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The forecast was prepared by the Monetary Policy and Research Department under the direction of Juha Kilponen, Head of Forecasting.

The financial stability assessment was prepared by the Financial Stability and Statistics Department under the direction of Katja Taipalus, Head of Financial Stability and Statistics Deparment.

Authors of the Forecast for the Finnish economy
Essi Eerola
Juhana Hukkinen
Juha Itkonen
Lauri Kajanoja
Helvi Kinnunen
Jarkko Kivistö
Meri Obstbaum
Petri Mäki-Fränti
Mikko Sariola
Juuso Vanhala
Hannu Viertola

Authors of the Financial stability assessment
Tuulia Asplund
Henna Karhapää
Otso Manninen
Hanna Putkuri
Pertti Pylkkönen

Graphs and data
Nina Björklund
Anna Marin
Reijo Siiskonen

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Bank of Finland
PO Box 160
FI-00101 HELSINKI

Phone
National: 010 8311
International: +358 10 8311

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EDITORIAL

Determined action needed to strengthen the economy

10 DEC 2015 11:00 AM • BANK OF FINLAND BULLETIN 5/2015 • EDITORIAL

Resolving the protracted problems in the Finnish economy requires action in three areas. It is necessary to improve cost-competitiveness, continue structural reforms and end growth in the public debt.

The outlook for the Finnish economy remains subdued. According to the Bank of Finland forecast, economic growth will gradually gain momentum, albeit still remaining slower than the euro area average. The problems in the economy have turned out to be of a long-term nature. Since 2008, there have been particularly strong reductions in exports and corporate investment in export sectors.

General government finances are weak. Relative to GDP, the general government deficit has grown above 3%, and general government debt above 60%. In the absence of new decisions, the debt will continue to grow at a rapid pace.

Finland has witnessed the arrival of a large number of asylum seekers in 2015. The impact of increased immigration on the long-term trend of the public finances will largely depend on how well the persons settling in Finland and their eventual descendants can find employment. Their employment rate immediately following immigration will be lower than the average for the population as a whole, but over time more and more immigrants can be expected to find jobs as their language skills and other

capabilities improve. Research data suggests that official integration measures can have a considerable impact on immigrant employment.

Resolving the protracted problems in the economy requires action in three areas. The first of these is to improve cost-competitiveness. The second involves structural reforms to enhance the preconditions for economic growth and the long-term sustainability of the public finances. Finally, consolidation measures are needed to halt the growth in the public debt.

Cost-competitiveness in Finland has declined significantly since 2007, in particular. Compared with the average in the country's trading partners, the price of labour has risen faster and firms' capacity to pay wages has been weaker in Finland. The profitability of output generated in Finland has worsened notably in the export sectors. The pay settlement agreed in autumn 2013 ended the weakening trend in cost-competitiveness but did not yet lead to essential improvements, as the rate of increase in the price of labour has, on average, also remained slower than usual in the trading partners.

Solutions are now required that will lead to sufficiently large and rapid improvements in cost-competitiveness. Such solutions would boost the outlook for exports and export sector employment. Simultaneously, they would make a sustainable contribution to favourable employment developments in home market sectors.

In the area of structural reforms, the pension reform passed by Parliament this year is very important. However, it will not be sufficient on its own. It is crucial for the social and health care reform to be completed in a manner that will ensure productivity improvements in the public services. The Bank of Finland has also highlighted other areas of structural reform in which the implementation of measures would have significant implications. Regulation restricting competition can be reduced in certain sectors, conditions for growth in the supply of housing can be improved and working careers can be lengthened not only from the end but also from the beginning and in the middle.

As the problems of the Finnish economy apply, in particular, to exports and investment by exporters, a fiscal stimulus will offer no solutions. Export output cannot be supported by stimulus measures maintaining domestic demand and increasing debt.

Since 2008, Finland has pursued one of the most relaxed fiscal policies in the EU. In 2009 and 2010, the policy was eased, and the tightening of recent years has been considerably more moderate. The most common, internationally comparable measure of fiscal expansion is a change in the general government cyclically-adjusted budget balance. According to this measure, no other EU country's fiscal policy has supported economic growth as much as Finland's, when the current situation is compared with that of 2008.

Growth in public debt would be less of a problem if a prolonged period of strong economic growth were to be expected. In Finland, on the contrary, the additional debt now being taken on will need to be serviced in the future in an environment where a smaller proportion of the population is of working age and a greater proportion is in

retirement, and where more people than at present are in need of health and care services.

It is therefore vital to reduce the general government deficit. In order to reverse the trend in the growth of public debt, spending cuts will need to be made on a broad front. If consolidation measures are not taken, those who are now young will need not only pay the bulk of the baby-boomers' pensions and health and care services but also service the previous generations' debts. In addition, they will need to find employment in an economic situation where the problems may still be unresolved.

Helsinki, 10 December 2015

Erkki Liikanen

Governor of the Bank of Finland

Tags

- structural reforms
- public debt
- cost-competitiveness

Finland's economic situation remains difficult

TODAY 2:00 PM • BANK OF FINLAND BULLETIN 5/2015 • ECONOMIC OUTLOOK

The Finnish economy is still in a difficult situation. During the forecast period, the return to growth will be very sluggish and much slower than in the rest of the euro area. Developments in Finland's export markets now look weaker than previously forecast, and as a result foreign trade will give little stimulus to the economy in the immediate years ahead. During the forecast period, growth will depend on domestic demand. In 2016, the Finnish economy will grow 0.7%, followed by 1.0% in 2017. Risks to the forecast are predominantly on the downside and productivity development will be weak.

World trade growth, and hence Finland's export demand, was much more sluggish in 2015 than expected in the Bank of Finland's June 2015 forecast. Chinese growth has slowed, and the Russian economy will continue to contract during the forecast period 2015–2017. On the other hand, growth is fairly brisk in important Finnish export markets in Europe and the United States, and euro depreciation will help facilitate exports outside the euro area. The continued accommodative monetary policy stance will boost euro area growth, thereby improving the outlook for Finnish exports.

Increasing investment in the euro area will support export growth in 2016. The weakening trend in Finland's cost-competitiveness will, however, not be turned around during the forecast period, and Finnish exports will not reach the pace of growth in the export markets. At the present moment, factors that have usually facilitated a speedy recovery in exports (such as rapid growth in world trade or especially competitive, new

export products) are lacking. The alternative scenario explores a situation in which exports do not begin to grow at all during the forecast period and the gap between exports and the export markets deepens.

Consumer price inflation will continue to be exceptionally slow in the forecast years, reflecting the sluggish trend in crude oil prices. In April 2015, Finnish inflation dipped below the euro area average, and the difference in price levels relative to the rest of the euro area has slowly begun to narrow. Inflation according to the harmonised index of consumer prices (HICP inflation) will average -0.1% in 2015, picking up to 0.3% in 2016 and 1% in 2017.

Nominal earnings will rise moderately in the forecast period in accordance with the current labour market agreement, and the slow inflation will support growth in real earnings, particularly in the early part of the forecast period. Despite the wage restraint, the growing trend in unit labour costs would appear set to continue at a faster pace than in the rest of the euro area, as productivity growth will continue to be very slow.

Private consumption will increase only moderately in the forecast years, but even weak growth will help sustain private demand. Household incomes have developed in a relatively stable manner during the recession years. This is partly due to the increased significance of current transfers as a source of income, particularly on account of the increase in the retired population. In fact, the growing share of households' income formation taken by pensions has reduced the sensitivity of private consumption to the business cycle.

During 2015, there were at last some signs of a recovery in investment activity and rising investment expectations. Investment is forecast to enter a period of gentle growth in 2016 and 2017, as gradually strengthening external demand and the projects already underway support an increase in corporate fixed investment.

The steep labour market decline that continued until June 2015 has now bottomed out. Due to the weak first half of the year, however, the number of employed will remain more or less the same as in 2014, while the unemployment rate will rise to 9.4%. The labour market situation will improve only slowly in the forecast period on account of the sluggish growth in the economy and an increase in structural unemployment.

The rapid growth in the number of asylum seekers has also raised questions over the economic impacts of immigration. Over the longer term, the key factor here is how successful immigrants are in finding employment. Most immigrants are of working age, hence immigration could potentially ease the problems related to a contracting labour force. Effective integration can help immigrants find employment.

Finland's general government fiscal position has been in deficit for 6 years already, causing a substantial increase in the public debt. During the forecast period, general government debt will exceed 68% of GDP, and in 2017 it will be twice the level of 2008. The pace of debt accumulation is a matter for concern, as Finland's longer-term growth outlook is weak, on account of the prolonged recession, contraction in the working-age population and the ongoing restructuring of Finnish industry. Despite the Government's consolidation measures, the general government structural deficit will show scarcely any

improvement in the forecast period, as the surplus on the earnings-related pension funds is continuing to erode due to the rapid increase in pensions expenditure.

A review of Finland's external balance in light of the financial balance of the various sectors reveals a major change since the global financial crisis, but one that has attracted too little attention. In contrast to previous years, both households and the public finances have since 2009 been simultaneously in deficit. The external balance of the economy has, in contrast, long been bolstered by the financial surplus in the corporate sector. This trend is a cause for concern, as the corporate sector's financial surplus is sustained by the low level of corporate investment. The Finnish economy is currently running on debt at the same time as the potential output of the economy continues to decline. This trend is unsustainable.

Finnish growth to remain among the weakest in the euro area

According to the Bank of Finland forecast, GDP will contract by 0.1% in 2015. Domestic demand will pull GDP growth into positive territory in 2016, but it will remain very muted. Growth will reach 0.7% and 1.0% in 2016 and 2017, respectively. In the forecast years, GDP in Finland will improve only by a total of 1.6%, while growing in the euro area by 5.1% over the same period. Risks to the forecast will continue to lie on the downside, and productivity performance will be weak.

Table 1. Forecast summary

Change on previous edellisestä year

	2014	2015[f]	2016[f]	2017[f]
Gross domestic product	-0,4	-0,1	0,7	1,0
Private consumption	0,5	0,5	0,6	0,6
Public consumption	-0,2	-0,1	0,6	0,6
Private fixed investment	-3,9	-1,1	3,3	2,8
Public fixed investment	-0,9	-2,3	1,3	1,4
Exports	-0,7	0,1	2,1	2,7
Imports	0,0	-2,8	3,2	2,8
Contributions to growth from components of demand				
Domestic demand	-0,5	0,0	1,1	1,0
Net exports	-0,3	1,1	-0,4	0,0
Inventory change and statistical discrepancies	0,4	-1,2	0,1	0,0
Savings ratio, households	-0,3	0,1	0,6	0,7
Current account, % of GDP	-0,9	-0,1	-0,2	-0,3
Labour market				
Hours worded	-0,7	0,1	0,5	0,5
Number of employed	-0,4	-0,3	0,4	0,4
Unemployment rate, %	8,7	9,4	9,2	9,1
Unit labour costs	1,4	1,7	1,1	1,0
Compensation per employee	1,4	1,8	1,4	1,5
Productivity	0,0	0,2	0,3	0,5
Gross domestic product, price index	1,6	0,5	1,0	1,0
Private consumption, price index	1,6	0,2	0,4	1,0
Harmonised index of consumer prices	1,2	-0,1	0,3	1,0
Excl. energy	1,5	0,3	0,5	0,8
Energy	-1,7	-5,8	-1,8	3,6

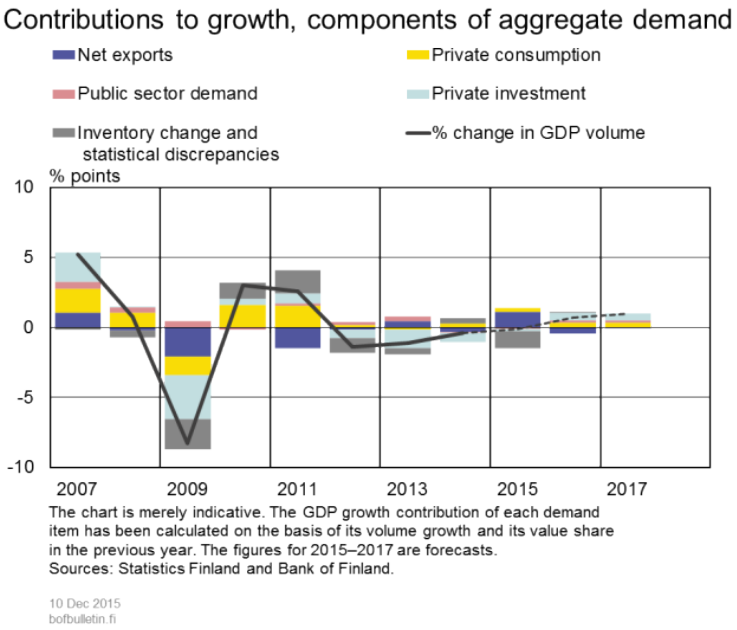
f = forecast
Source: Statistics Finland and Bank of Finland

Chart 1.

Economic growth in the forecast period will hinge on private consumption and investment. The exceptionally accommodative monetary policy will maintain a low level of lending rates for households and non-financial companies, support consumption and enable a pick-up in investment following a period of contraction lasting several years. The contribution of net exports to economic growth will remain limited during the forecast period, as the usual pull is not coming from Finland's export markets and competitiveness has not improved.

The cut-off date for the statistical data and other information included in the forecast was 19 November 2015. On 4 December 2015, Statistics Finland released the latest quarterly national accounts data, which are discussed more closely in a separate article.

Chart 2.



Households: Slow inflation supports growth in purchasing power

Current growth in private consumption, though subdued, has helped sustain domestic demand. Private consumption will continue to rise at a moderate rate over the forecast years, with the rate of growth remaining practically unchanged from 2015, at around 0.5%, in 2016 and picking up slightly in 2017.

The prolonged recession is reflected in consumer confidence, which has weakened almost continuously since May 2015. In autumn, consumers' expectations of both Finnish economic developments and of their own prospects have declined. However, even large fluctuations in the consumer confidence indicator are known to occur without being instantly reflected in household consumption behaviour.

Real household income is expected to increase by 0.8% in 2015. This means a turn for the better in household income development, after three years of stagnation or contraction in real household income. While earnings growth will be sluggish in 2015, growth in real household income will be buoyed by falling consumer prices. Nominal wages will continue to increase only slowly in 2016 and 2017, but real earnings will rise, supported by subdued inflation, especially in 2016. A slight improvement in employment will also begin to drive up real household earnings, which will continue to increase at an average rate of just under 1% over the forecast years.

Changes in the taxation structure, together with higher social security contributions, will lower households' disposable income by around EUR 500 million in 2015 and by roughly the same amount in 2016–2017. The major loss of purchasing power in 2015 is related to the increase in indirect taxes, whereas in 2016 it will derive from an increase in the

unemployment insurance contribution, and in 2017 from an increase in pension contributions.

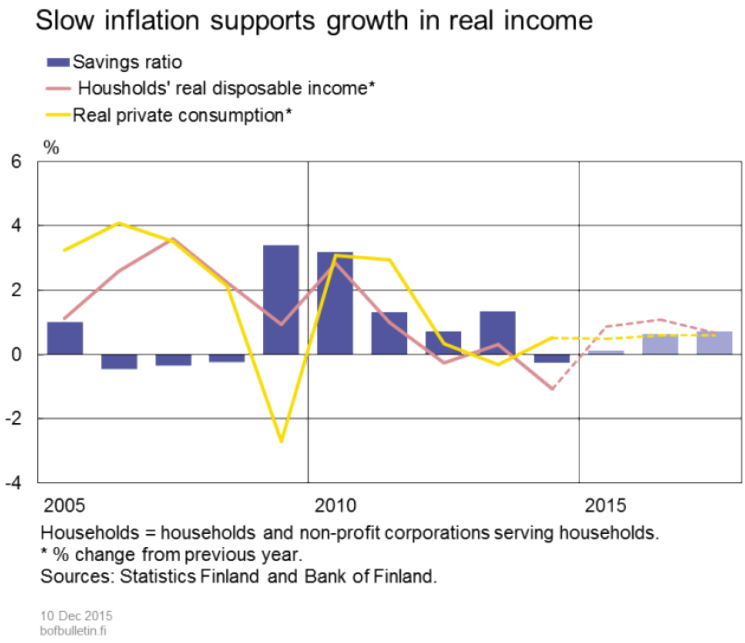
In 2015, the availability of instalment-free periods on housing loans has bolstered growth in households' purchasing power. The total value of housing loan contracts renegotiated by autumn 2015 amounted to around EUR 13 billion. This is estimated to increase the amount of household assets available for other consumption and savings by a little over EUR 500 million in 2015 and a little under EUR 200 million in 2016.

Income transfers have gained in importance as a source of income, in part due to rising unemployment, but above all to growth in the retired population. In 2015, the retired population in Finland already reached over 1.5 million people. Similarly, newly awarded pensions have grown in amount, reflecting the longer working careers of new retirees. Pension income is, at least in the short term, independent of economic cycles, and, hence, a higher share of pension income in household income formation will help reduce the sensitivity of private consumption to cyclical fluctuations.

The sluggish income development witnessed in recent years has had a surprisingly small impact on private consumption, as the household savings ratio has fallen during the recession. The savings ratio will pick up slightly in the forecast years, but will remain historically low.

In step with house purchases and rising nominal house prices, the stock of outstanding housing loans has expanded, while the low level of interest rates has supported households' debt servicing capacity. The availability of instalment-free periods on housing loans has also contributed to the expansion of the housing loan stock. In the second quarter of 2015, households' debt-to-income ratio had already surged to 123%, and debt accumulation is expected to continue also in the forecast years.

Chart 3.



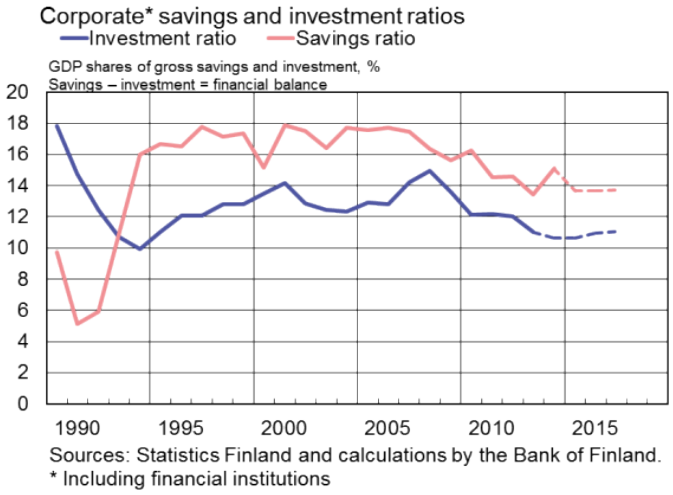
Investment ratio still low

Investment in Finland has been contracting for several years. Developments have been much weaker than in competing countries and the euro area as a whole. In 2015, we have finally seen some signs of investment recovery and expectations have risen, with a slight upturn in investment forecast for 2016–2017.

Private investment has declined considerably in recent years. Investment is more than 15% below the 2011 level and, at the same time, corporate profitability – operating surplus in relation to value added – has deteriorated. Private investment has declined much more than total output, which has led to a drop in the total investment ratio. Both fixed and residential construction investment have contracted considerably since 2011. The GDP share of corporate fixed investment has not been so low since the mid-1990s (Chart 4).

Chart 4.

Corporate fixed investment still low



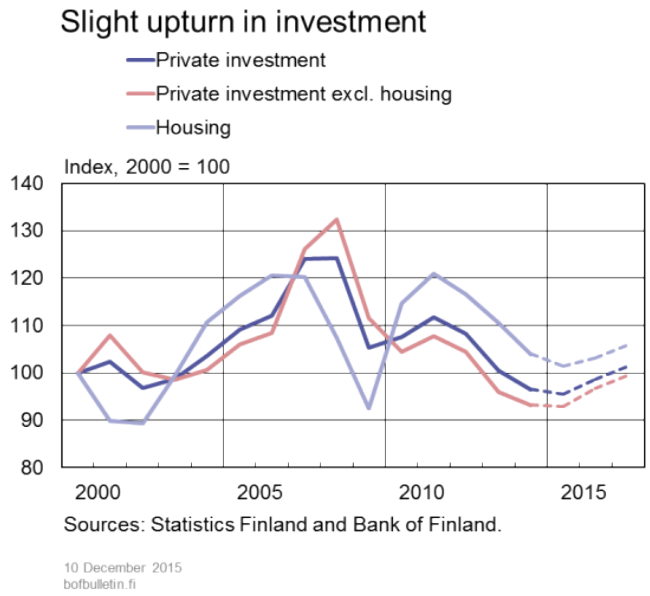
Changes in Finland's industrial structure, weak demand and growth prospects, excessive surplus capacity, uncertainty over the future and an ageing population have all contributed to the subdued level of investment. Both surveys and the recent growth in corporate loans indicate that financial factors pose no obstacle to growth.

In 2015, investment is still decreasing. However, during the course of the year there have been some signs of a recovery in fixed investment. A number of individual, large investment projects are underway, turnover in construction has begun to grow and an industrial investment survey reveals that corporations estimate they will be increasing their investment. In 2015, residential construction has declined due to subdued new-build construction. On the other hand, the brisk pace of renovation work is expected to continue.

During the forecast period 2016–2017 private investment will begin to grow, particularly as corporate fixed investment increases (Chart 5). Growth in corporate fixed investment

will be bolstered both by gradually strengthening external demand and by projects already underway. In 2016, housing investment will increase as new-build construction picks up. The growth in investment will be sufficient to put the investment ratio of the economy on a slightly strengthening trajectory. However, despite the forecast recovery in investment, the investment ratio in the forecast period will remain well below the long-term average.

