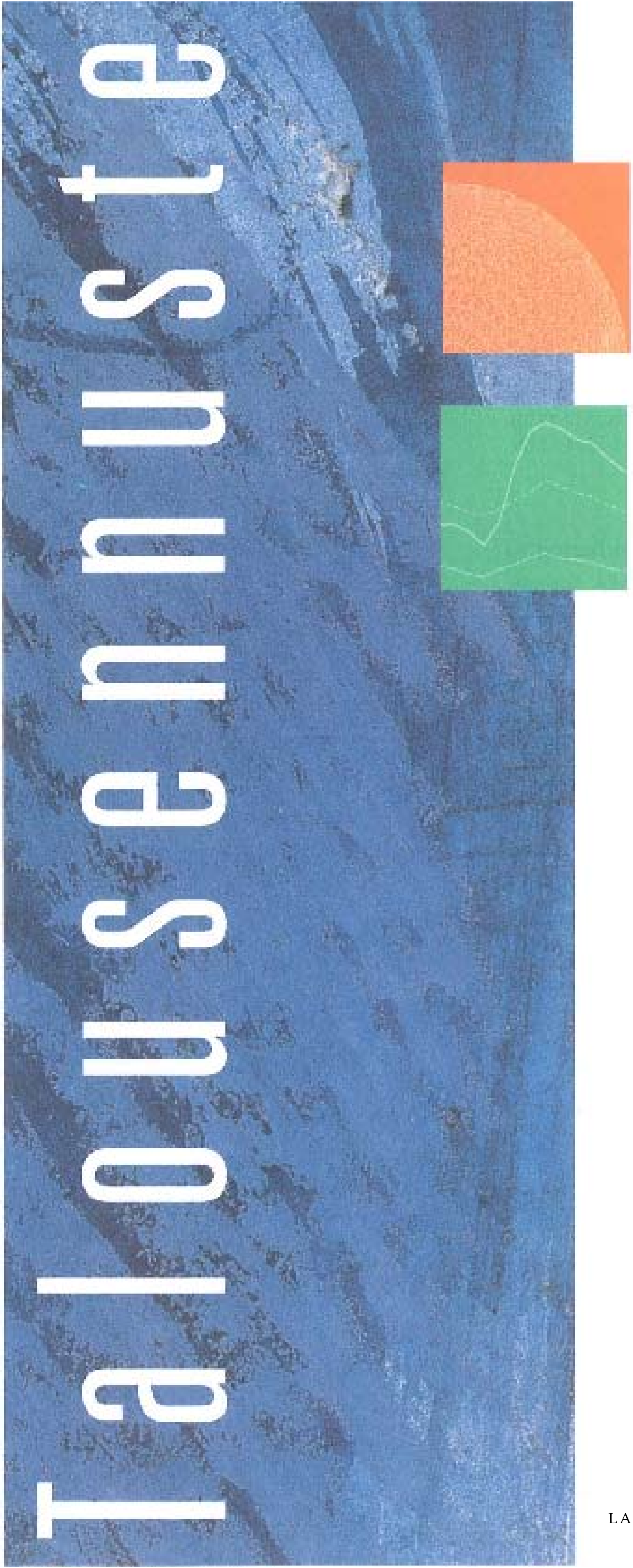

August 30, 2011

**Economic Forecast
2011–2012**

Finnish economy also on the verge of a slump – GDP growth slowing down considerably

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LABOUR INSTITUTE FOR ECONOMIC RESEARCH

Economic Forecast 2011–2012

Finnish economy also on the verge of a slump – GDP growth slowing down considerably

The Labour Institute for Economic Research predicts that Finland's GDP will grow by 3.6 per cent this year, i.e. by only 0.2 percentage points less than in the previous forecast published on March 29, 2011. Despite the cyclical weakening of international growth, Finland's economy will still grow somewhat toward the end of this year. Growth is fuelled by the increased order backlog of export companies and the relatively strong domestic demand. We predict Finland's GDP will grow next year by 2.1 per cent, which is one percentage point lower than in the spring forecast. The forecast is based on the view that increased uncertainty will reduce investment by enterprises in the developed and the developing countries. This has a negative impact especially on countries such as Germany, Finland, Sweden and Austria, where exports of capital goods and services catering to investment have a large weight.

Although the risk of a new financial crisis has increased significantly, we estimate that the global financial markets will not collapse in the same way as in the autumn of 2008. The chances of a widespread financial crisis are diminished since GDP growth will not slow down much in emerging countries. Growth in developing countries as well as some form of calming of the situation in developed countries' capital markets will foster conditions for a recovery of production in the second half of 2012. This will be the case in Finland because the labour market will not have time to weaken significantly and because drastic cuts in fiscal policy can be averted. While the slowdown in production next year will limit the strengthening of public finances, the financial position will nevertheless shift from a deficit to a slight surplus. Finland's public finances appear to be stronger than before by international comparison, so no increase in the interest rate premium on long-term Finnish government bonds is expected.

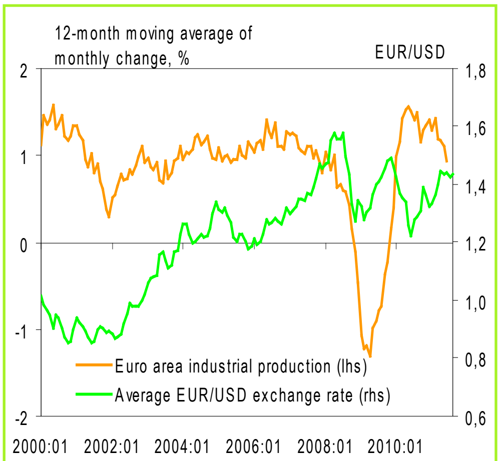
The possibility that the current European debt crisis will escalate significantly and spread to banks cannot be ruled out completely. If this were to happen, at least the economies of EU countries and probably also North America will fall into recession once again. This would also make it increasingly difficult to keep the European Monetary Union intact.

European growth slowing down

The GDP of the EU and the eurozone grew in the first quarter of this year by 2.5 per cent and 1.7 per cent in the second quarter. In the second quarter growth was nevertheless only 0.2 per cent higher than in the first quarter. Because of unrest triggered by the European debt crisis, growth in the second half of this year will be sluggish. This year the GDP of the eurozone and the EU countries will grow by 1.6 per cent. Next year the eurozone will grow by only 1.2 per cent. The slackening of growth early next year will dampen the annual growth rate even though the economic outlook will improve somewhat, and growth will pick up toward the end of next year.

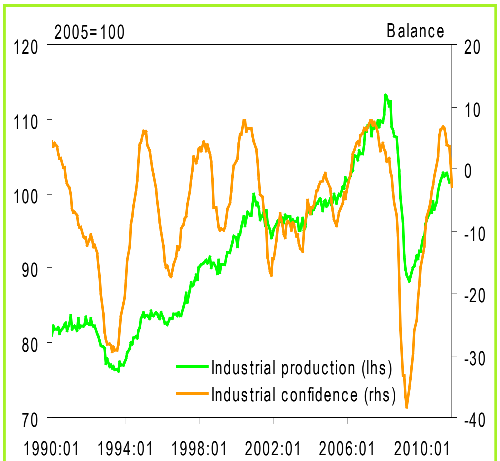
The slowest growth continues to prevail in the Mediterranean region, but because of the increased caution of investors growth will subside more than on average in Germany and Sweden, which will

Euro area industrial production and EUR vs. USD exchange rate 2000:01–2011:08



Source: ECB, Eurostat

Industrial confidence and industrial production in euro area 1990:01–2011:08



Source: Eurostat

have a significant effect on Finnish exports. German GDP will grow this year by 2.4 per cent, but growth will slow down next year to 1.5 per cent. Similarly, Sweden's growth will decelerate from 4.6 per cent to 2.5 percent.

Relatively weak domestic demand still characterizes growth in the EU and the eurozone. Investment is discouraged by the turbulent situation in the capital market while private consumption is dampened by fiscal belt-tightening and the deterioration of the economic outlook. Owing to the tightening of fiscal policy, public demand will grow by only 0.4 per cent next year. The average unemployment rate in the eurozone will no longer decline as it remains at 10 per cent next year, i.e. the same as this year.

Commodity prices are falling – interest rates will remain low

The slowdown in global growth will lead to lower commodity prices in world markets. While the price of oil (Brent) will average 105 dollars per barrel this year, we expect it to fall next year to an average of 100 dollars. When the trend in other commodity prices is more likely to be downwards, import prices will no longer spur inflation in the eurozone. Consumer price inflation in the eurozone is expected to slow this year from 2.4 per cent to 1.6 per cent next year. The dipping of inflation below 2 per cent will give the ECB an opportunity to bolster economic growth by easing monetary policy. The ECB will decrease its key interest rate by 0.25 percentage points next year. Expectations of this are already incorporated in market interest rates. Changes in the level of short-term interest rates appear to be very modest over the forecast period. Three-month Euribor will average 1.4 per cent this year and next, while 10-year government bond yields will average 3 per cent this year and 2.6 per cent next year.

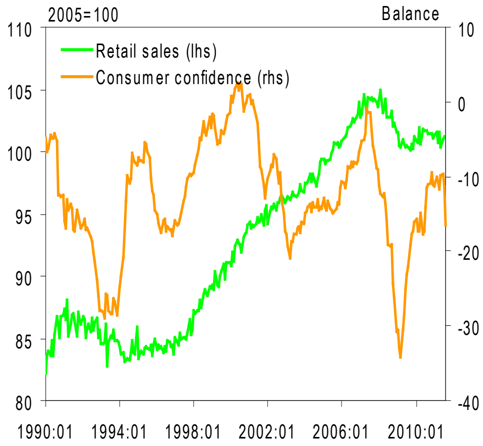
The exchange rate of the euro against the US dollar is expected to remain at roughly current levels. Both sides of the Atlantic have debt problems, but, on the other hand, the confidence of the financial markets in both the United States and Germany is still high, so the flight to quality by investors will serve to strengthen their currencies. Investments will be focused on other safe havens as well, such as the Swiss franc and Japanese yen, and gold. China has managed to bring about an appreciation of its currency against the dollar by about 4 per cent this year. This trend is expected to continue by at least the same pace. After all, China has a need to curb the acceleration of its domestic inflation.

