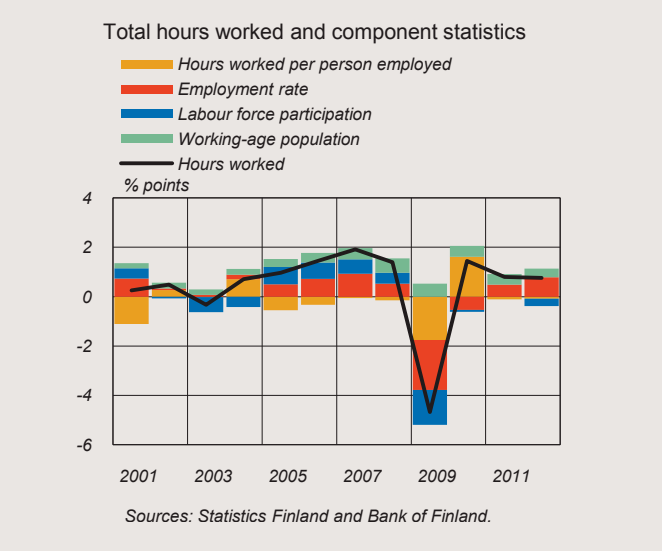
The relative importance of the components of labour input become clear if annual growth in labour input measured in terms of hours worked is broken down into its four components

(Chart 20). These are hours worked per person employed, employment rate (15–74-year-olds), labour force participation and working-age population. Each column segment depicts the impact of the relevant component to overall growth in labour input. The breakdown illustrates how important flexibility in working hours was during the recession.

The unemployment rate will decline moderately during the forecast period. As with the forecast for the number of employed, the unemployment forecast is influenced by the fact that the impact of the recession was buffered by the use of layoffs. Because of layoffs, the increase in the unemployment rate was less than would have been expected in view of the contraction in output (see Box 4). Similarly, the recovery in labour demand will be reflected initially primarily as a reduction in layoffs, while the reduction in unemployment will be slower. At the end of the forecast period, the response of unemployment to changes in output will return to average, and unemployment will gradually come down to 7.7% in 2012.

All in all, the labour market would appear to be emerging from the recession relatively unscathed. The mismatch of supply and demand on the labour market is, however, getting worse. By 2012, there will still be 35,000 more people unemployed than in 2008 on average. At the same time, the retirement of the baby-boom generation will significantly tighten the labour market. In fact, the key issue for the labour market is how flexible labour supply among the oldest labour market cohorts turns out to be in practice. If people extend their working careers or those on retirement pension participate more widely in working life, this would significantly reduce labour market bottlenecks.

Chart 20.



Productivity and capital

When GDP collapsed last year, many employers did not reduce their work force to the same extent. The consequence was a steep drop in measured productivity in the Finnish economy. Real GDP per hour worked declined almost 4% in 2009. When labour productivity is measured in terms of GDP per person employed, the decline in labour productivity was even greater, at over 5% (Chart 21). An average decline in productivity across the entire economy is very unusual. Such a large drop is unprecedented in recent decades.

Productivity will begin to improve in 2010, achieving growth of almost 3% in terms of GDP per person employed. The pace will slow after the

Chart 21.

Chart 22.

current year, and by the end of the forecast period productivity will struggle to reach the high level of 2007. The sluggish pace of productivity growth reflects, on one hand, the reliance of economic growth on sectors with slow productivity growth and, on the other hand, the scarcity of recent fixed investment.

Growth in labour productivity per hour worked can be divided into capitalisation (capital stock per hour worked) and total factor productivity growth (Chart 22). Total factor productivity is that part of output growth that cannot be explained by growth in labour and capital input. In a broad sense, it depicts the level of technological development. In the chart, the factors depicted in the columns, taken together, indicate the pace of growth in labour productivity.

Before the recession of the 1990s, improvements in labour productivity (and therefore also increased output) were reliant on rapid growth in real capital. The recession turned this relation around. Growth in total factor productivity replaced capitalisation as the source of growth. The present recession will change this picture only temporarily. Capitalisation was intensified in 2008 and 2009 by the reduction in hours worked. Total factor productivity collapsed, but will recover again during the forecast period.

The source of productivity growth during the recession changes, however, when the assessment of productivity takes account, not of the entire stock of productive capital, but only of that proportion of the capital stock in productive use during the relevant period. When calculated taking account of the utilisation rate of productive capacity, total factor productivity continued to grow last year at 1% per annum instead of declining by 7%. The other side of this is that the degree of capitalisation declined.

Box 4.

Malin Gardberg and Helvi Kinnunen

Unemployment rate reacted less than expected to drop in output

Over the years 2008–2009, the unemployment rate in Finland increased from around 6% to almost 9%. In autumn 2009, there was widespread fear that unemployment would still be increasing in 2011. Now, however, it appears this will not happen, as the unemployment rate confounded expectations by beginning to edge downwards already in the second quarter of 2010.

Relative to the strong contraction in GDP, the growth in unemployment during the recession remained moderate. While, at the depths of the recession, real GDP crashed 9.5% below its highest pre-recession level, the unemployment rate only rose 2.7 percentage points. Below, we shall explore the reasons for these smaller-than-expected changes in unemployment relative to changes in output.

Okun's law

The negative correlation between the unemployment rate and GDP growth is known as Okun's law[1]. The elasticity of unemployment with respect to changes in output is expressed by a coefficient generally referred to as beta. During the recession of the early 1990s in Finland, the value of beta was remarkably high, at close to 1. At the time, GDP declined by 13%, while the unemployment rate rose from 3.5% to over 17%. The average value of beta over the whole estimation period 1976–2009 was 0.4. The correlation was stronger than expected during the recession of the early 1990s and weaker than expected during the recent recession.

Over the longer-term perspective, dynamic beta, which captures the lagged fluctuation of both output and the unemployment rate, takes a value of around 0.6.[2] This estimation of Okun's law produces an increase in the unemployment rate of 4.3 percentage points over the recession years 2009–2010.[3]

The actual increase in the unemployment rate from the third quarter of 2008 to the first quarter of 2010 was 2.7 percentage points. Hence, the responsiveness of unemployment to the collapse of output was substantially weaker than indicated by estimations under Okun's law based on data from the period 1976–2009. However, not even under Okun's law was the unemployment rate expected to reach the high levels of the recession in the early 1990s.

Unemployment sensitivity lower due to higher labour market elasticity

A variety of factors underlie the lower unemployment sensitivity of the Finnish economy relative to the 1990s, the main one being the ageing of the working age population. Today, with a higher proportion of older workers in the labour force, the participation rate is more responsive to labour demand.

Reform of labour market institutions has also contributed to the lower value of beta. Employment protection legislation, the level of unemployment benefits, wage flexibility in relation to labour demand and the prevalence of fixed-term or temporary employment are some of the determinants of employment elasticity that have changed.

In principle, these factors work in different directions. Loss of employment protection will result in a higher value for beta. The more the regulations and practices governing employment are relaxed, the lower the costs of hiring and firing will be. Finnish employment protection legislation has been relaxed over the past 20 years, which may have increased the sensitivity of unemployment to changes in output.[4]

The generosity of unemployment benefits and other incentives to labour force participation affect the strength with which unemployment reacts to variations in output. If entering the labour market would strongly cut unemployment or other social security benefits, it would also weaken downwards wage adjustment, thereby intensifying the reaction of unemployment to slower growth in output. Research indicates that

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[1] Okun's law is generally expressed in the simple equation $\Delta u = \alpha - \beta \Delta y$
where Δu is the change in the unemployment rate, α is a constant and β is a coefficient illustrating the interaction between the GDP growth rate Δy and the unemployment rate.

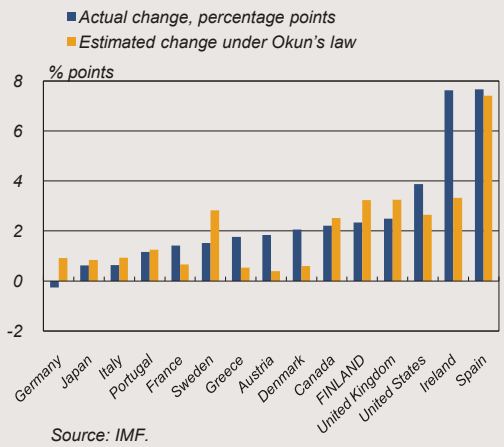
[2] *For more details on estimations, see Gardberg, M (2010) Okuns lag I Finland – ett samband som förändrats med tiden ('Okun's law in Finland - a relationship that has changed over time'; in Swedish only). BOF Online (forthcoming).*

[3] *Comparable estimates by the IMF produce a rise in the unemployment rate of 3.2 percentage points. IMF (April 2010) World Economic Outlook.*

[4] *OECD Employment Protection Legislation Strictness Index.*

Chart 23.

Changes in unemployment rate due to the recession



Source: IMF.

incentives to labour force participation have improved in Finland since 1995, which may also have contributed to the decline in beta. An opposite effect is produced by the proportion of temporary employment. The prevalence of temporary jobs has declined since the 1990s, with a consequent increase in the value of the beta coefficient. In 1997, temporary employment accounted for 18% of all employment contracts, whereas the corresponding figure for 2009 was 15%. Hence, it has no longer been possible to resort to termination of temporary employment contracts as a buffer against changes in output.

Key role of layoffs

Estimations based on Okun's law produced a higher rate of unemployment than actually witnessed, which may partly reflect the widespread practice during the recession of shorter working weeks, less overtime and exchange of holiday pay for time off. The fall in average working hours has removed some of the pressure on employers to shed labour, and has thereby contributed to dampening unemployment growth.

However, the most important factor has been layoffs. Their importance is highlighted by the OECD Employment Outlook.[5]

International comparisons indicate that, overall, Okun's law has not been nearly adequate in explaining the changes in unemployment during the past few years in other countries, either. But, in contrast to Finland, most other advanced economies have experienced a stronger increase in the unemployment rate than predicted by Okun's law. The findings of a survey undertaken by the IMF show that, besides Finland, only Germany, the United Kingdom and Sweden have experienced a lower increase in the unemployment rate than expected from the changes in output. (Chart 23). These estimation errors reflect above all differences in the use of short-term work programmes and layoff schemes.[6]

According to OECD calculations, the use of layoffs has contributed to the preservation of 0.8% of permanent jobs in Finland.[7] This is close to the effects of the German part-time work scheme, where part of the reduced earnings is compensated by public support (Kurzarbeit).

The number of preserved jobs is very high in Finland compared with other OECD countries. In the OECD's assessment, this is attributable to the higher flexibility of the Finnish system of layoffs compared with other countries and to a general awareness, and hence efficient use, of layoffs by labour market participants. Correspondingly, the short-time work scheme has turned out to be a much greater success in those OECD countries where such a model was already in use before the crisis.

In Finland, layoffs have dampened unemployment growth by offering employers a way to flexibly adjust labour input, thus easing pressure to shed labour. During the recession, the scope of the layoff system was temporarily expanded so that employees laid off on a part-time basis became eligible for unemployment benefit until the end of 2011.

[5] *OECD (2010) Employment Outlook.*

[6] IMF (April 2010) World Economic Outlook.

[7] *OECD (2010) Employment Outlook.*

Box 5.

Mikko Spolander

Structural realignment in the Finnish economy

Industry sector plays a bigger role in the Finnish economy than in many other countries

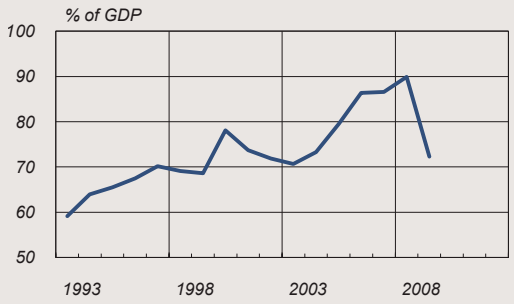
Over the past few decades, the structural realignment in the Finnish economy has, in many respects, reflected the trends prevailing in other advanced economies. In response to deepening globalisation and economic opening, the contribution of foreign trade to economic output has grown considerably in all advanced economies, including Finland (Chart 24). Globalisation has particularly benefited cross-trading, ie the bilateral export and import of similar goods.

Among the advanced economies, Finland, has, however, been exceptional, in that the industry sector has continued to make a strong contribution to the economy, serving as a significant engine of growth. Naturally, the contribution of private services[1] to total output and employment has increased in Finland, too, but at a slower pace than in other advanced economies.

While the economic significance of private services has grown in other countries over the past few decades, especially at the expense of industry, industry has retained its strong position in the Finnish economy. In 1993, it accounted for 25½% of economic output at current prices (Chart 25). By the turn of the millennium, the 'reindustrialisation' in the wake of the recession of the early 1990s had seen the contribution of industry rise by approximately 3 percentage points further. Although having declined since then, the proportion was still close to 27% in 2007. The industrial contribution to

Chart 24.

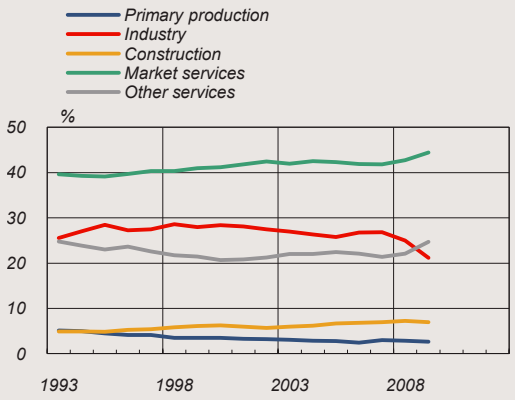
Combined GDP share of imports and exports



Source: Statistics Finland.

Chart 25.

Sectoral contributions to added value at current prices



Source: Statistics Finland.

[1] *Here, 'private services' refers to trade, hotels and restaurants , transport, storage and communication, financial intermediation and insurance, and real estate and business activities. In addition, some healthcare services are private, but the majority are produced by the public sector.*

economic output and employment has remained much higher in Finland than in any other advanced economy.

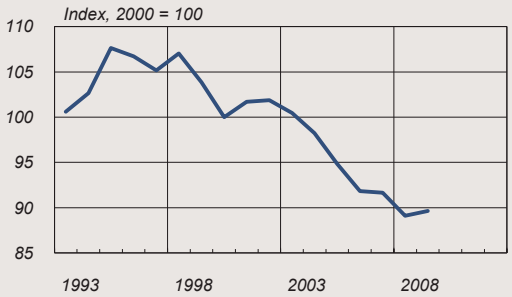
In the years since the recession of the early 1990s, the contribution of private services to economic output and employment has grown in Finland, but the pace of growth has been slower than in other advanced economies. In 2007, private services accounted for a little under 42% of GDP at current prices, which was still an exceptionally low figure for an advanced economy.

In services other than the private services mentioned above, the rate of output growth has been slower than in other sectors and their GDP share has declined substantially. The decline was especially strong immediately after the recession. Since the turn of the millennium, the proportion has increased again slightly, hovering around 22% over the past few years. 'Other services' mainly comprise services produced by the public sector.[2] As productivity in public services has increased only slowly, if at all, growth in public sector output has come only through growth in labour input. Pressures to contain increases in public spending have, meanwhile, restricted employment growth in the public sector.

[2] *'Public services' refers to public administration, compulsory social insurance, education and the majority of healthcare and social welfare services.*

Chart 26.

Terms of trade



Source: Statistics Finland.

The high industrial contribution to economic output has meant that productivity growth has been stronger in Finland than in most other advanced economies. The technology industry, in particular, has driven productivity, industrial output and foreign trade. The competitiveness of the Finnish ICT sector, at the forefront of technological development, has been strong, in addition to which demand in other sectors of the technology industry has been boosted by the global investment boom since the middle of the last decade.

Structural realignment accelerated by the deep recession

Despite the diversification of Finland's industrial output structure since the recession of the early 1990s, industrial production still remains highly concentrated compared with many other countries. In combination with the heightened role of foreign trade, this has contributed to the transmission of global fluctuations to Finland. The strong expansion of the ICT sector witnessed in the latter half of the 1990s bolstered the Finnish economy and employment amidst global fluctuations, but the ICT sector no longer has the potential to serve as a similar counterforce against global shocks.

Furthermore, the potential of industry to generate earnings and economic wellbeing has been hampered by a strong decline in the terms of trade (Chart 26). High-technology and forest industry products have made a strong contribution to Finnish exports. Due to a prolonged, strong decline in the prices of these products, export

prices have fallen while import prices have been rising.

The sensitivity of the Finnish economy to global cyclical changes became glaringly apparent in the global recession that began in autumn 2008. As export demand collapsed, industrial added value declined by almost a fifth in 2009, while real GDP contracted by 8%. Loss of output was greatest in the technology and forest industries. In private services, lost output amounted to roughly 8%, while in other services the figures remained more or less unchanged. The employment impact was also severe, if somewhat less than the loss in output. Industrial employment declined by 9½%, while employment in private services fell by a little over 2%. By contrast, in other services the number employed increased by around 1%.

The present recession produced a shift in the structure of the Finnish economy virtually overnight, reducing the weight of industry. In 2008–2009, industry's share of overall output fell by around 5½ percentage points, and to employment by close to 2 percentage points. The key issue is how much of this change will remain permanent and what will replace the lost output.