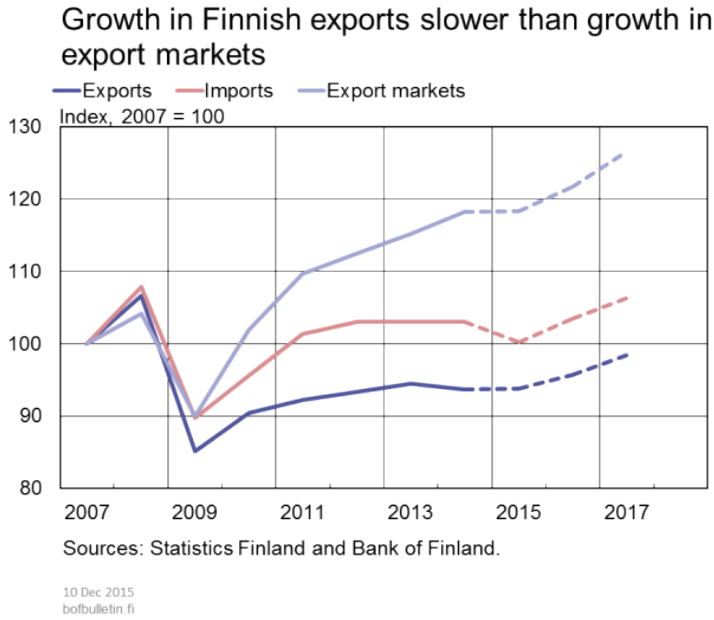
Chart 5.



Foreign trade: Euro area investment will support export growth

The recovery in Finnish exports has been delayed and is lagging behind the progress of exports in competing countries, although increased investment in the euro area will support export growth. (Chart 1). Global growth prospects have deteriorated, particularly in the emerging economies, bringing uncertainty to the budding growth. The depreciation of the euro will facilitate exports to countries outside the euro area.

Chart 6.



Finnish exports largely comprise capital goods and services, so increased investment in the euro area will generate an upturn in Finnish exports in 2016. The large proportion of capital goods explains the delay in export growth compared with other euro area countries, and export growth will remain slower than the pace previously witnessed.

The growth impact of net exports (the difference between exports and imports) will in 2015 remain positive due to the contraction in imports of goods and services. Increased investment and exports will also lead to increased imports, so the positive impact of net exports will fade towards the end of the forecast period.

The export markets will continue to grow, with support from the US and European economies, but growth will be slower than previously expected. The slowdown of the Chinese economy and the increasingly weak prospects for other emerging economies have added uncertainty to the outlook for Finnish exports.

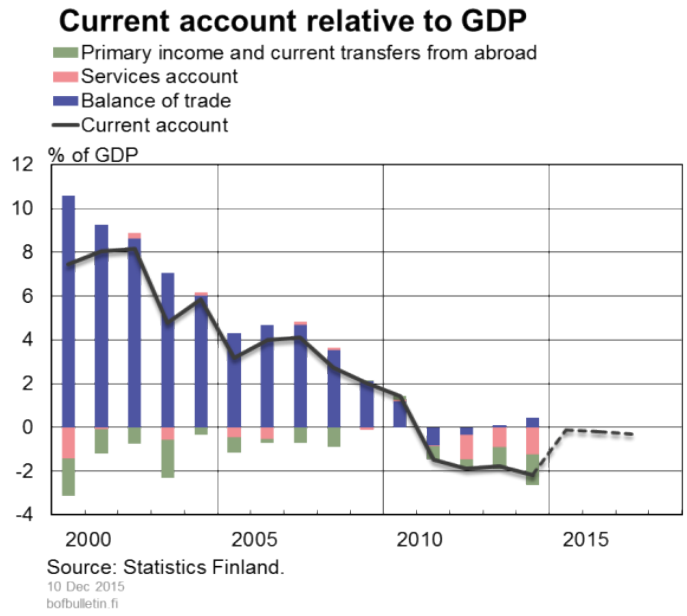
Export growth will continue to be slower than the progress in the export markets. Since the turn of the millennium, Finland's share of world trade has contracted sharply, particularly compared with the growing share of the emerging economies. Over the forecast horizon, export growth will remain slower than in competing countries, so market shares will also contract relative to other advanced economies.

The euro's depreciation against the dollar supports Finnish exports. On the other hand, the prospects of exports to Sweden and Russia are subdued after the depreciation of the krona and the collapse of the rouble.

In 2015, the value of foreign trade suffered from the drop in the price of crude oil, which particularly reduced imports. In addition, the recession in the Russian economy cut exports. By contrast, increased exports of vehicles to Germany expanded exports.

The goods and services account turned positive in 2015 as a result of improved terms of trade, and the account will remain positive throughout the forecast period. (Chart 2). The terms of trade improved primarily in response to the drop in the price of crude oil, so the impact will be temporary. The current account will be close to balance due to negative net current transfers.

Chart 7.



Developments in the exports and imports of goods over the past 25 years has been analysed in a separate article.

Labour market: Weakening labour market trend bottomed out

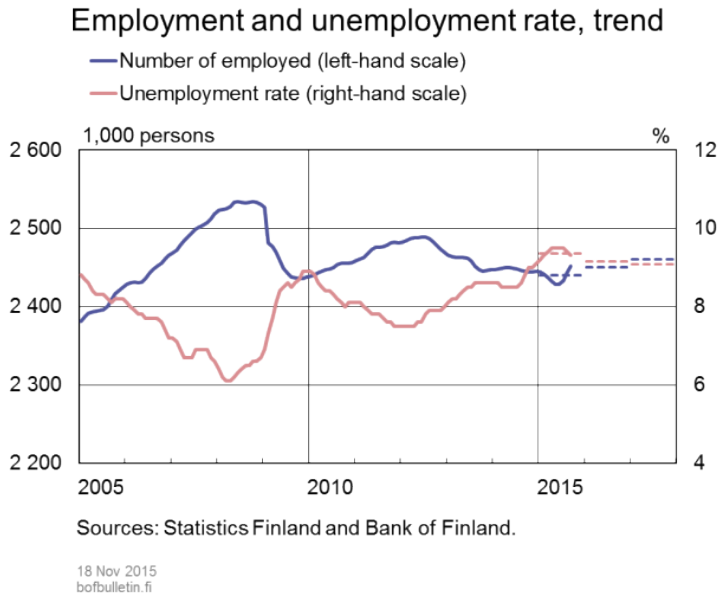
The decline in employment and increase in unemployment appear to have flattened out, but labour market conditions will improve only slowly in the forecast period. Subdued economic growth and high structural unemployment will slow the improvement in employment, and unemployment will remain high.

The steep deterioration in labour market conditions since summer 2014 has eased. The rise in the trend unemployment rate has come to a halt and, in recent months, the rate has fallen to 9.3%. The number of people employed has increased and the trend employment rate has improved significantly.

In recent years, the number of people employed has decreased particularly in manufacturing. The recent improvement in labour market conditions is partly due to the fact that manufacturing employment has finally recovered. The number of people employed has grown in 2015 also in social and health care services, and to a slight degree in construction. In the trade sector, in contrast, employment developments have been weak.

Due to the weakness of the labour market in the first part of the year, the number of people employed in 2015 will remain unchanged from the previous year but will post an increase of 0.2% in 2016 and 0.4% in 2017. The unemployment rate will climb to 9.4% this year, falling back slowly to 9.1% in 2017 (Chart 8).

Chart 8.



Due to the subdued economic growth, labour market conditions will improve only slowly in the forecast period. The prolonged weakness of the economy has been reflected in an increase in long-term and structural unemployment in recent years. The average duration of unemployment continues to lengthen, and the vacancy filling rate is still slow. In recent years, flows between employment and unemployment have slowed and job creation is lethargic. Overall, labour market dynamics continue to be sluggish and the unemployment rate will remain persistently at over 9% throughout the forecast period.

The arrival of asylum seekers in Finland during the autumn will have only a minor impact on the labour market in the forecast period. Due to the asylum seekers, the unemployment rate is expected to climb by a few tenths of a percent towards the end of the forecast horizon. The effect of immigration on the labour market and the public finances is examined in more detail elsewhere.

Costs and prices: Inflation exceptionally slow

Developments in consumer prices remain exceptionally subdued. Inflation according to the harmonised index of consumer prices (HICP inflation) will average –0.1% in 2015, but will rise to 0.3% in 2016 and 1.0% in 2017. Increases in indirect taxation will push up inflation by 0.3 of a percentage point in the forecast period.

The largest individual factor that has affected consumer prices in 2015 is the drastic dip in the world market price of crude oil since summer 2014. The price of crude oil has been reflected directly in fuel prices, and indirectly in the prices of other goods in the

production of which energy is used as an intermediate good. Developments in the price of crude oil are expected to remain subdued in the forecast period. In the early part of 2016, there will be a temporary inflationary peak as the impact of the dip in the price of crude oil fades. In addition to energy prices, many other commodity prices have also declined in recent years.

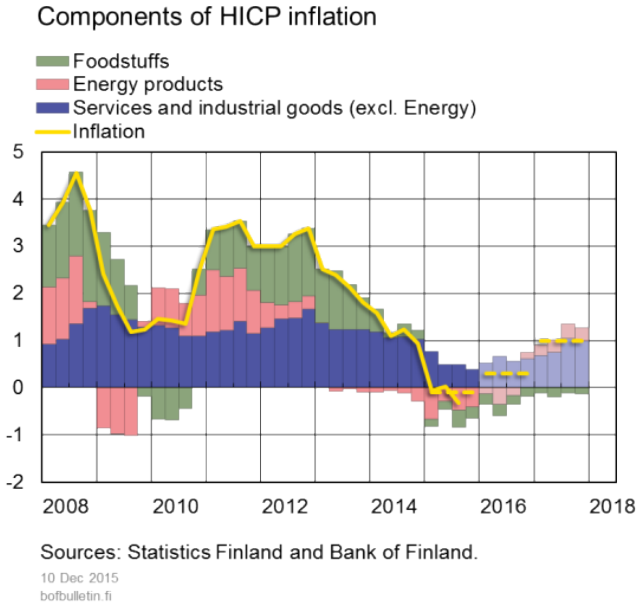
The prices of manufactured consumer goods are expected to continue their downward trend. The fall in world market prices of commodities and slowdown in the emerging economies will push down the prices of industrial goods. On the other hand, the depreciation of the euro will push up the consumer prices of imported goods, which will become manifest towards the end of the forecast period.

Food prices started to decline in 2015. Price competition in the daily consumer goods trade, low prices of crude oil and the fall in world market prices of food commodities will sustain the subdued developments in consumer prices throughout the forecast period.

Services prices are the only items fuelling inflation in 2015. Rents, which are included under services prices, and the prices of other housing services have risen in recent years at a rapid pace. In early 2015, there was a broadly based slowdown in services inflation, suggesting that the impact of a weak economy and moderate wage developments have passed through to consumer prices.

Domestic inflation slowed in April 2015 to a level below the euro area, and thus the difference in price levels relative to the euro area, which had been expanding since the financial crisis, has begun to slowly contract. Price developments in Finland and the euro area are examined in more detail elsewhere in this publication.

Chart 9.



Nominal earnings will grow by some 1% per annum in the forecast period. The Pact for Employment and Growth concluded by the social partners in 2013 defines the pay rises

for 2015 and 2016. Earnings will grow in real terms, too, due to the very slow rise in prices.

Growth in unit labour costs will slow in 2016–2017 to some 1%. Competitiveness, as measured by unit labour costs, will not improve relative to the euro area (European Commission's Autumn 2015 Economic Forecast). Even though earnings growth is moderate relative to past experience, this does not improve cost-competitiveness, because, at the same time, non-wage labour costs are rising and improvements in labour productivity are sluggish. Labour productivity has declined in recent years, due partly to structural changes in the economy. Productivity growth will remain exceptionally modest throughout the forecast period.

Chart 10.

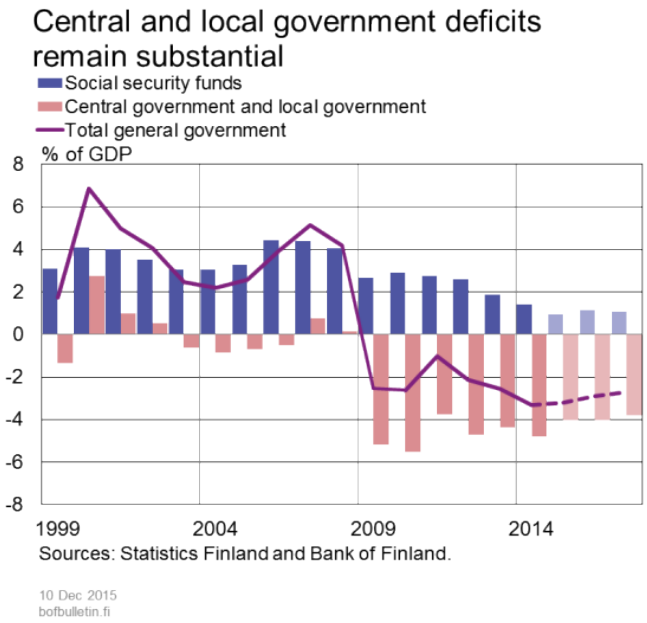
Public finances: Debt will continue to grow at a rapid pace

Finland's public finances will continue to post a deficit of close to 3% during the forecast period, and the public debt will increase further to 68% of GDP in 2017. The forecast takes account of the new Government's budget proposal for 2016 and measures envisaged for 2017. The Government's objective is to halt the growth in the debt ratio during the government term, but it is uncertain whether the objective will be achieved.

The general government deficit exceeded the 3% threshold set in the EU's Stability and Growth Pact already in 2014. The deficit was lower than expected, and the previous Government did not decide on any new measures in the early part of 2015 beyond earlier savings measures. Thus, the deficit will exceed the threshold in 2015, too, amounting to 3.2% of GDP. Weak economic growth will drag down fiscal consolidation in the next few years, too. In response to consolidation measures, the general government deficit will contract to 2.9% in 2016, and further to 2.7% in 2017 (Chart 11). Fiscal policy was

accommodative in 2014, but will tighten in 2015 and 2016. The general government structural deficit will barely change, since pension expenditure will continue to grow at a brisk pace despite the cyclical situation (Chart 1 in Pace of debt growth disquieting).

Chart 11.



Central government finances will improve slightly in 2015 and through the forecast period, but will still remain substantially in deficit. The new Government already outlined targeted savings measures in its Government Programme. The measures amount to around EUR 4 billion at the overall general government level during the government term. The savings measures comprehensively cover the central government expenditure items, but the largest cuts will be made in the largest expenditure items, i.e. social benefits and education. Expenditure on development aid will also be markedly decreased. The Government will ease earnings-related taxation and tighten indirect taxes so that, overall, taxation will ease slightly. At the same time, there will be a one-off investment of EUR 1.6 billion in 2016–2018 to support key government projects and reduce the infrastructure maintenance backlog. The forecast also takes account of the addition of EUR 450 million to the 2016 Budget due to the refugee situation. On-budget debt will rise to 53.5% of GDP in 2017.

Local government finances will also remain in deficit in the forecast period. The rate of increase in municipal taxes will moderate overall in 2016, and the focus of local government finances will shift in the forecast years towards adjustment of expenditure. Measures available for attaining more balanced local government finances include savings achieved via reductions in municipal responsibilities and commitments, and increased revenue from higher service charges and real-estate taxes.[1] Growth centres, in particular, are facing increasing service needs and investment due to expansion. The challenge for regions suffering net migration loss is to reconcile population ageing and a

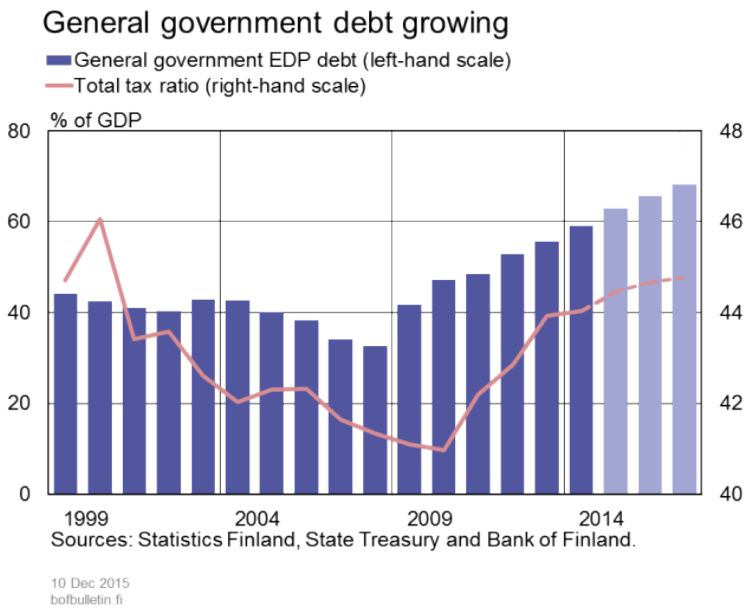
1. These measures have not been taken into account in the forecast.

weakening funding base. Local government debt will continue to grow rapidly, exceeding 10% of GDP in 2017.

The surplus on the earnings-related pension funds will remain at 1.3% in the forecast period. Earnings will be fuelled by an increase in pension premiums in 2017 in accordance with the pension reform. Pension expenditure growth will moderate slightly, as index increments to pensions will remain low due to slow inflation and the slow rise in the level of earnings. The number of pension recipients will continue to grow at a brisk pace. The financial position of other social security funds will be eroded by the deficit on the unemployment insurance fund, in particular. In the context of the agreement to continue the Pact for Employment and Growth, it was also agreed to increase unemployment insurance contributions by 1 percentage point in 2016. The downturn in the number of unemployed in 2016 will also gradually ease the position of the social security funds, as expenditure on unemployment and social assistance will begin to contract.

Influenced by increases in social security contributions, the tax ratio will rise slightly in 2016–2017, to 44.8%. The Government's objective is to halt the growth in the debt ratio by the end of the government term. Growth in public debt will moderate in the forecast period, but the debt ratio will rise to over 68% in 2017.

Chart 12.



External balance: Current account bolstered by corporate sector

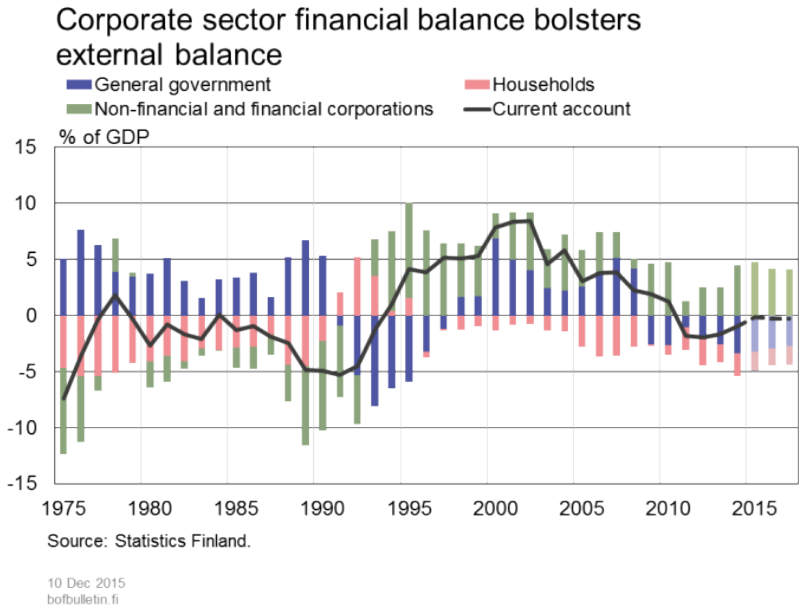
An examination of the external balance of the Finnish economy in the light of different sectors' financial balances reveals the big change the Finnish economy has undergone in the recession years. Unlike before, both households and the public sector have simultaneously been incurring debt since 2009. In contrast, the economy's external balance has long been supported by financial surpluses in the corporate sector.

Households and the public sector alternately showed deficits and surpluses from the 1970s until the recession years. One sector's surplus financed the other's deficit. For example, in the depression years of the 1990s, an increase in the household savings ratio and a contraction in housing investment slowed external imbalance growth amid the accumulation of public debt. In the years preceding the current recession (i.e. in 2009 and 2010) the household savings ratio was also high (cf. Chart), but it has subsequently decreased strongly. Instead, in recent years, household debt accumulation has increased and is expected to do so in the forecast period, too, in parallel with public sector debt.

The Finnish corporate sector has shown financial surpluses since the beginning of the 1990s. During the recession, the sector has remained in surplus, but the surplus is now explained by factors other than those in past decades. At the beginning of the 1990s, the corporate sector's financial balance was an indication of improving capital positions. Finnish companies were digesting large investments made in the 1980s in their efforts to rapidly internationalise. The financial balance reflected good corporate profitability since the latter part of the '80s. In particular, the large operating surplus of the electronics industry boosted the entire corporate sector's financial surplus. Corporate profitability has weakened since the financial crisis, with the sector's surplus now being mainly accounted for by its historically low investment ratio. Notably, corporate fixed investment in manufacturing has declined sharply.

In the recession years, domestic demand has been sustained by household and public consumption rather than investment. Towards the end of the forecast horizon, the household savings ratio will turn positive and the general government deficit will contract to some extent. The economy's external balance will improve, as the corporate sector's surplus is sufficient to cover other sectors' deficits. This is causing concern, however, as the corporate sector's financial surplus is maintained by the paucity of its investment. Such a trend is unsustainable in the long term.

Chart 13.



Tags

- forecast
- Finland
- economic situation

RISK ASSESSMENT

Forecast risks predominantly on the downside

TODAY 2:00 PM • BANK OF FINLAND BULLETIN 5/2015 • ECONOMIC OUTLOOK

Growth in corporate investment and exports is expected to be reflected in slowly improving output in the immediate years ahead. Nevertheless, owing to increased uncertainties in the global economy, there is a possibility that exports will not yet begin to rebound. On the other hand, the pick-up in domestic investment may be jeopardised if competitiveness problems cannot be resolved and the high degree of uncertainty surrounding fiscal consolidation persists. For these reasons, another possibility is that economic activity in the immediate future will be weaker than forecast.

Developments in international demand increasingly uncertain

Finland's export outlook is being overshadowed by an increase in global risks. The refugee question and the weakening of the security situation following terrorist attacks have added to uncertainty in Europe. Moreover, growth prospects in the emerging economies have continued to worsen. In particular, there is a higher risk of deterioration in China's economic situation. Euro area growth may thus be slowing before it even really got started.