Table 1. International economy

GDP growth (%)	2010	2011f	2012f
United States	3.0	1.4	1.3
Eur-17	1.8	1.6	1.2
Germany	3.6	2.4	1.5
France	1.5	1.6	1.3
Italy	1.3	0.9	0.8
EU27	1.9	1.7	1.3
Sweden	5.7	4.6	2.5
United Kingdom	1.4	1.0	1.0
Japan	4.0	-0.5	2.0
Russia	4.0	4.0	3.5
China	10.3	9.0	8.5

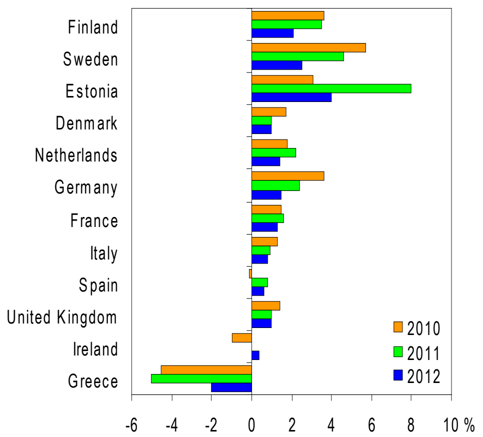
Source: BEA, BOFIT, Eurostat, Labour Institute for Economic Research

Consumer confidence and retail sales in euro area 1990:01–2011:08



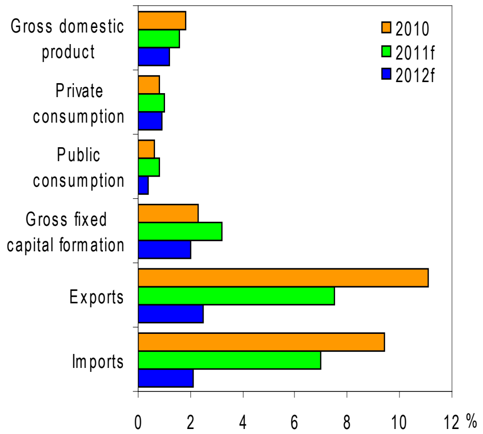
Source: Eurostat

GDP growth rates in 2010, 2011 and 2012



Source: Eurostat, Labour Institute for Economic Research

Eurozone economic growth 2010–2012



Source: Eurostat, PT

US economy experiencing serious problems still next year

The US real GDP growth rate during the first half of this year was less than one per cent. GDP was nevertheless still a scant 2 per cent higher in the beginning of the year than last year. Almost half of the 3 per cent growth of 2010 was based on the replenishment of inventories that had been reduced during the previous recession, but the impact of this phenomenon has waned. Other factors dampening growth are the housing market, which remains depressed, in addition to diminishing public consumption and investment. Households' significant debt burden is also a major hurdle to growth of private consumption, and based on the current savings ratio the debt will not melt away very quickly. The unemployment rate has been fluctuating around 9 per cent range for a long time while the employment rate stands at 58 per cent: both are levels last seen during the severe recession almost 30 years ago. So far, the weak growth has been supported by private investment other than residential housing investment and foreign trade developments.

Several recent forecasting economic trend indicators have pointed to the significant deceleration of US economic growth. The economic growth of the current year and next year is going to remain sluggish, only 1.3–1.4 per cent. Towards the end of the year the country may even fall into a recession. A small degree of acceleration in budding growth next year could rely on the improved productivity of businesses and private investment. This would support employment and encourage households to consume.

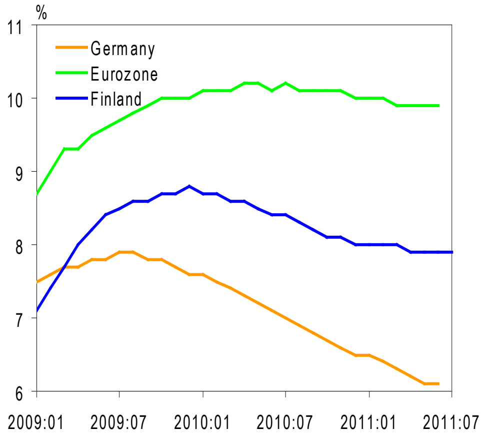
The decision by the Federal Reserve to keep its Fed Funds interest rate at a level of almost zero until 2013 will boost growth in the future. If growth prospects become even bleaker, the Federal Reserve can start the third round of its government bond purchase program in the near future despite fears of inflation. This would be likely to keep long-term interest rates down, but the measure's effects on the real economy would remain relatively modest.

Although the US federal government could continue to borrow at a very low interest rate, President Obama will have little chance to get Congress to approve fiscal stimulus due to the country's political situation. Thus he is not expected to be able to extend the lowering of employers' payroll contributions into next year or lengthen the duration of unemployment benefits. This will, in conjunction with the already-approved austerity package, curb growth by over one percentage point.

Japan recovering from the tsunami

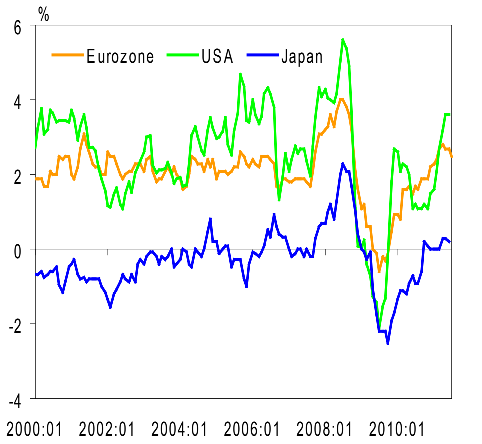
The consequences of the earthquake, tsunami and nuclear power plant accident in Japan last March on the global production chains of certain industries were visible in the slight slowdown in economic growth in many countries. While these production chains have been returning to normal during the summer, thus momentarily creating some positive economic news, it has become increasingly clear that heavily indebted Japan will have great difficulty in financing the reconstruction of the areas stricken by the earthquake. At present is looks as though the reconstruction of Japan, which could positively affect the export market of the Finnish sawmill and furniture industry, will take place over several years. There are no great peaks expected in demand next year.

Unemployment in assorted countries 2009:01–2011:07



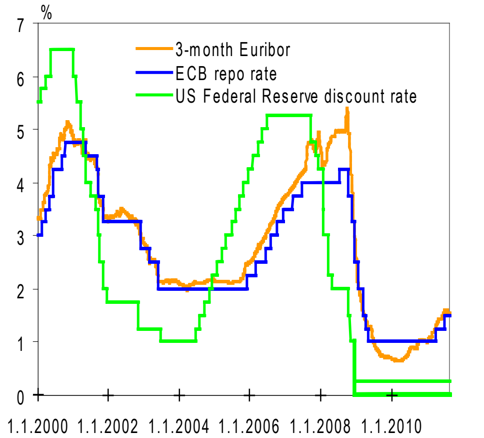
Source: Eurostat

Inflation in assorted countries 2000:01–2011:07



Source: Eurostat, OECD

Short-term interest rates 3.1.2000–26.8.2011



Source: ECB, Bank of Finland

Growth of developing countries decelerating a bit

The weight of developing countries in the world economy is increasing all the time. The IMF has calculated (adjusted for purchasing power) that the largest of these, i.e. China, already had a GDP of almost 14 per cent of the entire world economy, the same as US private consumption or the entire eurozone real GDP. In terms of GDP, China and India together add up to being as large as the United States or the EU as a whole. When Brazil and Russia are added to the BRIC group of major emerging economies, their share of the entire world economy already rises to a quarter. These countries generate more than half of the entire growth of the global economy. On the other hand, all of them are now struggling with high inflation, which will tend to dampen their growth.

China and India continue to grow rapidly

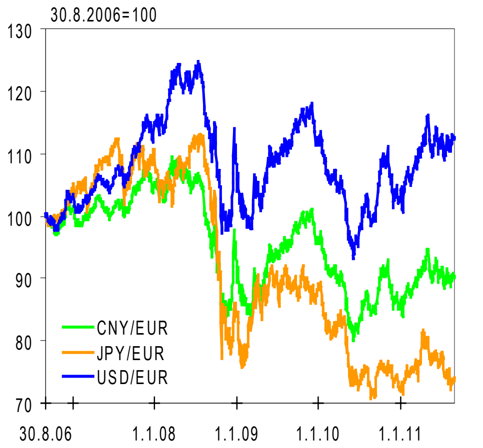
The growth of rapidly expanding China is undermined by internal imbalances in its economy. According to most recent figures the inflation rate was 6.5 per cent. A significantly more rapid rise in wages is linked to the high inflation. Recently attempts have been made to curb this internal revaluation by tightening the monetary policy and allowing the country's currency to appreciate a little faster than before. This tends to curb China's exports, but in turn this phenomenon supports the balance of the entire global economy. Alongside the notable increase in wages, the growth of private consumption has strengthened in China. The government's objective is to boost the share of private consumption within GDP by as much as 10 per cent in the upcoming years, which would signify an abrupt change of direction in the country's recent growth strategy, via which the investment rate was able to climb to 46 per cent. Despite the increase in nominal wages China's export performance has continued to be robust. Economic growth, however, has slowed significantly since the beginning of the year from last year's 10.3 per cent, and this trend is expected to continue so that China's GDP will increase by 9 per cent this year and by 8.5 per cent next year.

India's high inflation, over 9 per cent, has led to a tightening of monetary policy, so the country's economic growth will be slightly weaker than previously expected. Wage and private consumption growth is slowing down, but growth in industrial production has recently increased significantly. India's exports are indeed gradually becoming more diverse in the form of industrial products. Economic growth will remain strong this year and next, at around 8 per cent.

Russian growth remaining lower than expected

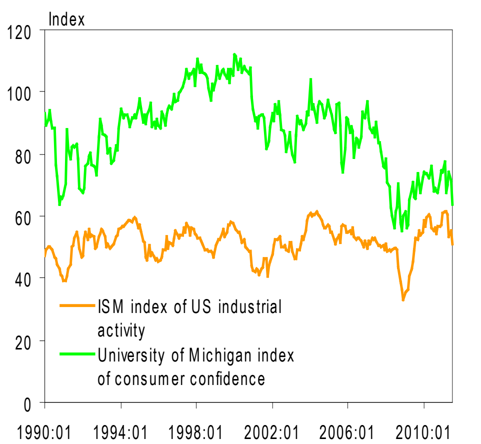
Russia's economic growth in the beginning of the year has been surprisingly sluggish. During the second quarter it already fell to 3.4 per cent. This was attributable to the slumping of export growth, while simultaneously import growth accelerated to more than 20 per cent. On the other hand, even if real household incomes have been hit by high inflation, private consumption has continued to grow. Additional revenues brought about by the rise in oil prices have not been channelled into domestic production growth as in the past. Towards the end of the year it is expected to recover somewhat. For the year as a whole 4 per cent growth will be reached, but the weakening global economy will once again start to dampen growth slightly next year.

Exchange rates 30.8.2006–26.8.2011



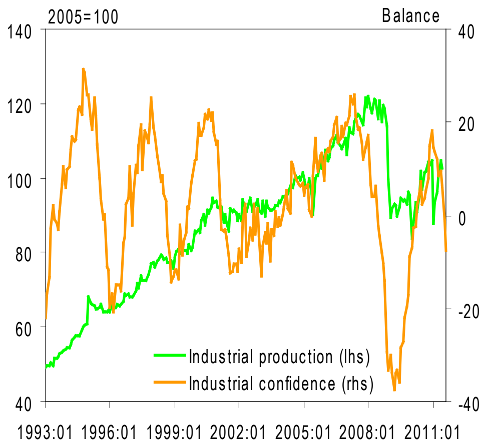
Source: ECB

US economic indicators 1990:01–2011:07



Source: ISM, University of Michigan

Industrial confidence and industrial production in Finland 1993:01–2011:08



Source: Eurostat

Brazil's economic indicators are in relatively good shape, though it is also struggling with inflation. Inflows of capital have led to strong growth in the money supply and the strengthening of the currency. The current account deficit has increased, but rather moderately. Public and foreign debts are not on alarmingly high levels. Fiscal policy has been tightened so that it is not expansionary any longer. Brazil's economic growth will subside to a level around 3.0–3.5 per cent.