Demand

Finnish GDP declined dramatically in 2009 as a consequence of the international financial crisis. Total output contracted by 8%, meaning that approximately the three previous years' economic growth was wiped out in a single year. Demand began to strengthen again in the second half of 2009, as private consumption, foreign trade and housing investment resumed growth. In the first half of 2010, economic growth gained momentum, driven particularly by exports and housing investment. Despite stronger growth, GDP will not reach its pre-crisis level until 2012.

The improving employment situation and strong consumer confidence will boost private consumption which, in the forecast period, will increase slightly faster than real income, while the savings ratio will decline. Private investment growth in the early part of the forecast period will focus on housing construction. While still contracting in 2010, business investment will experience pronounced growth in the latter part of the forecast period.

Although exports continue to grow in response to brisk growth in the export markets, they will develop more slowly than the export markets themselves throughout the forecast period. In the early part of the forecast period, Finland's exports will be subdued by their capital-goods-dominated structure. In addition, the rapid increase in labour costs in 2008 and 2009 has weakened the price competitiveness of the Finnish export industry.

Import growth is forecast to be in line with export growth, and the terms of trade will remain stable. The surplus on goods and services relative to GDP will remain around 2.5%. The decline in the current account surplus in the forecast period reflects changes in the income account.

The general government deficit will decline towards the end of the forecast period in response to stronger economic growth and a slight tightening of fiscal policy. General government debt will expand to 55% of GDP by the end of the forecast period.

Aggregate demand shrank sharply in 2009. The exceptional nature of the year is illustrated by the fact that, with the exception of public sector demand, all demand components made a negative contribution to GDP growth (Chart 27). Finland's exports dropped by around a fifth. Although imports also fell amid lower exports and weaker domestic demand, the contribution of net exports to growth was still clearly negative. Private investment petered out, as the collapse in exports increased the amount of spare capacity in industry and the uncertain outlook for household earnings reduced investment in housing construction. Caution exercised by households depressed private consumption and raised the savings ratio. Sharp reductions in inventories also had a considerable impact on the volume of output.

Demand already began to strengthen in the latter part of 2009, as private consumption, foreign trade and housing investment resumed growth. Private consumption continued to develop favourably in the first half of

2010. Improvements in the employment situation have reduced household uncertainty over earnings developments. Household consumption is expected to provide a significant boost to economic growth in 2010. The contribution of private investment to growth will still be close to zero this year. Housing investment will increase vigorously, but business investment will decline from the previous year. Export recovery means that net exports will make a clearly positive contribution to growth in the current year.

In 2011–2012, private investment will contribute extensively to growth, with business investment also beginning to increase alongside housing investment. Private consumption will lend steady support to output growth in the forecast years. Stronger domestic demand will boost imports, causing the contribution of net exports to remain around zero despite higher exports.

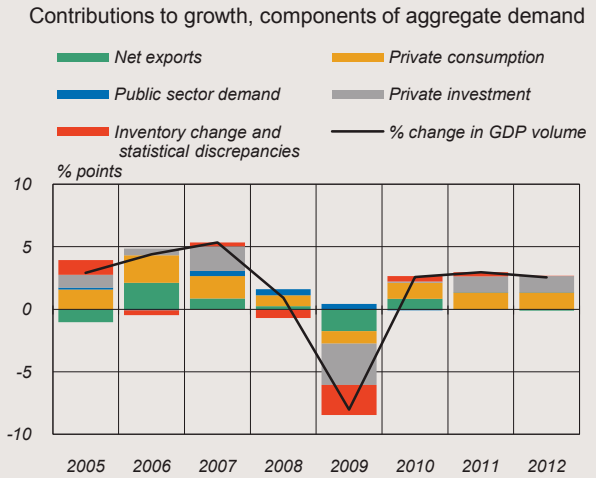
The economic recovery will boost real GDP, bringing it near to its pre-recession level at the end of the forecast period (Chart 28). Both private and public consumption will be higher than in 2008, but export and investment volumes will still remain lower.

Consumption

Private consumption declined by around 2% in 2009, although real purchasing power continued to improve. Households' real purchasing power was at the time maintained by higher earnings, lower inflation and tax cuts. Households responded to increasing uncertainty about earnings by scaling back their consumption and saving a larger part of their incomes. The savings ratio rose from around zero to approximately 4% in 2009 (Chart 29).

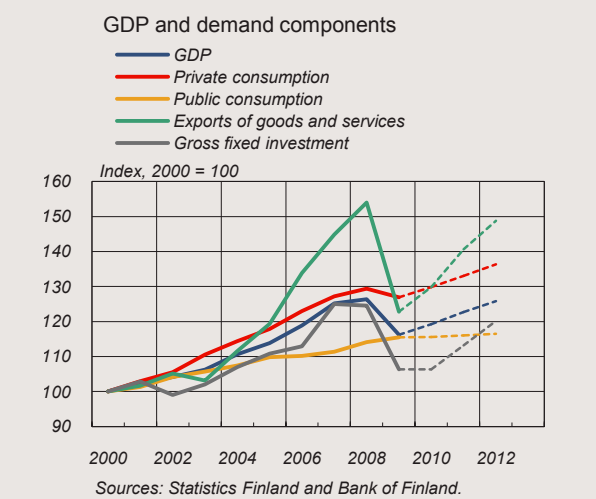
According to Statistics Finland's consumer survey, households' confidence in their own finances and

Chart 27.



The chart is merely indicative. The GDP growth contribution of each demand item has been calculated on the basis of its volume growth and its value share in the previous year.
The figures for 2010–2012 are forecasts.
Sources: Statistics Finland and Bank of Finland.

Chart 28.



Sources: Statistics Finland and Bank of Finland.

Chart 29.

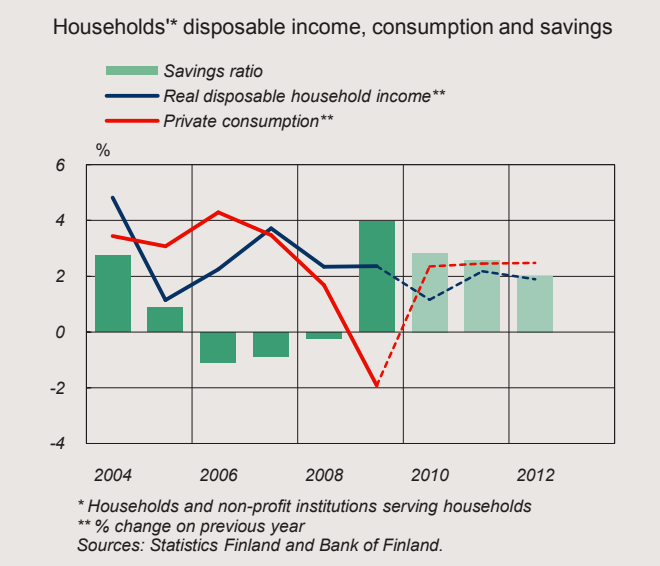
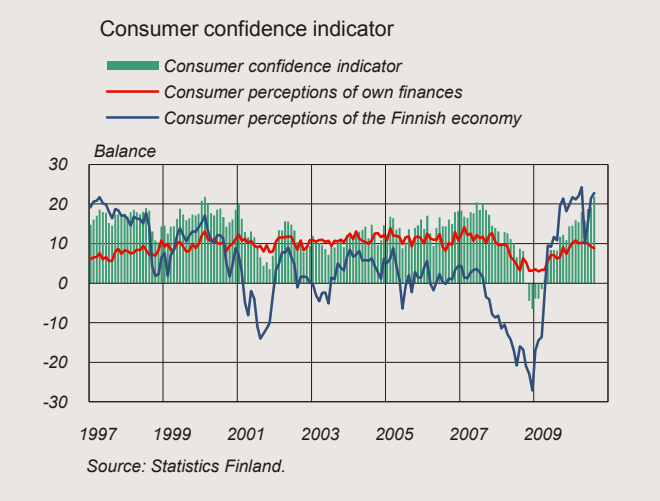


Chart 30.



the Finnish economy has remained strong in 2010. Economic activity is considered favourable and the threat of unemployment is perceived as being smaller than previously (Chart 30). Private consumption increased by slightly more than 2% in the first half of 2010 compared with the corresponding period a year earlier. In the early part of the year, households stepped up their purchases of consumer durables in particular, such as cars and domestic appliances, from which they had largely desisted in 2009.

Growth in real disposable household income will slacken to around 1% in 2010, as inflation gathers pace, earnings developments subside and employment still remains at the level of 2009. In 2011 and 2012, real disposable income will expand at around 2% per annum as the amelioration of the employment situation boosts earnings and inflation remains moderate.

In the forecast period, private consumption will grow slightly faster than real household income, at approximately 2.5% per annum. Improvements in the employment situation will sustain strong consumer confidence, and the savings ratio will decrease from the 4% observed in 2009 to around 2% by the end of the forecast period. During the forecast period, private consumption will have a key role to play in sustaining economic growth.

Household indebtedness has increased in 2010. Growth in housing investment has been particularly brisk in response to a strong recovery on the housing market. Households' debt ratio is predicted to rise by 4 percentage points, to around 109%, in 2010.[1] Despite credit stock growth, the exceptionally low level of interest rates has held households' debt servicing costs in check.[2] Growth in household debt is slower than in the pre-recession years, but there are no signs of it coming to a halt.

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[1] The figure does not include households' estimated share of housing company debts.

[2] Household debt is discussed in Box 3 of the chapter 'Financial markets'.

General government

The recession in the real economy was quickly reflected in Finland's public finances. The general government budget balance, which had remained strong for a long time, deteriorated dramatically and plunged into a marked deficit in 2009. General government net lending decreased by almost 7 percentage points, to -2.7% of GDP (Table 3).[3] Lower revenue and stronger expenditure growth were reflected particularly in a larger central government deficit, but the situation of local government also weakened despite substantial supportive measures from central government. The central government budget balance was eroded in particular by a strong reduction in revenue from corporate taxes and earnings on assets, as corporate profits declined. In addition, stimulus measures and increases in cyclically sensitive expenditure caused growth in the central government deficit.

General government finances have slightly improved in the course of 2010. The resumption of economic growth has increased general government revenue. The decline in general government revenue since early 2008 came to a halt in the first quarter of 2010. According to Finnish Tax Administration data, growth in tax revenue from earned and capital incomes has continued to accelerate since, although taxation of wages and salaries was eased at the beginning of the year. Particularly improved corporate profits have been reflected in corporate tax receipts, which have been much higher

3 Box 6, 'Finland's public finances', analyses the stance of fiscal policy, the government spending limits regime and the sustainability of public finances.

Table 3.

General government revenue, expenditure, financial balance and debt, % of GDP

	2008	2009	2010[f]	2011[f]	2012[f]
General government revenue	53.5	53.3	52.7	53.0	52.7
General government expenditure	49.3	56.0	55.9	55.5	55.1
General government primary expenditure	47.9	54.6	54.6	53.8	53.2
General government interest expenditure	1.5	1.4	1.3	1.6	1.8
General government net lending	**4.2**	**-2.7**	**-3.2**	**-2.4**	**-2.3**
Central government	0.5	-4.9	-5.6	-4.7	-4.3
Local government	-0.4	-0.5	-0.3	-0.3	-0.4
Social security funds	4.0	2.6	2.6	2.6	2.3
General government primary balance	5.6	-1.3	-1.9	-0.8	-0.5
General government debt	**34.1**	**44.0**	**49.3**	**52.4**	**55.1**
Central government debt	29.5	37.5	42.8	46.0	48.5
Tax ratio	43.0	43.0	42.4	42.7	42.3

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

than last year. The strengthening of economic activity and increases in VAT rates have also boosted growth in indirect tax receipts. A change in the economic situation is typically slower to manifest itself in expenditure developments and, given that expenditure increases had also been made on a discretionary basis, no clear reversal of growth in aggregate public expenditure was yet discernible in the first quarter of 2010. By contrast, growth in consumption expenditure decelerated in the second quarter.

Public finances to remain in deficit through 2011 and 2012

Growth in payrolls and private consumption means that tax revenue developments will also maintain a relatively strong momentum in the latter part of 2010. Even so, tax revenue growth for the year as a whole will remain rather subdued, at around 1.6%. As expenditure growth is also predicted to continue at an annual pace of 3.8%, the general government deficit will still increase this year. The general government budget balance is forecast to amount to -3.2% of GDP in 2010 (Table 3). Stimulus measures will deepen the central government deficit in particular. Meanwhile, the fiscal deficit for local government will slightly diminish following increases in municipal taxes and growth in the tax bases. The surplus on social security funds should remain at last year's level despite growth in social security benefits, because central government transfers and pension funds' asset income are expected to increase moderately. The general government debt to GDP ratio will expand to 49.3%, and pension funds' investment assets to around 73%, by the end of 2010.

The formulation of fiscal policy will change from an expansionary to a tightening stance in 2011. The increase in VAT rates in July 2010 and the tightening of energy taxation in 2011 will make a substantial contribution to central government revenue. Moreover, social security contributions payable by the insured will already be increased in 2010. Overall, changes in tax criteria in 2011 will boost general government revenue by around 0.6% of GDP. Certain stimulus measures affecting the expenditure side will also be terminated. Fiscal policy is expected to be neutral in 2012. The forecast only takes account of those measures concerning 2012 that are included in the budget proposal for 2011. Accordingly, social security contributions are also assumed to remain at the level of 2011.

Higher economic growth and fiscal tightening will strengthen the public finances in 2011. Corporate tax receipts and earnings on assets, in particular, will increase at a brisk pace, beginning to approach closer to their pre-recession levels. The position of local government will improve slightly towards the end of the forecast period with employment growth and higher employee compensation. Nevertheless, local government finances will remain in deficit throughout the forecast period.

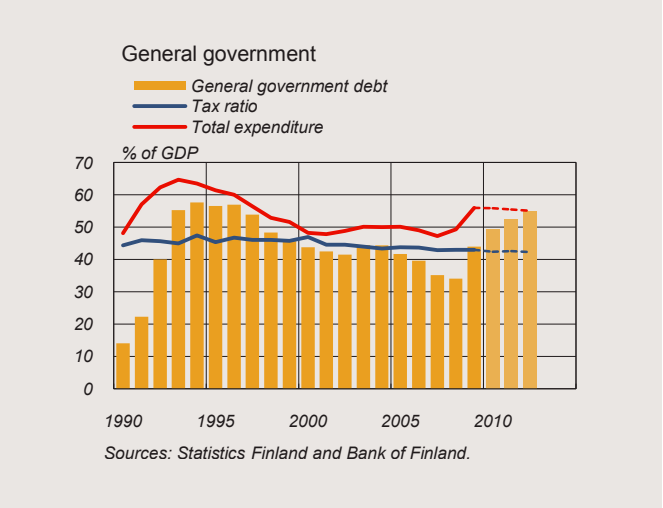
The social security funds are forecast to remain in surplus, with higher earnings on assets and employee compensation levels boosting income.

On the other hand, pension expenditure will also expand in the forecast period, not only because of increased retirement but also because the new pensions are larger than previously. The surplus on the social security funds is likely to remain at broadly the current level, accounting for a good 2% of GDP in 2012. The general government deficit is forecast to contract by less than 1 percentage point in 2011 as economic growth gains momentum and the formulation of fiscal policy changes from an expansionary to a tightening stance. In 2012, the deficit is predicted to remain at the level of 2011.

The volume of public consumption expenditure will grow slightly throughout the forecast period. Public sector employment is not expected to increase in the forecast period. Several ongoing efficiency measures by both central and local government will enable the maintenance of service levels even with smaller staffs. Wages and salaries are also predicted to develop more moderately than in previous years. The volume of public investment, in turn, will decline to some extent, as the number of general government projects that are underway gradually diminishes. Public expenditure growth will be additionally constrained by central government spending limits.

General government debt will increase rapidly in the forecast period (Chart 31). In addition to the funding of deficits, debt growth will also be boosted by financial transactions. In 2012, the debt-to-GDP ratio will be 55.1%. The largest component of general government debt will be central government debt, which is estimated to increase to 48.5% of GDP.

Chart 31.



The tax ratio is set to decline to 42.4% in 2010, as a consequence of tax cuts, and to rise in 2011 following the tightening of economic policy. In 2012, the tax ratio will again decrease to an extent, as tax bases bringing high tax receipts, such as the economy's total payroll, increase more slowly than output value and tax criteria are assumed to remain broadly unchanged. The highest degree of uncertainty surrounding the forecast for public finances relates to the conduct of fiscal policy. If fiscal tightening continues in 2012, the general government fiscal position may emerge stronger than forecast.

Investment

Private investment reacted strongly to the deterioration in the economy in response to the global financial crisis. In 2009, there was a broadly based drop of 17% in private investment. Business investment (in machinery, equipment

and business premises) and housing investment both fell sharply. An equally strong collapse in private investment during one year was last seen in the recession of the 1990s.

Housing investment already began to decline in 2007, prior to the recession. Still in the early part of 2009, housing investment decreased by almost 20% from a year earlier, but began to increase thereafter, driven by government-subsidised housing production. Currently, there are also indications of a recovery in owner-occupied housing production.

Particularly strong construction of business premises in 2006–2008 raised business investment to an exceptionally high level and partly reduced investment in housing construction by creating a labour shortage in the construction sector. Business investment experienced a strong collapse only after the global financial crisis had hit Finland at the end of 2008.