Even so, the preconditions for faster-than-projected demand growth in Europe do exist. The ongoing low level of interest rates and continuation of the ECB's asset purchase programme further reduce funding costs and, by extension, the return requirements on

investment. Demand growth is also being buttressed by the fall in the price of oil, which may be even greater than assumed. In addition, fiscal policy leeway has increased in many EU countries as fiscal adjustment measures have reduced deficits. The risk of an abrupt tightening of fiscal policy has, therefore, generally diminished, helping to bolster demand growth in Europe. These factors may even lead to faster-than-forecast growth in demand for Finnish exports.

However, uncertainty may impair the effectiveness of the accommodative monetary policy and other factors supportive of growth. As economic predictability weakens, it typically slows most the mobilisation of fixed investment projects. If investment in EU countries were to become bogged down, this would be particularly harmful for Finland's export outlook.

Domestically, economic policy and pay settlements are among the main risk factors

Finland's economic activity in the immediate years ahead will be strongly affected both by the progress made with the Government's policy measures and structural projects to consolidate the public finances and by developments on the labour market. If the programme to cut the growing public debt is effective, this will stabilise the operating environment for non-financial corporations, thereby shoring up investment demand. It is also of utmost importance to have concrete targets for the social and health care reform and the related costs, as the reform will have a significant impact on household finances.

In any case, the overall risk related to the stance of economic policy has increased in response to the higher levels of public debt. Central and local government balance sheets afford less scope than before for the operation of automatic fiscal stabilisers. Even small negative surprises will, therefore, require a reassessment of fiscal policy. In addition, the mild current account deficit could rapidly deepen merely if the price of oil were to rise faster than predicted.

During the forecast period, the functioning of the domestic markets will still be strongly predicated on both public and household borrowing, but pay increases that may be too rapid from the perspective of competitiveness would still support consumer demand growth. During the forecast period, growth in export earnings will remain slow and, with ongoing population ageing, an increasingly large part of the population will be outside the labour market. As a consequence, the forecast foresees an ever greater part of domestic demand still being based on income from the public sector, financed through taxes, pension contributions and borrowing. This will be reflected in growth in external debt. Clearly, domestic demand growth cannot rest indefinitely on the weakening external balance.

Domestic risk factors can thus be assessed based on what path the economy takes towards a more balanced trend. The forecast scenario is based on a gradual recovery in exports and an assumption that there will be no change in Finland's credit rating. Low interest rates will enable an edging up of debt. If these factors bolstering domestic demand were to begin to break down, the economic outcome would be much weaker than projected (see alternative scenario).

Tags

- economy
- Finland
- risks

ALTERNATIVE SCENARIO

What if exports don’t recover in the years ahead?

TODAY 2:00 PM • BANK OF FINLAND BULLETIN 5/2015 • ECONOMIC OUTLOOK

Finnish exports declined 0.8% in 2014, lagging further behind the export markets and world trade growth, and they are set to barely grow at all in 2015. The scale of the problem is illustrated by the fact that the volume of exports is still approximately EUR 10 billion lower than in 2007. If exports had continued to grow on their long-term trend after 2007, the loss now would be that much greater. If the negative indirect impact of poor export performance on e.g. investment were taken into account, the final bill would increase further still.

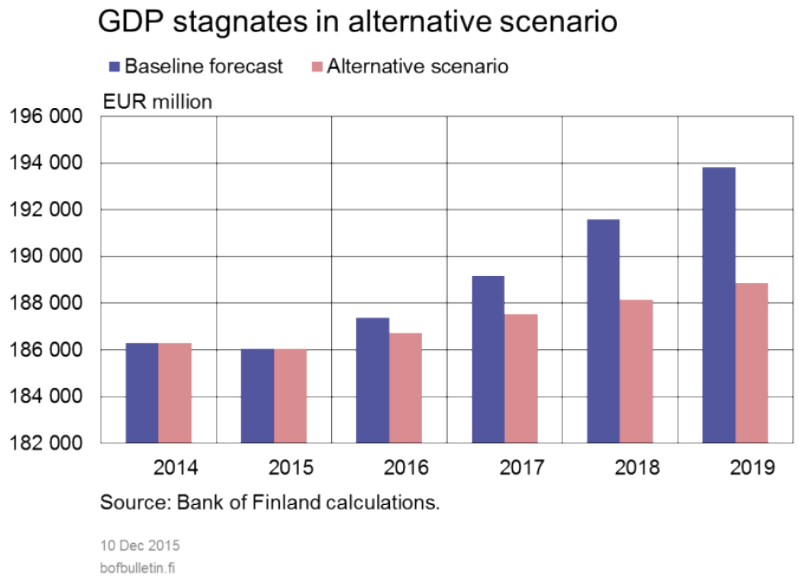
The loss of export markets has now continued for almost a decade. Structural changes in industry and an erosion of competitiveness have shifted the focus of growth to the domestic market, and the public finances have deteriorated sharply. There is a threat that this sort of development will continue in the years ahead if cost-competitiveness and export performance cannot be improved.

This alternative scenario assesses the dynamic effects of exports on the Finnish economy in a situation where export performance remains much weaker than in the baseline forecast. In the scenario, exports fail to equal export market growth, remaining at the level of 2015 for three years. Wages and salaries are assumed to develop as foreseen in the baseline, with no improvement in cost-competitiveness. Moreover, poor export performance gradually begins to erode investor and consumer confidence in the Finnish economy. Deteriorating confidence leads to rising risk premia on domestic interest rates

and an increase in the savings ratio in 2018 and 2019. Higher risk premia also add to the interest expenditure on government debt.

The alternative scenario foresees a GDP volume in 2019 of about EUR 5 billion below that of 2015. GDP growth in 2016–2019 is, on average, 1 percentage point slower than the baseline. The export volume envisaged in the scenario for 2019 is approximately EUR 8 billion smaller than in 2015. Given the considerable use of imported inputs in exports, imports also fade in the wake of the declining export performance. Losses in GDP growth thus remain more limited. However, imports contract by less than exports, because private consumption and investment continue to support the weakening economic growth. Net exports turn negative, and Finland accumulates foreign debt.

Chart.



The fragile export performance is also reflected in employment, total wages and salaries, and consumer confidence, with their resultant weakening gradually beginning to dampen private consumption growth. Although consumers' growing uncertainty raises the savings ratio, it remains below the baseline figure amid slower income developments. Price increases in the economy are also sluggish. Poor export performance adds to uncertainty over investment decisions, thus reining in private investment growth. Improvements in investment are also constrained by higher risk premia.

The direct impact of the anaemic export performance on the public finances is limited, as exports generate no tax revenues, but the indirect impact is substantial. Consequently, the alternative scenario assumes a significant deterioration in the public finances compared with the baseline. The deficit grows by close to 1 percentage point in a few years, and the debt ratio at the end of 2019 is 2.6 percentage points (around EUR 5 billion) higher.

If Finland's international competitiveness remains unchanged or weakens further still, it is possible that exports cannot be increased as hoped for in the immediate years ahead, resulting in a deepening gap between Finland's exports and the export markets. Such

developments would have very damaging implications for economic growth and the public finances over a relatively short horizon.

Table.

Alternative scenario: Exports stagnate

Supply and demand 2015–2019 at 2010 prices

		2015	2016	2017	2018	2019	2020	2021	2019 deviation, %
% change on previous year									
GDP	Baseline forecast	-0.1	0.7	1.0	1.3	1.2	1.6	1.5	193,828
	Alternative scenario	-0.1	0.4	0.4	0.3	0.4	0.9	0.7	188,872
	Difference	0	-0.3	-0.5	-1	-0.8	-0.7	-0.8	-2.6
Imports	Baseline forecast	-2.8	3.2	2.8	3	2.8	2.7	2.8	82,418
	Alternative scenario	-2.8	2	1	0.6	0.8	1.1	1.2	76,647
	Difference	0	-1.2	-1.8	-2.4	-2	-1.6	-1.6	-7.0
Exports	Baseline forecast	0.1	2.1	2.7	2.9	2.9	2.8	2.7	83,339
	Alternative scenario	0.1	0	0	0.1	0.5	1	1	75,525
	Difference	0	-2.1	-2.7	-2.8	-2.4	-1.8	-1.7	-9.4
Private consumption	Baseline forecast	0.5	0.6	0.6	1.3	1.6	1.5	1.3	107,757
	Alternative scenario	0.5	0.6	0.5	0.2	1	0.9	0.5	105,943
	Difference	0	0	-0.1	-1	-0.6	-0.6	-0.8	-1.7
Private investment	Baseline forecast	-1.1	3.3	2.8	2.6	2.3	2.2	1.8	33,651
	Alternative scenario	-1.1	3.2	2.1	1.2	0.6	0.6	0.2	32,394

Source: Bank of Finland.

Alternative scenario: Exports stagnate

	Difference	0	-0.2	-0.7	-1.4	-1.7	-1.6	-1.7	-3.7
Export markets	Baseline forecast	0.1	2.8	3.9	4	3.9	3.9	3.9	134.3
	Alternative scenario	0.1	2.8	3.9	4	3.9	3.9	3.9	134.3
	Difference	0	0	0	0	0	0	0	0
Private sector output price	Baseline forecast	0.2	0.8	1.2	1.3	1.3	1.5	1.8	114
	Alternative scenario	0.2	0.5	0.7	0.4	0.7	1.1	1.4	111.4
	Difference	0	-0.3	-0.5	-0.9	-0.6	-0.4	-0.4	-2.3
Private consumption deflator	Baseline forecast	0.2	0.4	1	1.1	1	1.2	1.6	114.4
	Alternative scenario	0.2	0.2	0.6	0.6	0.5	0.8	1.3	112.5
	Difference	0	-0.3	-0.4	-0.6	-0.5	-0.3	-0.3	-1.7
Hours worked	Baseline forecast	0.1	0.5	0.5	0.5	0.4	0.4	0.3	4,191
	Alternative scenario	0.1	0	-0.3	-1	-0.7	-0.5	-0.7	4,029
	Difference	0	-0.5	-0.8	-1.5	-1.1	-0.9	-1	-3.9
Disposable household income	Baseline forecast	1.1	1.5	1.6	2.4	2.8	2.6	2.7	2.8
	Alternative scenario	1.1	1	0.8	0.9	1.7	1.7	1.7	1.7
	Difference	0	-0.5	-0.8	-1.5	-1.1	-0.9	-1	-1.1
Current account	Baseline forecast	-0.3	-0.5	-0.5	-0.5	-0.6	-0.7	-0.7	-0.6

Source: Bank of Finland.

Alternative scenario: Exports stagnate									
	Alternative scenario	-0.3	-0.9	-1.4	-1.7	-2.1	-2.4	-2.6	-2.1
	Difference	0	-0.4	-0.9	-1.2	-1.5	-1.7	-1.9	-1.5
General government net lending	Baseline forecast	-3.1	-2.9	-2.7	-2.7	-2.4	-2.5	-2.7	-2.4
	Alternative scenario	-3.1	-3	-2.9	-3.2	-3.2	-3.4	-3.7	-3.2
	Difference	0	-0.1	-0.2	-0.5	-0.8	-0.9	-1	-0.8
General government debt	Baseline forecast	62.8	65.7	68.1	69.7	71.1	71.9	72.4	71.1
	Alternative scenario	62.8	66.1	69	71.5	73.7	75	76.1	73.7
	Difference	0	0.4	0.9	1.8	2.6	3.1	3.6	2.6
Household savings ratio	SP:n ennuste	0.1	0.6	0.7	0.6	0.8	0.8	0.6	0.8
	Vaihtoehtoinen kehitys	0.1	0.4	0.1	0.2	0.4	0.3	0.2	0.4
	Poikkeama	0	-0.3	-0.6	-0.4	-0.5	-0.5	-0.4	-0.5
Employed	Baseline forecast	-0.3	0.4	0.4	0.4	0.4	0.4	0.3	2,480
	Alternative scenario	-0.3	0.1	-0.4	-0.9	-0.8	-0.5	-0.7	2,391
	Difference	0	-0.3	-0.8	-1.3	-1.2	-0.9	-1	-3.6

Source: Bank of Finland.

Tags

- Finland
- economic situation
- exports

FORECAST ASSUMPTIONS

Outlook for emerging economies worsened

TODAY 2:00 PM • BANK OF FINLAND BULLETIN 5/2015 • ECONOMIC OUTLOOK

Near-term growth in the global economy and world trade will be slower than previously forecast. However, low commodity prices and the condition of the monetary economy will support global growth. Economic recovery is expected to gradually gather strength in the euro area, becoming more broadly based. Exchange rate developments to date serve to bolster the outlook for euro area growth and inflation. The Russian economy will contract over the next two years, given the low price of oil. Economic growth in China has slowed, but will continue to be relatively robust.

The outlook for the global economy has weakened during the past six months. The sudden slowdown in economic growth in China was reflected in a considerable decline on global stock markets and rising long-term interest rates, but the situation has stabilised in the autumn. Capital inflows turning into capital outflows from emerging economies has impaired their prospects. The global economy is also being affected by uncertainty about the timing and size of the US Federal Reserve's monetary policy tightening. The ECB's macroeconomic projections envisage average global growth of 3.3% in 2015–2017.

Euro area monetary policy is exceptionally accommodative: policy interest rates are at the zero lower bound and a combination of forward guidance and asset purchases has brought long-term interest rates down. Credit operations have lowered the costs of bank funding and eased securities-based borrowing. Clear signs of an improvement in the economic situation are visible, for instance on the private credit markets.

Confidence in the economy has improved in the euro area, reinforcing the effects of the Eurosystem's measures on the real economy. Economic recovery is expected to gradually gather strength in the euro area and become more broadly based. Growth will be supported by rising real income in response to the fall in the oil price, low interest rates and depreciation of the euro. The underpinnings of growth will be domestic demand and, notably, private consumption. The growing number of asylum seekers will increase public expenditure and transfers to households. However, asylum seekers' integration into the labour force and the ranks of the employed will take time. In the ECB's macroeconomic projections, euro area growth is expected to pick up to 1.5% in the current year, to 1.7% in 2016 and 1.9% in 2017.

The US outlook is the strongest amongst the advanced economies, with the economy growing 2.6%, on average, in 2015–2017, according to the ECB projections. US growth will be sustained by strong private consumption and investment.

The near-term outlook for Japan is moderately positive. In China, economic growth is expected to climb to roughly 6.8% this year and to moderate to around 6.3% towards the

end of the forecast period. Russian growth has now been contracting significantly for three consecutive years. In the current year, the country's economy will shrink by more than 4%, driven by the low price of oil. In response to an assumed slight rise in the price of oil, the contraction in Russian GDP will bottom out during the forecast period.

World trade growth will remain much slower in 2015 than assumed in June. The ECB's macroeconomic projections foresee average world trade growth of 3.1% in 2015–2017. Growth in Finland's export markets will remain slower than world trade growth, averaging 2.3% in 2015–2017, which is in part attributable to the weakness of economic prospects in Russia in particular.

World market prices of commodities, and energy in particular, fell considerably in the summer and early autumn. The decline in the price of oil will make a positive contribution to global output prospects. In the course of 2016, the prices of crude oil and other commodities are forecast to begin to edge up slowly, but will remain well below those witnessed in recent years.

Based on market expectations, the 3-month Euribor will remain exceptionally low in 2017, at -0.1%. The yield on Finnish 10-year government bonds will rise slowly, reaching an average of 1.3% in 2017.[1]

Table

1. The interest rate assumptions in the forecast are derived from market expectations current on 16 November 2015. The interest and exchange rate assumptions are purely technical and do not anticipate the monetary policy decisions of the Governing Council of the European Central Bank or estimates of equilibrium exchange rates.

Forecast assumptions

	2013	2014	2015[f]	2016[f]	2017[f]
Finland's export markets[1], % change	2.4	2.7	0.1	2.8	3.9
Oil price, USD/barrel	108.8	98.9	53.8	52.2	57.5
Euro export prices of Finland's trading partners, % change	-2.9	-0.1	4.5	2.6	2.9
3-month Euribor, %	0.2	0.2	0.0	-0.2	-0.1
Yield on Finnish 10-year government bonds, %	1.9	1.4	0.7	1.0	1.3
Finland's nominal competitiveness indicator[2]	101.3	102.2	98.2	97.5	97.5
US dollar value of one euro	1.33	1.33	1.11	1.09	1.09

[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, 1999Q1 = 100

f = forecast

Sources: Eurosystem and Bank of Finland.

Tags

- Finland
- forecast

National accounts for the third quarter of 2015

TODAY 2:00 PM • BANK OF FINLAND BULLETIN 5/2015 • ECONOMIC OUTLOOK

On 4 December 2015, Statistics Finland published advance quarterly national accounts data containing the latest statistical data on Finnish economic developments in the third quarter of 2015.

The Bank of Finland's macroeconomic forecast presented in this publication was prepared before the release of the quarterly data by Statistics Finland. The forecast is based on the quarterly national accounts published by Statistics Finland in September, a flash estimate for the third quarter released in November and extensive indicator data on economic developments.

According to the flash estimate published in November, real GDP in the third quarter was 0.8% lower year-on-year and 0.6% lower quarter on quarter.

The most recent quarterly national accounts data signal a slightly more favourable development in real GDP for 2015 than the data previously published. However, economic growth has not returned to a clear upward trajectory during the year. Growth in domestic demand continues to be weak, and export performance has not returned clearly to growth.

According to the most recent quarterly national accounts, real GDP in the third quarter of 2015 declined by 0.2% year on year and 0.5% quarter on quarter. At the same time, real GDP growth for the second quarter was revised upwards. In response, real GDP for the first half of 2015 is higher than the September estimate.

The rate of private consumption growth in the first half of 2015 was higher than previously estimated. Private investment contracted in the first half of the year in year-

on-year terms, but the level of investment was slightly higher than in earlier accounts. Export growth was weaker in both the first and the second quarter than previously estimated.

Of demand components, lower net exports and a contraction in investment eroded GDP growth in the third quarter. Exports were 0.7% down on the previous quarter and 3.4% down year-on-year. Both goods and services exports declined year-on-year. Imports, in turn, were up 1.8% quarter-on-quarter, but down 3.4% year-on-year.

Private investment contracted 1.4% quarter-on-quarter and 3.6% year-on-year. The contraction in investment was broadly based, with the exception of investment in soil and water engineering. Investment in machinery and equipment was 1.5% down quarter-on-quarter and 5.2% year-on-year, while investment in housing construction was 0.4% down on the previous quarter. By contrast, investment in other civil engineering projects rose 6.3% year-on-year.

Private consumption grew 0.8% quarter-on-quarter, with consumption of consumer durables and services notably increasing from the previous quarter.

Value added at basic prices recorded a quarter-on-quarter decline of 0.4% in the third quarter. Output contracted particularly in electrical engineering and electronics. Value added in services was 0.1% down on the previous quarter, with business services and ICT business posting growth. Output in construction increased by 0.1%.

Work input grew. The number of people in employment rose by 0.1%, while the number of hours worked increased by 0.9% quarter-on-quarter. The wage bill was 0.5% up on the previous quarter.

Tags

- quarterly national accounts
- GDP
- private consumption
- exports

Pace of debt growth disquieting

TODAY 2:00 PM • BANK OF FINLAND BULLETIN 5/2015 • ECONOMIC OUTLOOK

The prolonged recession in the Finnish economy has been directly reflected in the public finances, which have posted a deficit for 6 years already. In 2017, the public debt will rise to over 68% of GDP, which is more than double the level recorded in 2008. Given that the longer-term outlook for Finnish economic growth is poor due to the prolonged recession, a dwindling working-age population and industrial restructuring, the upward trend in public debt is disquieting.

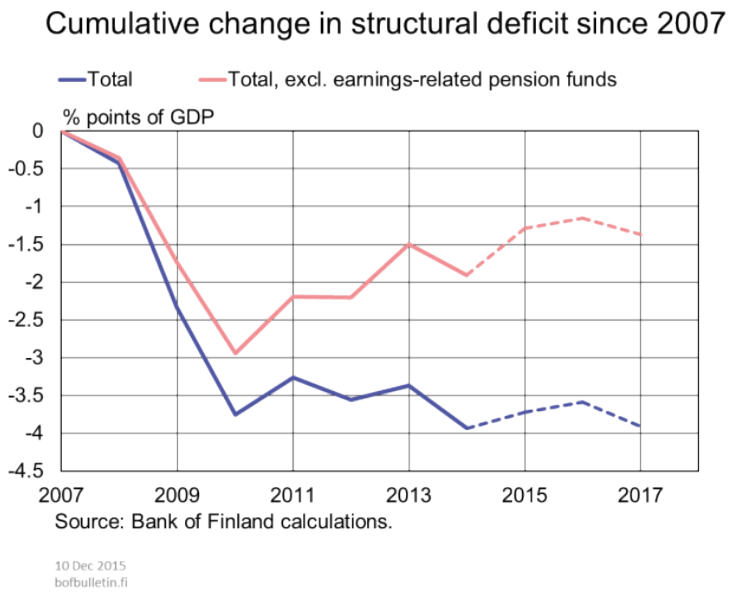
Achievement of Government objective uncertain

The new Finnish Government's objective is to halt the upward trend in the debt ratio during the government term and put an end to growth in euro-denominated debt by 2021. To underpin these objectives, it was agreed in the Government Programme to consolidate the public finances by around EUR 4 billion during the government term. According to the Bank of Finland forecast, it is uncertain whether either of the objectives will be achieved.

Even though the previous Government already applied fiscal policy in an effort to consolidate the central government finances, Finland's public finances have deteriorated in tandem with the overall subdued condition of the economy. Despite higher taxation, tax revenue has grown more sluggishly than expenditures. Growth in social benefits and allowances has been fuelled not only by higher unemployment but also by the continued brisk pace of pension expenditure growth. Finland's fiscal stance has remained fairly neutral relative to the business cycle since 2013 (Chart 1). Measures to tighten central

and local government finances will be offset in 2015, in particular, by a growth in earnings-related pension fund expenditures due to an increase in the number of pension recipients.