Finland's export growth to slow significantly next year

Last year, exports of goods and services eventually rose by 8.6 per cent, although in the March forecast of that year export growth was estimated at only 5.1 per cent. In particular, exports of services were revised sharply upwards. This year, the total export volume will grow by slightly more than 6 per cent while imports climb at a somewhat slower pace. This year exports will be boosted by the rebounding of service exports, but they will be dampened by the weakening of the markets for the process industry's goods. Thanks to the strong orderbooks of the machinery and equipment industry, exports will be strong again next year. Despite this, exports may even decline temporarily in the early months of next year. During the course of next year, however, exports will pick up so that eventually they will grow by 3.6 per cent. Import growth will remain a percentage point lower than export growth next year. Import prices will still rise faster than export prices this year, but next year the terms of trade will strengthen for the first time in a long time as the global economic slowdown puts downward pressure on prices of oil and other commodities.

Business services to boost economic growth this year and next

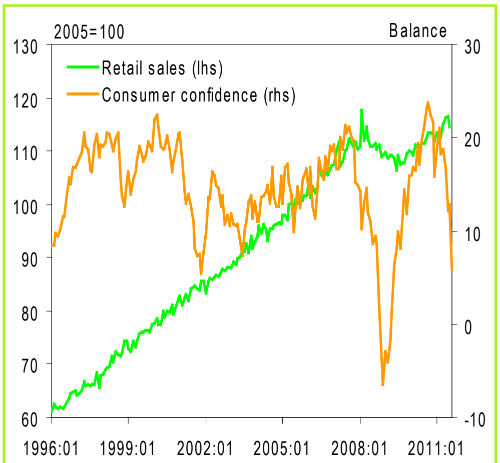
Of the main sectors, industry will grow by more than 5 per cent this year and just under three per cent next year. In addition to primary production and mining activities, business services will grow appreciably faster than GDP this year. Also next year business services, which are partly geared toward exports, will bolster economic growth. Construction growth will slow down next year to 3 per cent from this year's 6 per cent. This slowdown will be clearly more moderate in trade and transportation. Both this year and next basic services will grow slowly, by 1.0–1.5 per cent, reflecting the sluggish growth of public finances.

Investment is growing, but at a slackening pace

Total investment increased slightly last year compared to the very low level of 2009. During the first quarter, investment growth remained strong. However, the weakening economic outlook will also be reflected in next year's spending.

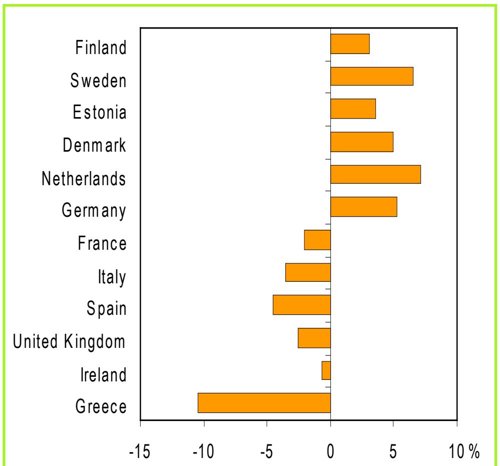
Housing construction displayed a sharp upturn in 2010: particularly in the second quarter, growth was strong compared to the level prevailing in the previous year. We forecast that housing construction will slow down this year, but the growth rate for the year as a whole is still 10 per cent. Next year, the level of residential construction will remain unchanged. Non-residential building construction has started to boom with a slight lag, i.e. in the final quarter of last year and this year's first quarter. We forecast that growth for this year as a whole will be 9 per

Consumer confidence and retail sales in Finland 1996:01–2011:08



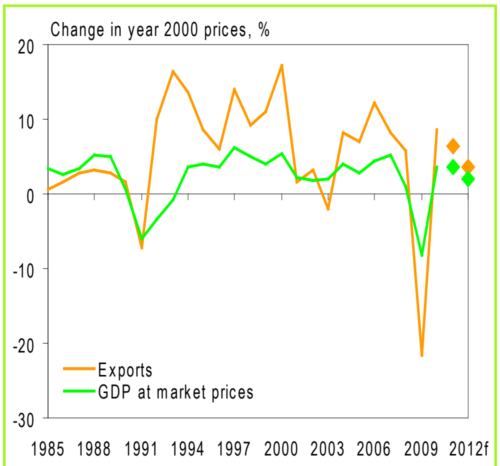
Source: Eurostat

Current account deficit relative to GDP in 2010



Source: IMF

Changes in total production and exports in 1985–2012



Source: Statistics Finland, PT

cent. Growth in non-residential building construction will subside in the wake of the somewhat weaker economic outlook: we predict 3 per cent growth for next year. In contrast, the changes in civil engineering are relatively minor. Next year, however, will see slight growth thanks among other things to highway and railway projects.

Machinery and equipment investment fell 6.9 per cent last year. They rose by 6.5 per cent in the first quarter of this year compared to the first quarter of last year. The development of new motor vehicle registrations in the beginning of this year also indicates sharp growth this year. We predict that machinery and equipment investment will grow by 9.6 per cent this year. Despite the deteriorating economic prospects, machinery and equipment investment will continue to grow next year, albeit at a far slower pace. We forecast it will expand by 3.6 per cent in the year 2012.

Overall, private investment will increase this year by 8.5 per cent and 2.2 per cent next year. Public investment will grow by 6.4 per cent this year, mainly owing to investment by municipalities, but next year it will remain unchanged.

Table 2. Demand and supply

	2010 Bill. €	2010	2011f	2012f
		Percentage change in volume (%)		
Gross Domestic Product	180.3	3.6	3.6	2.1
Imports	70.3	7.4	5.7	2.6
Total supply	250.6	4.7	4.2	2.2
Exports	72.6	8.6	6.4	3.6
Consumption	142.8	2.1	1.8	1.4
private	98.5	2.7	2.2	1.8
public	44.3	0.6	0.8	0.5
Investment	33.9	2.8	8.2	1.9
private	29.3	3.9	8.5	2.2
public	4.6	-3.8	6.4	0.0
Change in stocks[1]	1.3	1.2	0.2	0.2
Total demand	250.6	4.7	4.2	2.2

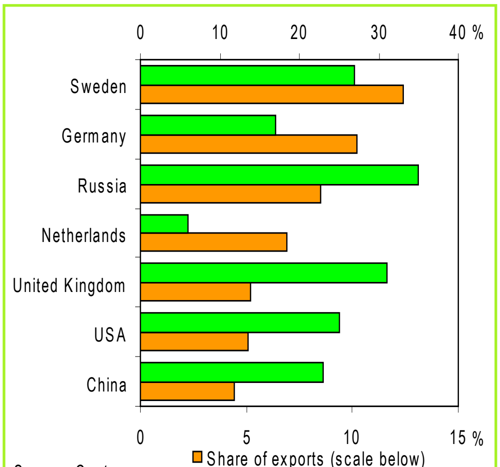
[1] *Volume change is in percentage points of GDP.*
Source: Statistics Finland, Labour Institute for Economic Research

Employment growth slowing down

The decline in employment came to an end during last year. During this year, employment has increased in every month except March, and in July the amount of employed persons grew by 1.1 per cent. Due to slowing economic growth in the end of this year and next year, employment growth will nevertheless start to taper off. We forecast that during 2011 employment growth will average 0.9 per cent. In 2012, growth will continue at a 0.5 per cent rate, but it will still be slower than on average. In terms of the number of jobs, there will be 22,000 new jobs created this year and 12,000 jobs next year.

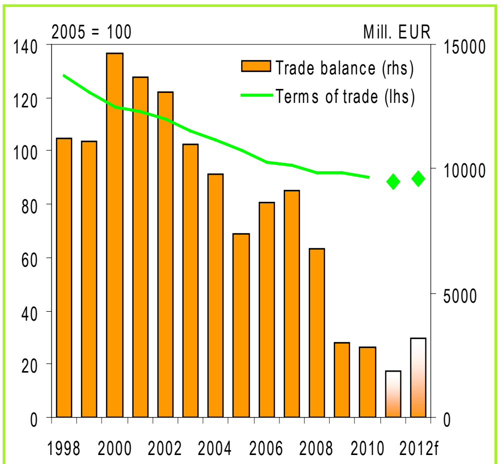
During a recession the labour force participation rate of the population typically declines, because those left without work exit the labour force as active job searching comes to an end. The aging of the Finnish population's age structure also contributes to the diminishing labour participation rate. As the employment situation improves the participation rates generally rise again. In 2009 and 2010 labour force participation rates also declined in the wake of increased unemployment. However, despite an upturn in employment, a pronounced upswing in the labour force participation has not yet been observed, partly also due to

Finnish merchandise exports in January–May 2011



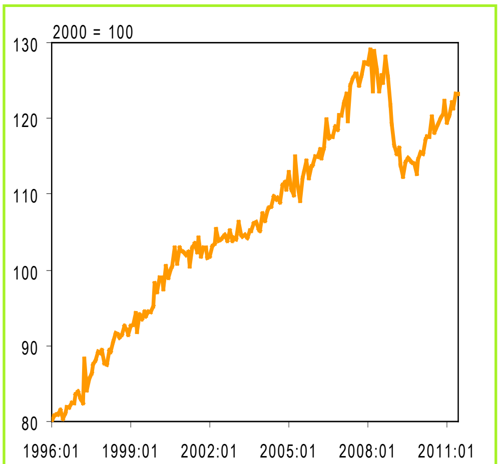
Source: Customs

Terms of trade and trade balance 1998–2012



Source: Statistics Finland, PT

Trend indicator of output 1996:01–2011:06



Source: Statistics Finland

demographic changes. In particular, women's labour force participation rate continued to fall further in the beginning of this year: the average change in comparison to the figures from last year for January–July was a 0.4 percentage point decline. The labour force participation rate will remain unchanged this year on average in comparison to last year and will increase next year by 0.1 percentage points.

Due to the added effects of changes in both the amount of employment and the labour force, the number of unemployed will fall this year by 10,000 persons from last year's average level and will remain almost unchanged next year. The unemployment rate will average 8 per cent both this year and next.

The adaptation of the amount of work carried out in the economy will, alongside changes in employment, also take place through hours worked. Typically the number of hours worked adapts during economic turning points more than employment to begin with, and as output begins to increase it also begins to rise before the employment figures, because work hours are easier to adjust than the number of people employed. This was observed last year, for instance, as hours worked increased although employment on average still fell. If the boom had continued, the development would have eventually slightly reversed itself, i.e. employment would have increased slightly more than hours worked. However, as economic growth is waning, employment growth is slowing down as companies are more cautious in recruiting. The growth of hours worked in turn is also reduced by lay-offs and overtime reduction. Both this and next year hours worked will increase at the same rate as employment, i.e. by 0.9 and 0.5 per cent, respectively.