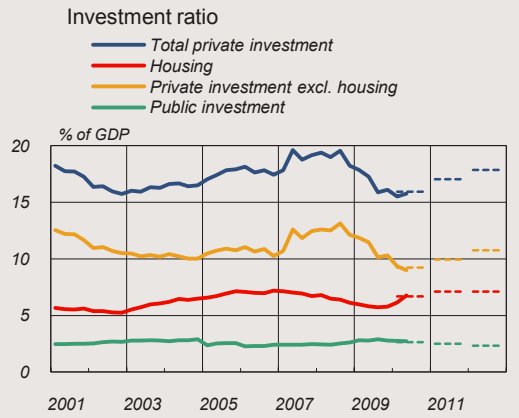
As regards the development of private investment, there have been two distinct trends discernible recently. In the first half of 2010, housing investment grew at a record pace, being a good 20% up on a year earlier. Business investment, in turn, contracted by almost 20% over the same period, year-on-year. There are, however, signs that a trough in business investment has been reached, as construction of business premises, for example, has slightly increased recently. According to an investment survey by the Confederation of Finnish Industries (EK), the value of manufacturing investment is still expected to decrease somewhat this year.

Robust growth in housing construction will continue, albeit at a decelerating pace, in the forecast period. Strong household confidence, favourable earnings developments and low interest rates will sustain housing demand.

Business investment will not begin to grow until 2011, and the high level of investment recorded in 2007 – where clear signs of an overheating in the construction of business premises were discernible – cannot be reached even by the end of the forecast period. The resumption of business investment in the forecast period will be buoyed by good corporate earnings development and gradually rising capacity utilisation rates. Nor will access to funding act as a constraint on investment in the case of most companies. In the near term, however, uncertainty surrounding the strength of the recovery in the global economy and in Finland will still dampen companies' willingness to invest.

In 2009, the GDP share of private investment declined to around 17%, roughly the level of 2004 (Chart 32).

Chart 32.



Investment ratios have been calculated on the basis of nominal figures.
Sources: Statistics Finland and Bank of Finland.

Investment statistics do not include corporate R&D expenditure, which did not undergo significant cuts in 2009. In the forecast period, the investment ratio will rise to 18%, while still remaining below the high, 19% level observed in 2007–2008.

The rise of the investment ratio is mainly related to housing construction. Public investment will contract in the forecast period, as local and central government cut back investment in order to improve their weak fiscal positions.

Export markets and export prices

World trade performed strongly in the first half of 2010. Particularly robust growth was witnessed in the first quarter, with an estimated increase of 5% on the previous quarter. Thus, world trade picked up rapidly in response to the recovery in the global economy after the unprecedentedly large drop in 2009. World trade volumes are, in fact, already returning to their pre-recession levels during the course of 2010 (Chart 33). At the same time, growth in Finland's export markets has been brisk, although it did not quite reach the growth figures of world trade in the early part of the year.

The growth spurt seen in world trade in early 2010 is not expected to last. The pick-up in trade was partly due to temporary factors, such as the need to replenish inventories that had been depleted during the recession. And, based on indicators of world trade, the strongest growth phase is beginning to be over. Despite this slackening, world trade is predicted to grow by around 15% and Finland's export markets by around 13% in 2010. Growth is forecast to decelerate markedly in the latter part of the forecast period. Although world trade growth is projected to be relatively rapid compared with the figures for the past few decades, it will not reach the pace observed in the middle of the decade, just prior to the recession. World trade growth is now thought to be more domestically driven in the emerging economies, too.

Growth in several important Finnish export markets in both advanced and emerging economies is forecast to be fast, notably in 2010. However, the high degree of uncertainty related to the evolution of the world economy and large amounts of unused production capacity will still hamper a rebound in investment activity for some time to come. Given the large share of capital goods in Finland's exports, it has not been possible to immediately reap full benefits from the strong

Chart 33.

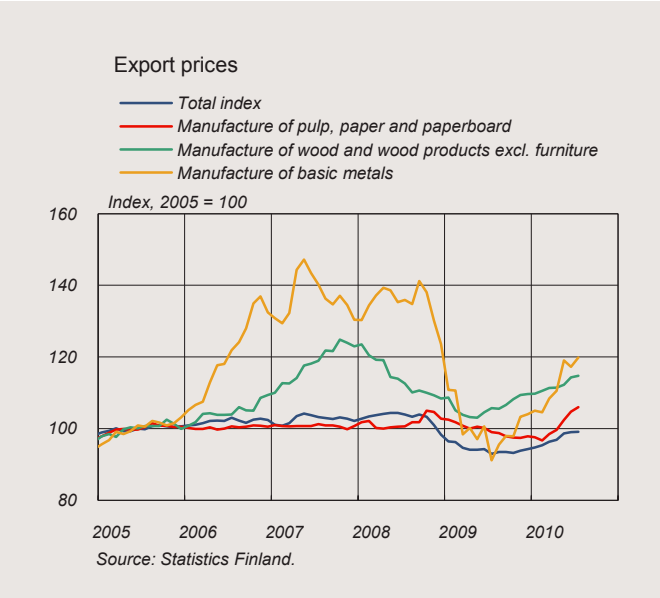
Sources: Statistics Finland and Bank of Finland.

growth in the export markets. Even so, in the next few years, a strengthening of demand for capital goods in Russia, for example, would open up opportunities for faster export growth in Finland. The nascent recovery in construction in key export markets should also buttress exports.

The rise in commodity prices in the early part of 2010 was also reflected in many export prices of key importance for Finland (Chart 34). Euro depreciation has also pushed up export prices. Accordingly, the prices of several paper qualities have embarked on a cautious upwards trend, as demand gradually gains strength. The price of pulp has climbed sharply during the past twelve months because of supply shocks, but pulp accounts for a relatively small share of Finland's exports. Processed metal prices have also been rising, particularly on the back of strong demand from China. By contrast, the decelerating pace of rise in crude oil prices in the first half of 2010, in combination with tight refining margins, has subdued the elevation of prices for oil-based end products in recent months.

The decline in Finnish export prices relative to import prices is projected to come to a halt during the forecast period. This is partly due to the constantly shrinking share of electrical engineering products in the value of Finnish exports. Export prices in this product category have already been decreasing for a considerable time. On the other hand, export prices are forecast to develop favourably in both paper and metal industries in the latter part of 2010. However, the rise in export prices will subside towards the end of the forecast period, with continued tight competitive conditions in Finland's key export sectors. Thus, for example, in paper prices there will be no return to the high levels seen in the immediate post-millennium years.

Chart 34.



Foreign trade

Finnish exports and imports declined dramatically in 2009 amid the recession in the international economy. Real exports of goods and services contracted by a fifth in 2009. The export slide was broadly based, involving all sectors. The sharpest drop was seen in the electrical engineering industry. Exports of goods shrank by 23% and exports of services by 11% in 2009. During the recession, the share of services has in fact expanded to around 30% of total Finnish exports.[4]

[4] Finland's foreign trade in services is discussed in Box 8.

In 2009, the value of exports to the EU region contracted by a third and the value of exports to Russia almost halved. Exports to Asia and North America underwent a reduction of around 15%.

Imports plunged almost as strongly as exports in 2009, and in the same sectors. This is explained by the large share of intra-industry trade: manufacturers of export products import raw materials and intermediate goods, processing them further in Finland for re-export (Table 4). Moreover, lower domestic consumption and investment, together with depletion of inventories, cut back imports in 2009.

World trade already began to grow vigorously in the second half of 2009. However, Finland's exports did not immediately benefit from world trade growth. In the second quarter of 2010, however, there was a clear turn for the better, with export volumes growing by around 13% on the previous quarter. Export growth in the second quarter is partly explained by the dockworkers' strike in March, which postponed exports to April. Drivers of export growth have been the forest and chemical industries and the metals industry (Chart 35). Exports of electrical engineering products as well as machinery and equipment would appear to have picked up to some extent in the second quarter. Growth has been recorded particularly in exports to EU countries that have quickly recovered from the recession, such as Sweden, Germany and the Netherlands. Exports to Asia also rebounded earlier in the year.

Export demand in the first half of the year partly stemmed from the replenishment of inventories in respect of both paper, sawn goods and metals. However, the inventory cycle is ending in Finland's most important customer countries, and future export expansion

Table 4.

Breakdown of goods exports and imports by main use of goods in 2009

%

	Share in exports	*Share in imports*
Raw materials and intermediate goods	*45*	*33*
Energy products	*6*	*17*
Capital goods	*38*	*23*
Durable consumer goods	*3*	*8*
Non-durable consumer goods	*8*	*19*

Source: National Board of Customs.

Chart 35.

will be based on genuine demand growth in the export markets. Even so, the near-term export outlook is favourable, as orders in industry continued to increase in the early part of the year. Forest and chemical industry companies consider their export order books to already be at pre-recession levels. Capacity utilisation rates have risen across the board in export sectors, but capacity shortages are not expected to become a barrier to export growth in the immediate future.

Investment is typically slow to recover from recession because of the abundance of spare production capacity in the world. Growth in the exports of Finnish capital goods will therefore remain moderate in the forecast period. However, with the focus of world growth on the emerging economies, there will be opportunities for stronger increases in exports of Finnish capital goods. Construction investment is gradually reviving in Europe, which supports exports from the mechanical forest industry. The export outlook for electrical engineering is uncertain, with production continuing to migrate closer to end-product demand. A large cruiser delivery falling in the last quarter of 2010 will amplify the current year's export figures. Ship deliveries of equal size are currently not in the offing for the forecast period.

Finland's price competitiveness weakened considerably at the end of the pre-recession boom, as wages and salaries rose faster than in competitor countries. This year, pay increases have been more subdued in Finland, but the cumulative rise in unit labour costs over the last few years has been much faster than the euro area average. On the other hand, euro depreciation earlier in the year has improved the price competitiveness of the euro area as a whole.

Weaker price competitiveness and the slow investment recovery worldwide will hamper exports in the forecast period. Growth in Finnish exports in 2010 will remain much slower than growth in demand from Finland's export markets (Chart 33, in the section 'Export markets and export prices'). In 2011–2012, export growth will accelerate, but exports will continue to expand at a slightly slower pace than the export markets. Despite picking up, Finland's exports in the forecast period will not reach the peak of 2008, which was exceptional, on account of the global investment boom of the preceding years. The GDP share of exports will rise to around 44% at the end of the forecast period (Chart 36).

This year, Finnish imports are forecast to grow at a somewhat slower pace than exports, but to outpace exports at the end of the forecast period. Imports will be boosted by rapid export growth and a further strengthening of domestic demand towards the end of the forecast period.

Current account and debt

The surplus on goods and services contracted to around 2.5% of GDP in the recession year of 2009. The erosion of the surplus from around 4% prior to the recession was due to the drastic fall in exports. Although the value of imports also declined, the contraction of 26% in the value of exports in 2009

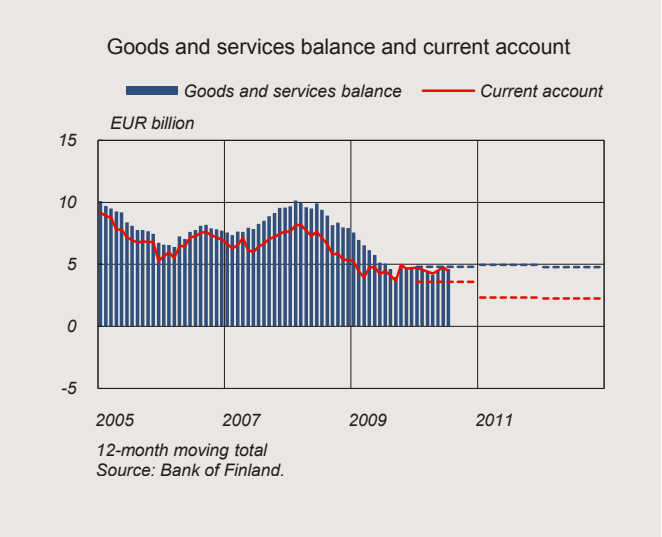
almost halved the surplus on goods and services compared with the previous year (Chart 37). However, the current account surplus declined only slightly in 2009, which was due to the large surplus on the income account caused by temporary factors. These included lower financial results recorded in Finland by some individual international firms. The deficit on the current transfers account relative to GDP remained nearly unchanged in the recession.

In the forecast period, the surplus on goods and services will remain at around 2.5% relative to GDP. In volume terms, exports will grow faster than imports in 2010, but there will be a marked deterioration in the terms of trade. In 2011 and 2012, import growth will slightly outstrip export growth and the terms of trade will remain stable. The surplus on the income account will contract sharply in 2010 with the removal of recession-related temporary factors, and the income account will post a deficit in 2011–2012. The deficit on the current transfers account relative to GDP is forecast to remain broadly unchanged. The reduction of the current account surplus in the forecast period reflects changes in the income account.

Viewed from the perspective of savings and investment, the small contraction in the current account surplus in 2009 reflected a slightly stronger decline in the total economy's savings than in investment (Chart 38). The forecast period will witness some growth in the GDP shares of both savings and investment.

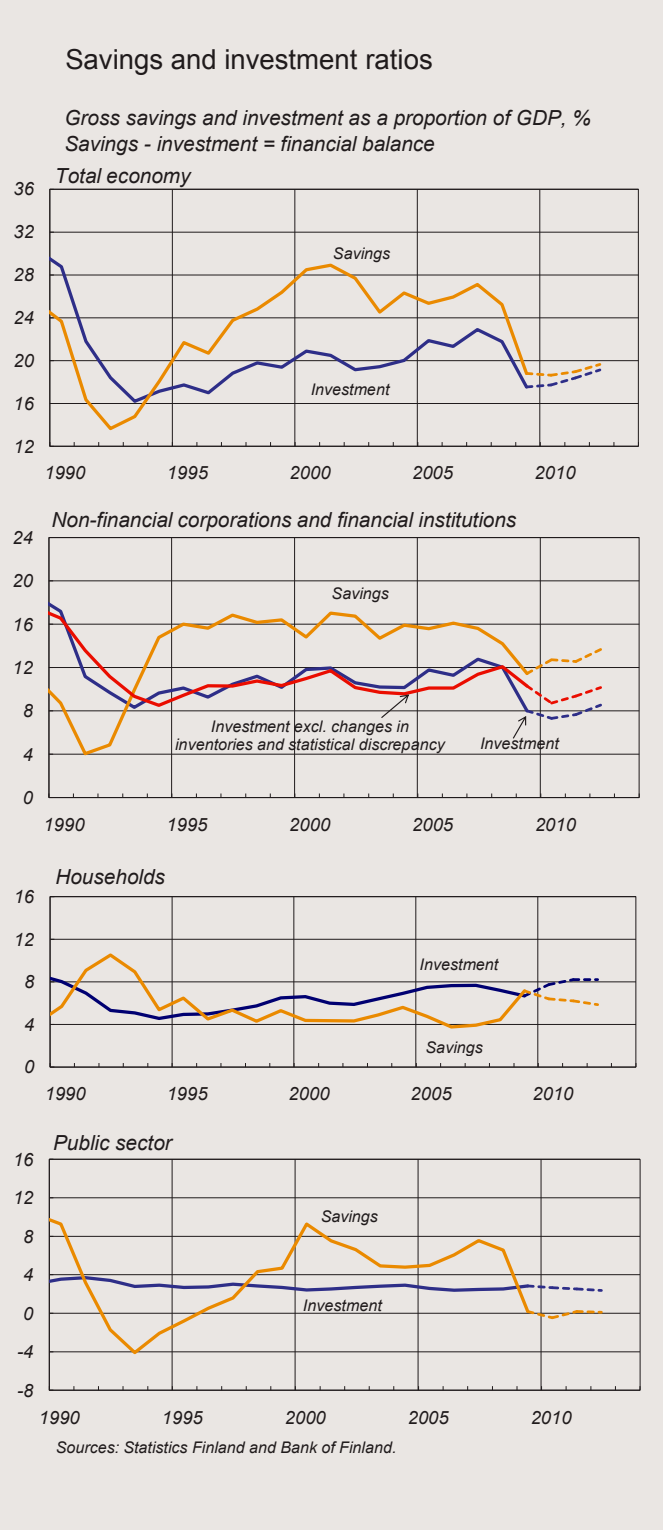
Chart 36.

Chart 37.



The financial positions of economic sectors changed substantially in 2009. General government finances moved substantially into deficit in 2009. The general government fiscal deficit will diminish to some extent towards the end of the forecast horizon.

Chart 38.



Households increased their savings strongly in 2009 and their financial position was temporarily mildly in surplus. In the forecast period, however, households' financial deficit will grow in the context of lower savings and considerably stronger housing investment.

Savings by the corporate sector declined in the recession year of 2009, but investment was also scaled back. The corporate sector's financial surplus even increased to some extent, when taking account of lower investment in inventories. In the forecast period, the corporate sector will maintain a substantial financial surplus despite the rebound in investment.

Box 6.

Finland's public finances

Fiscal policy stance in Finland

Fiscal policy was loosened considerably in 2009 and has continued supportive to growth in 2010. Measured by the change in the cyclically adjusted budget balance, discretionary factors weakened the overall general government balance by a total of about 5 percentage points in this period (Table 5).[1] The fiscal policy focus has been on cutting taxes on labour. In contrast, discretionary expenditure increases have been smaller. The marked loosening of fiscal policy in 2009 and 2010 has decreased the growth and employment losses caused by the recession.