Chart 1.



Comparisons show that the trend in Finland's public finances diverges from European developments. The general government deficit has remained within the limits of the Stability and Growth Pact, with the exception of the outcome for 2014. However, when earnings-related pension funds are excluded, Finland's public finances have deteriorated in recent years and are now among the weakest in the euro area. The large surpluses on the pension funds have masked the deep deficits in central and local government finances. In addition, the central and local government deficits have remained fairly unchanged in recent years, while general government finances elsewhere in Europe have improved on average.

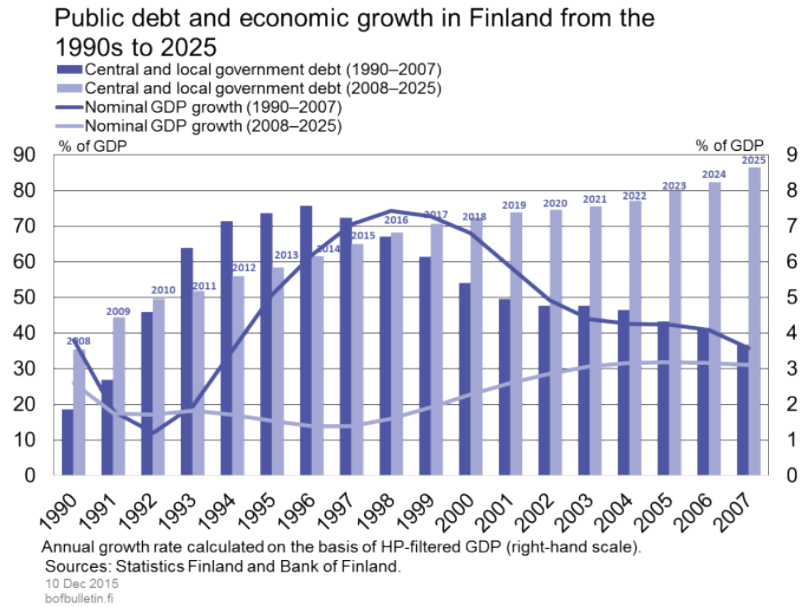
The General Government Fiscal Plan sets targets for nominal budget balances for the different general government subsectors. The deficit target for central and local government for 2019 is 0.5% of GDP, at maximum. The target for the earnings-related pension funds is a surplus of 1%, and for other social security funds a balanced budget. The targets for the earnings-related pension funds and other social security funds seem to be achievable. The local government target is also attainable, on condition that the planned revenue-increasing measures will be fully implemented and municipal expenditure growth can be slowed. The central government target, for its part, is ambitious and may necessitate further measures to consolidate expenditures if the tax rate is not increased as indicated in the Government Programme.

Slow economic growth hampers efforts to reign in pace of debt accumulation

The general government debt-to-GDP ratio in Finland will rise to over 60% in 2015. Even though the debt level is still moderate in European terms, the upward trend is disquieting. Debt growth has come to a standstill or has even begun trending downwards in several euro area countries. Finland's situation is difficult because of the challenges brought by the current economic recession and restructuring, but also because of the weaker longer-term growth outlook due to a dwindling working-age population and more muted productivity developments. Fiscal sustainability is also eroded by growing age-related expenditure and high structural unemployment.

A comparison with the situation during the recession of the 1990s sheds some light on the difficulties involved in debt management (Chart 2). Public debt[1] grew rapidly in the 1990s, peaking at over 75% of GDP in 1996. It took 12 years after that until the debt ratio had been reduced to 35% (in 2008). The adjustment phase was shorter in the local government sector, with municipal debt accumulation turning up again at the turn of the millennium. In the immediate post-millennium decade, debt grew by around 5% of GDP, and the share of local government in total public debt more than doubled. The rapid growth in municipal expenditure is also evidenced by the fact that the average municipal income tax rate rose by 2 percentage points in 1996–2008, even though the total tax ratio of the economy declined by almost 5 percentage points.

Chart 2.



The decline in the debt ratio was supported by robust economic growth. In 1996–2008, nominal GDP grew at an average rate of 5.6% per annum. Given that GDP growth is expected to remain at 1–1.5% in real terms in the next few decades and age-related expenditure continues to increase rapidly, stabilisation of the debt ratio will require

1. Non-consolidated EDP debt.

substantially more sizeable consolidation measures than to date. At the same time, the room for manoeuvre in taxation has narrowed sharply.

Fiscal consolidation is more difficult than before also because inflation is slow. In an environment of subdued inflation, the freezing of index increases, for example, does not bring about a rapid correction in the expenditure structure, and revenue growth also remains sluggish. In addition, slower growth in nominal GDP makes it more challenging to correct debt relative to GDP.

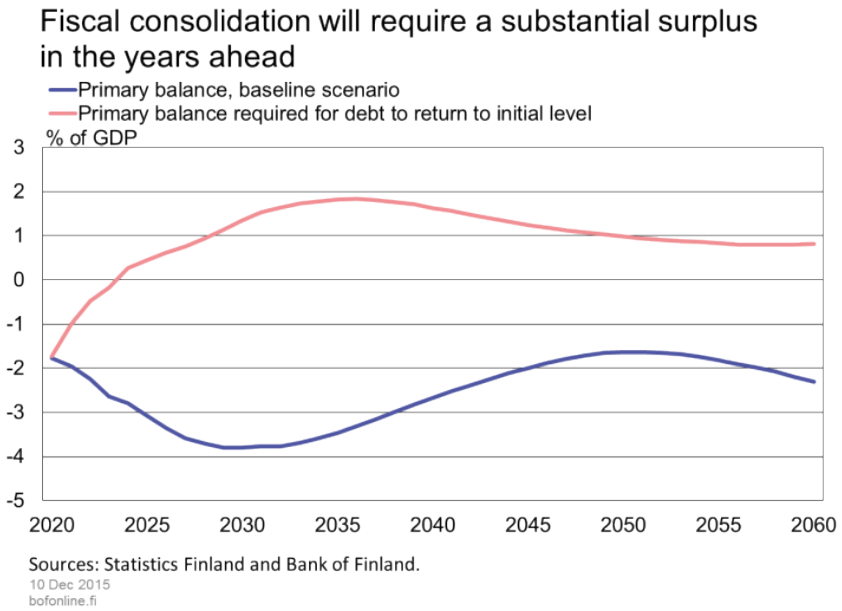
The long-term outlook for the public finances is weak. According to the Bank of Finland's assessment, the long-term sustainability gap[2] in Finland's public finances is around 3½% of GDP, a good half of a percentage point less than a year earlier. The forecast for the sustainability gap edged down particularly due to more precise impact assessments of the pension reform. Compared with the current system, the pension reform will result in a rising number of persons employed and, correspondingly, in a lower number of pensioners. The sustainability gap assessment was also slightly lowered by a new population projection.

Despite the lower assessment of the sustainability gap, the consolidation measures for the immediate years ahead are substantial. It can be mechanically calculated that, to stabilise the debt ratio in the long term at around 60%, central and local government budget balances should be strengthened by as much as 6% of GDP in the 2030s. As a benchmark for the calculation, we can take a scenario that includes no consolidation, in which case public debt would exceed the value of GDP in 2029. (Chart 3). In practice, the consolidation efforts would need to be even more sizeable, since the negative growth effects from fiscal tightening have not been taken into account here.

The strong growth in immigration in 2015 will increase public expenditure in the short term but may, in the longer term, lead to higher employment, thereby strengthening the public finances (see the article on the impact of immigration). Funds allocated to immigration in the Budget will be tripled to 0.3% of GDP in 2016. In the budgetary planning period 2016–2019, the costs of social integration are estimated to grow further. The forecast assumes the increase in immigration resulting from the current refugee situation to be temporary, so that it will have no practical impact on fiscal sustainability in the long term.

2. The sustainability gap forecast is based on Statistics Finland's newest population projection and the Finnish Centre for Pensions' assessment of the impact of the pension reform on the number of pension recipients and on employment.

Chart 3.



In addition to the pension reform, the structural reform of social welfare and health care services occupies a key role in narrowing the sustainability gap. This is intended to generate savings of EUR 3 billion in the public finances by the end of the 2020s. As the reform pursues cost savings, particular attention in the planning phase should be paid to the mechanism by which the savings are to be generated. Concrete savings can be created primarily by defining the public service promise in accordance with the savings objective. Financial benefits achieved via improved productivity materialise gradually and are, in any case, difficult to quantify in advance. From a financial perspective, it is also important to ensure that the new system and its financial balance-related objectives fall within the fiscal governance framework.

Besides central government borrowing, other financial commitments of central government have also increased rapidly in recent years. Guarantees to Finnvera have increased, in particular, as have state-guaranteed housing loans. The increase in commitments does not automatically mean higher expenditure in the future, but such a risk has inevitably increased. Even though guarantees (for example) may be an efficient way to support corporate activities in an event of financial market disruptions, it is difficult to justify the state's involvement in risk-bearing by businesses in normal times. The focus of the EU fiscal governance framework on real-terms national accounts may otherwise encourage such conduct that budget expenditure is converted into financial transactions. An example of this is the partial capitalisation of budget-funded development aid. It would be advisable to pay attention to the selection of the most appropriate funding form for the activity being financed.

Tags

- public finances
- central government debt
- debt accumalation

A brief history of Finnish foreign trade

TODAY 2:00 PM • BANK OF FINLAND BULLETIN 5/2015 • ECONOMIC OUTLOOK

Finland is a small open economy, where fluctuations in exports and imports have shaped the big picture of developments in the economy. A historical review of these developments suggests that the current situation provides no such conditions for rapid export growth supporting the economy as those seen in the earlier growth phases of economic history. Despite facing difficulties, the forest industry is still one of the pillars of Finnish exports alongside the machinery and metal industry.

Future of foreign trade from a historical perspective

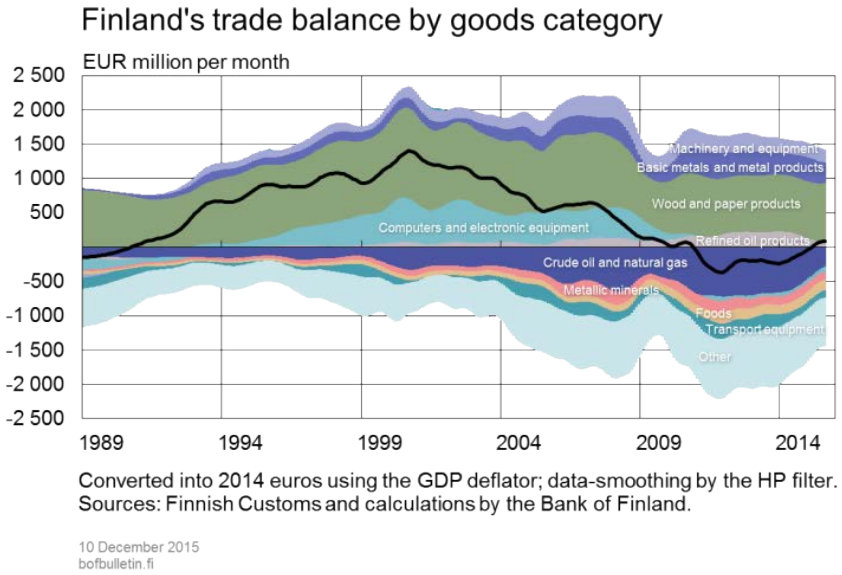
In recent years, the structures of the Finnish economy have undergone radical changes in the wake of difficulties encountered by the forest and electronics industries, and these transformations are also reflected in the composition of foreign trade. Export earnings from the mobile phone business, which had long underpinned our economy, have disappeared, the significance of Russia has diminished and commodity prices have plummeted. Export recovery has been expected to bring a solution to the already protracted weak economic situation.

Some light can be shed on the growth outlook for foreign trade by examining the subject from a long-term perspective and by relating the current state of foreign trade to earlier turning points in the economy. This article analyses the recent history of Finnish foreign trade from the viewpoint of goods trade, commencing from 1989 and closing with the evolution of the most recent months. This period of a quarter of a century includes many significant turning points in economic history, such as the depression of the early 1990s, the boom and bust of the domestic electronics industry, the stock market IT bubble, the

international commodity boom and the financial crisis. These have all shaped the structure of Finnish foreign trade in terms of both trading partners and merchandise.

A historical review of these developments suggests that the current situation provides no such conditions for rapid export growth supporting the economy as has been seen in the earlier growth phases of economic history. As a counterbalance to the sluggishness of growth prospects for international trade and the weakness of domestic price competitiveness, no signs are discernible that would give reason to expect in the near term such export growth figures as we have seen in recent decades. However, moderate cost developments and improving economic structures could create circumstances in which the export sector stands a good chance of posting longer-term growth.

Chart 1.



Slump in exports to the former Soviet Union

In 1989, the Soviet Union was the largest market for Finnish exports, accounting for 15% of Finnish goods exports. The collapse of the Soviet Union in 1991 led to a slump in Finland's eastern trade, thus deepening the depression that had started from the financial and banking sector (Chart 2). The export contraction mirrored a weakening of demand, in particular, for means of transportation, machinery and equipment, and wood and paper products.

Worthy of note is that, despite the deep depression, the trade balance improved and turned positive. Although the value of exports dropped by 15% between the peak of 1989 and the trough of 1991, imports declined simultaneously by 24%, which is an indication of the huge role of domestic factors in causing the depression. The export value and trade surplus began to rise rapidly in the latter part of 1991 – one and a half years before GDP contraction was reversed. The markka was devalued in November 1991 and allowed to float in September 1992, which gave a boost to cost competitiveness. The trade balance improved relative to all main trading partners, except for Russia (Chart 3).

Chart 2.

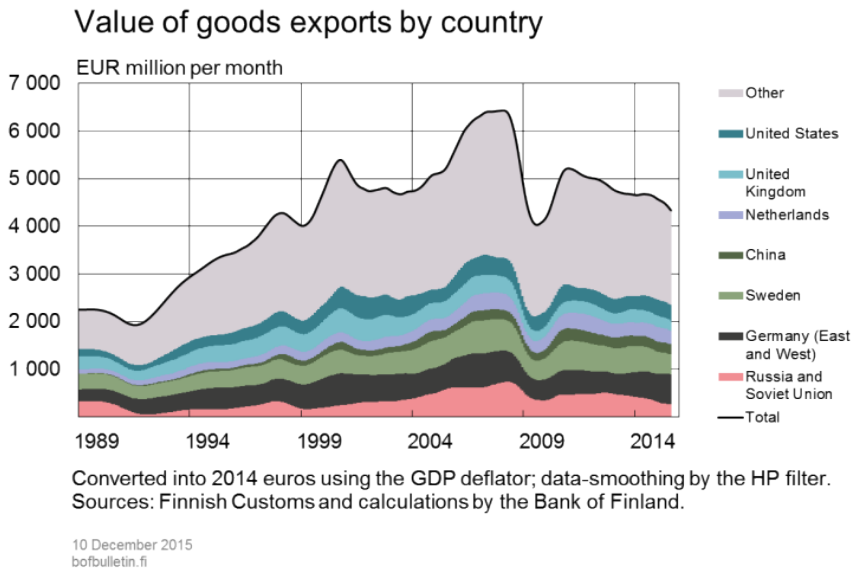
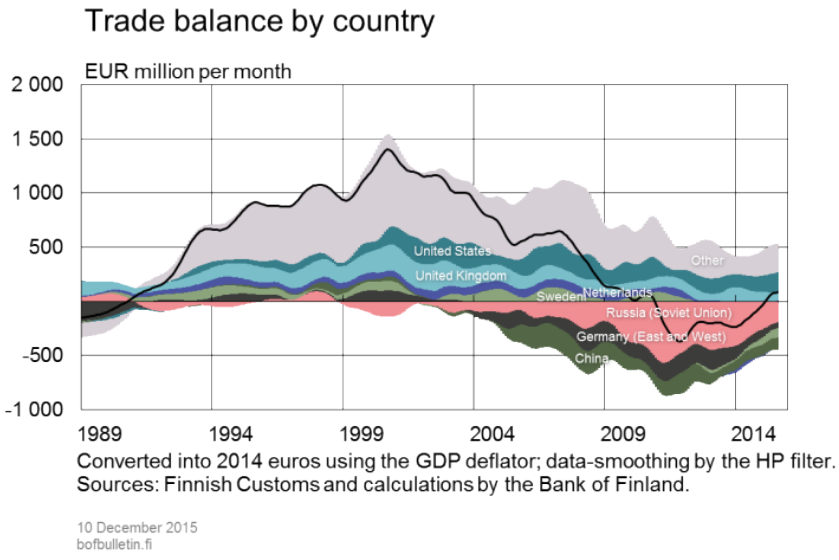


Chart 3.



Period of globalisation and rapid economic growth

Finland's trade surplus grew throughout the 1990s, achieving its peak at the turn of the millennium. Behind the surplus growth lay the overall rapid evolution of world trade, which pulled along the Finnish export industry, attended, in particular, by the wood and paper industry and electrical engineering and electronics (Chart 4). In the wake of globalisation, the trade surplus expanded, viewed by country, on a very broad front. Finnish export firms managed to create products enjoying widespread demand and capable of capturing new geographical market areas.

By the turn of the millennium, the electrical engineering and electronics industry had outstripped the forest industry as the largest export sector, its products accounting for about a third of total export value. At current prices, approximately EUR 20 billion worth of computers and electronic equipment were exported in the peak year of 2000. Similarly, at the top of its trend, the trade balance posted a surplus of EUR 1.4 billion a month.

Chart 4.

From IT bubble to financial crisis

The trade surplus began to shrink at the beginning of the first post-millennium decade, albeit remaining positive until the end of the decade. The burst of the international IT bubble slowed world trade growth, bringing an end to the conquest of the world by the Finnish electronics industry, as measured by the value of goods exports.

Exports of computers and electronic equipment long remained strong, but the purchasing-power-adjusted value of exports never again climbed above the level as at the turn of the millennium. Output and export volumes of domestic information and communication technologies (ICT) continued to grow, but the prices of ICT products dropped at a rapid pace at the same time, so that euro-denominated export earnings remained subdued.

Following a short-run recession, the world market prices of many commodities embarked on a sharp rise, which continued until the onset of the international financial crisis (Chart 5). Higher commodity prices were mirrored in Finnish imports of Russian crude oil, in particular, and began to erode the trade surplus. In foreign trade statistics, industrial action in the paper industry in 2005 also stands out as a drag on exports and the trade balance, but the contraction remained short-lived.

In addition to commodity prices, factors underlying import growth in Finland included the China phenomenon and the strengthening of domestic demand. China's importance grew towards the end of the decade, and imports in particular increased strongly as from the middle of the decade, which pushed Finland's trade balance with China into deficit territory. Meanwhile, Finland's trade balance with Germany also moved into deficit. As approximately a third of Finnish imports comprises intermediate goods for the export industry, the fast import growth was also a reflection of increasing export demand.

Chart 5.

Financial crisis and electronics meltdown

The financial crisis that had originated in the global financial markets spilled over swiftly to the real economy, causing a worldwide recession, as a consequence of which the value of Finland's foreign trade collapsed. Both exports and imports contracted by more than a third, from the peak of the trend to the trough.

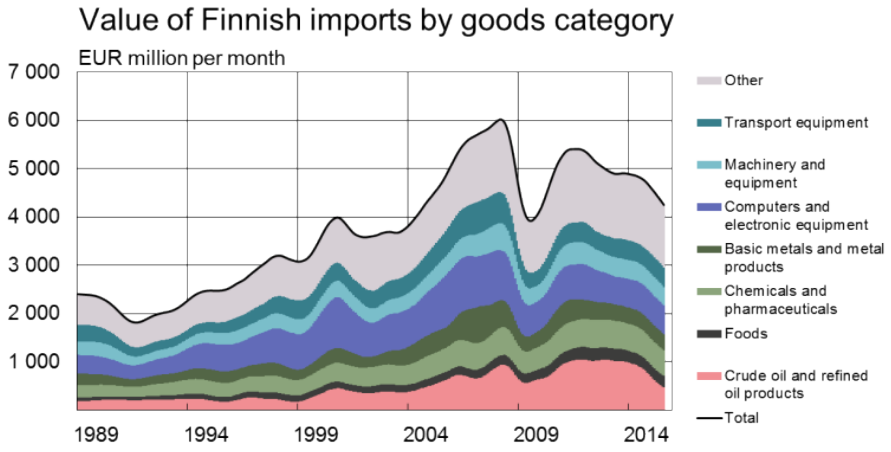
Compared with previous recessions, the foreign trade crash was considerably deeper and more broadly-based. The foreign trade value declined for all key goods categories and trading partners.

The value of electrical engineering and electronics exports plummeted by a half and has not recovered since, in contrast to other goods categories (Chart 4). Behind the meltdown lay the domestic mobile phone sector's difficulties, which were not directly linked to the financial crisis, despite taking place during the same period.

As a large part of Finnish exports has traditionally consisted of investment goods and industrial intermediate goods, export performance has been highly dependent on other countries' business cycles. Following the collapse of mobile phone exports mainly focused on consumer markets, the share of investment goods and the dependence of exports on business cycles in trading partner countries have increased further still.

Soon after the crisis, the trade balance turned negative, as commodity prices returned to an upward trajectory. Finland became a net importer of computers and electronic equipment.

Chart 6.



Converted into 2014 euros using the GDP deflator; data-smoothing by the HP filter.
Sources: Finnish Customs and calculations by the Bank of Finland.

10 December 2015
bofbulletin.fi

Recent years and latest changes

After a temporary recovery following the financial crisis, the value of both exports and imports has decreased. The falling value of foreign trade has been broadly visible in most goods categories, continuing over an exceptionally long period compared with earlier episodes of decline. Post-crisis industrial output related to high technology fell permanently, and the average productivity of domestic labour deteriorated, meaning that the cost competitiveness of the economy remained weak. The protracted period of high costs vis-à-vis competitors has dented market shares of Finnish export firms.