Economic expansion and contraction also partly take place through productivity growth. Labour productivity began to increase in 2010 after two years of recession. The 3.6 per cent growth of GDP and 0.9 per cent increase of hours worked this year represent a 2.5 per cent increase in productivity per hour worked. In 2012, productivity will increase correspondingly by 1.6 per cent per hour of work.

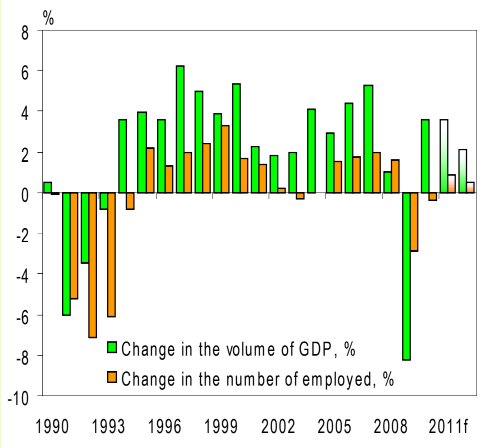
Inflation begins to subside

Finnish consumer prices will continue to rise during the forecast period significantly faster than in the eurozone on average. However, the slowdown of the world economy will dampen the rise of the price of oil and other commodity prices, which will also curb domestic inflation already this year so that it will average 3.3 per cent this year. Next year the fall of prices in the commodities market and the halt in the rise of housing costs will dampen domestic inflation. This trend will nevertheless be offset by hikes in indirect taxes such as fuel, alcohol, sweets and motor vehicle taxes, which will boost inflation by more than half a percentage point. Overall, however, inflation will slow next year to an average rate of 2.6 per cent.

Wages are rising more slowly than prices this year

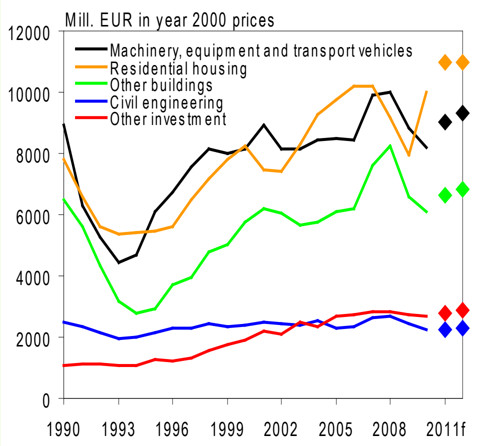
In 2010, wages grew more slowly than earlier in the 2000s, and also this year the rise of income levels will continue to be moderate as nominal incomes are expected to rise by 2.9 per cent. Labour negotiations have been held at the union level and salary increases have been agreed upon for one year. Contract periods vary between sectors, and also their structure varies. A company- or workplace-specific local increment has been included in most settlements. A typical salary model in the beginning of the year

GDP and employment 1990–2012



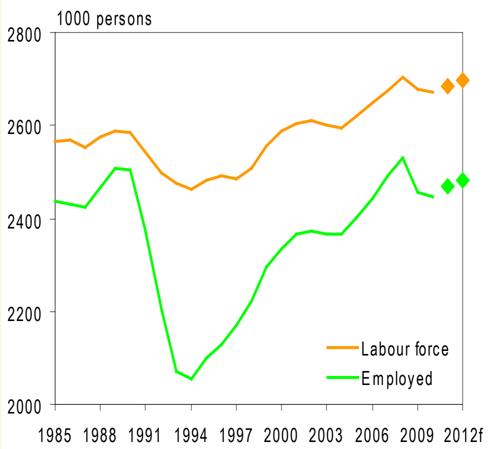
Source: Statistics Finland, PT

Investments 1990–2012



Source: Statistics Finland, PT

Supply of labour and employment 1985–2012



Source: Statistics Finland, PT

included about a one and a half per cent general salary increase, and a nearly one per cent local increment. The effects of wage drift and structural factors in increasing the level of earnings this year is slightly higher than last year. Small wage increases have meant that in terms of unit labour costs Finland's price competitiveness in the eurozone will improve.

The acceleration of inflation during the year has eroded purchasing power, and real earnings will fall by almost half a per cent this year. The weak realized development of real earnings will increase wage pressures and the efforts to strengthen employees' future purchasing power and consumption opportunities. In the case of union-level wage agreements, the level of wage increases concluded in one sector is reflected in the wage demands of sectors negotiating later.

According to the forecast incomes will rise slightly more than 3 per cent next year and real wages will grow moderately. This projection is based on the assumption that wage coordination can be strengthened within the labour market. Realized wage and price developments are heavily influenced in any case by the future salary increase policy to be followed in an uncertain economic climate.

Households' purchasing power growth slowing down

The wage bill will increase this year by more than last year, i.e. by 5.2 per cent. The acceleration of growth stems from the slightly faster increase in earnings and the number of hours worked. Property and entrepreneurial income is expected to grow slightly faster than the wage bill. Indexed increases in transfers made this year reflect last year's low inflation, and social security benefits will grow somewhat more slowly than the wage bill. The impact of changes in earned income tax on household purchasing power will remain low. The average municipal tax rate has risen, but changes in central government income taxes will have the opposite effect.

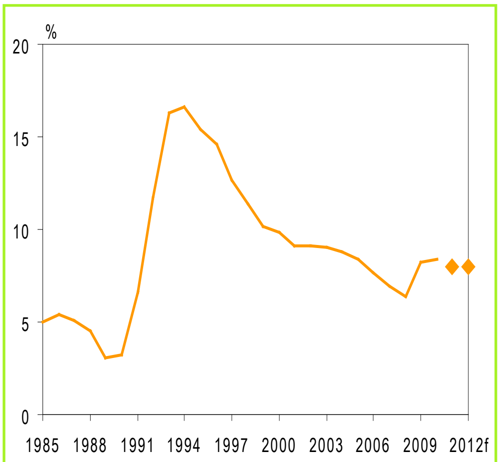
Households' nominal disposable income will increase by 4.4 per cent. The acceleration of inflation means, however, that growth in households' aggregate real purchasing power will be only 1.4 per cent, i.e. lower than last year. The fall in real wages will lead to a situation where the real disposable income of individual wage earners will decline by about half a per cent.

The growth in the wage bill will subside next year as the number of hours worked increases by slightly less than this year. The rate of growth of household income transfers, on the other hand, will accelerate as this year's high inflation rate will trigger index adjustments of about 4 per cent next year. Changes in income taxes and social security are expected to have little impact on the development of purchasing power, as offsetting factors cancel out each other's effects to a large extent. With these assumptions, the disposable income is projected to grow by 4.3 per cent next year, i.e. almost a percentage point more slowly than this year. Real purchasing power will grow despite the slowdown in inflation to 1.2 per cent. In this context, the share of wages in enterprises' value added will decline both this year and next.

Modest development of purchasing power dampening consumer demand

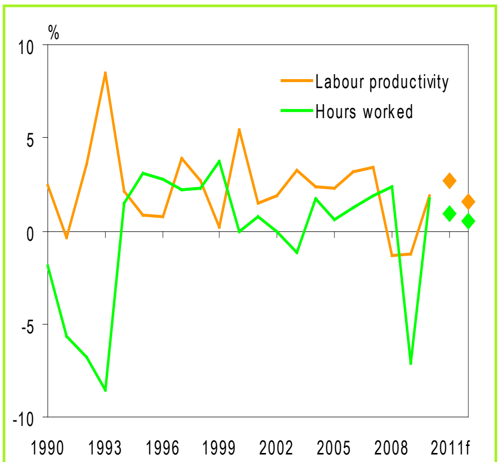
Private consumption has not yet reached its pre-recession level. In spring this year private consumption began to grow rapidly, but in the first quarter of this year the growth slowed down considerably. Last year, purchases of durable and semi-durable consumer goods in parti-

Unemployment rate 1985–2012



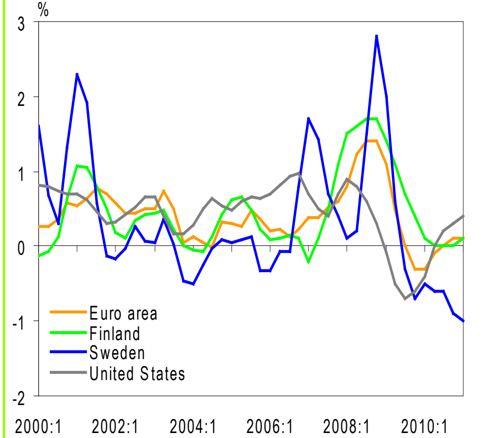
Source: Statistics Finland, PT

Change in labour productivity and hours worked 1990–2012



Source: Statistics Finland, PT

Changes in unit labour costs 2000:1–2011:1



Source: OECD

cular increased strongly. Money was increasingly allocated, for example, to the purchases of transportation vehicles, interior decorating and home care. The low level of interest rates has helped foster private consumption, since debt-servicing costs have remained reasonable.

Households have pent-up consumption demand, but a succession of years of relatively modest purchasing power growth is slowing its realization. Bad news regarding the uncertainty of the international economy and the debt crisis in the eurozone has also begun to erode consumer confidence this year. Confidence in consumers' own economic development has certainly not wavered on the same scale as it has with respect to the economic development of the country as a whole.

Private consumption is forecast to grow by 2.2 per cent this year and 1.8 per cent next year, i.e. somewhat brisker than the development of household purchasing power. The savings rate will fall in both years, by a total of about one and a half percentage points.