Fiscal policy will tighten slightly in 2011. Higher indirect taxes and the expiration of certain stimulatory expenditure increases will offset the effects on the structural deficit of relaxing the spending principles. The government's budget proposal for 2011 did not include significant additions to the spending principles, but neither did it contain any policies to restrain expenditure growth. If fiscal policy remains neutral in 2012, which is the technical assumption made in the forecast, at the end of the forecast period the structural expenditure ratio will be about 2½ percentage points higher, and the structural revenue ratio about 2 percentage points lower than in 2008. Based on the currently known fiscal policy decisions, the expenditure-to-GDP ratio excluding interest expenses will, in the next few years, remain roughly at the heightened level reached in the early phase of the recession.

Central government spending limits and the recession

A key determinant of recent expenditure policy has been the central government spending limits covering the present electoral period now coming to an end. So far, the spending limits have held up well. If the Budget for 2011 is implemented according to the Government proposal, expenditure included in the spending limits will be below the ceiling set. The

[1] *The cyclically adjusted budget balance is estimated in the Eurosystem on the basis of a commonly agreed method. The general government structural balance is obtained by subtracting the impact of cyclical and temporary factors from the actual budget balance as calculated in the National Accounts. The budget balance is proportioned to potential output, which is measured by trend GDP. For more information on the method, see Bouthevillain, C – Cour-Thimann, P – Van den Dool, G – Hernández de Cos, P – Langenus, G – Mohr, M – Momigliano, S – Tujula, M (2001) Cyclically adjusted budget balances: an alternative approach. ECB Working Paper Series No. 77. September 2001.*

Table 5.

Cyclically adjusted general government finances 2009-2012

% of trend GDP

	Changes				
	2009	*2010f*	*2011f*	*2012f*	*2009-2012*
Budget balance, % of GDP	-6.7	-0.7	0.8	0.1	-6.5
Cyclical factors	-2.6	0.0	0.2	0.3	-2.1
Structural balance	-4.1	-0.8	0.6	-0.2	-4.4
Structural primary balance	-4.5	-0.6	0.9	0.0	-4.2
Structural revenue	-3.0	0.0	1.1	0.0	-1.9
Structural expenditure	1.1	0.8	0.5	0.2	2.6

Sources: Statistics Finland and Bank of Finland.

unallocated provision included in the spending limits was not used in full in 2008–2009. For the current year, after the third supplementary budget, expenditure covered by the spending limits budgeted for 2010 is still within the spending limits.

In practice, the spending limits have held during the recession because they have not restrained the functioning of automatic stabilisers and other means to increase spending in response to weakening cyclical developments and financial market problems. In fact, the recession has led to a considerable increase in the share of expenditure items excluded from the spending limits in on-budget expenditure.[2] Automatic stabilisers have been able to operate in full, and spending limits have not affected the decisions made on loans for managing the financial crisis and unemployment-related indirect expenditure items. According to the Ministry of Finance's assessment, about a third of central government on-budget expenditure falls outside the spending limits in 2010, as compared with 23% in 2008. In 2011–2012, the portion of expenditure items excluded from the spending limits is expected to fall as the economy recovers.

Public debt and sustainability gap

During the recession, the strong contraction in government revenue, stimulus measures and external lending related to managing the global financial crisis have increased the central government net borrowing requirement, which is also expected to remain substantial in the future. All in all, the government borrowing requirement will rise to around EUR 30 billion in 2010–2012.

Government borrowing is mainly based on longer-term financing, which accounted for almost 90% of the total lending stock in August 2010. Only about 10% is short-term debt, mostly used for liquidity management purposes. Government debt is now all euro-denominated, so there is no exchange rate risk. The majority of government debt consists of benchmark bonds to institutional investors. The government can issue one or more benchmark bonds each year, as necessary.

Despite the increase in the borrowing requirement, Finland's credit rating has remained the best possible. The yield on the 10-year government benchmark bond has also remained low. Finland's ten-year sovereign bond spread vis-à-vis Germany has recently been below 0.3 percentage points.

Local government debt, too, will continue to grow over the next few years. The borrowing requirement is particularly high in 2010, but the debt ratio will rise slightly thereafter as well.

All in all, general government gross debt will increase in the forecast period by EUR 32 billion from the 2009 level. The debt-to-GDP ratio will, however, increase slightly less than envisaged in the Bank of Finland's March 2010 forecast. This is attributable to the stronger-than-forecast economic recovery, which is reflected in general government finances.

As the debt ratio will be smaller than previously estimated and economic growth is expected to be slightly faster, both during and after the formal forecast period, the sustainability gap will be almost 1 percentage point smaller than previously estimated. In the spring 2010 forecast, the sustainability gap was estimated to rise to 7%. Despite the small reduction, the sustainability gap remains considerable. Without changes to revenue or spending principles, general government debt will

[2] *Expenditure items excluded from the spending limits include, for instance, unemployment security expenditure, housing allowance, interest rate expenses and part of expenditure based on the National Pensions Act.*

begin to rise rapidly in the 2020s as growth in age-related expenditure gains momentum.

Assessment of fiscal policy and general government sustainability

Government measures have reduced losses in output and employment during the recession. Even though the relaxation of labour taxes has to be primarily regarded as a structural policy measure, it has also supported purchasing power, income formation and employment during the recession. Active employment policy measures have also decreased the costs to the economy stemming from the recession. For long-term growth prospects, it is positive that the feared labour market exclusion of the young has probably not been as drastic as anticipated.

The operation of automatic stabilisers has not been restrained during the recession. The spending limits have also created leeway for a cyclical increase in expenditure without undermining the credibility of the spending limits system. Longer-term expenditure rules have therefore been maintained, even though there has been a strong cyclical increase in expenditure growth.

In other words, the spending limits system has, from the cyclical perspective, stood the test presented by the recession. On the other hand, it is likely that in the next few years the policy guidelines behind the spending limits will be put to the test from the perspective of long-term balance and sustainability. It is therefore very important, in assessing the Finnish fiscal frameworks, and in particular the level of expenditure included in the spending limits, that the consolidation needs required by sustainability be taken into account.

The near-term outlook for Finland's public finances is currently more balanced than assessed in the stability programme update published in February 2010 and the Bank of Finland's March 2010 forecast. The general government deficit is forecast to breach the 3% of GDP reference value this year, after which it will come down to about 2½%. The improvement in the fiscal outlook in the forecast period is attributable to the tightening of the fiscal stance as well as to cyclical factors. However, there have been no structural decisions in fiscal policy that would substantially reduce the need for long-term fiscal consolidation. Growth in public debt due to the recession will continue to put a considerable strain on the sustainability of Finland's public finances. In this respect, the main risk from a fiscal policy perspective is that the cyclical improvement in the economic situation could conceal the long-term problems in the public finances.

Box 7.

Samu Kurri

Global economy and external demand

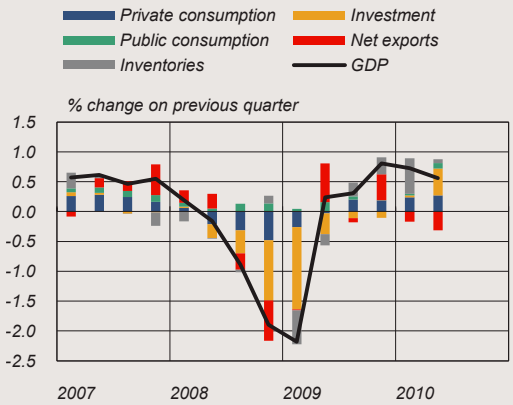
In the first half of 2010, the global economy grew faster than envisaged in the Bank of Finland's March forecast. Particularly striking has been the faster-than-expected recovery in world trade. This would appear to be attributable to factors such as the increase in output and foreign trade associated with inventory adjustments. However, with normalising inventory levels and the fading of the positive impact from stimulus measures, the growth impulse has already shown signs of weakening in several regions (Chart 39).

Despite the briskness of growth, its distribution around the world has been uneven (Chart 40). After the economic and financial crisis, growth rebounded first in China, which has already had to restrain its economy in fear of overheating. Japan was one of the first economies to be pulled along in the slipstream of Chinese growth, but its momentum slowed sharply in the second quarter of 2010. In the United States, growth has also moderated notably since the turn of the year. In the EU, growth did not pick up substantially until the second quarter of the current year. However, there are substantial differences between EU countries. In contrast to exceptionally rapid growth in Germany and positive growth figures in France, for instance, growth was modest and even negative in southern European countries struggling with economic problems.

According to the Bank of Finland's new forecast, the world economy will continue to grow but will no longer reach the recent growth figures (Table 6). The forecast envisages the slowest phase of world growth around late 2010 and early 2011, after which the pace will start to gradually pick up again. Advanced economies will approach their potential growth rate by 2012. Owing to the deep gap created by the economic and financial crisis, the advanced economies' output gap, ie the

Chart 39.

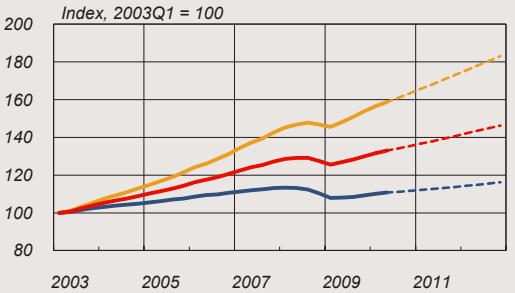
Global GDP contributions of major advanced economic regions*



* Euro area, Japan and United States
Sources: National data and calculations by Bank of Finland.

Chart 40.

World GDP



Developed economies: United States, euro area, Japan, United Kingdom, Canada, Australia, New Zealand, Denmark, Sweden and Switzerland
Emerging economies: other countries
Sources: Reuters and Bank of Finland.

difference between potential and actual output, will remain substantial throughout the forecast period. This also partly explains the low interest rate expectations on the markets.

In **EU countries**, total output increased strongly in the second quarter of 2010, led by Germany. However, the pace of growth is forecast to slow towards the end of the year, after which it will gradually pick up again. Even so, growth is expected to remain below the long-term average in 2010 and 2011. In the quarters immediately ahead, growth will be driven by net exports, with the contribution from domestic demand increasing as the forecast period progresses. A decline in asset prices plus general government consolidation measures are expected to restrain growth, especially in the Mediterranean countries.

The brisk economic recovery that began in the **United States** at the end of 2009 has slowed considerably since the turn of the year. Inventory investments in particular have gradually lost importance as an engine of growth. Weak developments in employment and the housing market suggest the pace of recovery will remain slow throughout the forecast period. US growth is not expected to reach its long-term potential until 2012.

Asia, led by **China**, has been the driving force behind the global economic recovery. Despite a slight moderation in pace, China's economy is forecast to continue growing briskly throughout the forecast period. The structure of growth will improve slightly, with private consumption growing in importance. Growth is also expected to remain strong in the NIE and ASEAN countries, driven by exports. After vigorous growth in the early part of the year, **Japan's** economy looks set to return to a slow growth trajectory, mainly due to weak domestic demand.

Russia's economy has returned to growth after an exceptionally deep recession. Growth is expected to remain relatively brisk in the forecast period. The pace of growth will, however, be below the average recorded in 2000–2007.

Table 6.

Rates of growth in GDP and world trade

% change on previous year

GDP	*2009*	*2010f*	*2011f*	*2012f*
United States	*-2.6*	*2.7*	*2.0*	*2.3*
*EU19**	*-4.2*	*1.6*	*1.6*	*1.9*
Japan	*-5.2*	*2.6*	*1.1*	*1.4*
Asia excl. Japan	*6.0*	*9.3*	*7.5*	*7.2*
World	*-0.6*	*4.6*	*3.9*	*4.0*
World trade	*-11.7*	*15.2*	*6.9*	*6.8*
Finland's export markets	*-13.4*	*13.1*	*6.9*	*6.5*

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.
f = forecast
** Euro area, Sweden, Denmark and United Kingdom*
Source: Bank of Finland.

World trade growth picked up faster than expected in the first half of 2010 (Table 6). Looking ahead, however, the momentum will ease as the effect of inventory adjustments fades and global growth becomes more subdued. The long-term outlook remains unchanged in the present forecast, and trade growth is not expected to reach the pre-recession figures seen in the middle of the first post-millennium decade. Even so, trade growth will remain faster than the average for the past three decades (close to 6%) throughout the forecast period. According to the baseline scenario, global imbalances will not be corrected, but neither will they increase to pre-crisis levels.

Box 8.

Tuuli Koivu and Jaakko Suni

Foreign trade in services narrowly based

A topic of discussion for many years in Finland has been the rise of services to rival goods in the country's foreign trade. Trade in services has outpaced GDP growth in recent years, and the value of total services exports relative to GDP was already a good 10% in 2008–2009 (Chart 41). Moreover, the difference between goods and services trade in value terms contracted rapidly last year, as trade in services did not experience a collapse like that of goods.

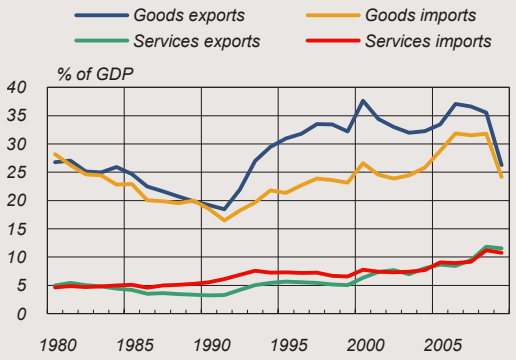
Despite its stronger role, however, very little statistical data has been published on Finland's foreign trade in services. The following analysis is based on unpublished material that allows a closer examination of this trade, for instance by sector.[1]

In analysing the statistics, it is worth remembering that the statistical compilation of income and expenses arising from services trade varies depending on how companies organise their operations. Sales of services by an outlet of a Finnish company abroad should not be entered in Finland's trade statistics. Profits for such sales possibly repatriated to the parent company should, in turn, be entered as income in the current account. In short, an activity is recognised as export of services if it involves a service being sold across Finland's borders. Interpretations therefore need to take account of the likelihood that services trade figures understate the significance to the Finnish economy of services provision as a whole.

[1] *This box excludes travel and transport services and focuses on the subcomponent of 'other services', which includes many types of high-value-added services, such as consulting, planning and expert services, intra-group services, and research and development work.*

Chart 41.

Foreign trade in goods and services



Sources: Bank of Finland, National Board of Customs and Statistics Finland.

Goods and services go hand in hand

Finland's services exports mainly go to European and Asian markets. The most important are Germany, India, Sweden, Russia, China, the United Kingdom and the United Arab Emirates. The rapidly strengthened role of Asia in the world economy is reflected in the fact that Finnish companies' services exports to Asia are already almost as large as those to Europe.

Services imports are more concentrated than services exports, with almost two thirds of services purchased from either Germany, the United Kingdom, the United States or Sweden.

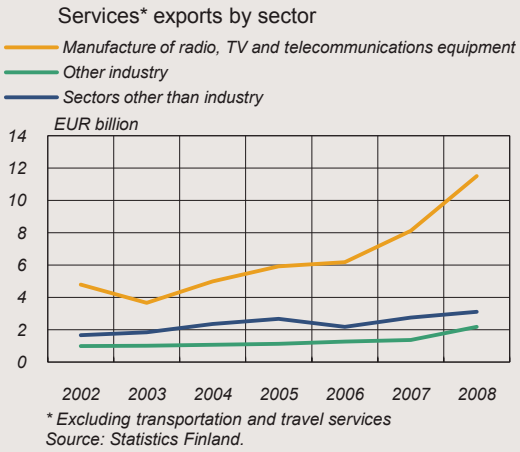
On the whole, services trade frequently appears to go hand in hand with goods trade, as the geographical distribution of trade in services fairly closely follows that of trade in goods.

Trade exhibits sectoral concentrations

The statistics on Finland's services trade indicate that the

responsibility for driving both exports and imports lies in practice with a single sector (TOL classification 32, ie manufacture of radio, television and communication equipment and apparatus).[2] The growth observed in Finland's services exports since 2002 is largely attributable to this sector. Although the services exports of many other sectors have also increased rapidly, the value of services trade in the sector categorised under TOL 32 is in a class of its own (Chart 42).

Chart 42.



* Excluding transportation and travel services
Source: Statistics Finland.

In addition to the general significance and dynamism of the radio, television and communication equipment sector in the Finnish economy, as evidenced by the statistics, the sector would also appear to be a significant trailblazer in regard to trade in services. In 2008, the sector's services exports substantially outpaced the value of its goods exports, while the ratio of services to goods exports remained modest in other sectors. In the manufacture of machinery and equipment, for example, the value of services exports only equals about a sixth of the value of goods exports.

In drawing conclusions, we should bear in mind that the statistics may understate the role of services in some sectors. The spare parts business, for example, is often defined by companies as service provision, but the movement of spare parts across borders is statistically classified as goods trade.

What services does Finland export?

Viewed by service type, Finland's services exports yield surprising results in a number of ways (Chart 43). Firstly, they are strongly focused on merchanting services.[3] In recent years, there has also been a strong increase in the exports of computer and information services. Royalties and licence fees from abroad, as well as purchase from Finland of services within an enterprise group, have also recorded steady growth.