Despite the forest industry's difficulties, the value of forest product exports has remained relatively stable in recent years. Although the share of wood and paper products in exports has halved since 1989 to around 20%, the forest industry has maintained its position as the pillar of Finnish exports alongside the machinery and metal industry. The significance of the forest industry is also highlighted by the relatively large domestic value added share of its exports and by the fact that wood and paper products barely need to be imported thanks to domestic production.

The decline of exports and imports steepened since 2014 in response to the plunge in world market prices of commodities. Even so, the trade balance shifted into surplus particularly on account of the lower price of crude oil.

The export contraction has also been attributable to the historically extensive shutdown at the Porvoo oil refinery in spring 2015, cutting out about EUR 1 billion worth of exports of refined oil products. Correspondingly, crude oil imports also declined. The impact of

oil products on the annual change of export value was approximately –4 percentage points in the second quarter. However, refined oil products are of less significance for economic output than one would presume based on their export share, as the domestic value added share of refined oil products is very small compared with other export sectors.

Lower exports have been offset by their value being boosted by higher exports of transport equipment to Germany. This increase reflects the completion of cruisers at the Turku dockyards in 2014 and 2015 and the expansion of car manufacturing at the Uusikaupunki car factory.

Exports to Russia have contracted sharply. As late as 2008, Russia was still Finland's largest trading partner in terms of both export and import value, but its share began to shrink in 2013 amid Russia's economic problems and falling commodity prices. The shares of Sweden and the United Kingdom in Finnish exports have also diminished. Germany has become Finland's most important trading partner. The Netherlands, Estonia, China and the United States have also gained in importance in recent years.

Table.

Finland's largest export and import markets in January–August 2015

Exports				Omports			
Ranking	Country	Share 2015, %	Change cf. 2008, %	Ranking	Country	Share 2015, %	Change cf. 2008, %
1	Germany	14.1	4.1	1	Germany	15.5	1.4
2	Sweden	9.7	–0.4	2	Sweden	11.7	1.6
3	United States	7.3	0.9	3	Russia	11.4	–4.9
4	Netherlands	6.7	1.6	4	China	7.2	0.2
5	Russia	5.9	–5.7	5	Netherlands	6.9	2.7
6	United Kingdom	5.1	–0.4	6	United Kingdom	3.6	0.6
7	China	4.8	1.7	7	Denmark	3.3	1.0
8	Estonia	2.9	0.8	8	United Kingdom	3.1	–1.0
9	Norway	2.9	–0.1	9	France	3.1	–0.3
10	Belgium	2.9	0.4	10	Estonia	2.8	0.6

Source: Finnish Customs.

The value of Finnish exports and imports in 2014 amounted to EUR 78 billion (38% of GDP) and EUR 79 billion (39%) respectively. Goods accounted for 73% of exports and 70% of imports, despite slight decreases in recent decades.

In 2014, the value of goods exports according to foreign trade statistics[1] was EUR 56 billion. Measured in terms of export value, the most important domestic export products

1. The Finnish Customs foreign trade statistics provide an abundance of details of goods exports and imports. Foreign trade data have been collected monthly, broken down into nearly 14,000 goods categories by country of origin and destination. The statistics exclude transit goods, i.e. transports via Finland. For enabling longer-term reviews, earlier foreign trade statistics were aggregated and amended so as to correspond to current goods classifications. Annual foreign trade statistics for 1989–1995 were disaggregated at monthly level using the Denton–Cholette method. In order to smooth out strong monthly variations, the calculations made use of the Hodrick–Prescott filter. Euro-denominated export and import figures were converted into 2014 euros using the GDP deflator.

comprised wood and paper products (20% of goods exports), basic metals and metal products (14%), computers and electronic equipment (12%), refined oil products (8%) and transport equipment (6%). The most important import products were crude oil and refined oil products (18%), computers and electronic equipment (13%), chemicals and pharmaceuticals (12%), transport equipment (8%) and machinery and equipment not classified elsewhere (8%).

Tags

- foreign trade
- Finland

The most expensive country in the euro area

TODAY 2:00 PM • BANK OF FINLAND BULLETIN 5/2015 • ECONOMIC OUTLOOK

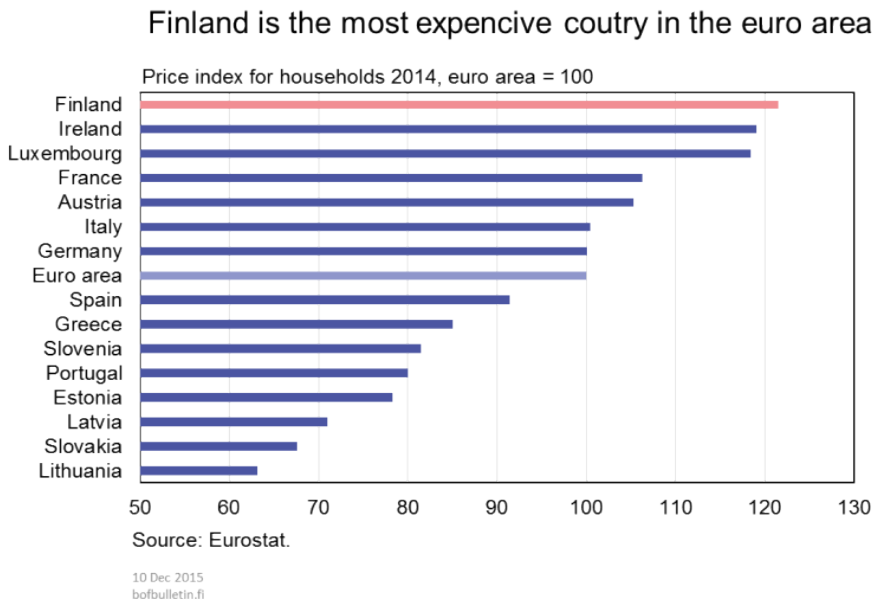
In the years since the financial crisis and up until recent months, domestic consumer prices have risen at a higher pace than in the euro area, and Finland is currently the most expensive country in the euro area as measured by consumer prices. The elevated price level erodes consumers' purchasing power, while the rapid increase in prices weakens the cost-competitiveness of Finnish export industries. Compared with the rest of the euro area, the price rise has been particularly rapid for commodities with large components of labour costs and indirect taxes.

Finns pay more

Between 2007 and 2015, the Harmonised Index of Consumer Prices (HICP) has risen 15% in the euro area, against 20% in Finland. This implies a further increase in the domestic price level, which was high to begin with. In 2014, an average Finnish household paid EUR 121 for a basket of goods that could be bought for EUR 100, on average, in the euro area.

The relationship between consumer prices and the competitiveness problem is demonstrated by the fact that in order to achieve the same purchasing power as in the euro area, the nominal wage of a Finnish employee must be 21% above the average for the euro area.

Chart 1.



This article explores developments in consumer prices by commodity group and examines why consumer prices have risen faster in Finland than in the euro area. Of the commodity groups, services prices, in particular, have posted higher growth in Finland than in the whole of the euro area (Chart 1). The share of services in HICP is 41%. Similarly, consumer prices for food (22% of HICP) and energy (8% of HICP) have risen faster in Finland than in the euro area. Only have the prices of industrially manufactured consumer goods (29% of HICP) risen more slowly in Finland than in the euro area (Chart 2).

The analysis shows a rapid increase, in particular, in the prices of commodities with a large labour cost component. The increases in indirect taxes introduced in Finland in recent years have also fuelled inflation more than in the euro area on average (Chart 3). Furthermore, the elevated price level in Finland is often attributed to the low level of competition in the closed-sector industries. However, the rise in domestic prices of some commodities appears to have been dampened by changes in market structures, which have increased the competition.

Chart 2.

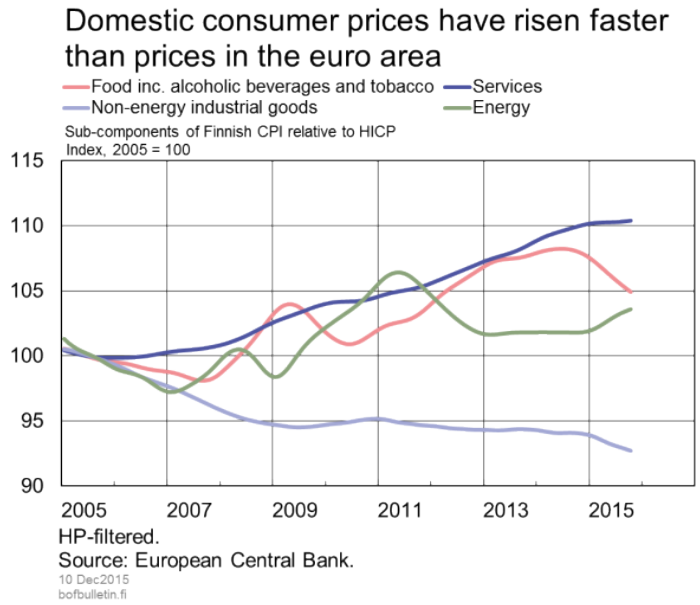
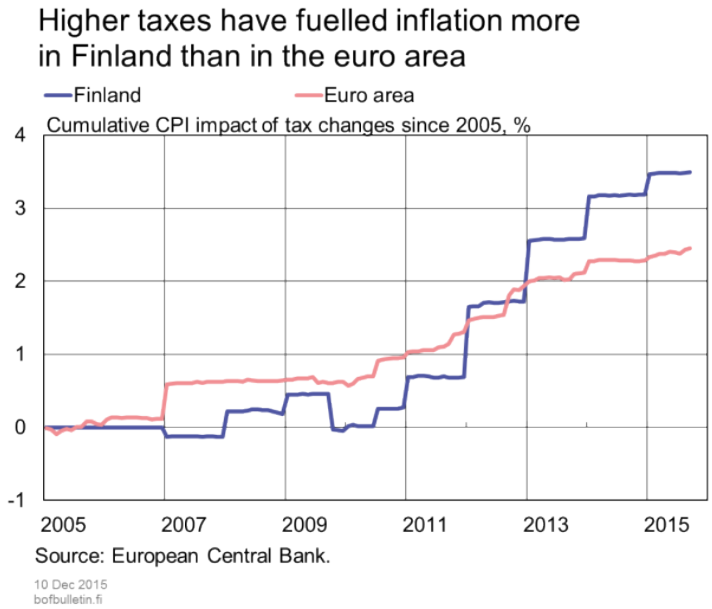


Chart 3.



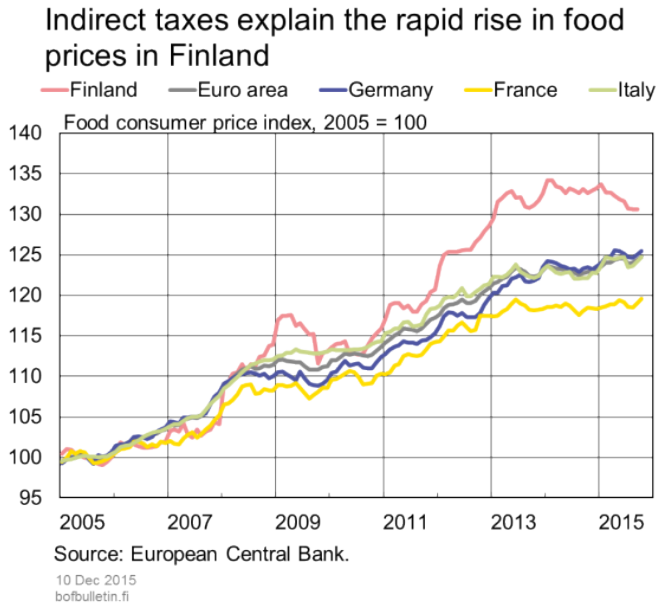
Taxes and wages have lifted food prices

Food prices began to decline in Finland soon after Finland's accession to the EU, moving closer to the European level of prices. However, the decline was temporary, and real food prices have trended up again since the turn of the millennium, with food prices approaching pre-accession levels.[1]

1. Statistics Finland (2014).

In 2007–2015, in particular, the rate of increase in food prices in Finland has been clearly higher on average than in the whole euro area. However, early in the period, in 2007–2009, the rise in food prices was, temporarily, more subdued in Finland than in the euro area. (Chart 4).

Chart 4.



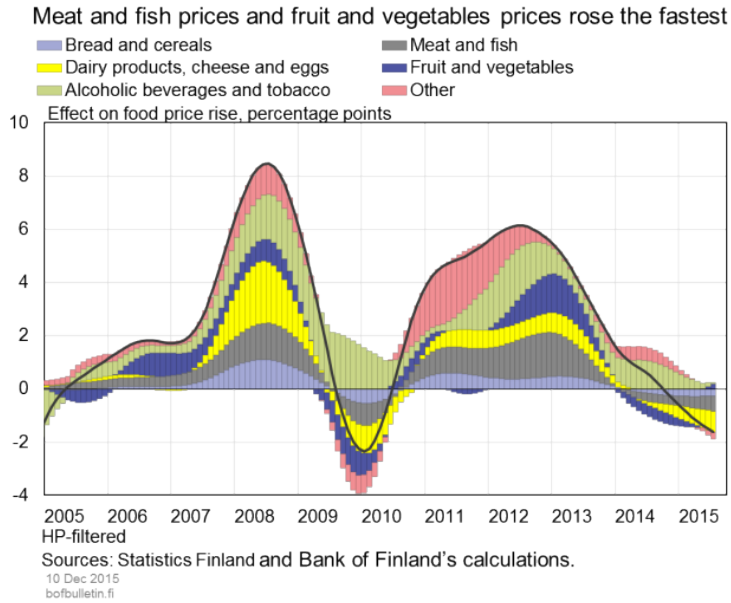
In the run-up to the financial crisis, world market prices of food rose swiftly, but the impact on Finnish consumer prices came later than in the rest of the euro area. Whereas the increase in world market prices typically fed through gradually into consumer prices in other euro area countries, Finland experienced a leap in prices in early 2008. The non-synchronous transmission of world market prices mainly reflects the longer cycles of price agreements between industry and trade in Finland compared with the rest of the euro area. In October 2009, the value-added tax on food in Finland was cut from 17% to 12%, and increased to 13% one year later. The cut in the value-added tax largely passed through to consumer prices, which temporarily effected a marked slowing of the rise in food prices.

But since 2009, food prices in Finland have risen faster than elsewhere in the euro area, up until last year when the price reduction campaigns of the central food chains began to work their way into food prices. The reduction in agricultural producer prices in 2014 helped pave the way for the food price campaign. However, by the central food chains' own account, the campaigns have been financed partly by profit margins.

Of food prices, the prices of meat and fish and fruit and vegetables (Chart 5) rose most rapidly in 2010–2013. The prices of alcoholic beverages and tobacco have risen faster than elsewhere in the euro area, due to higher alcohol and tobacco taxes, while the introduction of a tax on soft drinks has markedly driven up the prices of non-alcoholic beverages. Overall, the net effect of tax changes on food prices has been around 8% in 2009–2015.

Another factor behind the difference in the food price rise, in addition to tax changes, is the higher rate of increase in wages compared with the rest of the euro area. In addition, there are some signs of higher margins being charged within the food production chain, i.e. by producers, industry and stores. In a joint project, the Pellervo Economic Research Institute (PTT) and the Natural Resources Institute Finland explored developments in the margins of producers, industry and stores in the production chains of meat, cereals, vegetables and fruit. They found a significant rise in the stores' share in cash flows related to food sales in 2008–2012.[2] The negotiating power of the food retailer sector within the production chain lies in the high degree of store-chain concentration. In 2014, the S Group and K Group held a combined market share of nearly 80% of aggregate sales of daily consumables.

Chart 5.



Energy price advantage over euro area lost

In Finland and the euro area alike, consumer energy prices have outpaced inflation since the turn of the millennium. In the first few years of the new millennium, the rise in the price of energy was slower in Finland than in the euro area, the rate of increases for Finland being 37% and that for the euro area 47%.

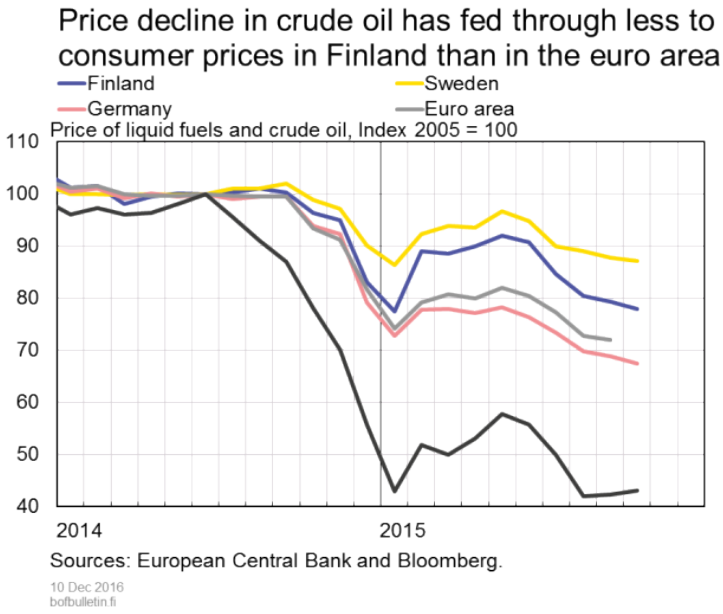
Since 2007, domestic energy prices have risen faster than euro area prices, and the price advantage gained early in the millennium has faded away. The faster rise in energy prices mainly reflects higher taxes on energy. Since 2007, tax increases have accounted for 15% of the price of energy in Finland, compared with 6% in the euro area.

In June 2014, world market prices of crude oil began to drop, and the price of Brent oil was halved by January 2015 (Chart 6). Since June 2014, consumer fuel prices have declined 28% in the euro area and 21% in Finland. The decline in consumer prices has

2. Peltoniemi et al. (2014a), (2014b) and (2015).

not been as steep as in world market prices, considering that excises and VAT, as well as the margins of e.g. service stations and the oil refining process, are also built into consumer prices.

Chart 6.

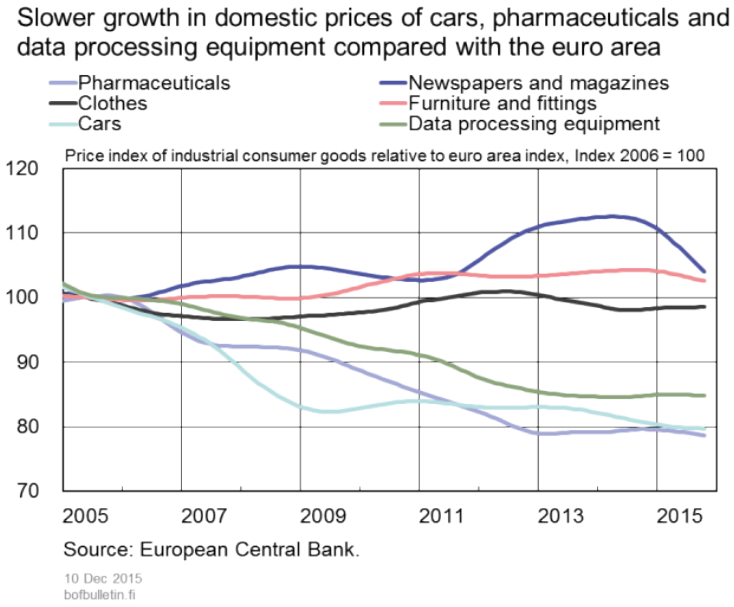


Taxation explains only part of the national differences in the pass-through of the oil price shock to consumer prices, given the harmonisation of fuel taxes in EU. In the old Member States, taxes account for around two-thirds of consumer prices on petrol and diesel, and differences in national tax rates represent only a couple of percentage points.

Slower increase in industrial goods prices in Finland than in the euro area

Prices of industrially manufactured consumer goods, excluding energy, have risen at a slower rate in Finland than in the euro area. In the new millennium, the rate of increase in the prices of industrial goods (excl. energy) has been only 1% in Finland, against 11% in the euro area. In Finland, the prices of pharmaceuticals, cars and electronics, in particular, have posted more subdued growth, whereas developments in the prices of clothes, furniture and fittings, newspapers and magazines and household appliances have been broadly similar in Finland and the euro area. (Chart 7).

Chart 7.



Given the strict regulation of the pharmaceutical market and the high publicly reimbursable share of prescription drugs, policy changes exert a major influence on the prices of pharmaceuticals. The favourable price developments compared with the euro area are partly related to the reforms of the pharmaceutical market in the new millennium. In April 2003, Finland introduced a drug substitution scheme, where the pharmacies are allowed to substitute for a drug prescribed by a doctor a less expensive one containing the same active substance, unless this has been expressly forbidden by the doctor or customer. In 2009, this scheme was complemented by a drug reference price system, where a reference price is used as a ceiling for the reimbursement payable by the Social Insurance Institution (Kela). Since 2005, the prices of pharmaceuticals have fallen by around 15%.

Tax changes are also largely responsible for developments in car prices. Car prices have declined in step with used car imports and internet car sales, which began to gain ground in the new millennium, stimulating price competition. Taxes on imported private cars were reduced in 2003, which boosted car imports. In 2008, the car tax scheme for first-time registration of motor vehicles was replaced by an emission-based scheme, which shifted the focus of taxation from the purchase to the use of cars. Since 2009, VAT is no longer built into the car tax, which reduced prices further.[3] The motor vehicle tax annually charged for the use of a car is a component of the national consumer price index but not of HICP, which is analysed here.

Consumer prices for electronics have declined rapidly across the board. The price decline largely mirrors the rapid pace of quality improvements in electronics, which is reflected in a drop in the price index. Domestic electronics prices have fallen faster than euro area prices, which is probably partly attributable to differences in the quality adjustment

3. VTV (2009).

methods of euro area countries. The steep decline is also related to the increase in internet trade and the ease of price comparison, which has driven price competition.

Direct tax effects do not fully account for the slower rate of increse in industrial goods witnessed in Finland as compared with the euro area, as reductions in individual commodity taxes have been offset by increases in many other tax rates. In addition to the across-the-board VAT increase, a 9% VAT was imposed on e.g. newspapers and magazines after 2012. Since 2005, tax increases have altogether accounted for some 2% of the increase in consumer prices of industrial goods.