Table 3. Key forecasts

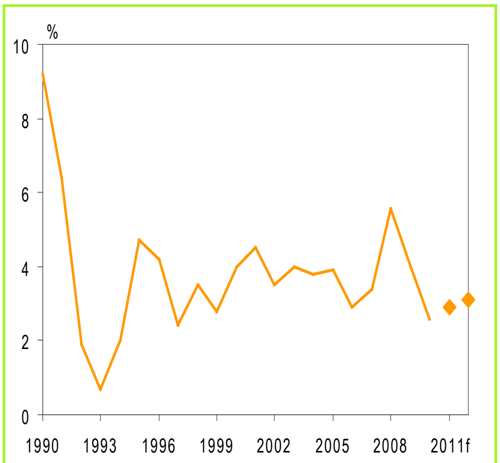
	2010	2011f	2012f
Unemployment rate (%)	8.4	8.0	8.0
Unemployed (1 000)	224	214	215
Employed (1 000)	2447	2469	2481
Employment rate (%)	67.8	68.5	69.0
Inflation, consumer price index (%)	1.2	3.3	2.6
Wages, index of wage and salary earnings (%)	2.6	2.9	3.1
Real disposable income of households (%)	2.2	1.4	1.2
Current account surplus (Bill. €)	3.4	3.1	4.7
Trade surplus (Bill. €)	2.8	1.8	3.2
Central government financial surplus			
Bill. €	-9.4	-6.6	-5.4
% / GDP	-5.2	-3.5	-2.7
General government financial surplus			
Bill. €	-4.6	-1.0	0.3
% / GDP	-2.5	-0.5	0.2
Emu debt			
% / GDP	48.4	49.2	49.2
Tax rate (%)	42.1	43.4	43.3
Short-term interest rates (3-month Euribor)	0.8	1.4	1.4
Long-term interest rates (10-year gov't bonds)	3.0	3.0	2.6

Source: Bank of Finland, Statistics Finland, Labour Institute for Economic Research

Tighter indirect taxation bolstering central government's financial position

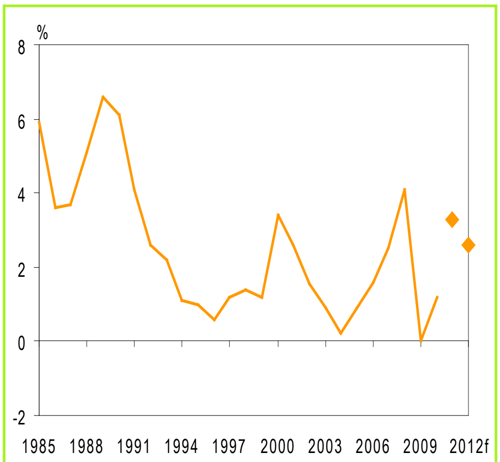
Economic growth and increases in indirect taxes will increase central government tax revenue this year. The increase in the general VAT rate and, on the other hand, a reduction in restaurant sector VAT in July last year as well as the adoption of a reverse VAT in the construction sector in April will increase the central government's tax revenues in net terms by approxi-

Change in level of earnings index 1990–2012



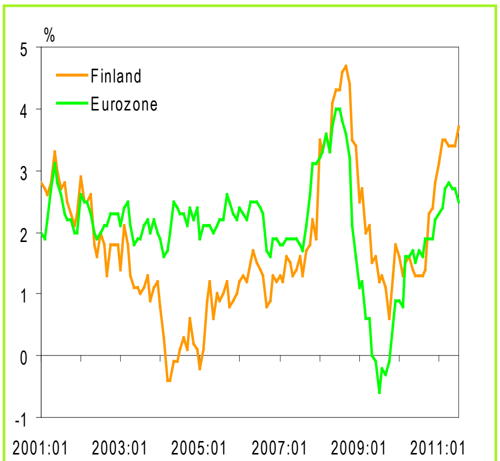
Source: Statistics Finland, PT

Change in consumer prices 1985–2012



Source: Statistics Finland, PT

Harmonized index of consumer prices 2001:01–2011:07



Source: Eurostat

mately EUR 530 million this year. Indirect taxes will also be affected by the revenues from hikes in energy taxes, which will boost central government tax revenue by an estimated at 730 million euros. In addition, the increase in the waste tax and the expansion of its tax base, as well as increases in the tax on sweets, ice cream and soft drinks will increase central government tax revenue by EUR 120 million. Overall, the indirect tax revenue received by the central government will increase 12 per cent this year.

Next year indirect taxes will be raised further. The expansion of the VAT tax base to include magazines and newspapers as well as hikes in excise, automotive and motor vehicle taxes will generate about 650 million in additional revenues for the central government next year. Excise taxes will be raised for tobacco, alcohol, sweets, ice cream, beverages, fuel, and lotteries. Of these, the tax increases for alcohol and fuel will generate the most revenues for the state coffers. The tax hikes together with the expansion of tax base will increase the central government's indirect tax revenues by a total of 7 per cent next year.

Direct tax revenue will be substantially higher this year than in the past few years as wages rise more than 5 per cent. Direct tax revenue will also be boosted by corporate tax revenue, which is expected to rise substantially as corporate earnings improve this year. Large growth rates can be explained by a low level of comparison as corporate tax revenues rebound after the precipitous drop in 2009. Tax revenues derived from capital income are rising, despite the negative impact of the recent market turbulence. Overall, the direct tax revenue received by the central government will increase by more than 10 per cent this year.

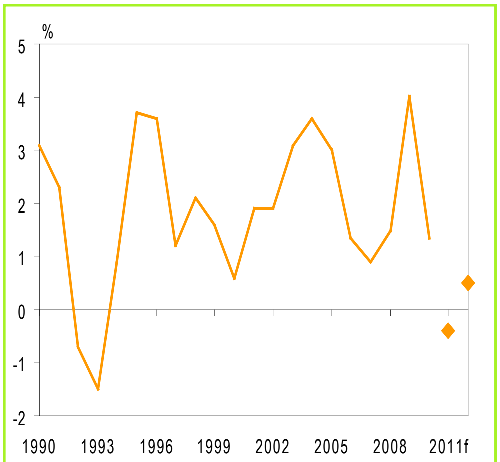
It has been proposed that next year's earned income tax will be increased in line with the 2.5 per cent rise in the level of earnings. Otherwise, the basis for central government's taxes on earned income will remain unchanged. The increase in the number of hours worked and the level of earnings will boost central government's direct tax revenues, even though the growth rate will subside from that of this year. A two percentage point increase in capital income taxation, the higher tax rate on income in excess of 50,000 euro, and hikes in the taxation of dividends of unlisted companies will increase the central government's direct tax revenue by more than 200 million euros next year. A reduction of the corporate tax rate by one percentage point will nevertheless reduce the central government's tax revenue by 150 million euros next year. This shortfall will be offset, however, by the reduction of central government's revenue sharing with the municipalities next year. Thus, the central government's corporate tax revenues are projected to grow next year at the same pace as other direct tax revenues, i.e. by a total of 5 per cent compared to this year's level.

Central government transfers to municipalities will increase this year by about 4 per cent. Next year the growth of revenue sharing is estimated at 6 per cent despite the cutbacks. On the whole, rising tax revenues and sluggish growth in consumption spending will strengthen the central government's financial position. The central government's deficit is projected to decline from last year's 9.4 billion euros to 6.6 billion euros this year and 5.4 billion euros next year.

Municipal tax revenue rising

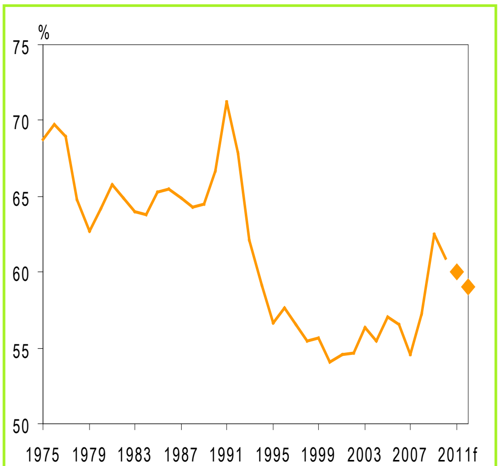
The strong increase in wages and salaries, and an average hike in municipal taxes by 0.2 percentage points will boost municipal tax revenue significantly this year. Since corporate tax revenues are expected to rise significantly, municipalities' direct tax revenue will climb by a total of 6.7 per cent this year. Next year the municipalities' direct tax revenues will continue to grow, albeit at a slightly slower pace than this year. This is attributable to the slowdown in growth in the wage bill and the drop in the share of corporate income tax received by the municipalities by five percentage points. Municipalities' financial

Annual changes in real wages 1990–2012



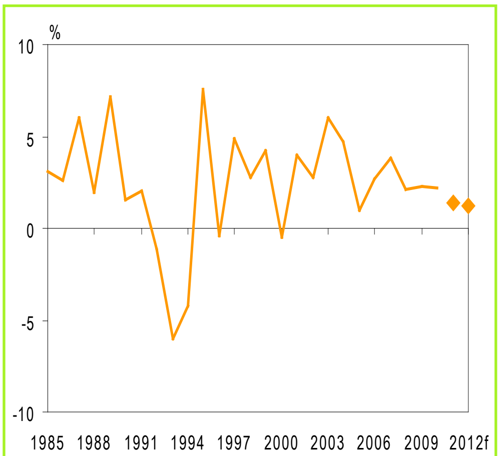
Source: Statistics Finland, PT

Functional distribution of income in business activities 1975–2012



Source: Statistics Finland, PT

Change in household's real disposable income 1985–2012



Source: Statistics Finland, PT

position will be weakened by the central government's plans to cut its revenue sharing by 631 million euros next year. The municipalities will hardly fail to react to this development – so municipal tax rates are forecast to rise an average of 0.2 percentage points next year. Overall, direct tax revenues received by municipalities are projected to grow by 3.9 per cent next year.

Social policy boosts contributions to pension insurance companies

Social security contributions received by employment pension and social security funds will increase in nominal terms by over 7 per cent this year and by almost 5 per cent next year. In 2011 these contributions will be increased in particular by strong growth in the wage bill and hikes in pension and unemployment insurance contribution rates. In 2012, the slowdown in growth of the wage bill will reduce the rise in the revenues of employment pension institutions and social security funds. On the other hand, due to hikes in basic daily social security income and unemployment benefits as well as the previous year's substantial rise in wages and consumer prices, indexation will trigger significant increases in the spending of employment pension institutions. Thus, outlays on pensions and other benefits costs will grow faster than contributions.

Tax rate rising, spending ratio falling

The tax rate, i.e. tax revenues as a percentage of GDP, will rise this year by more than one percentage point as a consequence of hikes in indirect taxation and increases in social security contributions. Next year the tax rate will remain more or less at this year's level despite the fact that indirect taxation will be tightened further. Downward pressure on the tax rate is exerted by the lowering of the corporate tax rate. Next year the tax rate is projected to be 43.3 per cent of GDP. On the other hand, the share of public spending as a percentage of GDP will fall from 55.3 per cent to 54.0 per cent this year and to 52.9 per cent next year. This is all a consequence of the fact that fiscal policy austerity is based largely on restraint toward growth in expenditure.

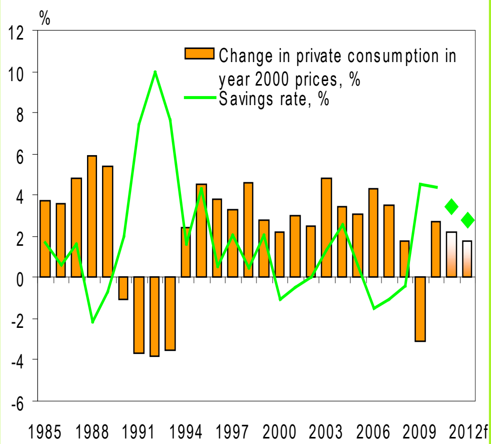
The financial position of the public sector will improve this year, and its deficit will be only 0.5 per cent of GDP. The central government's deficit this year is still 3.5 per cent of GDP, but it is substantially lower compared to last year. The central government's deficit will continue to decrease next year, with the result that the general government as a whole will start to run a slight surplus. It is noteworthy that the financial position of the municipalities will improve and next year it will already be close to zero.