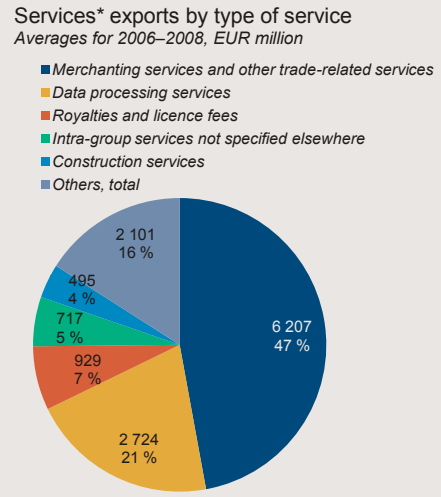
Another surprising finding concerns research and development (R&D) services. Although the resource input in R&D in Finland is high by international standards with respect to the size of the country's economy, this is not reflected in services exports. It seems that R&D services in Finland are provided mainly for Finnish companies. Very few foreign companies have research centres in Finland.

Services imports are more evenly distributed by type of service than exports (Chart 44). Finnish companies maintain a significant number of research

[2] *The sectoral distribution is based on Statistics Finland's TOL 2002 classification (NACE rev 1.1).*

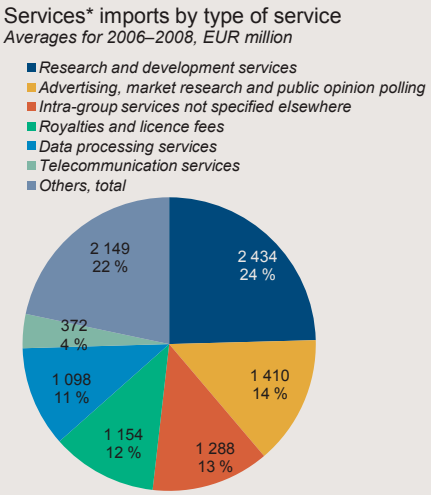
[3] *Merchanting services are defined as transactions where a company located in Finland buys goods from a company in another country and sells them on to an economic entity in a third country. The difference with regard to transit trade is that, in merchanting services, goods do not physically move from the seller abroad via Finland to the final country of destination. The value of a merchanting service is the difference between the purchase price of the goods and their resale price.*

Chart 43.



* Excluding transportation and travel services
Sources: Bank of Finland and Statistics Finland.

Chart 44.



* Excluding transportation and travel services
Sources: Bank of Finland and Statistics Finland.

units all over the world, and the operations of these units are apparently reflected in statistics as imports of R&D services. Finland also buys from abroad advertising and market research services, as well as services within an enterprise group, and pays licence fees abroad.

Impact of trade in services

Many companies see foreign trade in services as being important for their future growth and have assigned it priority status. Even so, the statistics suggest that Finland's services trade is highly dependent on a single sector, ie the manufacture of radio, television and communication equipment and apparatus. This sector's share of total services exports has climbed to almost 70%. In other sectors, the value of services exports relative to trade in goods still appears to be relatively low, although there are likely to be sizeable differences between companies and statistical frameworks may slightly distort the overall picture.

Finnish companies' international service provision is often based on local activity, in which Finland's role tends to be that of a location for repatriation of profits that may arise from such business. This can be a highly profitable business and of great importance for many companies,

but its employment impact in Finland is usually limited to head office activities.

Services provision can be broken down into two main types of activity. The strongest employment impacts in Finland are likely to stem from project-related tasks that call for high-level skills and are performed by employees either in Finland or on temporary secondment to the destination country for the exports. By contrast, regular and routine work that is worthwhile carrying out with local labour only seldom provides employment opportunities for Finns. Both types of service are nevertheless important for the Finnish economy. The close links between trade in goods and trade in services, as disclosed by the statistics, underline the significance of services to the Finnish economy. It is partly due to statistical weak points that the value of services seems to be still relatively low. For example, the low level of R&D services exports diminish R&D's crucial role in the goods trade, as R&D activities are frequently an integral part of this trade. In contrast, it remains the fact – also revealed by the statistics – that, regardless of Finland's high level of education and training, the country does not host foreign companies' research centres to any significant degree.

Box 9.

Laura Solanko

Russia and the global oil market

Russia is a major producer

Russia is the world's largest or second largest producer of oil, depending on which statistical method is used. In 2009, Russian crude oil production totalled some 10 million barrels a day, roughly corresponding to output in Saudi Arabia. These two largest world producers each accounted for approximately 13% of global crude oil production.

Over the period 1999–2009, Russian oil production grew by nearly 5% per annum, representing half the total growth in global output (Chart 45). By 2005, however, the rate of growth was already beginning to fade, and in the last few years crude oil production in Russia has grown by only around 1% per annum.

In contrast to the early post-millennium years, the Russian oil sector now has no free capacity that could be brought rapidly into production. All forecasts for the next few decades project only very slow growth in Russian oil production, at a maximum of 1–2% per annum.[1] This is due to the drying up of large oil fields currently in use and a lack of new investment.

Oil exports depend on domestic demand

In recent years, Russian oil exports have totalled some 5 million barrels a day. Fluctuations in exports depend on the cyclical situation in the domestic economy. A year ago, in the wake of a fall in domestic oil demand, oil exports rose temporarily to more than 7 million barrels a day. With the OPEC countries simultaneously cutting production, Russia for a while occupied the position of the world's largest oil exporter.

With Russian GDP growth expected to remain fairly brisk, at an estimated 4% per annum, domestic demand for oil will remain high. In practice, for the volume of exports to remain at current levels, domestic usage of oil would have to become considerably more efficient. Owing to the extremely low current level of efficiency, there is huge potential for improvement, so the objective is not impossible. In practice, it is actually essential for Russia to improve its energy efficiency. With a view to exports, the problem remains that research into alternative energy sources and innovations based on these is still in its infancy.

Slowly growing oil production and domestic demand growth, fuelled by overall economic growth, mean that, despite improved energy efficiency, Russian oil exports will be unable to grow significantly from their current levels. In the future, growth in global oil supply is expected to come from the Middle East, and possibly from new oil producers such as Brazil.

Demand growing in Asia, but Europe remains Russia's main export market

In the advanced economies, oil is almost solely used for the manufacture of traffic fuels, and consumption is not expected to grow much in OECD countries. In future decades, oil consumption will be dominated by the emerging economies. Consumption is growing particularly in China, India and the Middle East, with increasing use of motor vehicles. According to an International Energy Association (IEA) forecast from 2009, by 2030 oil consumption in the Asia and Pacific region will be more than 50% higher than in Europe and the CIS Region. In 2000, oil consumption in these regions was still on the same level, but the ongoing shift will move the focal point of energy markets from the Atlantic to the Pacific.

Doubts have been expressed about Russia's ability to adjust to this change. For example, slightly more than half of Saudi Arabian oil exports go to Asia, with Europe accounting for only a few per cent. The same applies to other Middle Eastern oil producers. In contrast, Russian oil exports are almost solely directed to Europe,

[1] *The same applies to other key energy commodities.*

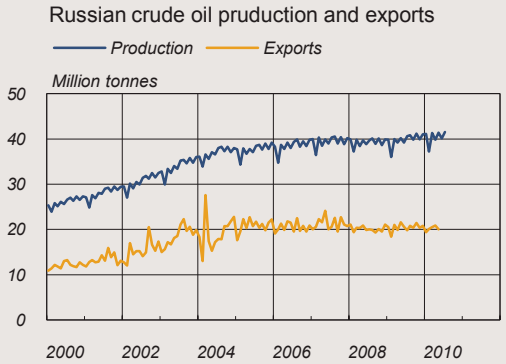
where demand is dwindling. At the end of last year, a new oil harbour, Kozmino, was opened in the Russian Far East in order to transport Siberian oil for the first time to markets in the Pacific region. In early 2010, close to 6% of Russian oil exports have passed through the new harbour. A new pipeline known as the Eastern Siberia – Pacific Ocean (ESPO) pipeline is being built to the harbour to transport oil from Eastern Siberian fields to Asian markets. The projected capacity of the ESPO pipeline is a million barrels a day by 2016. Asian markets could then account for as much as approximately a quarter of Russia's oil exports.

Given, even at best, the very slow growth of export markets and particularly the present poor transportation connections to growing markets, Russia's role on the global oil market is unlikely to become more pronounced.

Russia nevertheless remains the world's largest non-OPEC oil exporter and will continue to be so. It is unlikely that Russia will coordinate its energy exports in the future with OPEC or any other external party. As was demonstrated in 2009, Russia is also not a swing producer that could adjust its production at only limited cost. Neither the collapse in the world market price of oil towards the end of 2008 nor the rises in price at the beginning of 2009 were reflected in any way in Russian oil output. Both production and export capacity are already fully utilised.

The IEA (2009) estimates that world crude oil production will grow from the present 83 million barrels a day to 103 million barrels by 2030. Without very substantial new investment, Russia's share of global crude oil production will decline in future to under 10%. Russia's relative importance as an oil exporter will also be less than at present.

Chart 45.



Source: Rosstat.

Costs and prices

Unit labour costs will decline in 2010 and remain more or less unchanged in 2011. In 2012, they will begin to rise slightly. In 2011 and 2012, employment will increase and productivity growth will level off at 2%. Accelerating inflation will slow the rise in real wages during the forecast period.

Commodity prices rose significantly in 2009, but in 2010 the pace of rise has levelled off. In the next few years, the import prices of energy products will rise moderately, in line with the trend in oil prices. The prices of other commodities will also gradually rise. The pace of rise in consumer and capital goods is expected to remain fairly subdued.

HICP inflation will average around 1.6% in 2010. Thereafter, the pace of rise in consumer prices will accelerate to around 2%.

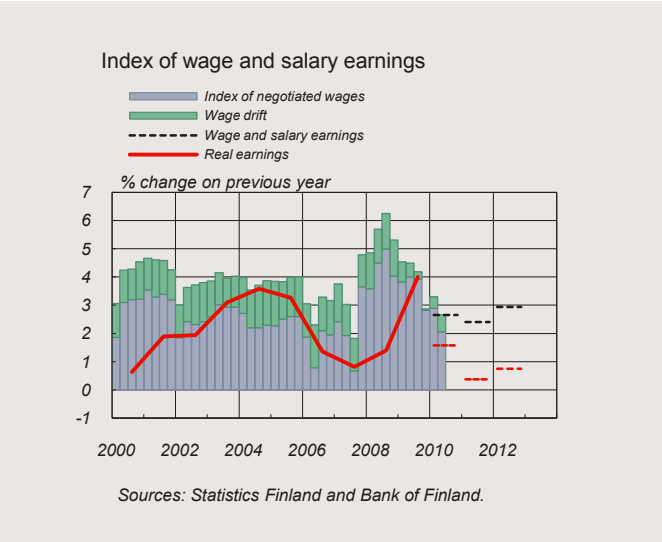
Labour costs

Aggregate wage and salary earnings rose in 2009 by an average of 4%. In the final quarter of the year, the pace of rise decelerated significantly, to approximately 3% (Chart 46). The rise in aggregate wage and salary earnings mainly reflects developments in negotiated wages: in early 2009 negotiated wages were still rising at an annual rate of 4%. However, the pace decelerated to approximately 3% towards the end of the year, and further, to 2% in April–June 2010. Compared with previous years, a significantly smaller proportion, ie on average less than 0.5 percentage points, of the rise in wage and salary earnings in 2009 was attributable to factors other than negotiated pay rises. The contribution of these other factors remained virtually unchanged in the first half of 2010.

Although the rise in aggregate wage and salary earnings slowed significantly in 2009, compared with the previous year, the marked drop in inflation meant the rise in real wages accelerated to 4%. The substantial rise in earnings and declining labour productivity significantly weakened Finland's price competitiveness in 2009,with unit labour costs rising by as much as 7.6%.

Sector-specific negotiations on new collective agreements (including pay settlements) have continued in recent months. Although the average length of existing collective agreements is typically around two years, the average length of the new pay settlements is approximately one year. Aggregate earnings are expected to rise an average

Chart 46.



2.7% in 2010 and 2.4% in 2011, accelerating to just under 3% in 2012.

The index of wage and salary earnings measures compensation for a standard labour input; it includes merit pay and contractual one-off payments, but does not include overtime or extra work. Hence the trend in average wages more clearly reflects cyclical fluctuations (Chart 47). The pace of rise in average wages per employee eased to approximately 2% in 2009, reflecting the recession. In 2010, the pace of rise will continue to slow slightly, accelerating again to approximately 2.5% in 2011 and 2012.

Unit labour costs are expected to decline by just over 1% in 2010. In 2011, they will remain at around the same level as in 2010, and in 2012 they will increase slightly. In 2010, employment should remain broadly unchanged from 2009, whereas productivity per employed person will grow by just under 3%. In 2011 and 2012, employment is expected to increase, and productivity growth will level off to 2% on average.

The recession had an impact on the structure of employment, and this was reflected in developments in productivity and average labour costs across the economy. Since the decline in employment was particularly strong in the private sector, the proportion of the total labour force employed in the public sector rose as a result of the recession. Even though employment is expected to improve over the forecast period, the rise in the proportion of the total labour force employed in the public sector in 2009 will continue to slow productivity growth in the economy as a whole and sustain the rising trend in unit labour costs.

Commodity prices

In 2009, the price of crude oil rose to USD 70–80 per barrel, fuelled by growth in demand, and the price has remained at the same level in 2010 (Chart 48). Based on oil futures prices,

Chart 47.

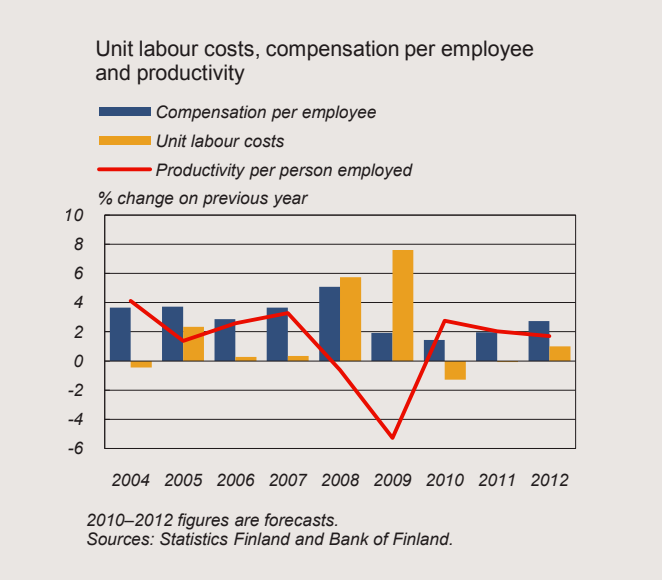


Chart 48.

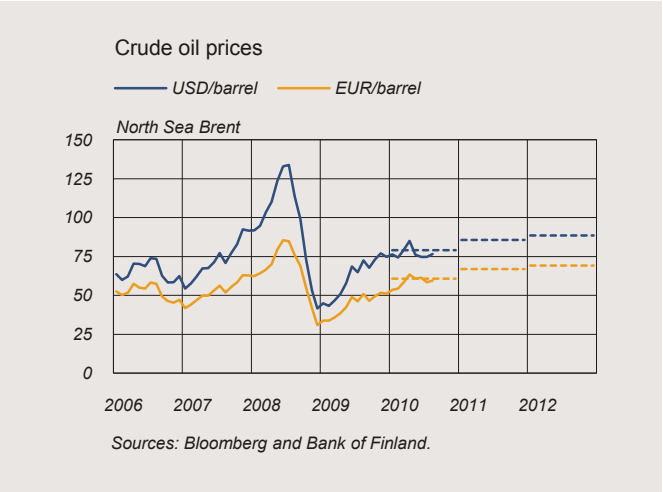


Chart 49.

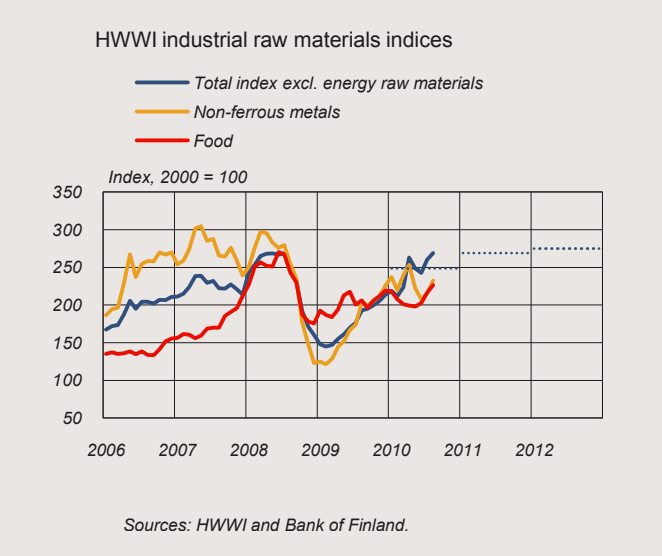
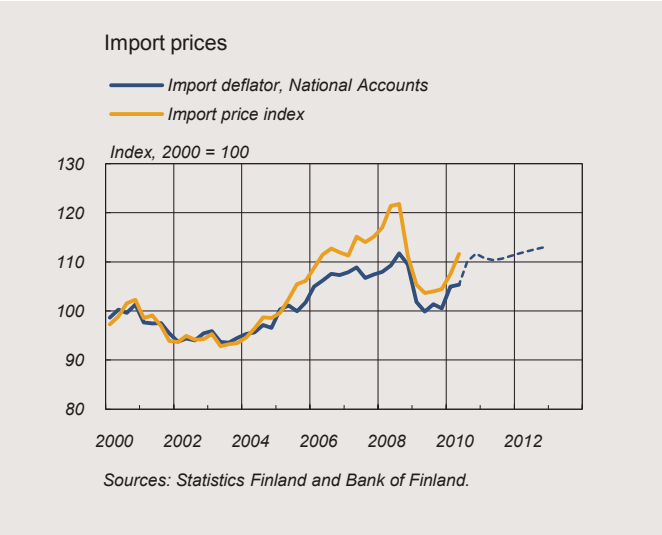


Chart 50.



the forecast expects the price of oil to increase slightly, to an average of USD 89 a barrel in 2012. The price of oil is, however, highly sensitive to changes in the outlook for the global economy. Crude oil inventories are already exceptionally high, and slower-than-expected growth in demand could, therefore, quite possibly push down prices.