Rents drive up services prices

The high rate of services inflation reflects in particular the rapid increase in rents. In 2007–2015, rents have risen in Finland an average 3.2% per annum, and currently account for around 30% of services. Elsewhere in the euro area rents have risen only 1.6%. As well as rents, other housing costs, including house prices, have risen faster in Finland than in the rest of the euro area. The rents of business premises also climbed swiftly, especially in the early years of the recession.

In addition to housing costs, the prices of e.g. restaurant services and other services have surged. The price increase on these services reflects the stronger wage developments in Finland compared to other euro area countries.

Services account for a significant part of intermediate consumption by the corporate and public sectors. An analysis of the relevance of various services for the increase in service producer prices (Chart 8) shows that professional, technical, scientific and logistic services make a significant contribution to the increase in producer prices. The prices of management consultant services, in particular, appear to have risen rapidly. The price of logistics services has mirrored oil price fluctuations, the effect of which has already turned negative. The contribution of professional and other similar services to the rise in producer prices fell substantially in the years of recession. In the wake of the recession, the prices of the real estate business and of administrative and support services have, in contrast, gained in significance as a driver of the rise in service producer prices.

Services price developments in Finland are discussed in detail in the article Rise in services prices has made Finland an expensive country, published in June 2015.

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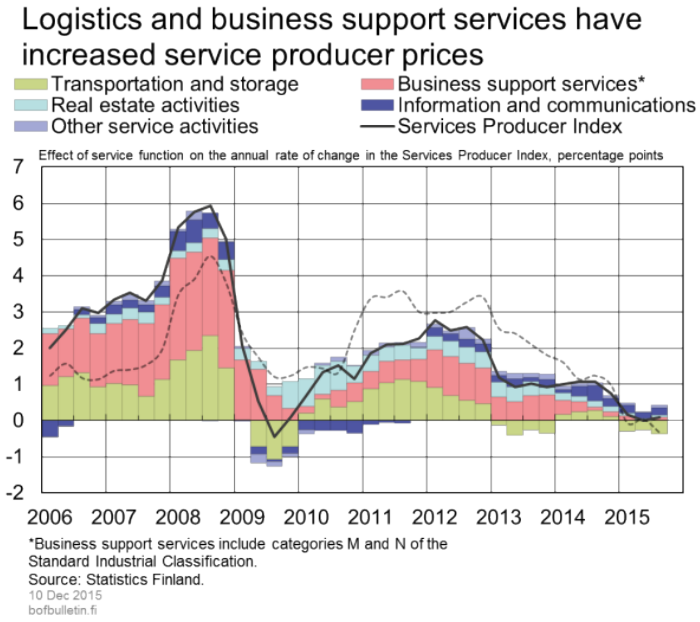


References:

Peltoniemi, A. – Arovuori, K. – Karikallio, H. – Niemi, J. – Pyykkönen, P. (2014a) Viljasektorin hintarakenteet (Price structures in the cereal sector). PTT Working Papers 166.

Peltoniemi, A. – Arovuori, K. – Niemi, J. – Pyykkönen, P. (2014b) Lihasektorin hintarakenteet (Price structures in the meat sector). PTT Working Papers 160.

Peltoniemi, A. – Arovuori, K. – Niemi, J. – Pyykkönen, P. (2015) Maitosektorin hintarakenteet (Price structures in the milk sector). Consumer Society Research Centre 2015:1. University of Helsinki. Publications of the Department of Political and Economic Studies 2015.

Statistics Finland (2014) Miten menetimme edullisemman ruuan (How did we lose our cheaper food)? Tieto & Trendit. See. http://tietotrendit.stat.fi/mag/article/67/.

National Audit Office of Finland (VTV) (2009) Autoverotus (Car taxation). Effectiveness inspection reports of the National Audit Office of Finland 195/2009.

Tags

- euro area
- consumer prices

Fiscal effects of immigration depend on labour market outcomes

TODAY 2:00 PM • BANK OF FINLAND BULLETIN 5/2015 • ECONOMIC OUTLOOK

Immigration will bring about a favourable change in the age structure, as the majority of immigrants are young adults. The effects on the public finances will above all depend on the impact of population growth on the costs of various publicly funded services and on the labour market performance of the immigrants. While population growth increases the costs of some publicly funded services, not all the costs will grow proportionally with the population. The average employment rate for immigrants is lower than for natives but it can be influenced. Immigration does not appear to weaken the employment prospects for the native population.

Immigration affects the size and composition of the population

Although attitudes towards immigration are not shaped by economic factors alone, studies on immigration often highlight concerns about the impact of immigration on the wages and employment level of the native population and on public finances.[1]

Immigration has an effect on both the size and the age structure of the working-age population, as the majority of immigrants are young adults. For example, in its 2015 population projection, Statistics Finland foresees a reduction in the working-age population of Finland by 75,000 persons by 2030. According to the same projection, the

1. See e.g. Preston (2014).

Finnish working-age population would shrink by 300,000 persons if there were no migration.

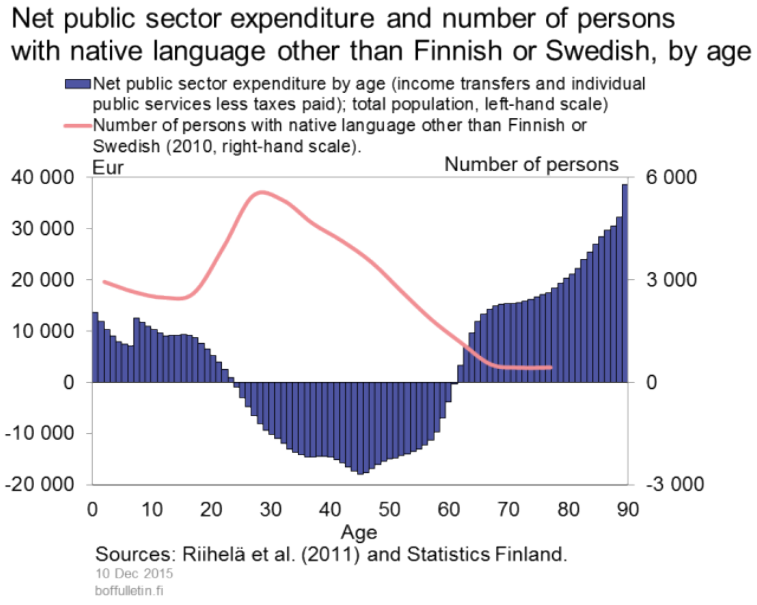
The age structure of the immigrants is the very reason why many ageing Western economies have looked upon immigration as a potential solution to the fiscal problems caused by a deteriorating dependency ratio.[2]

As the population increases, the costs of some public sector services (education, social welfare and health care services) will increase broadly in pace with the population growth. However, part of the public sector services are so-called collective services (e.g. part of infrastructure costs), the total costs of which are independent of the size of the population. The costs of these services per taxpayer will fall as the population increases.[3]

Population growth also means more taxpayers, which is reflected in tax revenue and income transfers. The magnitude of these changes depends on the labour market outcomes for immigrants, in particular.

Immigration carries with it a huge potential. Publicly produced individual services are mainly consumed by children, the young and the old, while especially the social benefits payable as old-age pensions are intended for those over 60 (Chart 1). Considering that the majority of immigrants are of working age, immigration has a favourable impact on the age structure in fiscal terms. However, fulfilment of that potential requires that sufficient numbers of the immigrants find employment.

Chart 1.



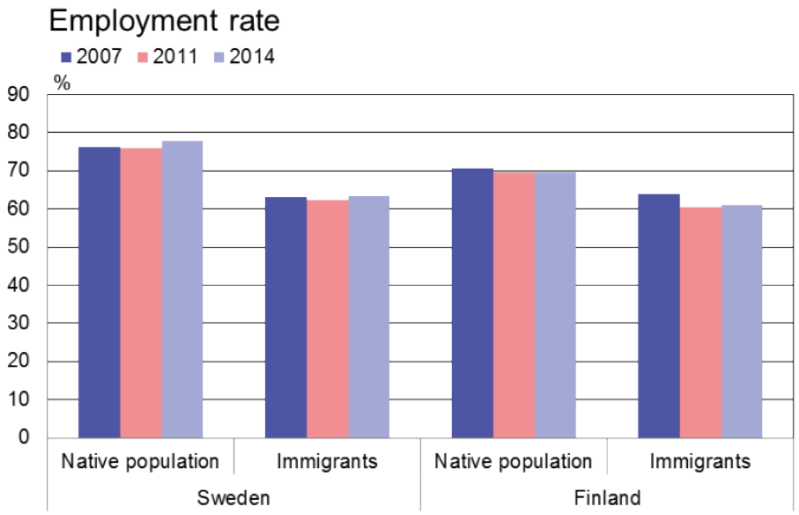
2. The literature on the fiscal effects of immigration does not generally focus on refugees, but adopts a broader view on immigration. There are many special issues related to refugees and exceptional waves of immigration that fall beyond the scope of the present article.

3. According to national accounts data, the general government individual consumption expenditure was around 17% of GDP in 2014, while collective consumption expenditure was around 8% of GDP.

Employment rates lower for immigrants than for natives

In Sweden and Finland alike, the employment rate for non-native-born persons is just over 60% (Chart 2). The employment rate for the native population is slightly higher in Sweden than in Finland. In both countries, the unemployment rate is clearly higher among immigrants than among natives.

Chart 2a.



Source: OECD (2015).
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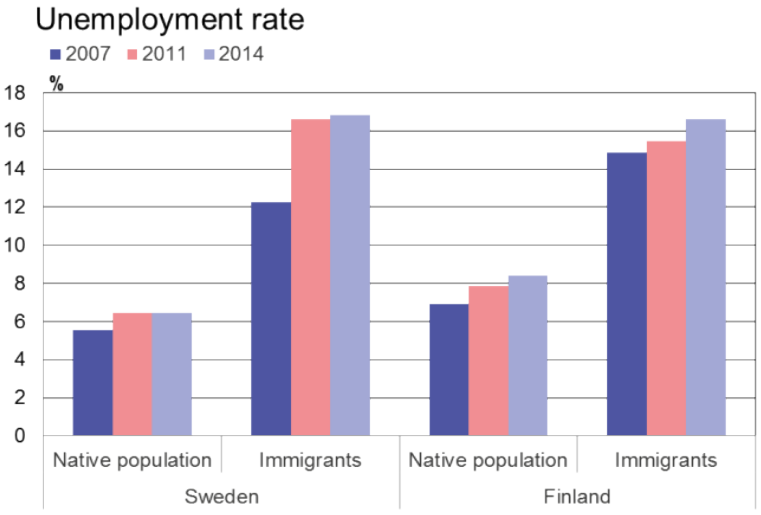
Chart 2b.



Source: OECD (2015).
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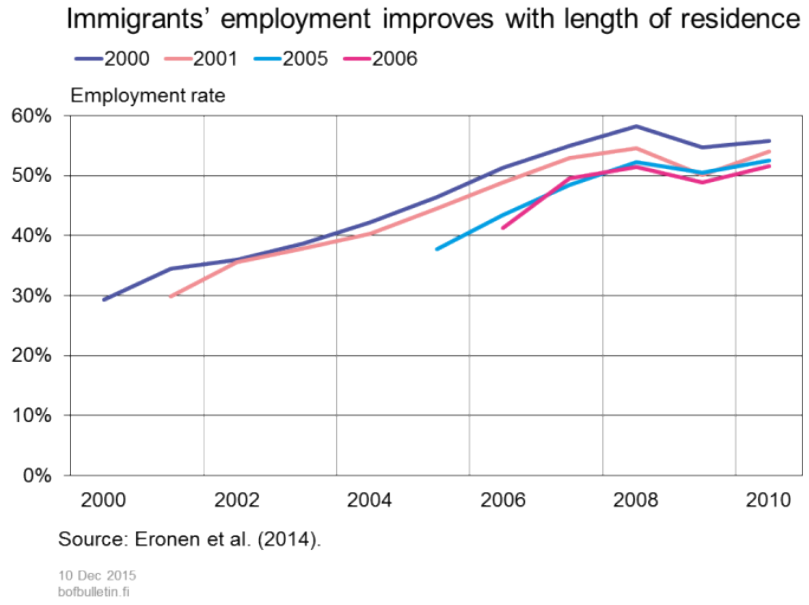
An analysis of the employment situation of immigrants to Finland in age bracket 16–64, grouped by year of immigration, shows that employment improves over the period of

residence (Chart 3). In addition, immigrants who arrived in Finland in 2005 and 2006 have had better labour market outcomes than those who arrived in 2000 and 2001.

Chart 3.



Research results point to major differences among immigrants as regards employment rates, both immediately upon arrival and after a lengthy period of residence.[4]For example, male immigrants of OECD origin who migrated to Finland in 1990–1998 have attained the level of income of comparable natives, in contrast to female immigrants and male immigrants from non-OECD countries.[5]

Immigration has only minor effect on labour market position of native population

The impact of immigration on the labour market of the host country can manifest itself in numerous ways. We will outline one key mechanism. Immigration increases the labour force, causing some unemployment in the presence of wage rigidity. The increase in labour supply (and the rise in unemployment) will, however, create downward pressure on wages. Corporate profitability will improve, encouraging companies to invest and recruit more employees. The rise in labour demand will boost wages and employment. The final outcome will be a higher level of employment without a change in average wages or the rate of unemployment.[6]

The labour input of less educated immigrants and that of the native population may also be complementary to each other. This may be important especially in an ageing economy like Finland with a steadily rising level of education, where the labour force participation

4. Pekkala Kerr and Kerr (2011) have conducted a survey of research on the wages and employment of immigrants. The survey also includes studies on Nordic countries, notably Sweden.

5. Sarvimäki (2011).

6. For more details, see e.g. Haavio et al. (2013).

rate for women is high. The demand for labour-intensive, low-education services is growing, while the number of persons willing to take these jobs is decreasing.[7] The educated workforce becomes increasingly specialized in high-productivity tasks, while immigrants are, at least initially, employed in low-productivity jobs.[8]

In such circumstances, immigration may have an effect on income distribution that is not reflected in average wages. The effect on the wages of natives competing for the same jobs with immigrants will be negative, while the effect on the wages of other natives will be positive.

The key challenge for empirical research comes from the difficulties of separating the impact of immigration on the employment and wages of the native population from other factors. There is as yet no Finnish research on this subject, but in light of foreign studies, immigration has only a minor effect on the unemployment and wages of the native population.[9]

Labour market rigidities and integration may influence the labour market outcomes for immigrants

The institutions related to the employment security or wages of employees, such as employment protection, unemployment benefits and minimum wages, are designed to protect employees against the risks of unemployment and loss of income.[10] The downside may be that immigrants will fall below the productive employment threshold. Instead of being employed in low-wage jobs, immigrants may experience a lower rate of employment.[11]

Research on the labour market institutions of European countries finds that the interaction of higher employment protection and barriers to market entry with immigration may have weakened the capacity of the economy to absorb new employees and reinforced the adverse labour market effects of immigration on the native population.[12]

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7. Ottaviano – Peri (2008).
8. The readiness of immigrants and natives to accept job offers may differ, reflecting for example the more general entitlement of natives to earnings-related unemployment benefits.
9. See e.g. Okkerse (2008), Longhi et al. (2005), Dustmann et al. (2007). The labour market may adjust to growing immigration also via channels other than wages and unemployment. Dustman argues that the output structure of the economy may change, while Peri and Sparber (2009) maintain that for example in the European countries the native population has been observed to move into more demanding tasks in step with growing immigration and competition for low-productivity jobs.
10. These labour market phenomena (such as employment protection, the replacement rate of unemployment benefits, wage rigidity and barriers to market entry) favour the native population, not least because union membership is typically less frequent among immigrants, who are more often employed on temporary contracts or in the grey economy. See Angrist and Kugler (2003).
11. See e.g. Antecol et al. (2006).
12. Angrist and Kugler (2003).

Evidence from the German labour market indicates that while immigration had a negligible impact on the wages and employment of the native population in the 1990s, there was a rise in unemployment among earlier migrants. Greater labour market flexibility would have improved the capacity of the economy to adjust to labour growth.[13]

Research findings indicate that labour market institutions may play a role in determining what kind of immigrants get employed. Similarly, active labour market programmes may influence the labour market performance of immigrants. For example, the Finnish reform which introduced integration plans for non-working immigrants increased the earnings of the target group markedly, and so reduced social benefits.[14] In general, however, there is little research evidence as to what kind of measures are effective.

References:

Angrist, J. D. – Kugler, A. D. (2003) Protective or counter-productive? Labour market institutions and the effect of immigration on EU natives. Economic Journal, 113(488), 302–331.

Antecol, H. – Kuhn, P. – Trejo, S. J. (2006). Assimilation via Prices or Quantities? Sources of Immigrant Earnings Growth in Australia, Canada, and the United States. Journal of Human Resources 41, 821–840.

D'Amuri, F. – Ottaviano, G. I. P. – Peri, G. (2010) The labor market impact of immigration in Western Germany in the 1990s. European Economic Review, 54(4), 550–570.

Dustmann, C. – Frattini, T. – Albrecht Glitz (2007) The impact of migration: a review of the economic evidence. Report commissioned by The National Assembly for Wales, on behalf of the Welsh Assembly Government.

Eronen, A. – Härmälä, V. – Jauhiainen, S. – Karikallio, H. – Karinen, R. – Kosunen, A. – Laamanen, J.-P. – Lahtinen, M. (2014) Maahanmuuttajien työllistyminen. Taustatekijät, työnhaku ja työvoimapalvelut. (Labour market outcome for immigrants. Background, job search and labour market services). Publications of the Ministry of Employment and the Economy 6/2014.

Haavio, M. – Schauman, H. – Vanhala, J. (2013) Kasvattaako työn tarjonnan lisääminen työttömyyttä? (Will higher supply of labour increase unemployment?) BoF Online 4/2013.

Hämäläinen, K. – Sarvimäki, M. (2014) Integrating Immigrants: The Impact of Restructuring ALMP. Journal of Labor Economics, tulossa.

Longhi, S. – Nijkamp, P. – Poot, J. (2005) A Meta-analytic Assessment of the Effect of Immigration on Wages. Journal of Economic Surveys, 19, 451–477.

13. D'Amuri et al. (2010).
14. Hämäläinen and Sarvimäki (2014).

OECD (2015) International Migration Outlook 2015, OECD Publishing, Paris.

Okkerse, L. (2008) How to Measure Labour Market Effects of Immigration: A Review. Journal of Economic Surveys, 22, 1–30.

Ottaviano, G. I. P. – Peri, G. (2008) Immigration in Western Europe. VoxEU.

Pekkala Kerr, S. – Kerr, W. (2011) Economic Impacts of Immigration: A Survey. Finnish Economic Papers, 24(1), 1–32.

Peri, G. – Sparber, C. (2009) Task Specialization, Immigration, and Wages. American Economic Journal: Applied Economics, 1, 135–169.

Preston, I. (2014) The Effect of Immigration on Public Finances. The Economic Journal, 124, 569–592.

Riihelä, M. – Vaittinen, R. – Vanne, R. (2011) Changing Patterns of Intergenerational Resource Allocation in Finland. Finnish Centre for Pensions, Reports 2011:1.

Sarvimäki, M. (2011) Assimilation to a Welfare State: Labor Market Performance and Use of Social Benefits by Immigrants to Finland, Scandinavian Journal of Economics 113(3), 665–688.

Tags

- employment
- immigration
- public finances

Finnish financial system exposed to risks in the real economy

4 DEC 2015 12:00 PM • BANK OF FINLAND BULLETIN 5/2015 • FINANCIAL STABILITY

Threats to the stability of the euro area financial system relate to the risks to global economic growth – such as uncertainties around developments in China – and to the international financial markets. The profitability of the euro area banking sector has improved from the weak level witnessed previously, but the large amount of non-performing loans continues to weigh on banks' balance sheets. Risks to the Finnish financial system are associated with the weakness of the economy and household debt. In order to contain potential overheating on the housing loan market and household indebtedness, the authorities will need new additions to their toolbox.

Risks from emerging economies affect international operating environment

Slowing performance in the emerging economies is undermining the global economic prospects for 2015 and increasing uncertainties about the condition of the global economy. Uncertainty over the progress of structural changes in the Chinese economy, possible disruptions in the completion of financial market reforms and management of the financial stability risks from high indebtedness all pose challenges. Chinese economic developments will also have repercussions on other emerging economies, which will have to adjust to the considerable fall in commodity prices, tightening financial conditions and weaker foreign capital flows. Indebtedness in many emerging economies has grown in the years following the financial crises, particularly in the corporate sector, and this

growth is partly in dollars. As a result, concerns have arisen over the risks of substantial debt burdens in times of weak economic growth and tightening financial conditions.

In the advanced economies, the real economy is recovering. According to the Bank of Finland's September forecast, the real economy in the EU22 (euro area, Sweden, Denmark, Great Britain) is expected to grow 1.7% in 2015, 1.8% in 2016 and 1.9% in 2017. The low price of oil, euro depreciation and a highly accommodative monetary policy have supported growth in the euro area. In addition, general government finances have improved and long-term growth potential is to be improved through structural reforms. The risks to the short-term growth prospects are mainly external, with the most significant arising from the condition of the emerging economies. Problems in the emerging economies may be passed on to the euro area not only through trade and financial links but also through financial market disruptions and weakened confidence among economic agents. The longer-term risks, in turn, relate to protracted weak nominal growth, which could jeopardise the debt sustainability of the public and private sectors.