Government refrained from slamming on the brakes

A positive feature of the new government's fiscal policy is that it has stuck to its program without resorting to new savings as a reaction to the deterioration of the economic outlook, which under current conditions could erode economic confidence and weaken employment. Also the augmenting of basic social security to improve those in the most vulnerable position is to be welcomed. Sorely needed additional appropriations for investments in transport systems are a step in the right direction.

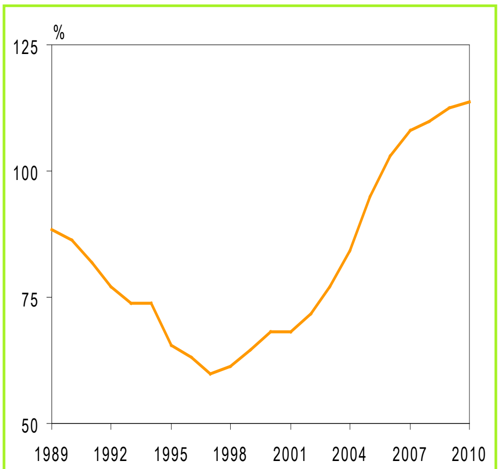
The Finance Ministry's new budget proposal follows quite closely the government program agreed in the spring including front-ended spending cuts and tax hikes. At the present time it appears that the central government's budgeted expenditures next year will remain at this year's

Private consumption and savings rate 1985–2012



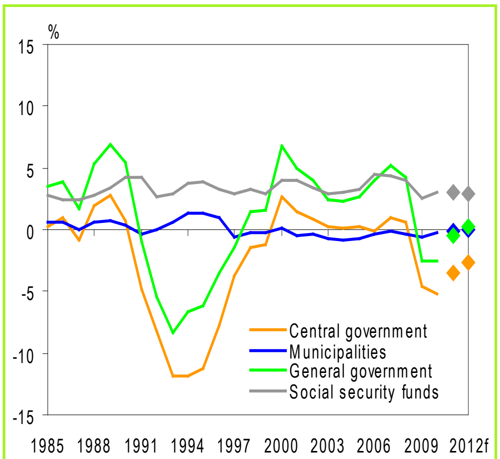
Source: Statistics Finland, PT

Household debt ratio 1989–2010



Source: Statistics Finland

General government financial surplus as percentage of GDP 1985–2012



Source: Statistics Finland, PT

level in real terms. Municipalities' consumption spending growth next year will likewise remain at this year's rate, even though the central government will cut transfers to the municipalities more than previously planned. On the other hand, government consumption expenditure will increase next year in real terms by only 0.5 per cent, meaning that Finland's fiscal policy is just as stringent as in the eurozone on average, and significantly tighter than the most creditworthy countries in the eurozone such as Germany.

One problem with the new government's budget proposal is the fact that it does not take into account Finland's possibility to compromise on the timetable for spending cuts already agreed upon, and in so doing emphasize the fostering of employment in a situation where the economic outlook is bleaker than foreseen in May and June. The partial postponement of expenditure cuts until later is a viable option because the weakening of the economic outlook is a result of factors outside Finland, the nature of which can at least still considered temporary. It is reasonable to assume that toward the end of the government's term in office the global economic situation will be much better. We estimate that even in developed countries the conditions for the strengthening of domestic private demand will eventually improve in line with the normal business cycle, even if fiscal policy does not actively support it.

The government's budget proposal also includes features, which indicate that often short-sighted lobbying, which is now specifically targeted to lower taxes, has succeeded in part. We estimate that Finland's tax rate will not change much or even fall slightly next year, while the public-spending-to-GDP ratio will decline significantly. The fact that, for example, spending cuts have been directed toward universities and R&D indicates that the focus is not sufficiently strong enough on fostering economic growth and employment in the long term. This problem characterized by neglect of investment in human capital and infrastructure is even worse in the EU countries on average and the United States.

The adjacent table presents the forecasts of the EMMA model used at the Labour Institute for Economic Research, which broadly support our overall economic forecast. In particular, the figures given by the macro model are used in next year's forecast.

Table 4. EMMA model forecasts for the years 2011 and 2012

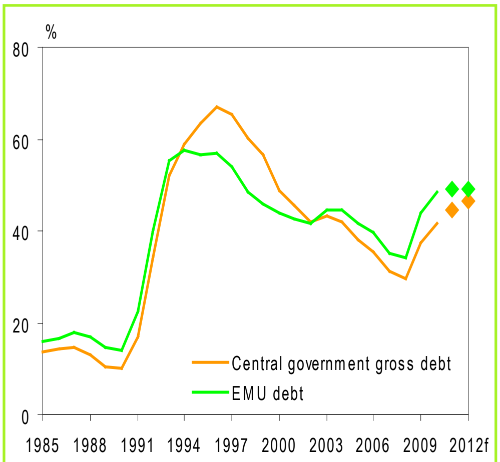
	2011 (%)	2012 (%)
Private consumption	+2.3	+1.7
Private investment	+5.3	+1.0
Exports	+6.4	+4.3
Imports	+5.3	+3.1
GDP[1]	+3.6	+2.1

[1] Public sector development in our institute's forecast.
Source: Labour Institute for Economic Research

International credit crisis and Finland

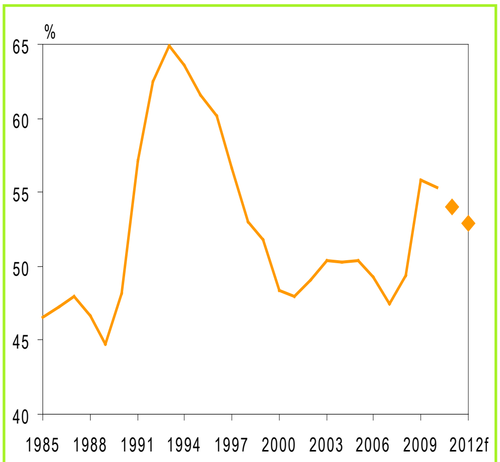
The recession of 2008–2009 weakened the public finances of euro area members that were already heavily indebted and running deficits, such as Greece and Portugal, in addition to Ireland, plagued by an overheating real estate market. This laid the groundwork for the debt crisis. Typical of the crisis countries is their small size, membership in a larger currency area, and the fact that the potential growth of the economy is seen as low or at least insufficient. When the developed countries' real GDP growth rate began to fall in the summer of 2011, turbulence began to spread in the capital markets. At that ti-

Central government gross debt and general government EMU debt as percentage of GDP 1985–2012



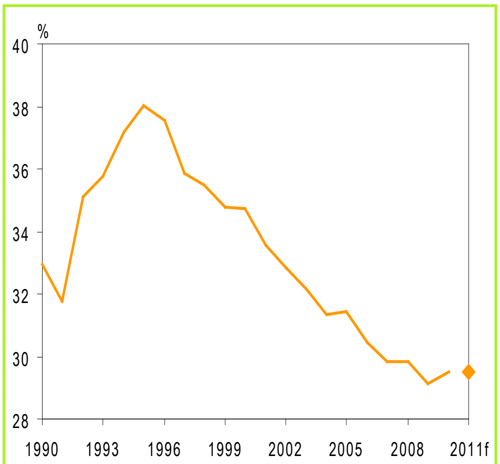
Source: Statistics Finland, Ministry of Finance, PT

Public expenditures as percentage of GDP 1985–2012



Source: Statistics Finland, PT

Wage earners' income tax rate 1990–2011



Source: Statistics Finland, PT

me, the financial market began to suspect the whether the Italian and Spanish governments would be able to cope with their debts. Lack of confidence in the eurozone is still high, although the ECB has succeeded in its bond purchases at least for the time being to lower yields on Italian and Spanish government bonds on the secondary market.

Fiscal deficits have risen significantly outside the eurozone in the US, UK and Japan. The position of these large countries with their own currencies has nevertheless remained good in the capital markets, although the large current account and fiscal deficits prevailing in the US have contributed to instability in the capital markets, which has been reflected, inter alia, in falling stock prices. This uncertainty has pushed US government policy further towards a dead end, which explains the strengthening of Republican extremists in Congress, so that implementing an employment and growth policy suitable for the cyclical situation has become almost impossible.

The debt crisis and US economic and political problems have been reflected in the behaviour of enterprises and households. The precarious situation of developed countries is partly explained by the fact that fiscal stimulus has not been directed enough toward growth-enhancing targets, such as education and public infrastructure, and that it was too low in 2009. The austerity measures implemented in the US at the local level counteracted the stimulus at the federal level while in Europe Germany was obliged to bear most of the burden for implementing stimulatory measures. Of course, the fact that the southern European countries, except for Spain, were already too indebted before the recession partly explains why the stimulus could not be so massive in these countries, and why these countries' creditworthiness has deteriorated in the financial markets.

Under the circumstances, Europe's debt problem is not easy to fix. Hasty fiscal belt-tightening in response to greater uncertainty in the capital markets only leads from one problem to another. The direct impact strengthening public finances brought about by additional savings are easily outweighed by indirect impacts that dampen economic growth. This problem would only be exacerbated if euro countries with good credit ratings like Finland tighten fiscal policy in response to the deteriorating economic situation.

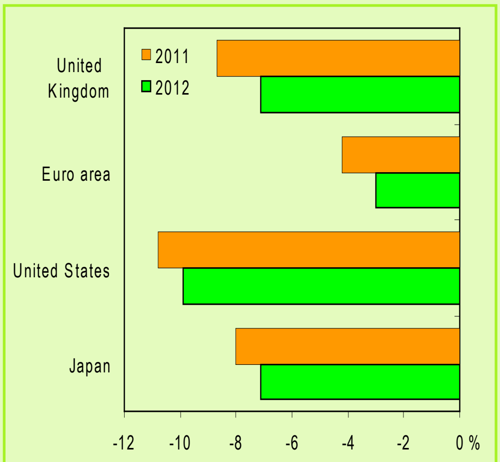
The burden for stabilizing the economy has been left to the European and US central banks, which nevertheless have little leeway to act because their monetary policy is already extremely lax.

The adjacent graph compares the current crisis with that experienced three years ago, illustrating the crisis in the interbank market via the differential between unsecured (one month) Euribor interest rate and the corresponding EONIA swap rate expressed in basis points. It can be seen that in recent times this confidence gap has increased, but it is not anywhere near the level prevailing three years ago.

The Finnish Parliament has already approved the agreement between the euro countries and the European Financial Stability Facility (EFSF) via which the EFSF's guarantee commitments will be raised to 440 billion euros, Finland's share of which is 7.9 billion euro. The government has also taken a positive stance in its program toward the decision by the Council of Europe to expand the EFSF's guarantee commitments to 780 billion euros, which would increase the EFSF's lending capacity to 440 billion euros and Finland's share of the guarantees to more than 17 billion euros. In its government's program Finland requires that it receive collateral in new EFSF loans granted to certain euro countries. All euro countries are expected to approve the increase in the EFSF's mandate to 780 billion euros.