The prices of industrial raw materials rose rapidly in 2009, reaching pre-crisis levels (Chart 49). The rise in prices was due to strong demand in China, the replenishment of inventories, and the improved outlook for the global economy. Metal prices have fluctuated in 2010, in line with the economic outlook. Overall, the prices of industrial raw materials are expected to rise moderately over the forecast period.

Developments in food commodity prices have been more moderate throughout the recession. Since June 2010, they have, however, been on an upward trend. The strong rise in cereal (wheat and barley) prices in recent months, fuelled by the dry summer, raised concern over a rapid rise in food commodity prices, as witnessed in 2007–2008. There are indeed already signs that the rise in animal feed prices will cause an upward pressure also on meat prices. Based on futures prices, market expectations regarding food commodity prices are, however, still moderate.

The prices of paper and pulp have not developed in parallel for some time. Paper prices have not yet fully recovered from the drop in 2009, but pulp prices have been boosted considerably by cuts in production capacity and the pick-up in demand.

Import prices and domestic producer prices

Import prices started to rise slightly in autumn 2009, according to the import price index, and the pace of rise accelerated after the turn of the year

(Chart 50). In recent months, import prices have been on average 8% higher than a year earlier.

The strong decline in import prices in 2009 was mainly due to subdued international demand and the dramatic fall in energy prices (Chart 51). The decline in import prices of energy products came to a halt in summer 2009. In the early months of 2010, they rose sharply, but in recent months, the upward trend has levelled off. In July 2010, import prices of energy products were approximately 30% higher than a year earlier.

The easing of the recession also brought to a halt the decline of other import prices. Raw materials and intermediate goods prices already began to rise at the end of 2009. Import prices of consumer and capital goods have been rising moderately since the spring.

The National Accounts import deflator, covering both goods and services prices, began to rise significantly after the turn of the year (Chart 50). Import prices as measured by the deflator rose in January–June by 5.1% on average. Import prices of goods rose by 6.7%, and those of services by 1.8%.

The global economic recovery is expected to sustain the upward trend in import prices over the forecast period. The upward trend in energy import prices is expected to ease after 2010 as oil prices level off. The rise in the prices of other raw materials and intermediate goods will also level off after 2010. The upward trend in import prices for consumer and capital goods is expected to accelerate gradually as demand picks up. Import prices as measured in the National Accounts are expected to rise approximately 7% this year. The pace of rise will level off to 2% on average in 2011 and 2012.

The sharp decline in industrial producer prices that had continued for over 12 months came to a halt at the end of 2009, to be succeeded by a strong upward trend (Chart 52).

Chart 51.

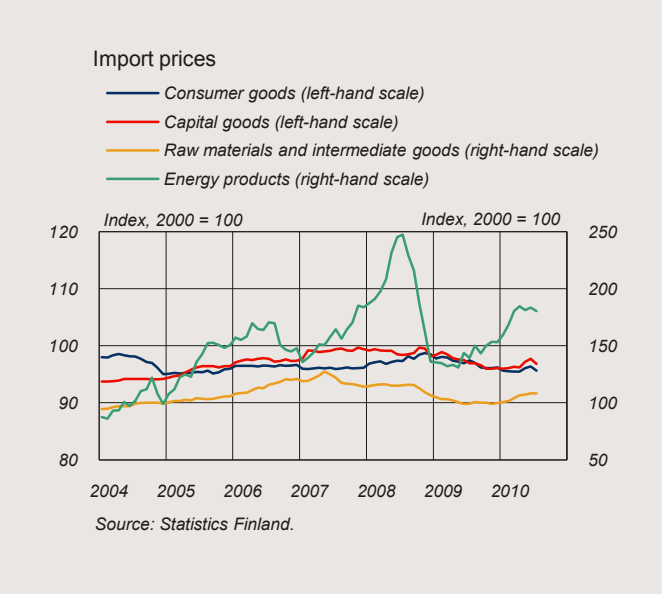
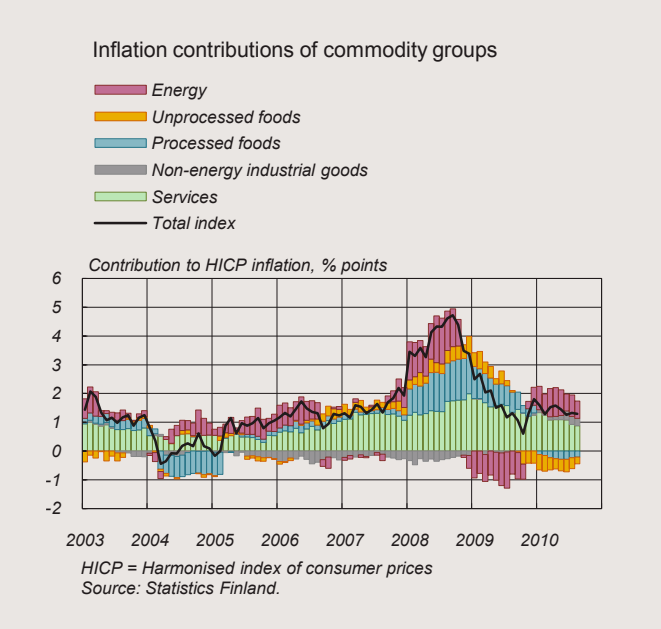


Chart 52.

In recent months, producer prices have been over 5% higher than a year ago. In contrast, the downward trend in agricultural producer prices has continued in 2010. In April–June, they were over 1% lower than a year earlier. Recent developments in agricultural producer prices are due particularly to the decline in producer prices for milk and cereals. The decline in agricultural producer prices also reflects the development of food commodity prices and a downward trend in energy and fertilizer costs.

Private sector production prices are expected to rise at an annual rate of approximately 2% over the forecast period, as measured by the National Accounts deflator for value added in production. The rise in commodity prices will serve to sustain the upward trend. Unit labour costs will start rising in 2012.

Chart 53.



Consumer prices

Inflation has decelerated slightly in 2010, as measured by the harmonised index of consumer prices (HICP). In the first half of the year, inflation was 1.4%, but it is expected to accelerate slightly in the second half, due to eg the rise in the general rate of VAT in July. The cut in value-added tax on food in October 2009 has dampened inflation in 2010. The impact of the VAT changes will no longer be included in the calculation of annual inflation in October 2010.[1]

The brisk rise in service prices has pushed up inflation in Finland in recent years (Chart 53). Services inflation has, however, eased in 2010, due to two factors in particular. Firstly, the pace of rise in rents decelerated in spring 2010 to less than 2%, from a full 4% in 2009. Secondly, the prices of café and restaurant services fell in July, reflecting the cut in value-added tax on restaurant food from 22% to 13%. As labour costs have a strong impact on service prices, services inflation is also expected to remain fairly moderate in the near future.

The fairly brisk rise in energy prices has been sustained by the upward trend in vehicle fuel prices in the early part of 2010. If the price of crude oil develops in line with the forecast, the upward pressure on fuel prices will ease in the near future. The proposed rise in energy tax will have both a direct and an indirect impact on inflation. It will affect inflation directly via the rise in prices of electricity and heating. The

[1] Inflation differentials in the euro area are examined in Box 10.

indirect impact will be through a rise in rents, reflecting higher costs of housing, and the pass-through of companies' higher energy costs to consumer prices.

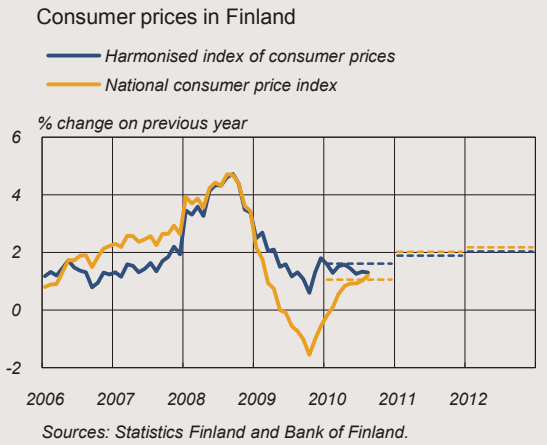
Since the beginning of 2010, food prices have been on average 6% lower than a year earlier. The decline in prices was due particularly to the cut in value-added tax on food in October 2009, but also the decline in the prices of unprocessed food from their exceptionally high level in 2009. The inflation-dampening impact of the change in VAT will end in October, which will push up HICP inflation slightly. At the same time, the rise in the world market price of food commodities and domestic cost factors will exert upward pressure on consumer prices of food.

The pace of rise in non-energy industrial goods prices has accelerated slightly in 2010. The upward trend has been boosted by higher prices of used cars, reflecting the pick-up in demand and a decline in car dealers' inventories. In retailing, too, inventories have been adjusted in response to weaker demand. In the summer months, inflation was pushed up by smaller reductions in sales prices than in 2009 and the increase in the general rate of VAT to 23%.

HICP inflation is expected to remain in 2010 at 1.6%, the same level as a year earlier (Chart 54). In 2011, inflation will accelerate to around 1.9%, and in 2012 to 2%.

Inflation as measured by the national consumer price index (CPI) differs from HICP inflation in that it is also affected by developments in eg interest expenses and house prices. Due to the decline in interest expenses on housing loans and consumer credit, in particular, CPI inflation has in 2009 and 2010 been slower than HICP inflation. As interest rates are no longer expected to decline from their current level, their dampening impact on CPI inflation will gradually recede. When interest rates start rising, the pace of CPI inflation will accelerate, exceeding that of HICP inflation. It is expected that CPI inflation will be 1.1% in 2010 and 2% in 2011, and that in 2012 it will accelerate to 2.2%.

Chart 54.



Sources: Statistics Finland and Bank of Finland.

Box 10.

Jarkko Kivistö and Maritta Paloviita

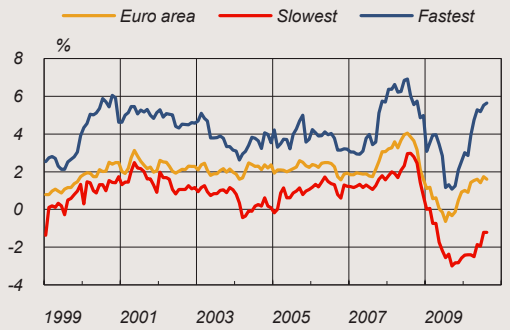
Inflation differentials in the euro area

Euro area inflation is measured by the harmonised index of consumer prices (HICP), calculated as the weighted average of the HICP of individual euro area countries. Country weights are based on each country's share of aggregate household consumption expenditure for all the countries participating in monetary union. The four largest countries (Germany, France, Italy and Spain) account for nearly 78% of the index. Finland's weight is 1.7%. Price developments in individual euro area countries depend on several common factors, for example world commodity prices. The impact of commodity prices on euro area inflation differs between countries, due to differences in the weights of HICP subcomponents and in how external price shocks feed through to consumer prices in the different countries. Changes in national VAT rates and excise duties also affect national inflation figures. Variations in price developments in the euro area are also partly explained by nonsynchronous cyclical fluctuations and differences in the development of labour costs.

Between 2000 and September 2007, consumer price inflation in the euro area remained at around 2% on average (Chart 55). Over the same period, the difference between the highest and the lowest rates of inflation in euro area countries fluctuated between 2 and 4 percentage points (Chart 56). In October 2007, euro area consumer price inflation began to accelerate rapidly as the exceptionally rapid rise in the world market price of food commodities fed through to consumer prices of food. The higher consumer prices were also due to a rapid increase in crude oil prices. In summer 2008, euro area HICP inflation reached 4%. It began to decline sharply at the end of 2008 when the impact of the previous year's strong rise in food prices was no longer

Chart 55.

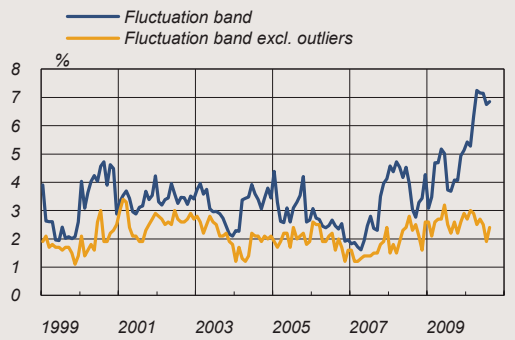
Euro area HICP inflation



Source: Eurostat.

Chart 56.

Fluctuation band of HICP inflation rates in the euro area



Source: Eurostat.

included in the calculation of annual inflation and fuel prices began to fall. The recession dampened the upward pressure on consumer prices. In June–October 2009, consumer prices were temporarily lower than a year before; ie inflation was negative. Both the upward and downward price phases saw an increase in the inflation differentials between euro area countries, due mainly to differences in the pass-through of world commodity prices into national consumer prices.

In the past year, euro area HICP inflation has gradually accelerated, reaching 1.6% in August 2010. As a result of the recent recession, inflation differentials between euro area countries are exceptionally broad. In August 2010, HICP inflation was –1.2% in Ireland and +5.6% in Greece; ie the difference between the lowest and the highest rate of inflation was 6.8 percentage points. In Ireland, the decline in consumer prices was due to several factors, including a sharp fall in demand, decreases in pay costs and declining prices for imported foods as a result of the depreciation of the British pound. In Greece, the rising prices reflected measures aimed at balancing the public finances. The VAT rate and taxes on fuel and alcohol were substantially increased, which was reflected in consumer prices.

If we exclude outliers from the calculation of euro area inflation rates and examine the difference between the second lowest and second highest rate, we notice that the fluctuation in inflation has been considerably more moderate (Chart 56). Measured in terms of this indicator, fluctuations in inflation rates between countries have actually decreased in 2010, while recent months have also brought no increase in inflation differentials between the large countries in the euro area.

In 2004–2006, consumer price inflation in Finland was more moderate than in the euro area on average. Inflation was still extremely sluggish in Finland in 2007, due to the moderate rise in food prices compared with other euro area countries. In early 2008, HICP inflation in Finland jumped to 3.5%, the average for the euro area, as a result of higher food prices and an increase in alcohol taxes. Thereafter, the rate of inflation accelerated to a level higher than the euro area as a whole. Even though the euro area inflation rate was negative in June–October 2009, consumer prices, measured by the HICP, continued to rise in Finland, albeit fairly sluggishly. In the third quarter of 2009, Finnish inflation was the highest in the euro area. In October 2009, it slowed to 0.6%, in response to the reduction in VAT on food. In recent months, HICP inflation has been just over 1% in both Finland and the euro area.

The higher inflation in Finland in recent years is mainly due to the lag in food price rises compared with other euro area countries and a substantial increase in service prices. Since 2007, services inflation in Finland has been more rapid than in the euro area on average. In 2009, service prices rose by 3.7% on average in Finland, and 1.3% in the euro area. In August 2010, the figures were 2.1% and 1.4%, respectively. Higher services inflation in Finland is partly due to a more rapid rise in labour costs compared with other countries.

Risk assessment

Expansionary economic policy has been a key factor in the global economy's recovery from the deep recession. It is, however, possible the measures taken have not put the advanced economies on a sustainable growth path. The recent positive trend in the economy is partly based on temporary stimulus measures and the restocking of inventories. If growth were to falter, even temporarily, it could trigger a negative spiral in the global economy.

The global economy could also develop more strongly than forecast, if emerging economies' significance as engines of world growth turns out to be greater than expected. The strong growth in the emerging economies could bolster growth in the advanced economies more than anticipated. In such an event, commodity prices would also rise more strongly than expected and inflation would gather pace.

Despite the recent positive developments in the Finnish economy, recovery from the recession is attended by a number of downside risks. The most significant of these relates to the considerable uncertainty surrounding the direction of the international economy. Finland's capital-goods-dominated export sector and domestic investment will respond strongly to both stronger and weaker cyclical outlooks. A deterioration in the international economic outlook and increased uncertainty would impact rapidly on the Finnish economy via the effects on international trade and the financial markets, and would delay recovery from the recession. Recovery could also be delayed, as demonstrated in the alternative scenario, if there were an unexpected weakening in market confidence in Finland's ability to manage its public finances.

Stronger-than-forecast developments in the global economy could boost Finland's real exports faster than forecast. In this case, domestic investment would also increase faster than forecast and GDP growth would accelerate. Growing demand would then be accompanied by stronger import price inflation and rising labour costs, which would combine to push up the pace of price rises in Finland.

Market expectations over euro area interest rates during the forecast period are very moderate, which could encourage Finnish households to take on more debt, leading to accelerating costs and a partial overheating of the economy.