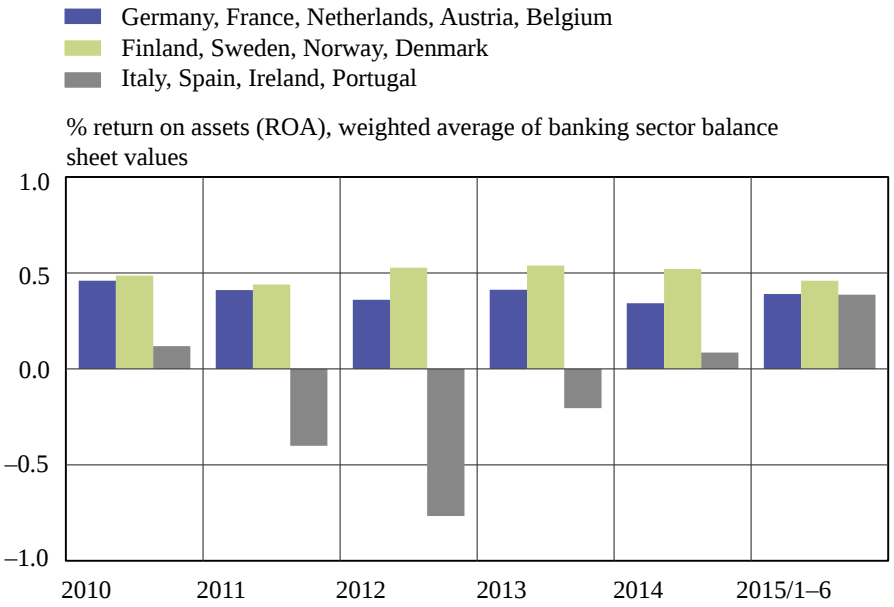
During 2015, there has been occasional uncertainty on the international financial markets. In spring, there were strong market fluctuations in euro area longer-term interest rates; in early summer, fluctuations were caused by the situation in Greece; in August–September, the market was turbulent due to China. In autumn, volatility increased particularly on the stock markets, on the foreign currency markets of emerging economies and in commodity prices. Weakening market liquidity and increasing correlation of investor positions will, in turn, strengthen the impact of short-term market disruptions. The increased systemic importance of investment funds in the euro area financial system enhances fund management companies' role as possible intermediators, amplifiers or even originators of market fluctuations.

Economic recovery in the euro area will both enhance financial system stability in the area and strengthen the banking sector. A strengthening banking sector will, in turn, enhance monetary policy transmission to the real economy concurrently with banks' improved lending capacity and eased financial conditions. The profitability of euro area banks has increased (Chart 1) during 2015 from the poor level of previous years, and banks' capital adequacy has improved. However, the large number of non-performing loans still burdens balance sheets. The low level of interest rates and the small difference between long-term and short term interest rates (flat interest curve), in turn, weaken banks' expectations of future developments in net interest income.[1] Adjustment to increasingly tighter regulation and to changes in the operating environment also poses a challenge to banks' business models as new market participants emerge, the shadow banking sector grows and digitalisation shapes financial services and client processes.

1. Bank Lending Survey 10/2015.

Chart 1.

Profitability of euro area banks improves



Sources: IMF Financial soundness Indicators (FSI) and SNL.

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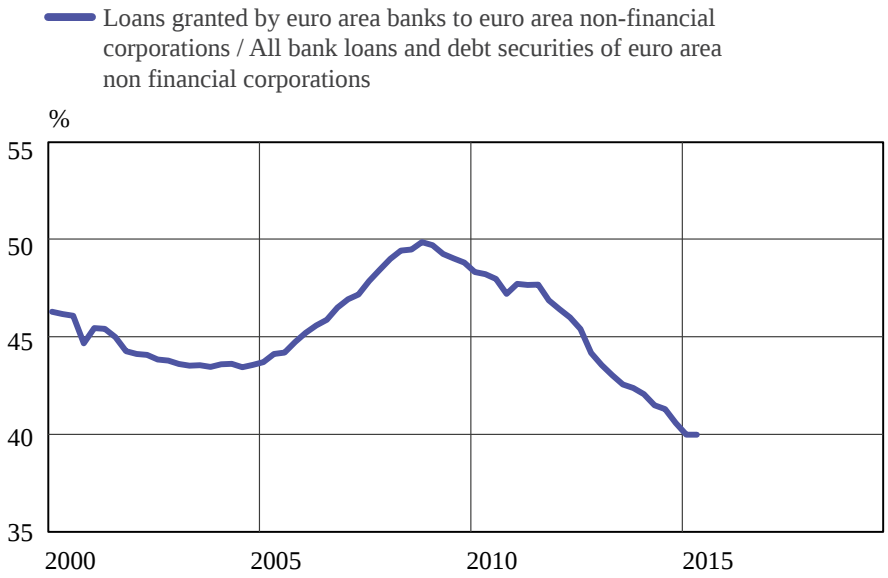
As banks consolidate their balance sheets, the role of other financial institutions in the euro area financial system has grown in recent years and the significance of capital market finance increased. Compared with the end of 2008, banks' share of corporate debt financing in the euro area has shrunk by 10 percentage points to 40% (Chart 2). These are positive developments, because diverse funding sources improve the availability of financing and reduce vulnerability to disruptions in the domestic banking sector. The aim of the new Capital Markets Union is to continue supporting these developments, particularly in small and medium-sized enterprises, although a lot of work remains to be done.

Chart 2.

Banks' share of credit market decreased since financial crisis



Source: ECB (SDW).

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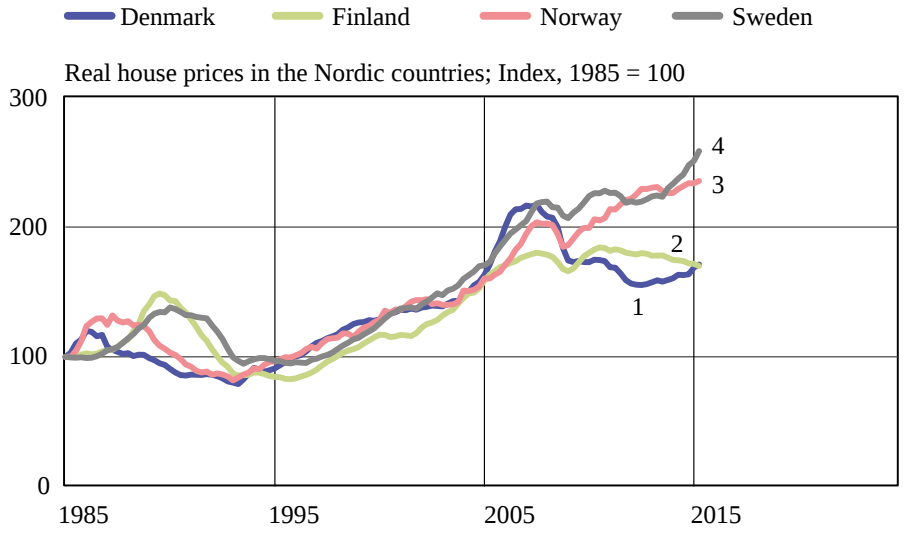
Smoothly running financial markets are important to Nordic banks, which are relatively dependent on market funding. As a result, maintenance of capital adequacy and high credit ratings are necessary to secure market participants' solid confidence in the Nordic banking sector. The Nordic countries have a large, cross-border, highly concentrated banking sector, which involves common risks and challenges. The risk factors in the Nordic financial system comprise primarily the substantial level of household indebtedness and the continuing house price rises in Sweden and Norway (Chart 3). Banks' vulnerability to problems on the housing market and with housing loans is increased by their dependency on mortgage-backed capital market funding.

Chart 3.

Rising Swedish and Norwegian house prices threaten Nordic financial system



Source: Dallas Fed International House Price database.

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Finnish financial system exposed to risks from the real economy

In addition to risks from the international financial markets, stability risks to the Finnish financial market relate particularly to weak developments in the domestic real economy. To date, the economic recession in Finland has been seen on the housing market as a slight but protracted price slump. However, household debt has continued to accumulate and the related vulnerabilities represent both a considerable financial stability risk and a macroeconomic risk. The profitability of the Finnish banking sector has increased in 2015, and risk resilience in capital adequacy terms has improved.

Risks in the international economy and the financial markets would, if realised, pass through to Finland via both the real economy and the international investment position of Finnish market participants. A sharp decline in international stock market prices would also indirectly influence the investment position of households via, for example, investment funds and life and pension insurance companies.

Fluctuations on the international financial markets have in actual fact been the most important factor affecting the condition of the Finnish financial markets, and the value of the potential stress index has been growing slightly since mid-2014 (Chart 4).[2] During

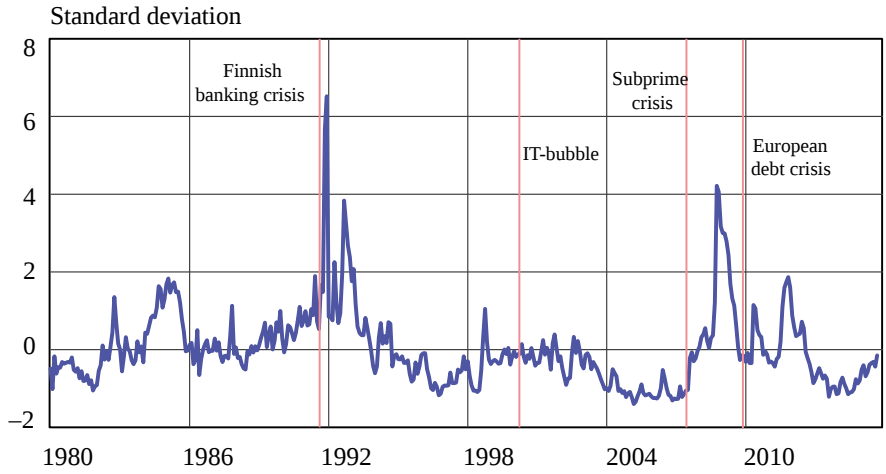
2. The stress index has been described in greater detail in the research article Huotari (2015) Measuring financial stress – A country specific stress index for Finland. Bank of Finland Discussion Papers 7/2006.

2015, the value of the stress index has risen to a level close to its long-term average, although it is well below peak post-2007 levels. Among the sub-indices of the stress index, the stock and currency market indices have been rising. The monetary and bank market indices have remained unchanged during 2015, whereas the index describing the long-term interest rate market has fallen since an upswing in spring 2015.

Despite numerous uncertainties, such as fluctuations on the stock and currency markets, the Finnish financial sector has remained stable and there have been no significant disruptions either on the domestic financial markets or in financial intermediation. However, impaired investment securities have weakened the good average solvency ratios of insurance institutions at the same time as the investment income of these institutions has decreased. The challenging investment situation continues due to the prevailing low interest rates.

Chart 4.

Slight increase in stress on Finland's financial markets



Sources: Bloomberg, Datastream and calculations by the Bank of Finland.

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Household debt increases vulnerabilities related to the housing market

The fragile situation in the Finnish real economy may increase risks to the domestic financial system, should the low level of loan losses to date begin to grow. The stock of loans to households, in particular, has grown at a faster rate than the economy for a prolonged period. In an environment of low interest rates, debt-servicing expenses connected with floating-rate loans remain under control, but a possible rise in the level of interest rates would rapidly increase household vulnerabilities.

On the back of the weak economic developments in Finland, growth in households' disposable income has been muted. At the same time, households have continued to

accumulate debt, albeit at a fairly modest pace. The household indebtedness ratio – debt relative to annual disposable income – rose in June 2015 to an unprecedented 123.2%, compared with 120.5% a year earlier.[3]

The increase in household indebtedness is due to growth in all key debt items. The stock of housing loans has grown at a slightly faster rate in 2015, following more sluggish dynamics in the past few years. In addition to growth in new drawdowns of euro-denominated housing loans, the expansion of the housing loan stock has been underpinned by an increased use of interest-only periods and other flexible debt-servicing arrangements granted by banks.[4] However, the recent growth in the housing loan stock has been modest relative to the figures recorded in the first decade of the new millennium. In September 2015, for example, the housing loan stock increased at a rate of over 2% per annum. Consumer credit has grown at a slightly faster pace.

Nevertheless, the significance of housing-related debt has increased further. The stock of credit granted to housing corporations and housing companies, in particular, has recently grown at a much faster rate than the stock of housing loans to households. In June 2015, households' loans via housing companies amounted to almost EUR 14 bn, which was 17% more than a year earlier. These loans account for over 10% of the total stock of household debt.[5]

Despite the weaker economic situation, the debt-servicing capacity of households with housing loans has remained good on average, and banks' non-performing assets arising from housing loans have remained low relative to the loan stock. At the end of June 2015, banks' non-performing housing loans totalled over EUR 1 bn, i.e. 1.2% of the stock of housing loans.[6] The situation for consumer credit is slightly weaker: non-performing consumer credit accounted for 3.3% of the volume of consumer credit in June 2015. There are also signs of an increase in consumer credit-related payment defaults. Overall, the share of non-performing household and corporate loans is among the smallest in the euro area. However, a rise in the level of interest rates in the euro area, combined with the subdued long-term outlook for the Finnish economy, could be rapidly reflected in a growth in the volume of banks non-performing loans from the current low level.

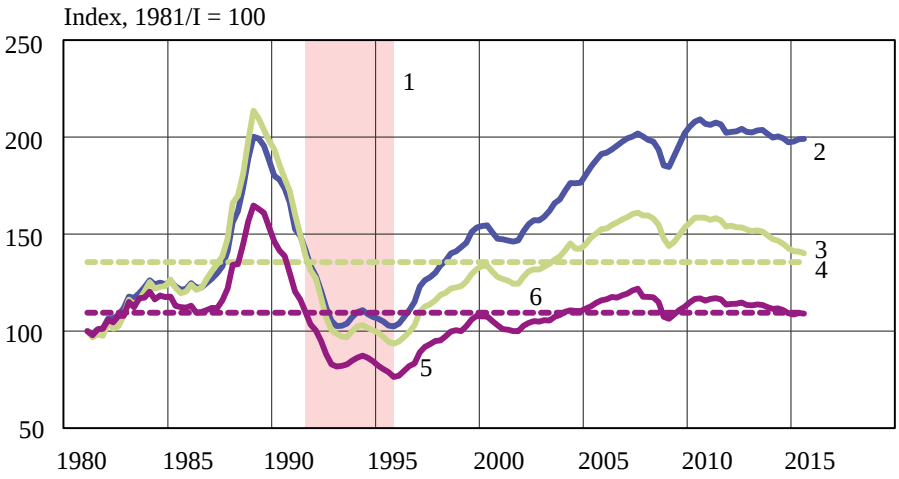
Indicators reflecting current developments on the housing loan and housing markets do not signal marked changes in threats to the stability of the financial system, nor do they imply a marked increase in problems in the near future. For instance, house prices relative to the level of earnings and rents are close to their long-term average (Chart 5). In addition, there are no clear signs of overpricing in the whole country on average. Relative to consumer prices, however, house prices are expensive in historical terms. There are also large regional differences in house price developments and accumulation of housing loan-related debt, especially between growth centres and the rest of the country.

3. Financial Accounts 2015, 2nd quarter. Statistics Finland.
4. Bank barometer III/2015. Federation of Finnish Financial Services.
5. Financial Accounts 2015, 2nd quarter. Statistics Finland.
6. Financial position and risks of supervised entities 2/2015. Financial Supervisory Authority.

Chart 5.

House prices relative to the level of earnings close to long-term average

1. Banking and housing market crisis in the early 1990s
2. House prices relative to consumer prices
3. House prices relative to rents
4. Long-term average
5. House prices relative to wage and salary earnings
6. Long-term average



Sources: Statistics Finland and calculations by the Bank of Finland.

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Improvement in banking sector profitability and capital adequacy

Despite the recession in the Finnish economy, the profitability of Finnish banks has remained good on average and capital adequacy ratios have improved slightly in the course of 2015. Impairment losses on loans and the amount of non-performing assets relative to the credit stock have remained low.

The low level of interest rates has reduced the relative importance of net interest income in banks' income structures, while the relative importance of other income sources, such as securities-related and other fee income, has increased. Banks' profitability and income structures have become increasingly risky, and banks are more prone to disruptions on the securities markets.

The capital adequacy of banks improved in the first half of 2015. At the end of June 2015, the Common Equity Tier 1 (CET1) ratio was 17.5%, compared with 15.3% a year earlier. Equally, the total capital adequacy ratio improved in 2015, to 19.0% in June (17.3% in June 2014). CET1 capital accounted for 92% of own funds, meaning the quality of own funds has remained good.[7] The improvement in capital adequacy was primarily the result of equity issues and growth in accumulated profits. Banks have also increasingly

applied internal models for the assessment of credit risks, which has decreased the amount of risk-weighted assets and hence improved banks' capital adequacy ratios.

Banks' potential risks and vulnerabilities have remained largely unchanged. The Finnish banking system is among the most concentrated in the euro area, with a significant level of interconnectedness between banking and insurance business. Problems can rapidly spread from one to the other via ownership structures and investment linkages. Furthermore, international comparisons show that the Finnish banking sector is more dependent on market-based funding than banking sectors in other countries on average. For this reason, disruptions in international capital markets can pass through to the domestic financial sector fairly rapidly.

Finnish banks' funding and liquidity situation has so far remained good and they have encountered no problems in acquiring market-based funding. In future, banks' exposures to disruptions in the acquisition of funding will also be mitigated by the new phase-in requirements according to which banks must have an adequate reserve of liquid assets that can be easily converted into cash (expressed as a liquidity coverage ratio, LRC) as well as maintain a stable funding profile based on adequately diversified long-term funding (measured as a net stable funding ratio, NSFR). The LRC entered into force in the EU in October 2015 and was first set at 60%. The full requirement (100%) will enter into force at the beginning of 2018.[8]

The Finnish financial markets have seen the emergence of new players operating outside the banking system ('shadow banks') which do not take deposits but intermediate funds from investors to businesses and private persons in need of funding. These players are as yet of low importance in financial intermediation relative to the importance of the mainstream banks, but more diversified funding sources may, in the longer term, deliver benefits, for instance via risk diversification and new innovations. However, the growth in shadow banking may entail new risks, since operations not subject to supervision are non-transparent, nor are the magnitude of shadow banking business and its interlinkages with other players on the financial markets precisely known.

Completion of Banking Union important

The first pillar of EU Banking Union, the Single Supervisory Mechanism (SSM), began operations in November 2014. All significant credit institutions in the euro area (in Finland, Nordea Bank Finland, OP Group, Danske Bank and, as of 2016, Municipality Finance) are subject to direct supervision by the ECB. The second pillar of Banking Union is the Single Resolution Mechanism (SRM), for which the regulatory framework is now in place. The key body within the SRM, the Single Resolution Board (SRB), will become operational at the start of January 2016. According to the key principle of bail-in applied by the SRM, owners and creditors will primarily bear the losses of a failed bank. Banks will contribute to a Single Resolution Fund (SRF), which will be gradually built up to the target level of around EUR 55 billion by 2024. The countries participating in

7. Financial position and risks of supervised entities 2/2015. Financial Supervisory Authority.
8. For more information, see Commission Delegated Regulation (EU) 2015/65 of 10 October 2014 to supplement Regulation (EU) No 575/2013 of the European Parliament and the Council with regard to the liquidity coverage requirement for Credit Institutions.

Banking Union have agreed that each member country will pay extraordinary contributions to the Fund during a transitional period if the financial resources of the Fund are not sufficient to resolve any situation at hand.

The third pillar of Banking Union will comprise a common European deposit insurance system. Reform of the deposit guarantee scheme is necessary to ensure a fully effective Banking Union. The current decentralized deposit guarantee based on national schemes is problematic due to the uncertainties surrounding its effective operation in a widespread systemic crisis. In the face of a large-scale crisis, we should ensure that all Member States participating in Banking Union are able to guarantee their citizens the agreed deposit guarantee of EUR 100,000. The proposal of the European Commission of November 2015 for a new European Deposit Insurance Scheme (EDIS) will be implemented in three phases by 2024. The proposal includes several mechanisms for reduction of the risks of the deposit insurance scheme until the conditions for a fully operational single scheme are in place. In parallel with EDIS, many other regulatory initiatives designed to increase the stability of the European banking system are underway.

The reforms of banking supervision and the principles of bank resolution carried through as part of the Banking Union initiative serve to considerably strengthen the authorities' powers of intervention and protect taxpayers against the costs of bank bailouts. However, to promote financial stability and mitigate the adverse effects of future banking crises, the completion of all elements of Banking Union is vital.

Capital Markets Union will complement Banking Union

At the end of September 2015, the European Commission adopted an action plan on Building a Capital Markets Union for Europe. The action plan was a follow-up on the public consultations launched in February, in which the creation of a Capital Markets Union received widespread support.

One aim of Capital Markets Union is to diversify sources of funding to also include non-bank sources. This would improve the availability of finance notably for SMEs and promote long-term infrastructure investment. The Commission proposes adoption of a total of 33 different measures by the start of 2019. In 2017, the Commission will evaluate progress in achieving the aims of Capital Markets Union and weigh potential priorities.

Capital Markets Union is an important initiative for Europe. In its action plan, the Commission assesses that if the venture capital markets of Europe were as deep as in the United States, more than EUR 90 billion of funds would have been available to finance companies between 2009 and 2014. Securitisation, in turn, is assessed to provide additional credit to the real economy of more than EUR 100 billion. If implemented optimally, Capital Markets Union would deliver concrete benefits for the European real economy.

From a Finnish perspective, diversification of the funding sources of SMEs in particular would be beneficial as it could help these enterprises grow. At the same time, the easing

of competition in the provision of investment services and insurance policies to private persons, especially on a cross-border basis, could reduce prices and facilitate a more effective allocation of the funds held in deposit accounts.

Wider range of tools needed to address housing market risks

The purpose of macroprudential policy is to prevent excessive exuberance and crises in the financial system. The board of the Financial Supervisory Authority (FIN-FSA) is the macroprudential decision-maker in Finland. It takes decisions from a macroeconomic perspective and drawing on the expertise of key authorities. In the euro area, the ECB Governing Council takes macroprudential decisions with a view to the financial stability of the euro area as a whole. For financial stability to be achieved it is essential that decision-makers have access to sufficient instruments, i.e. macroprudential tools, in good time before risks emerge. Adoption of legislation on new tools does not, however, mean their immediate activation; the macroprudential authority must assess on a case-by-case basis the timing and appropriateness of deploying the tools, with due consideration to the cyclical conditions.