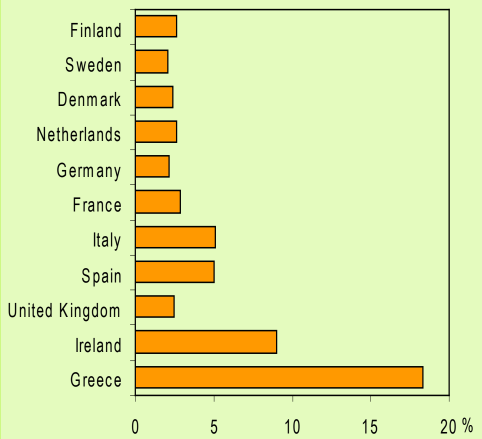
It appears that Germany will propose that EFSF be given autonomous status, so that it could among other things fairly flexibly buy bonds of different countries. In this context, the EU Commission and Germany in particular are pushing for regulations stipulating tighter constraints on eurozone governments' fiscal deficits. In addition, in July 2011 it was initially

Public sector deficit-to-GDP ratio in 2011 and 2012



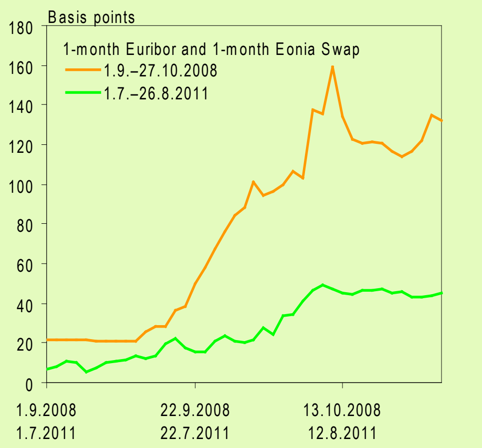
Source: OECD

10-year government bonds yields in August 26, 2011



Source: Thomson Reuters

Mistrust between banks in the eurozone in 2008 and 2011



Source: Nordea

agreed to support Greece within the framework of the EFSF under favourable borrowing terms. This decision still requires approval at the national level. It is known that the question of whether Greece should be required to pledge collateral as a condition for receiving loans is still unresolved.

It should be noted that it is in the interest especially of banks and non-eurozone countries to foster a quick and substantial increase in solidarity in the eurozone as well as a shift in the burden to the taxpayers of creditworthy countries. Against this background it is understandable that experts representing these parties have called for much larger expansion of the EFSF than previously planned and a shift to a system where the problem-plagued eurozone countries would receive funding from jointly issued bonds (eurobonds). Finland and Germany do not support this proposal, which would increase the joint liability significantly and would require the changing of EU treaties.

The planned extension of the EFSF's guarantees to 780 billion euros, which would increase the lending capacity to 440 billion euro, would reassure the markets, but at the same time it would make the highly rated eurozone countries increasingly liable for the loans of problem countries. At best, an expanded EFSF could dispel the uncertainty in the eurozone and prevent the spreading of the crisis to banks. That could brighten the economic outlook and spur economic growth. In this case, a limited increase in shared liability would help the entire area get back on a growth path without excessive costs. Finland's decisions taken up until now on the limited increase of shared liability would therefore be sufficient if the question of collateral requirements can be somehow resolved. From Finland's perspective, it is worth noting that it cannot benefit from the greater solidarity as much as France and Germany, whose banks have heavily funded the European crisis countries.

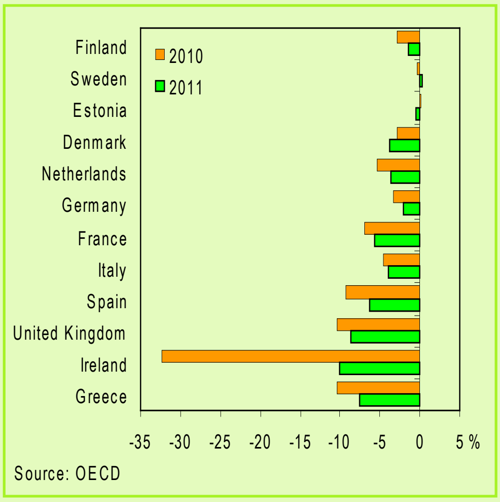
If the eurozone's debt crisis deepens and growth prospects deteriorate significantly, the cost to creditworthy countries of keeping the currency zone together will become unbearable. Greater prevalence of various types of shared liability would entail excessive risks of credit losses and also the risk that these countries' economic growth will remain slow because an unnecessarily large portion of the public resources is committed to the support of other countries. Shared liability always produces some kind of incentive to benefit at the expense of others. Such a situation would only underscore the fact that the eurozone's fiscal policy and tax system is not harmonized. Efforts to harmonize fiscal policies and tax system quickly in the eurozone, which is divided into countries with weak and strong financial positions, is almost impossible.

It is also worthwhile pointing out that Germany's call for stricter rules to prevent countries from running deficits in the future would make it difficult to engage in counter-cyclical fiscal policy, or at least it would increase the requirement for average public sector net lending, which in turn would curb growth.

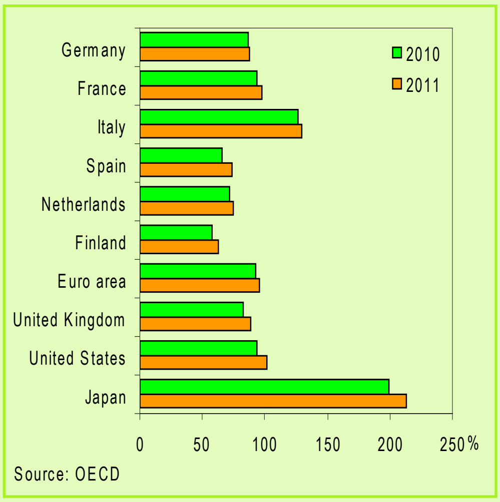
If the situation deteriorated further, the most natural solution to the debt crisis in the eurozone would be for the problem-plagued countries to devalue their currencies. This would mean the dissolution of the currency union. How this might happen in practice is still difficult to assess at this point. So far, we consider this alternative less likely than the scenario that the capital markets finally calm down. At the moment it seems to be in Finland's interest to support the currency union so that it will stay intact.

In our baseline scenario, the moderate expansion of the EFSF lending capacity to 440 billion euro, and other steps already decided to bolster the crisis countries' public finances will be enough to calm the capital markets. In this case, Italy's and Spain's interest rates would not rise again and the confidence in the banks financed by the crisis countries would not deteriorate into a banking crisis. The preconditions to achieve this are bolstered by the fact, for example, that the general government deficit in the eurozone this year is the estimated at only slightly over 4 per cent, which is thus much lower than in Japan, England and the US, i.e. countries whose credit ratings have remained high on the international capital markets. In this scenario, the growth outlook of both the eurozone and US, as well as their stock prices reflecting future growth prospects, will stabilize on a lower level. At some point, the strengthening of companies' and households' financial positions will enable the strengthening of economic growth. This scenario could over time lead to debt consolidation, where Europe's smaller crisis countries' debt burden could be eased to the extent that these countries could also get back on an economic growth path.

Public sector deficit-to-GDP ratio in 2010 and 2011



Debt-to-GDP ratio in 2010 and 2011



Effects of economic growth on purchasing power of example families

The example family calculations of the Labour Institute for Economic Research assess the impact of wages, income transfers, taxation, expenditures on housing loans and rent on the purchasing power of six different example families. The calculations are based on the proposals of the Ministry of Finance for changes in income taxation, commodity taxation and social security. The calculations regarding taxes and income transfers have been made using the so-called Jutta model.

Example families are the same as last year, and they have been selected to describe Finnish households in as versatile a manner as possible. A person with the 2009 median income has been selected according to gender and job title or education background as the representative wage receiver. Half of the persons in the median wage earner's group earn more than him or her and half less.

The 2009 data for the median income of the example family has been obtained from Statistics Finland's private sector monthly salary statistics. Gross incomes in 2010 are calculated on the basis of changes in the sector-specific wage index reported by Statistics Finland.[1] Gross incomes in 2011 and 2012 are based on Labour Institute's forecast for wage developments. Earnings are expected to rise in 2011 by 2.9 per cent and in 2011 by 3.1 per cent.

Pensioners' gross income is projected on the basis of already realized changes of the earnings-related pension index in 2011 and our institute's forecast for the rate of increase for this index in 2012, whereby earnings-related pensions are expected to rise by 3.6 per cent. The improvement in the position of low-income pensioners owing to the new guarantee pension is taken into account already when calculating income for the year 2011. Our institute predicts that in the year 2012 the national pension and guarantee pension will rise by 4 per cent.

As regards unemployed persons in the year 2012, our calculations take into account the government program's proposal for an increase in the basic allowance by € 100 a month, as well as a 6 per cent increase in the basic component of welfare income. Housing aid reforms are taken into account so that the basic deductible starts from the increased amount of labour market aid, meaning that persons eligible for labour market support will not have a basic deductible in the future either. According to the Ministry for Social Affairs and Health, the linear income adjustment for housing aid eligibility and the increase in the maximum amount of housing expenses will not take effect until 2013.

The calculation takes into account the 2012 budget proposal by the government and the Ministry of Social Affairs and Health regarding changes in medical insurance, daily allowance, unemployment insurance and pension insurance payments. The changes in the basic deduction in municipal taxation and the maximum earned income deduction in central government taxation are based on the Jutta simulation model. The thresholds in the state income tax scales are assumed to increase by 2.5 per cent.

In addition, the calculations incorporate assumptions based on our forecast about increases in rent, municipal tax rates and mortgage rates. All the key figures used in the underlying assumptions are presented in more detail in the Annex to this document

Family-specific inflation forecasts have been made using the same consumption baskets as in the previous year. Inflation forecasts for products appearing in the commodity baskets haven been derived from our institute's forecast, which takes into account the effect of the new government's plans for tax increases on each commodity group's inflation, with the tax increases assumed to go into force at the beginning of 2012. Family-specific inflation has been derived using inflation forecasts for different commodity groups and family-specific consumption baskets. Real income has been obtained by eliminating the impact of inflation on net income.

Family descriptions

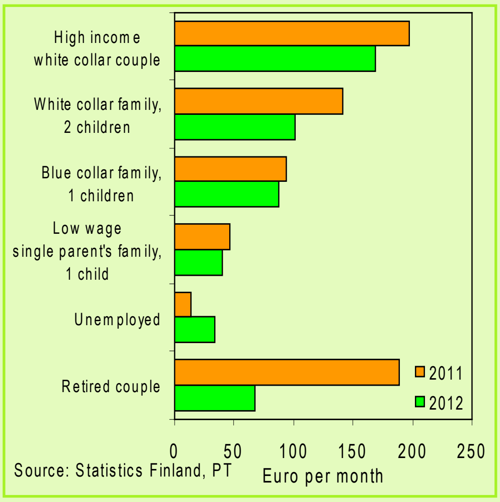
White collar couple with high income

The family is a childless couple belonging to AKAVA (Confederation of Unions for Professional and Managerial Staff). The man has an MBA and the woman has studied law. Monthly wages in 2011 are 6438 euros and 5066 euros. The family lives in owner-occupied housing with no debt.