International economy

Economic developments in 2010 have been marked by duality. On one hand, world trade has recovered faster than anticipated from the deep recession, primarily due to the continued brisk pace of growth in emerging economies. The rapid growth in world trade and the gradual dispersal during the spring and early summer of the threats that had been overshadowing the economy have strengthened consumer and business confidence in the future. On the other hand, the current year has shown how strongly the financial crisis and economic recession, and also, for their part, the economic policy measures implemented to combat them, have undermined the general government balance of the advanced economies. The financial markets have been concerned regarding the ability of Greece, in

particular, but also other peripheral European economies such as Ireland, Portugal and Spain, to cope with their rapidly growing debt burdens.

Regarding the risks to the economic forecast, the key issue is whether the recovery in growth in the advanced economies is sustainable. Is it based on a gradual recovery in private consumption and investment, or on temporary factors, such as the restocking of inventories left almost empty in the depths of the recession in 2009, or expansionary measures whose effects are already beginning to fade? The threat of a faltering in the pace of growth is underlined by the gradual tightening of economic policy as several countries simultaneously consolidate their public finances, while the quantitative easing of monetary policy is also being gradually wound down.

If economic growth were to be much slower than currently forecast, or even negative, this would have serious consequences, particularly for the most heavily indebted countries. If their exports do not get a substantial stimulus from world growth, the GDP ratio of their public debt will grow dramatically. This would further swell their governments' risk premia and make it harder for them to finance their debt. If these countries were to end up having to restructure their debts, the value of their government bonds would decline, which would in turn weaken the capital adequacy of the banks holding them. General confidence in the direction of the economy could be shaken, and new international support measures could be required to calm the situation.

If the economy were to take a negative turn, differences in development within the euro area would be exacerbated, posing serious challenges for economic policy. Realisation of the downside risk to the economic forecast would also carry the threat of deflation.

The economy could, however, perform better than anticipated if the dynamic growth in emerging economies is sufficient to raise growth in the advanced economies onto a sustainable path. Faster-than-forecast growth would bolster employment, private consumption would recover faster than anticipated, and private investment would also grow more than expected.

Stronger-than-anticipated economic developments would cause concern over accelerating inflation. Brisker global demand would push up commodity prices even further, which, together with rising food prices, would lead at least temporarily to faster-than-forecast inflation.

Domestic economy

Finland's economic recovery from the deep recession got off to a good start in the first half of 2010. However, despite the present positive tone, the recovery is expected to be a lengthy process that could be slowed by a number of factors. The continuation and strengthening of growth are still uncertain.

The depth of the recession in Finland was due to a strong contraction in investment both globally and in the domestic economy. Finnish exports suffered from their structural weighting towards capital goods, and the uncertain economic outlook plus some

difficulties with finance also led to a substantial contraction in private investment in the domestic economy.

World trade has recovered surprisingly quickly and pulled Finnish exports into growth in its wake. This growth is primarily in traditional export industries and is based partly on restocking of inventories. Although investment in housing construction is growing rapidly on the back of strong household confidence, exceptionally low interest rates and building subsidies, there remains uncertainty over the strengthening of fixed investment in the domestic economy. The uncertain cyclical situation and still low capacity utilisation rates could postpone recovery in fixed investment both globally and domestically. Growth in capital goods exports will depend on the sustainability of world growth.

Finland's export trend will also be weakened by problems in the export industries, ie the need to adapt to geographical and structural changes in demand. Even if Finnish companies receive a lot of new orders, these will not necessarily be supplied from production plants located in Finland. Moreover, the ability of the Finnish export industry to compete for new orders is weakened by the fact that labour costs rose more rapidly in Finland in 2008–2009 than in competing countries.

The recovery in the global economy, and in Finland as well, has so far been based to a substantial degree on expansionary economic policies. A significant factor of uncertainty is the issue of whether the steps taken have triggered sustainable growth or whether the unwinding of the stimulus measures will cause private sector confidence and demand to weaken again. Nevertheless, Finland, like other countries, must rein in its public sector debt in order to ensure continued confidence in its management of its public finances and keep funding costs low (see 'Alternative scenario', below). If the markets were to begin to doubt the sustainability of Finland's public finances, the consequent increase in government funding costs would also be passed on to the cost of finance for business and households.

There are also upside risks to the growth forecast. The rapid growth trend in emerging economies could sustain better-than-forecast growth in the advanced economies, too, during the forecast period. Stronger-than-forecast developments in the global economy and world trade could lead to faster growth in Finnish exports than envisaged in the baseline forecast. The pull of exports would also be felt in domestic investment, and GDP growth would gather pace.

Low interest rates could fuel excessive debt and overheating, particularly in the housing market. In addition to the low level of interest rates, strong consumer confidence and the improving employment situation will tend to stimulate demand for housing. Although the level of household debt in Finland is not high if viewed internationally (see Box 3), indebtedness still constitutes a risk, particularly if it is based on consumers having too positive income expectations. Population ageing and the increasing domination of services in the structure of the economy will weaken productivity development and the

long-term growth outlook for the Finnish economy. If the economy were to take a turn for the worse, the consequences could be serious, because an indebted economy is vulnerable. Moreover, if the accumulation of public debt is not brought under control, there will be little room for manoeuvre in the public finances, particularly when an ageing population will in any case inflate future pension and care expenditure.

The short-term inflation risks are weighted on the upside (see Box 11). Over the longer term, strengthening economic growth could lead to an accelerating trend in prices and costs, which would make it harder for Finnish exporters. If the cohorts approaching retirement age do not continue in working life to the extent assumed in the forecast, this would cause a tighter labour market and a greater danger of an accelerating cost trend.

Faster-than-forecast growth in labour costs would cause accelerating inflation. Stronger-than-expected growth in the emerging economies would impact on Finnish inflation via higher commodity and import prices. On the other hand, if global growth were to falter, this would have the opposite effect. Towards the end of the forecast period, inflation could accelerate due to possible new increases in indirect taxation.

Alternative scenario: a decline in confidence in Finland's ability to manage its public finances

Finland's public finances were strongly in surplus prior to the global financial crisis and the subsequent deep recession. The central government fiscal balance has rapidly deteriorated during the recession, but Finland's public finances remain among the strongest in Europe. The pricing of government credit risk reflects strong market confidence in Finland's public finances.

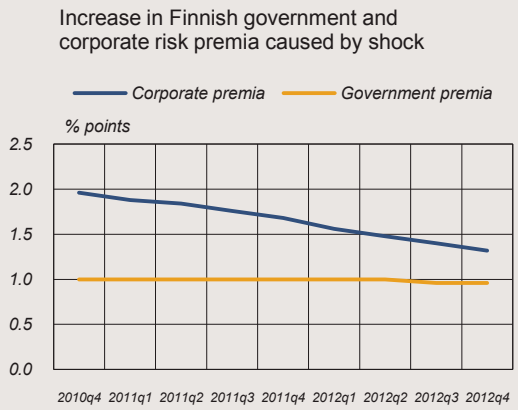
Investor confidence is dependent on the determined, long-term approach to managing the public government finances that is pursued in Finland. If confidence in the continuation of this line were to falter, the markets could respond strongly. In Europe, investor confidence in some euro area countries' management of their public finances declined dramatically in spring 2010, leading rapidly to a crisis in these countries' debt servicing. The effects of the crisis were felt particularly strongly in the countries concerned, but they immediately spread via the money and capital markets to affect the entire euro area. The crisis began in Greece, where the problems with the government finances were also strongly reflected in the finances of commercial banks. In other countries, too, weakness in general government finances rapidly affected banks' funding costs.

This alternative scenario assesses how important market trust in the Finnish government's debt-servicing ability is to how the Finnish economy recovers from the recession.[1] The calculation concentrates on real economic impacts coming via the financial markets.

[1] The calculation draws on a dynamic general equilibrium model developed at the Bank of Finland in which the situation on the financial markets affects the development of the real economy. The precise model used is presented in Freystätter, H (2010) Financial market disturbances as sources of business cycle fluctuations in Finland. Bank of Finland Discussion Papers 5/2010.

The calculation analyses a hypothetical situation in which market confidence in Finland's ability to manage its public finances suddenly falters. The increased risk of default increases the risk premium on government borrowing by one percentage point (Chart 57). The increase in the risk premium is assumed to occur in the final quarter of 2010. The calculation also assumes that investor confidence in the management of Finland's public finances is restored only very slowly. The decline in confidence keeps the risk premium on government debt approximately one percentage point higher until the end of the forecast period.[2]

Chart 57.



Source: Bank of Finland calculations.

Table 7.

Alternative scenario: a decline in confidence in Finland's ability to manage its public finances

	2010	2011	2012
% change in real GDP			
Baseline forecast	2.6	3.0	2.5
Alternative scenario	2.5	1.8	2.2
Difference	-0.1	-1.2	-0.3
% change in volume of private investment			
Baseline forecast	0.6	7.9	7.4
Alternative scenario	-0.2	0.4	5.1
Difference	-0.8	-7.5	-2.3
% change in price of private consumption			
Baseline forecast	1.0	1.8	2.0
Alternative scenario	1.0	1.4	1.9
Difference	0.0	-0.4	-0.1

Source: Bank of Finland calculations.

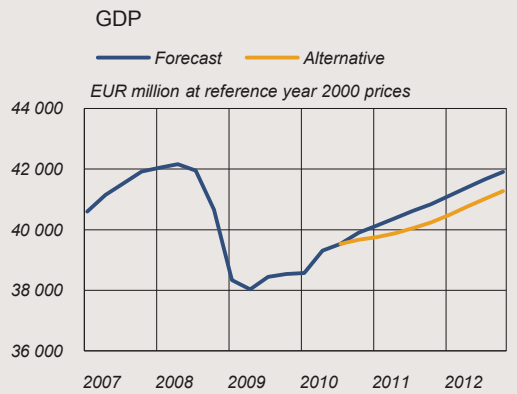
The decline in investor confidence in the Finnish government feeds through rapidly to the funding costs of banks operating in Finland. The credibility problems in central government finances are reflected in investor expectations regarding future developments in the quality of banks' credit portfolios and lower expectations of the government's ability to support banks that run into difficulties.

The sudden increase in banks' funding costs feeds through quickly into the margins on their loans to their customers. In the scenario presented here, corporate external financing costs rise almost twice as much as interest rates on government bonds. In the model used in the calculation, the increase in corporate risk premia reflects the observed rise in the price of funding, the tightening of other terms and conditions of finance and the generally greater difficulties in getting access to funding at all. The causes of the strong growth in corporate external financing costs are the contraction in GDP and a decline in asset prices, both due to the financial market shock. The decline in corporate net worth means that banks require a compensatory increase in risk premia.[3]

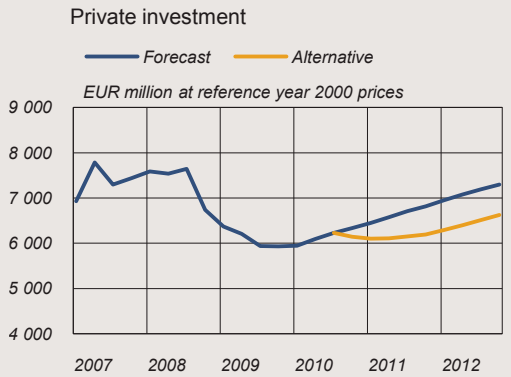
[2] It is a case of a long-term decline in confidence. If government action were to restore confidence to previous levels, the effects would be less severe than presented here.

[3] The larger increase in corporate risk premia relative to government risk is a consequence of the operation of the financial accelerator. The financial accelerator mechanism is described in Box 2.

Chart 58.



Source: Bank of Finland calculations.



Source: Bank of Finland calculations.

The tighter corporate financing conditions and higher risk premia strongly undermine private investment and there is a marked deceleration in the pace of GDP growth (Table 7). The economic recovery is delayed by sluggish investment growth. Both private investment and GDP are, throughout the forecast period, much smaller in the alternative scenario than in the baseline forecast (Chart 58).

In the alternative scenario, inflation is lower than in the baseline forecast, which somewhat bolsters Finland's price competitiveness during the forecast period. Net exports grow relative to the forecast, and this helps the economy recover from the shock that originally depressed confidence. Following a clear drop, asset prices also begin to climb gradually, and as a consequence corporate indebtedness is gradually reduced . The improvement in corporate net worth gradually reduces the risk premia demanded by the banks when granting credit (Chart 57).

If, for example, consumer confidence were to simultaneously decline due to the shock, or a lack of available finance were to restrict not just private investment, but also private consumption or exports, the macroeconomic effects would be stronger than presented in this scenario. The scenario assumes that the decline in investor confidence affects only Finland's public finances and does not reflect growing doubts regarding other countries.

In the alternative scenario, the Finnish economy's recovery from recession is considerably delayed relative to the baseline forecast. The scenario does, in fact, demonstrate how important it is that the markets have confidence in Finland's ability to manage its public finances in a situation where the economy is pulling out of a deep recession. Good management of the public finances and the related conservative approach to taking on debt are also extremely important for financial market stability and the banking sector. The scenario demonstrates that a decline in investor confidence and growing risk premia could cause significant damage to the real economy and growing loan losses, which at their most severe would endanger the stability of the entire financial sector.

Box 11.

Jarkko Kivistö and Maritta Paloviita

Short-term inflation risks

The pace of inflation has eased slightly less in recent months than estimated by the Bank of Finland in its March 2010 forecast. Although the pace of service price rises has slowed as expected and the drop in the price of food (particularly seasonal products) has been surprisingly large, industrial goods prices have risen more than estimated since March. Energy inflation has been brisker than anticipated, primarily on account of the higher-than-expected price of crude oil. The inflation trend over the next few months is surrounded by an unusual degree of uncertainty. Short-term inflation risks are weighted on the upside and relate mainly to energy and food prices.

Uncertainty surrounds the estimated pace of rise in HICP inflation in the immediate months ahead (Chart 59). The forecast fan chart describing the short-term inflation trend is somewhat asymmetrical, as faster-than-forecast inflation is thought to be slightly more probable than slower-than-forecast inflation. The breadth of the fan indicates the degree of uncertainty in the forecast.

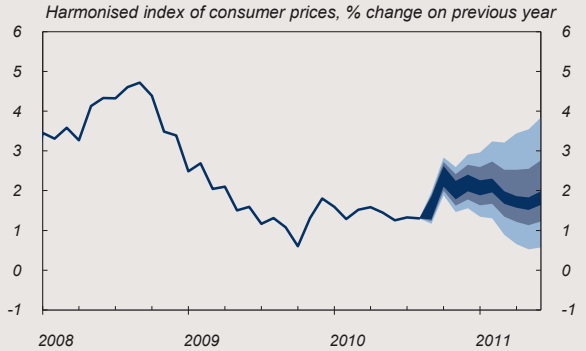
Changes in energy taxation, in particular, will increase short-term uncertainty around the trend in energy prices. Energy inflation could diverge from the forecast, as it is hard to assess the effects (both direct and, especially, indirect) the tax changes will have on consumer prices. Crude oil price developments are also shrouded in uncertainty. If international demand recovers more slowly than expected, this will exert downward pressures on prices, particularly as oil inventories are currently much larger than normal. On the other hand, faster-than-expected growth in the world economy could lead to a possibly rapid rise in oil prices.

Food price rises in the forecast period are expected to be moderate. There are upside risks regarding world market prices, as these are sensitive to disturbances in supply at a time of growing demand. The recent dry harvest season has already had an impact on world market prices of meat and cereals. However, fluctuations in world market prices of food are not immediately reflected in consumer prices. Similarly, the rising price of energy is transmitted via a number of channels into food prices.

The prices of non-energy industrial goods and services could rise more quickly than expected if economic growth accelerates faster than forecast. Rising energy prices will push up the price of goods and services, but the precise scale and timing of the rise are hard to predict. If economic growth is more subdued, the price trend could be more moderate than forecast.

Chart 59.

Short-term inflation forecast



The fan chart illustrates the degree of uncertainty in the short-term inflation forecast. Inflation is estimated to be within the darkest area with 50% probability. 75% probability is depicted by the darkest area plus the two medium-dark areas either side of it, and 90% probability by the entire coloured area.
Sources: Statistics Finland and Bank of Finland.

Changes from the previous forecast

The picture provided by the present Bank of Finland forecast for the performance of the Finnish economy in 2010–2012 is more favourable than in the forecast released in March 2010. GDP will grow faster throughout the forecast period than estimated in the spring.

The changes are due in part to the surprisingly strong performance of the Finnish economy in the first half of 2010, and in part to a change in global economic prospects for the forecast period. Exports and investment in housing construction have performed stronger than expected in the first half of 2010, and this has been reflected in employment and private consumption.

The stronger-than-expected recovery in world trade has helped Finnish exports achieve faster-than-anticipated growth in the first half of the year. The growth in traditional export sectors has been a surprise. Strengthening export demand will stimulate faster-than-expected growth in exports throughout the forecast period.

Despite the strength of world trade, market expectations concerning euro area interest rates in the forecast period have declined. In comparison with the spring forecast, markets are now expecting short-term interest rates to remain almost 1 percentage point lower in 2012, at just 1.5%. The exceptionally low level of interest rates and strong household confidence have led to record high growth rates in housing construction investment in the first half of 2010. As economic growth gains momentum, fixed investment is also expected to recover faster than estimated in the previous forecast.

Both the lower-than-anticipated interest rates and the stronger-than-expected growth in world trade reflect changes in the global economic outlook. From a Finnish point of view, they will both boost economic growth. Growth will recover faster than anticipated on the back of the improved external circumstances, which is seen across the board in the Bank of Finland forecast. Employment will improve, and private consumption will grow more strongly than expected. Inflation will accelerate somewhat amid stronger domestic demand. In addition, the stronger-than-expected growth in the world economy will lead to higher import price inflation.

Table 8.
Current and March 2010 forecast

	2009	*2010*	*2011*	*2012*
GDP, % change	*-8.0*	*2.6*	*3.0*	*2.5*
March 2010	*-7.8*	*1.6*	*1.8*	*2.2*
Inflation (HICP), %	*1.6*	*1.6*	*1.9*	*2.0*
March 2010	*1.6*	*1.3*	*1.5*	*1.8*
Finland's export markets, % change	*-13.4*	*13.1*	*6.9*	*6.5*
March 2010	*-12.9*	*5.3*	*5.3*	*6.8*
Current account, % of GDP	*2.7*	*2.0*	*1.2*	*1.2*
March 2010	*1.4*	*-0.8*	*-1.7*	*-1.6*
General government net lending, % of GDP	*-2.7*	*-3.2*	*-2.4*	*-2.3*
March 2010	*-2.4*	*-3.9*	*-3.5*	*-3.3*

According to the balance of payments statistics published by the Bank of Finland on 15 September, the current account surplus in 2009 was a good percentage point higher than indicated by previous data on 2009. The statistical revision was due to a large surplus in the income account resulting from extraordinary factors in 2009.

The current account will remain in surplus throughout the forecast period, since strengthening growth will sustain the surplus on the balance of goods and services. Furthermore, export prices will rise faster than previously anticipated, with the forceful recovery in world growth and a reduced role for electronics exports, which have been suppressing the general level of export prices. The contraction of the current account surplus in the forecast period reflects changes in the income account.

The financial position of general government will improve faster than anticipated in the previous forecast. This is primarily due to the improved growth prospects. At the end of the forecast period, general government debt relative to GDP will be around 5 percentage points less than forecast in March.

Articles and boxes from previous publications

Articles

Julkisen sektorin rahoituksen haasteet euroalueella.

[Challenges of public sector financing in the euro area; in Finnish only]. Heli Huhtala and Mikko Spolander. Euro & talous 2/2010.

Epätavanomaisten rahapoliittisten toimenpiteiden vaikutus euriborkorkoihin. [The impact of non-standard monetary policy measures on Euribor rates; in Finnish only]. Mika Pösö. Euro & talous 1/2010.

Paineita pankkien vakavaraisuussääntelyn muuttamiseen. [Pressures to change banks' capital adequacy regulation; in Finnish only]. Esa Jokivuolle and Jukka Vauhkonen. Euro & talous 1/2010.

Valtion rahoitustarpeet ja institutionaaliset sijoittajat. [Government financing needs and institutional investors; in Finnish only]. Heli Huhtala. Euro & talous 1/2010.

Skenaarioita maailmantalouden tasapainottomuuksien korjaantumisesta. [Scenarios for correction of global imbalances; in Finnish only]. Mika Kortelainen and Marko Melolinna. Euro & talous 1/2010.

Suomen ja euroalueen maiden velkaantuminen. [Indebtedness in Finland and euro area countries; in Finnish only]. Jarno Ilves and Hannu Viertola. Euro & talous 4/2009.

Kotitalouksien velkaantuminen ja maksuhäiriöt Suomessa. [Household indebtedness and payment defaults; in Finnish only]. Risto Herrala. Euro & talous 4/2009.

Elintarvikkeiden hintakehitys Suomessa. Jarkko Kivistö. [Development of food prices in Finland; in Finnish only]. Euro & talous 4/2009.

Suomen metsäteollisuuden rakennemuutos ja sen vaikutukset. [Structural realignment in the Finnish forest industry and its implications; in Finnish only]. Lauri Hetemäki and Riitta Hänninen. Euro & talous 3/2009.

Ovatko tartuntariskit mahdollisia Suomen pankkisektorilla? [Are contagion risks possible in the Finnish banking sector?; in Finnish only]. Mervi Toivanen. Euro & talous 3/2009.

Syntyvätkö talouden myrskyt asuntomarkkinoilla vai saako talouden myrskyiltä suojan asuntomarkkinoilla? [Housing markets: the source of or cover against economic turbulence?; in Finnish only]. Jouko Vilmunen. Euro & talous 3/2009.

Kiinan taloudessa elpymisen merkkejä. [Signs of recovery in the Chinese economy; in Finnish only]. Juuso Kaaresvirta and Jenni Pääkkönen. Euro & talous 3/2009.

Ten years of common monetary policy. Jarmo Kontulainen. Bank of Finland Bulletin 1/2009.

Euro cash is as popular as ever. Antti Heinonen. Bank of Finland Bulletin 1/2009.

Finanssikriisi koettelee euroalueen talouden vakautta [The financial crisis is testing the stability of the euro area economy; in Finnish only]. Heidi Schauman. Euro & talous 2/2009.

The euro era has internationalised the Finnish economy – the recession is weakening its external stability. Jorma Hilpinen. Bank of Finland Bulletin 1/2009.

Uudistuuko kansainvälinen finanssiarkkitehtuuri? [Will the international financial infrastructure be reformed?; in Finnish only]. Olli-Pekka Lehmussaari. Euro & talous 1/2009.

Pankkikriisit toistavat samaa kaavaa [Banking crises follow a familiar pattern; in Finnish only]. Sampo Alhonsuo and Harry Leinonen. Euro & talous 1/2009.

The financial crises of the 1990s in Finland and other Nordic countries. Seppo Honkapohja. Bank of Finland Bulletin 1/2009.

Northern Rock vavisutti Ison-Britannian rahoitusvalvontaa [Northern Rock sent a tremor through financial supervision in the UK; in Finnish only]. Jouko Vilmunen. Euro & talous ***1/2009***.

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Forecast tables

1. Balance of supply and demand, at reference year 2000 prices

% change on previous year

	2008	2009	2010f	2011f	2012f
GDP at market prices	0.9	–8.0	2.6	3.0	2.5
Imports of goods and services	6.5	–18.1	3.7	9.0	6.5
Exports of goods and services	6.3	–20.3	5.7	8.3	5.8
Private consumption	1.7	–1.9	2.3	2.5	2.5
Public consumption	2.4	1.2	0.1	0.4	0.4
Private fixed investment	–0.3	–17.4	0.6	7.9	7.4
Public fixed investment	–0.7	6.1	–3.5	–2.5	–2.6

2. Contributions to growth[1]

	2008	2009	2010f	2011f	2012f
GDP, % change	0.9	–8.0	2.6	3.0	2.5
Net exports	0.3	–1.9	0.8	0.0	–0.1
Domestic demand excl. inventory change	1.4	–3.8	1.3	2.6	2.7
of which Consumption	1.3	–0.7	1.3	1.4	1.5
Investment	0.0	–3.1	0.0	1.2	1.2
Inventory change + statistical discrepancy	–0.7	–2.4	0.4	0.3	0.0

[1] Bank of Finland calculations. Annual growth rates using the previous year's GDP shares at current prices as weights.

3. Balance of supply and demand, price deflators

Index, 2000 = 100, and % change on previous year

	2008	2009	2010f	2011f	2012f
GDP at market prices	110.6	111.6	113.1	115.0	117.4
	1.8	0.9	1.4	1.6	2.1
Imports of goods and services	109.7	101.0	108.1	110.8	112.4
	1.8	–7.9	7.1	2.5	1.5
Exports of goods and services	97.7	90.5	95.2	97.7	99.1
	–1.0	–7.4	5.2	2.6	1.4
Private consumption	112.9	113.5	114.6	116.7	119.0
	3.5	0.5	1.0	1.8	2.0
Public consumption	134.6	137.3	142.1	145.4	149.0
	5.3	2.1	3.5	2.3	2.5
Private fixed investment	119.6	117.7	116.2	120.4	123.1
	3.9	–1.6	–1.3	3.7	2.2
Public fixed investment	128.6	126.8	127.1	129.0	130.4
	6.3	–1.4	0.2	1.5	1.0
Terms of trade (goods and services)	89.1	89.7	88.1	88.2	88.1
	–2.8	0.6	–1.7	0.1	0.0

4. Balance of supply and demand, at current prices

EUR million and % change on previous year

	2008	2009	2010f	2011f	2012f
GDP at market prices	184,649	171,315	178,152	186,420	195,188
	2.8	–7.2	4.0	4.6	4.7
Imports of goods and services	79,315	59,809	66,518	74,180	80,116
	8.4	–24.6	11.2	11.5	8.0
Total supply	263,964	231,124	244,670	260,600	275,304
	4.4	–12.4	5.9	6.5	5.6
Exports of goods and services	86,702	64,019	71,310	79,140	84,903
	5.2	–26.2	11.4	11.0	7.3
Consumption	137,063	137,043	141,791	147,185	153,075
	6.0	0.0	3.5	3.8	4.0
Private	95,427	94,041	97,255	101,424	105,987
	5.2	–1.5	3.4	4.3	4.5
Public	41,636	43,002	44,537	45,761	47,087
	7.8	3.3	3.6	2.7	2.9
Fixed investment	39,796	33,446	33,076	36,402	39,449
	3.8	–16.0	–1.1	10.1	8.4
Private	35,170	28,606	28,393	31,765	34,887
	3.6	–18.7	–0.7	11.9	9.8
Public	4,626	4,840	4,683	4,637	4,562
	5.5	4.6	–3.2	–1.0	–1.6
Inventory change + statistical discrepancy	403	–3,384	–1,508	–2,127	–2,122
% of previous year's total demand	–1.0	–1.4	0.8	–0.3	0.0
Total demand	263,964	231,124	244,670	260,600	275,304
	4.4	–12.4	5.9	6.5	5.6
Total domestic demand	177,262	167,105	173,360	181,460	190,401
	4.0	–5.7	3.7	4.7	4.9

5. Balance of supply and demand

% of GDP at current prices

	2008	2009	2010f	2011f	2012f
GDP at market prices	100.0	100.0	100.0	100.0	100.0
Imports of goods and services	43.0	34.9	37.3	39.8	41.0
Exports of goods and services	47.0	37.4	40.0	42.5	43.5
Consumption	74.2	80.0	79.6	79.0	78.4
Private	51.7	54.9	54.6	54.4	54.3
Public	22.5	25.1	25.0	24.5	24.1
Fixed investment	21.6	19.5	18.6	19.5	20.2
Private	19.0	16.7	15.9	17.0	17.9
Public	2.5	2.8	2.6	2.5	2.3
Inventory change + statistical discrepancy	0.2	–2.0	–0.8	–1.1	–1.1
Total demand	143.0	134.9	137.3	139.8	141.0
Total domestic demand	96.0	97.5	97.3	97.3	97.5

6. Prices

Index, 2000 = 100, and % change on previous year

	2008	2009	2010f	2011f	2012f
Consumer price index, 2005=100	108.4	108.4	109.5	111.7	114.1
	4.1	0.0	1.1	2.0	2.2
Harmonised index of consumer prices, 2005=100	106.9	108.7	110.4	112.5	114.8
	3.9	1.6	1.6	1.9	2.0
Private consumption deflator	112.9	113.5	114.6	116.7	119.0
	3.5	0.5	1.0	1.8	2.0
Private investment deflator	119.6	117.7	116.2	120.4	123.1
	3.9	–1.6	–1.3	3.7	2.2
Exports of goods and services deflator	97.7	90.5	95.2	97.7	99.1
	–1.0	–7.4	5.2	2.6	1.4
Imports of goods and services deflator	109.7	101.0	108.1	110.8	112.4
	1.8	–7.9	7.1	2.5	1.5
Value added deflators					
Value added, gross at basic prices	112.1	112.8	115.2	117.2	119.6
	2.1	0.6	2.1	1.8	2.0
Private sector	106.1	106.3	108.5	110.4	112.6
	1.3	0.2	2.1	1.7	2.0
Public sector	147.4	151.3	154.8	158.0	161.1
	6.3	2.7	2.3	2.1	2.0

7. Wages and productivity

% change on previous year

	2008	2009	2010f	2011f	2012f
Whole economy					
Index of wage and salary earnings	5.5	4.0	2.7	2.4	2.9
Compensation per employee	5.1	1.9	1.4	2.0	2.7
Unit labour costs	5.7	7.6	–1.3	–0.1	1.0
Labour productivity per employed person	–0.6	–5.3	2.8	2.0	1.7

8. Labour market

1000 persons and % change on previous year

	2008	2009	2010f	2011f	2012f
Labour force survey (15–74-year-olds)					
Employed persons	2,531	2,457	2,453	2,476	2,496
	1.6	–2.9	–0.2	0.9	0.8
Unemployed persons	172	221	224	216	208
	–6.2	28.6	1.3	–3.5	–3.9
Labour force	2,703	2,679	2,677	2,692	2,704
	1.0	–0.9	0.0	0.5	0.4
Working-age population (15–64-year-olds)	3,536	3,547	3,553	3,540	3,521
	0.5	0.3	0.2	–0.4	–0.5
Labour force participation rate, %	67.5	66.6	66.2	66.3	66.4
Unemployment rate, %	6.4	8.3	8.4	8.0	7.7
Employment rate (15–64-year-olds), %	70.6	68.3	68.0	68.9	69.8

9. General government revenue, expenditure, balance and debt

% of GDP

	2008	2009	2010f	2011f	2012f
General government revenue	53.5	53.3	52.7	53.0	52.7
General government expenditure	49.3	56.0	55.9	55.5	55.1
General government primary expenditure	47.9	54.6	54.6	53.8	53.2
General government interest expenditure	1.5	1.4	1.3	1.6	1.8
General government net lending	4.2	–2.7	–3.2	–2.4	–2.3
Central government	0.5	–4.9	–5.6	–4.7	–4.3
Local government	–0.4	–0.5	–0.3	–0.3	–0.4
Social security funds	4.0	2.6	2.6	2.6	2.3
General government primary balance	5.6	–1.3	–1.9	–0.8	–0.5
General government debt	34.1	44.0	49.3	52.4	55.1
Central government debt	29.5	37.5	42.8	46.0	48.5
Tax ratio	43.0	43.0	42.4	42.7	42.3

10. Balance of payments

EUR million

	2008	2009	2010f	2011f	2012f
Exports of goods and services	86,702	64,019	71,310	79,140	84,903
Imports of goods and services	79,315	59,809	66,518	74,180	80,116
Goods and services account (SNA)	7,387	4,210	4,792	4,960	4,787
% of GDP	4.0	2.5	2.7	2.7	2.5
Investment income and other items, net	–398	2,151	693	–546	–338
(+ statistical discrepancy)	–1613	–1665	–1894	–2091	–2198
Current transfers, net	5,376	4,696	3,591	2,322	2,250
Current account, net					
Net lending, % of GDP					
Private sector	–1.3	5.5	5.2	3.7	3.5
Public sector	4.2	–2.7	–3.2	–2.4	–2.3
Current account, % of GDP	2.9	2.7	2.0	1.2	1.2

11. Interest rates

%

	2008	2009	2010f	2011f	2012f
3-month Euribor[1]	4.6	1.2	0.8	1.1	1.5
Average interest rate on new loans	6.3	3.6	3.0	3.0	3.3
Average rate of interest on deposits	2.9	1.2	0.7	0.8	0.9
Bank lending rate, average	5.4	3.1	2.2	2.4	2.6
Yield on Finnish 10-year government bonds[1]	4.3	3.7	3.1	3.2	3.4

[1] Technical assumption derived from market expectations

12. International environment

Bank of Finland forecast

	2008	2009	2010[f]	2011[f]	2012[f]
GDP, % change on previous year					
Whole world	3.0	–0.6	4.6	3.9	4.0
USA	0.0	–2.6	2.7	2.0	2.3
EU19[1]	0.2	–4.2	1.6	1.6	1.9
Japan	–1.2	–5.2	2.6	1.1	1.4
Imports, % change on previous year					
Whole world	2.6	–11.7	15.2	6.9	6.8
USA	–2.6	–13.8	12.6	6.1	5.0
EU19[1]	0.4	–11.8	10.2	5.4	4.4
Japan	1.0	–16.8	10.4	5.4	5.2
Index, 2000 = 100, and % change on previous year					
Import volume in Finnish export markets	169.4	146.8	166.0	177.5	189.0
	3.4	–13.4	13.1	6.9	6.5
Export prices (excl. oil) of Finland's trading partners, national currencies	114.6	112.9	115.0	116.2	117.6
	4.3	–1.4	1.8	1.0	1.2
Export prices (excl. oil) of Finland's trading partners, in euro	96.2	91.7	98.5	101.4	102.3
	–0.2	–4.7	7.5	2.9	1.0
Industrial raw materials (excl. energy), HWWA index, in US dollars	236.7	175.8	248.6	269.1	275.1
	5.4	–25.7	41.4	8.3	2.2
Oil price, USD per barrel	97.6	61.9	79.1	85.7	88.5
	34.3	–36.6	27.8	8.4	3.3
Finland's nominal competitiveness indicator[2, 3]	107.0	107.6	101.9	100.1	100.3
	2.8	0.6	–5.3	–1.8	0.2
US dollar value of one euro[2]	1.47	1.39	1.30	1.28	1.28
	7.3	–5.2	–6.6	–1.7	0.0

[1] Euro area plus Sweden, Denmark and United Kingdom
[2] Technical assumption derived from market expectations
[3] Narrow plus euro area, 1999 Q1 = 100

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23 August 2010

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