White collar family, 2 children

The parents of the white collar family are an engineer and a nurse, both of whom belong to STTK (Finnish Confederation of Professionals), The monthly wages are 3377 euros and 2876 euros. The family has two children. The family lives in owner-occupied housing with a mortgage of 150,000 euros.

Family-specific changes in nominal net income in 2011 and 2012



Source: Statistics Finland, PT

[1] *The sector-specific earnings index figures for 2010 have been used for the nurse, store salesperson and truck driver. In other cases Statistics Finland's general earnings index figures have been used for 2010.*

Blue collar family, 2 children

The parents of the blue collar family are a truck driver and a store salesperson, both of whom are members of SAK (Central Organization of Finnish Trade Unions). Monthly wages are 2211 euros and 1998 euros. The family has two children and lives in a rented flat (80 square metres).

Low-wage single parent's family, 1 child

The family consists of a single parent mother and one child. The mother works as a cleaner for a monthly wage of 1847 euros. The family lives in a rented flat (60 square metres).

Single unemployed

The household consists of one unemployed person, who receives labour market support, housing support and welfare benefits. He lives in a rented flat (40 square metres).

Retired couple

The household consists of two retired persons, one of whom receives an employment pension and the other a national pension and a guarantee pension. The couple lives in owner-occupied housing with no debt.

Families' nominal income development

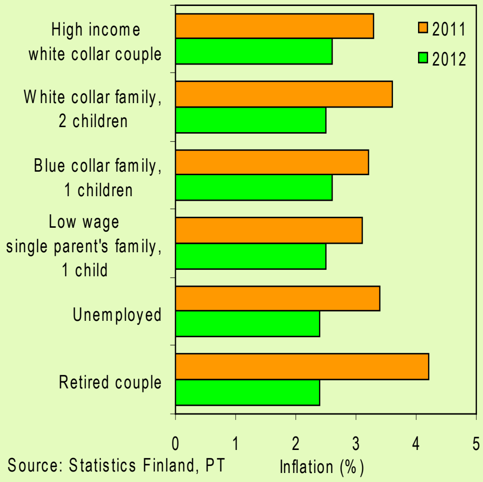
According to the model family calculations, the nominal incomes of all the families will increase in 2011 and 2012. The slowdown in the net income growth of the two-child blue collar family in 2012 is attributable to the reduction in tax deductions for interest on mortgage loans and the expected rise in municipal tax rates. The calculation assumes that imputed credit derived from the interest tax deductions will be calculated according to the old capital income tax rate (28%). When calculated this way the family loses net income from the decrease in the mortgage interest tax deduction by approximately 14 euros per month.

The nominal income of an unemployed person living alone rises by only 34 euros, despite an increase in the basic component of welfare income by 100 euros in 2012. The housing allowance for unemployed persons will remain the same owing to the rise in deductibles for housing allowances, but welfare income will drop by about 50 euros. It is noteworthy, however, that without the six per cent increase in the basic component of welfare income, the unemployed person's welfare aid would have fallen a total of 75 euros, and left his net income almost unchanged. Outside of the example families, it is noteworthy that the nominal income of an unemployed person living with a small wage earner who does not receive housing or welfare aid will increase by about 80 euros in 2012 owing to the increase in the basic component of welfare income.

In the case of the retired couple, the substantial increase in the nominal income by 188 euros during 2011 is attributable to the use of the new guarantee pension. Hikes in the national pension and guarantee pension will sustain substantial growth in the nominal income of the retired couple by 60-70 euros also in 2012.

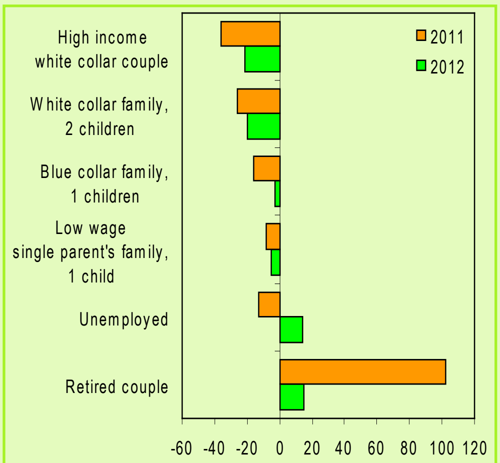
The growth in nominal income of other example families in 2012 will remain close to last year's level. Central government earned income tax relief will benefit all families receiving income from work,

Family-specific inflation rates in 2011 and 2012



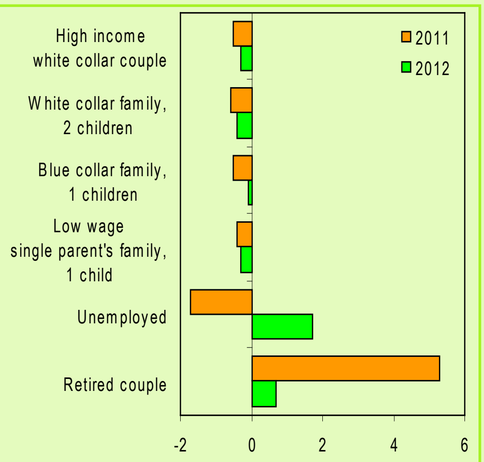
Source: Statistics Finland, PT

Family-specific real income changes in euro in 2011 and 2012



Source: Statistics Finland, PT

Family-specific relative changes in real income in 2011 and 2012



Source: Statistics Finland, PT

but the full benefit will be received only by the two-child blue collar family and the single-parent family, for which tax relief is reflected in about 9 euros higher monthly net income per worker in these families.

Family-specific inflation

In 2012, the family-specific inflation slowed down significantly compared to 2011, which is a result of the general slowdown in price increases. The high inflation experienced by the retired couple in 2011 is mainly due to the more than 6 per cent rise in housing and energy costs. In 2012 the inflation of all families will level off at approximately 2.5 per cent.

The inflation of the two-child blue collar family and the unemployed single person would still remain slightly below those presented here for 2012 without hikes in commodity taxes. Public transportation and automobile driving constitute a considerable portion of the consumption basket of the two-child blue collar family, while the share of the unemployed person's consumption basket consisting of food, tobacco and alcohol is relatively higher than for other families.

Family-specific real income changes

By comparing each year's inflation-adjusted nominal or real income with the previous year's nominal income we get the family-specific euro-denominated changes in real income. This diagram shows how the real income of most of the families falls in both years, although the decline in real income in 2012 will subside significantly owing to the clear slowdown in inflation.

The purchasing power of both the retired family and the unemployed single person improve in 2012. It should be noted, however, that the unemployed person's purchasing power will improve by the same margin as it deteriorated in the previous year. The above-mentioned adoption of the guarantee pension is reflected in the clear change also in real earnings. The most important factor affecting the growth of the retired couple's real income in 2012 is the increase in the national pension and guaranteed pension.

In relative terms the loss of real income by other families in 2012 is less than half a per cent except for the unemployed person, whose increase in income by 14 euros means a 1.7 per cent rise in real wages.

Appendix table 1. Example family calculation assumptions

	2011	2012
Income transfers and taxation according to government program		
Unemployment compensation and labour market aid (€/month)	553	653
Housing aid deductible threshold (€/month)	556	666
Welfare income basic component (€/month)	419	444
Maximum deduction in municipal taxation (€/year)	2250	2750
Maximum amount of earned income deduction (€/year)	740	850
Housing loan interest deduction	100 %	85 %
Increase in central government income tax scales	2.65 %	2.50 %
Ministry of Social Affairs and Health proposals		
Hospital payments (wage earners and entrepreneurs)	1.36 %	1.37 %
Daily disability compensation (wage earners)	0.82 %	0.83 %
Unemployment insurance	0.60 %	0.60 %
Employment pension insurance (under age 53)	4.80 %	5.20 %
Employment pension insurance (over age 53)	6.10 %	6.60 %
Forecasts of Labour Institute for Economic Research		
Earnings level index change	2.7 %	3.1 %
Rent index change	2.6 %	2.6 %
Municipal tax rate change	0.2 %	0.2 %
Employment pension index change	1.4 %	3.6 %
Average interest rate on new housing loan	2.5 %	2.6 %
In addition		
Calculations take into consideration changes in energy, transport and excise taxes.		

Source: Ministry of Social Affairs and Health, Statistics Finland, Labour Institute for Economic Research

Appendix table 2. High income white collar couple's income development

	2009	2010	2011	2012
Gross income (€/month)	10900	11180	11479	11834
Income transfers received (€/month)	0	0	0	0
Taxes (€/month)	4022	4151	4265	4452
Net income (€/month)	6878	7029	7214	7382
Share of taxes out of gross income (%)	36,9	37,1	37,2	37,6
Source: Statistics Finland, Labour Institute for Economic Research				

Appendix table 3. White collar family's (2 children) income development

	2009	2010	2011	2012
Gross income (€/month)	5900	6077	6240	6433
Income transfers received (€/month)	211	211	211	211
Taxes (€/month)	1559	1639	1669	1762
Net income (€/month)	4551	4648	4782	4882
Share of taxes out of gross income (%)	26,4	27,0	26,7	27,4
Source: Statistics Finland, Labour Institute for Economic Research				

Appendix table 4. Blue collar family's (2 children) income development

	2009	2010	2011	2012
Gross income (€/month)	4000	4091	4200	4330
Income transfers received (€/month)	211	211	211	211
Taxes (€/month)	842	864	885	927
Net income (€/month)	3368	3437	3526	3614
Share of taxes out of gross income (%)	21,1	21,1	21,1	21,4
Source: Statistics Finland, Labour Institute for Economic Research				

Appendix table 5. Small income single parent family's (1 child) income development

	2009	2010	2011	2012
Gross income (€/month)	1750	1795	1843	1900
Income transfers received (€/month)	283	286	290	290
Taxes (€/month)	338	350	358	375
Net income (€/month)	1695	1731	1775	1815
Share of taxes out of gross income (%)	19,3	19,5	19,4	19,7
Source: Statistics Finland, Labour Institute for Economic Research				

Appendix table 6. Single unemployed person's income development

	2009	2010	2011	2012
Gross income (€/month)	551	551	553	653
Income transfers received (€/month)	348	352	362	312
Taxes (€/month)	103	91	90	106
Net income (€/month)	797	812	826	859
Share of taxes out of gross income (%)	18,7	16,5	16,3	16,2
Source: Statistics Finland, Labour Institute for Economic Research				

Appendix table 7. Retired couple's income development

	2009	2010	2011	2012
Gross income (€/month)	2318	2323	2517	2583
Income transfers received (€/month)	0	0	0	0
Taxes (€/month)	363	363	368	395
Net income (€/month)	1956	1960	2149	2188
Share of taxes out of gross income (%)	15,6	15,6	14,6	15,3
Source: Statistics Finland, Labour Institute for Economic Research				