As of 2015, FIN-FSA has had the power to decide each quarter on the imposition of a countercyclical capital buffer requirement of 2.5%, at the most, on banks (Table), but use of this macroprudential tool is not appropriate under the prevailing cyclical conditions. Although the Finnish banking sector is currently sound despite the weakness of the economy overall, banks are, nevertheless, vulnerable to potential problems on the housing market. Due to the low risk weights on housing loans employed in banks' capital adequacy analyses, the buffers built up against housing loan losses are relatively small. Risk weights should be set so as to also capture any systemic risks stemming from lending for house purchase.

The macroprudential tools available under existing legislation designed to control lending for house purchase, i.e. the loan-to-value (LTV) ratio and higher risk weights on housing loans, are designed primarily to support banks' resilience. However, a broader set of macroprudential tools is necessary to contain, where necessary, potential overheating on the housing market and household over-indebtedness. In the light of international experience, restriction of the loan-to-income ratio has been assessed as an effective tool to this end. It makes sense to develop the tools in the cyclical conditions prevailing before the risks to financial stability actually materialise. Extension of housing loan maturities and widespread use of interest-only housing loans in the context of an exceptionally high degree of monetary policy accommodation also augment the risks on the housing market. The authorities should be equipped with powers to restrict, where necessary, both the maximum size of new housing loans relative to the borrower's debt-servicing capacity and loan maturities, and to impose requirements for loan amortisation.

Table.

Macroprudential decisions taken in Finland

Quarter	Date of decision	Countercyclical capital buffer	O-SII buffer
I/2015	16 Mar 2015	0% set	
II/2015	30 Jun 2015	0% set	
II/2015	6 Jul 2015		Additional capital requirement imposed on four credit institutions to take effect on 7 Jan 2016.
III/2015	29 Sep 2015	0% set	

Source: Financial Supervisory Authority.

Nordic link of Finnish banking sector poses a challenge for macroprudential policy

Despite the close interlinks between the Finnish banking sector and the other Nordic countries, macroprudential toolkits vary across the Nordic region. Furthermore, Finland is the only Nordic country participating in Banking Union. These differences may become more salient in the immediate years ahead, if Nordea, the largest Finnish bank in balance sheet terms, goes ahead with a proposed change of group structure that will put more than a third of the Finnish banking market in the hands of branches of foreign banks.

This would be a significant change for Finland, considering that responsibility for both the supervision and the resolution of a systemically important bank would transfer to Sweden, outside the area of Banking Union and the Eurosystem. In such a case, a large part of the Finnish banking sector would be subject to the Swedish Resolution Mechanism, which is different to that of the euro area, and possibly to a different deposit guarantee scheme. This might change the competitive market position of the banks operating in Finland.

The deployment of macroprudential tools to address structural systemic risks would also be more difficult, as the change would lead to a shift of competence to the Swedish Financial Supervisory Authority. In addition, mutual cross-border recognition of macroprudential measures to address structural systemic risks is voluntary or without foundation in law. This potential significant change in the Finnish banking system highlights the need for close convergence of the macroprudential toolkits of Finland and Sweden. In addition, the reciprocity principle should be effectively and comprehensively applied between EU countries.

Tags

- systemic risks
- macroprudential policy
- threats to financial stability

Finland is greying – will this weaken the effectiveness of monetary policy?

TODAY 2:00 PM • BANK OF FINLAND BULLETIN 5/2015 • ECONOMIC OUTLOOK •
JUHA KILPONEN, HELVI KINNUNEN, PETRI MÄKI-FRÄNTI

- Juha Kilponen
  Head of Forecasting
- Helvi Kinnunen
  Senior Adviser
- Petri Mäki-Fränti
  Senior Economist

This article studies the link between population ageing and monetary policy transmission in Finland from the perspective of consumption behaviour and the macro economy. We estimate the consumption functions of Finnish households in various age groups, using household-specific data. If consumption in the younger cohorts is more sensitive to changes in income and interest rates than consumption in the older, growth in the population share of the elderly will decrease the economic impact of changes in the key monetary policy interest rate. The effect of ageing on consumption is estimated by taking into consideration the age variation of household margins. The results are based on wealth and income distribution data from Statistics Finland. Finally, we describe the effect of demographics on monetary policy transmission, using a general equilibrium model of the Finnish economy.

Monetary policy transmission channels and demographics

Monetary policy affects in different ways the consumption, net wealth and asset expenditure and income of different age groups. In addition to the interest rate channel and wealth effect, ageing can change monetary policy transmission mechanisms via the credit, risk taking or expectation channels. The relative importance of the various channels defines whether ageing increases or decreases the effectiveness of monetary policy.

Ageing affects the interest rate channel of monetary policy mainly because the young tend to be more indebted than the elderly. As a result, consumption by the young is more sensitive to interest rate changes than consumption by the elderly. This is particularly the case if a household has a housing loan with a variable interest rate. Elderly people are net lenders, and do not therefore finance their consumption by borrowing to the same extent. The younger a population, the more sensitive it is to interest rate changes, other things being equal, and the more effective monetary policy changes are on average.

Monetary policy effects via the credit channel emerge via creation of the price of credit. In an aged economy, the need for external finance is smaller, as tends to be the share of credit and liquidity constrained households. Because the elderly tend to have a larger amount of net wealth, this has a negative impact on the risk premia on loans.[1]As a result, the availability of finance is on average better in an aged economy and its price is lower, which is likely to reduce the response of the economy to monetary policy changes.

Asset prices respond strongly to actual and expected changes in interest rates, and correspondingly, consumption responds to changes in asset prices. Population ageing increases the monetary policy effect via the wealth effect channel, because young households typically have less assets and their financial portfolio more heavily comprises equity investments than in the case of older households. In an aged economy, the wealth channel is thus stronger than on average and monetary policy is more effective.

The relative importance of the different channels has been examined in various models. The impact of population ageing has been assessed by e.g. analysing how the transmission of monetary policy shocks to the economy has changed over time, or by estimating consumption functions for households in various age groups.[2],[3] The impact of ageing on monetary policy transmission has been examined also using general equilibrium models that incorporate features of overlapping generations (OLG) models. [4]

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1. This effect may, however, be offset by the fact that the remaining life cycle of the elderly is shorter than that of the young. This may also boost the risk premia of loans with longer maturities, in particular.
2. E.g. Imam (2013) has analysed, using a sample of five countries, deviations of the impulse response functions implicated by the Taylor rule and found that the decrease in the response of employment and inflation to changes in interest rates over time is partly explained by population ageing.
3. Wong (2014) estimates, using age-specific consumption functions, the effects of interest rate shocks on consumption demand in various age groups. The tightening of monetary policy reduces consumption by young households significantly more than that by older households. Household-level data have been aggregated by demographics to the level of the economy as a whole.

The research findings on the role of ageing in the transmission of monetary policy are somewhat contradictory. Most empirical studies show that population ageing has a negative impact on the effectiveness of monetary policy. For example, estimates by Imam show that an increase in the old-age dependency ratio of one percentage point lowers (in absolute terms) the cumulative impact of a monetary policy shock on inflation and unemployment by 0.10 of a percentage point and 0.35 of a percentage point, respectively. On the other hand, simulations conducted by Miles in 2002 using a general equilibrium model show that monetary policy becomes more effective with ageing. This is the result of a strong wealth effect caused by changes in interest rates.

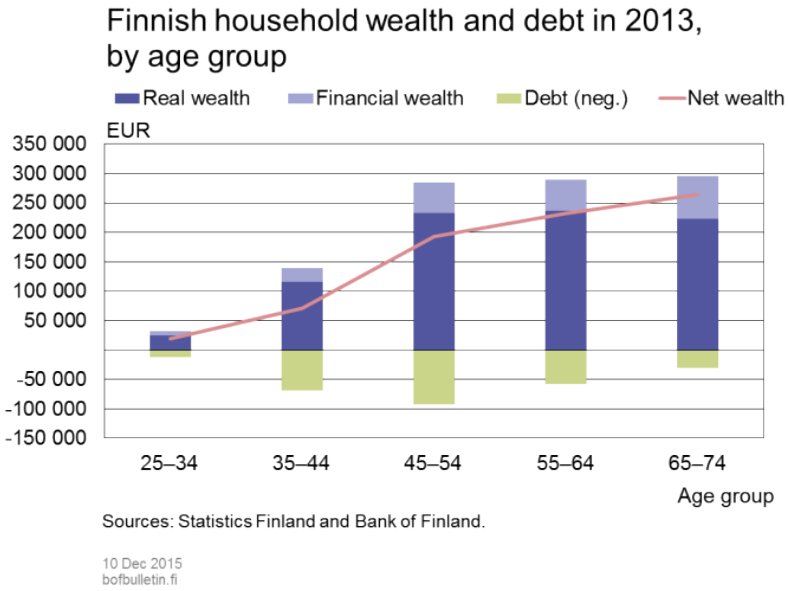
Wealth by age group in Finland

In terms of the wealth effect, it is of key importance how the wealth and debt positions of households differ between age groups. The more the elderly have wealth and the stronger the response of the value of property to changes in interest rates, the stronger is the response to rises in interest rates as households become older. In Finland, the differences in wealth between age groups are significant, and they have increased as a result of the protracted economic recession.[5] Measured by cohort averages, the real and financial wealth of 45–54-year-olds is double the size of those 10 years younger. Wealth also appears to remain substantial among the oldest cohorts (Chart 1).

Even though the life cycle model suggests older households should draw down their savings, the savings rate of these households is, both in Finland and in many other countries, even higher than in the younger cohorts.[6] The differences in the level of financial wealth are smaller than in the level of real wealth, but financial wealth grows, too, with ageing. Measured by net wealth, household wealth more or less triples when the age of the principal breadwinner approaches 50 (Chart 1). The decrease in debt levels accompanied with an increase in housing wealth boosts net household wealth.

4. Kara and von Thadden (2010) as well as Fujiwara and Teranishi (2007) have studied, using general equilibrium models that incorporate life cycle features, population ageing effects and monetary policy transmission, as well as the effects of ageing on the general equilibrium interest rate. Using an overlapping generations model, the effects have been examined by e.g. Miles (2002). Also e.g. Saarenheimo (2005) has examined, with the help of an overlapping generations model, the effects of ageing on equilibrium real interest rates in a global economy.
5. On the impact of the economic recession on various age groups, see also Kinnunen – Mäki-Fränti (2015).
6. This could be due partly to a strong motive to leave an inheritance or e.g. uncertainty about the adequacy of pensions as the need for care grows with ageing.

Chart 1.

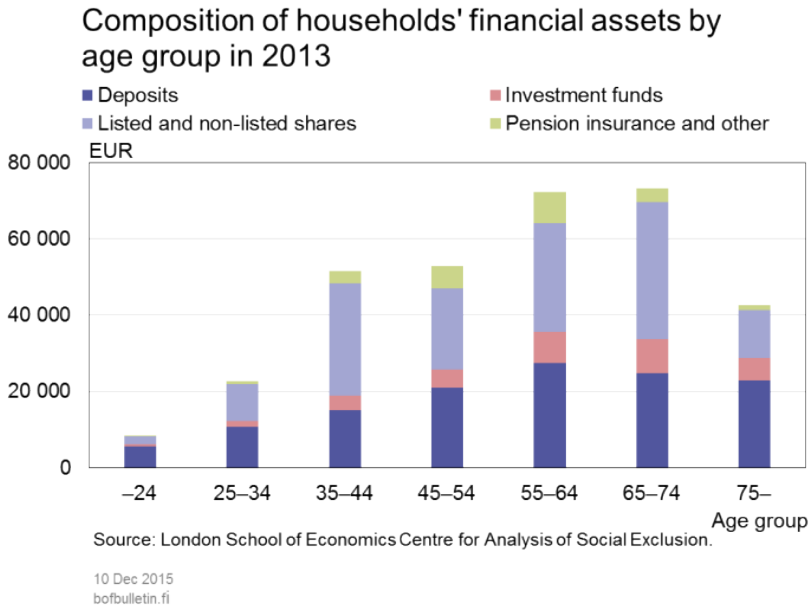


The distribution of Finnish household average net wealth by age group does not differ significantly from that found in the other European countries. For example in Sweden and the United Kingdom, net financial wealth increases by age group more or less in parallel with Finland.[7]

In terms of wealth effect, the composition of financial assets also plays a key role. The larger the share of fixed-interest investments in the financial portfolio of the elderly, the larger the impact of monetary policy tightening on the value of their assets. In Finland, deposits account for approximately half of all financial assets, and the share seems to rise slightly with age. Particularly among those over 75, the majority of these assets would seem to be in bank deposits (Chart 2). Developments in the market value of shares are, however, of key importance to the wealth of those who are close to or have recently reached retirement age.

7. See e.g. Cowell, F.A. – Karagiannaki, E. – McKnight, A. (2013).

Chart 2.



In terms of monetary policy transmission, the pension system also plays a key role. The generosity of the defined benefit pension scheme determines how much longer life expectancy increases the need for personal precautionary savings. If statutory pension benefits are small or if the replacement ratio of pensions decreases with population ageing, this increases the need for personal savings. As a result, consumption by the elderly is increasingly dependent on personal wealth and property income, and the wealth effects in monetary policy transmission become increasingly important. In the case of a generous pension system, in turn, a growing share of household income is social benefits that are not dependent on the economic cycle. This decreases the need for precautionary savings.

In Finland, the extensiveness of the defined benefit and earnings-related pension scheme improves the consumption possibilities of the elderly and decreases the need for personal savings. Even though pension benefits have been weakened by the pension reforms, and despite the fact that the pension index compensates pensioners only partly for the growth in real earnings, the wealth accrued through pension savings is significant relative to other wealth. A cohort-specific examination shows that imputed pension wealth grows steadily with the rise in the expected age of retirement.[8]

Household margin and consumption

The importance of the interest rate channel and the wealth effect channel in terms of consumption behaviour is examined empirically by comparing consumption behaviour in the various age groups. Differences in the consumption behaviour of the various age groups reflect the changes in households' preferences in the various phases of the life cycle. On the other hand, the possibilities of a household to consume and save depend on the life cycle.[9]

8. On developments in pension wealth by year of birth, see e.g. Risku (2015).

According to the life cycle hypothesis, the larger the share of middle-aged people in the population, the higher the savings rate in the economy. Differences in the consumption behaviour of households in various cohorts may thus change the transmission of monetary policy as the share of the elderly in the economy grows. Interest rate changes are reflected not only in the interest rates on housing loans and household credit, but also in asset prices. An increase in interest expenses or property income have an impact on disposable income and consumption.

Results for Finland suggest that the response of consumption is strongly affected by the household margin. Through the liquidity constraint, the monetary policy credit channel may have an impact on the responsiveness of consumption to changes in income and wealth as the population ages.

Household margin

The household margin refers to the amount of money households have left (monthly/annually) after standard expenses.[10], [11] A small margin restricts a household's possibilities to smooth consumption over time. If for a large portion of the households the margin remains small, this is reflected as an increase in the sensitivity of private consumption to fluctuations in disposable income. On the other hand, this also increases the monetary and fiscal policy impact on consumption.

In Finland, the household margin has decreased slightly in recent years, due to an increase in household indebtedness. On the other hand, the low level of interest rates has clearly compensated for the impact of higher debt levels. As the population ages, the household margin improves, due to a decrease in the proportion of the heavily indebted.

The financial position of retirement-age households is, however, significantly tighter than that of households in prime working age. An examination by 10-year cohorts shows that household margin increases steadily from the 25–34-year-olds until close to retirement, i.e. the age of 55–64 (distribution of household margin by age group, see Chart 3), but the margin of the over-65-year-olds shrinks close to the level of that of the younger age groups. The margin of a median household is highest in the group of

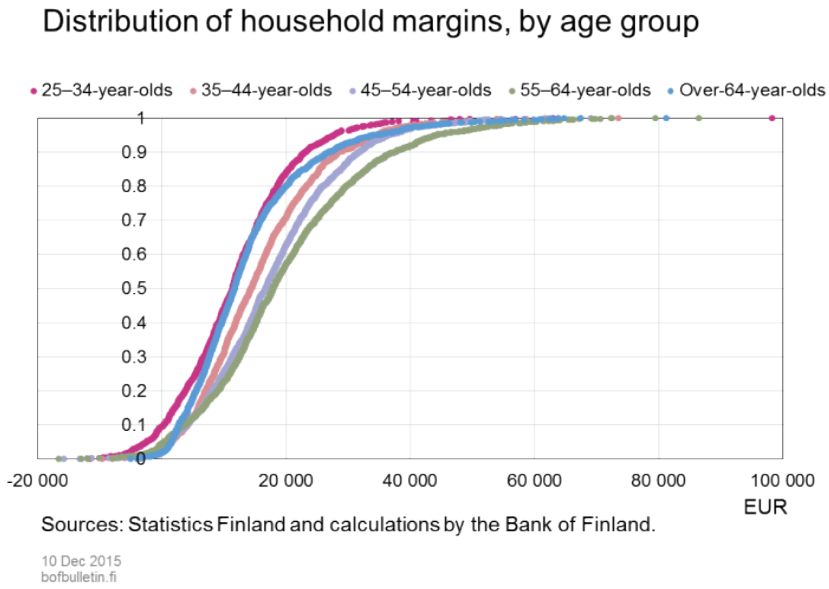
9. In addition to labour market position and wealth, a household's necessary expenses, particularly housing costs, vary in the different phases in the life cycle. The differences in consumption expenditure are large both between and within the cohorts. According to Ahonen and Vaittinen (2015), the difference in the consumption expenditure of retirement- and working-age households has continued to shrink, and consumption expenditure of the retirement-aged is now higher than ever before. The group of retirement-age households however continues to include a significant amount of low-income households that have difficulties in covering even their necessary expenses.

10. The household margin was defined as a function of the disposable income for a household, housing expenses and living costs such that margin = household income minus housing and debt servicing costs and basic living costs.

11. For a more detailed discussion of household margin, see e.g. Persson (2009) and Jönsson et al (2011). See also Mäki-Fränti (2014).

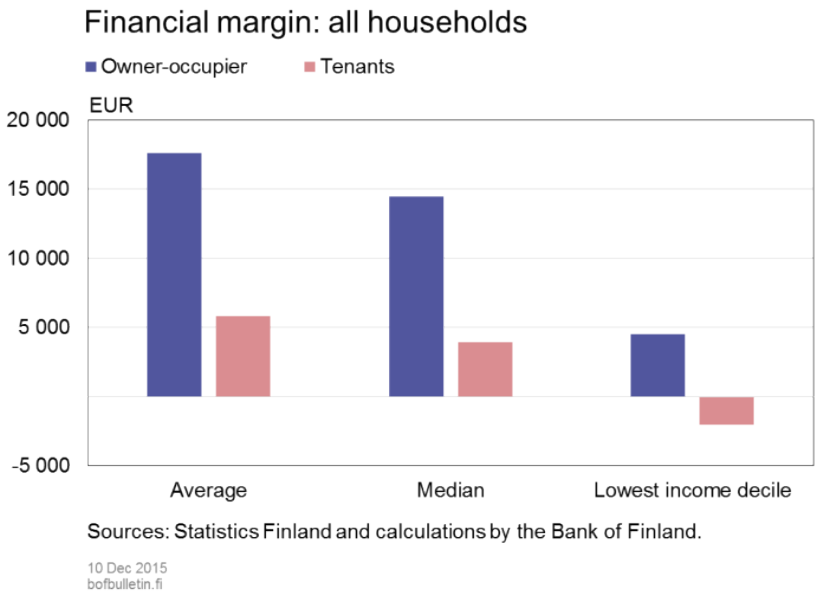
55–64-year-olds (EUR 14,500 per unit of consumption per annum), but among over-64-year-olds the margin is just some EUR 8,500 per annum. Of pensioners, 40% were below the annual margin of EUR 10,000, whereas in the group of 55–64-year-olds, the proportion was 23%. Correspondingly, only 12% of pensioners exceeded the margin of EUR 25,000, whereas among 55–64-year-olds the portion was 29%. On the other hand, the amount of households with little means of subsistence is lower in the group of retirement-age households than among younger households. Among 45–54-year-olds and 55–64-year-olds, the margin of approximately 7% of households remained negative, i.e., their income was not sufficient to cover even basic living costs. In contrast, among pensioners, the proportion of such households was only 3%.

Chart 3.



Household margins are strongly dependent on wealth. Financial wealth accounts for a relatively small share of household gross wealth in Finland, but particularly for elderly households – which usually do not have debt – owner-occupied housing increases the margin for consumption. The median household margin for all households is EUR 4,000 per annum, whereas the median for owner-occupiers is close to EUR 14,000 (Chart 4). The comparison also shows that even in the lowest income decile of owner-occupiers, the margin is close to that of a median rental household.

Chart 4.



Consumption function estimations

Consumers' willingness to use their income and assets for consumption and saving varies according to the phase of their life cycle. The size and composition of wealth may also affect consumer demand.

However, the basic model of consumption behaviour is not materialising in practice, due to both uncertainty about future developments and problems in the availability of liquidity. Consequently, the following estimations explicitly allow for variations in household margins. Consumption behaviour at different ages is explored by estimating cohort-specific consumption functions using cross-sectional data so as to also enable a separate examination of the behaviour of liquidity-constrained households.

Consumption responses are investigated using a model in which logarithmic household consumption expenditure is the dependent variable.[12] Consumption is accounted for by disposable income, wealth and various background variables. The estimations make use of household-level data based on Statistics Finland's annual income distribution survey and the European Central Bank's household finance and consumption survey of 2013.

For our purposes, disposable income comprises all a household's earned and capital income and social benefits. Wealth includes housing wealth, risk-free bank accounts and risky financial assets. The consumption equations were estimated separately for five age groups: 25–34-year-olds, 35–44-year-olds, 45–54-year-olds, 55–64-year-olds and those over 65. The age, gender and marital status of the household reference person, information on whether there are children in the household, and the income and wealth quintile represented by the household were used as background variables. Of these

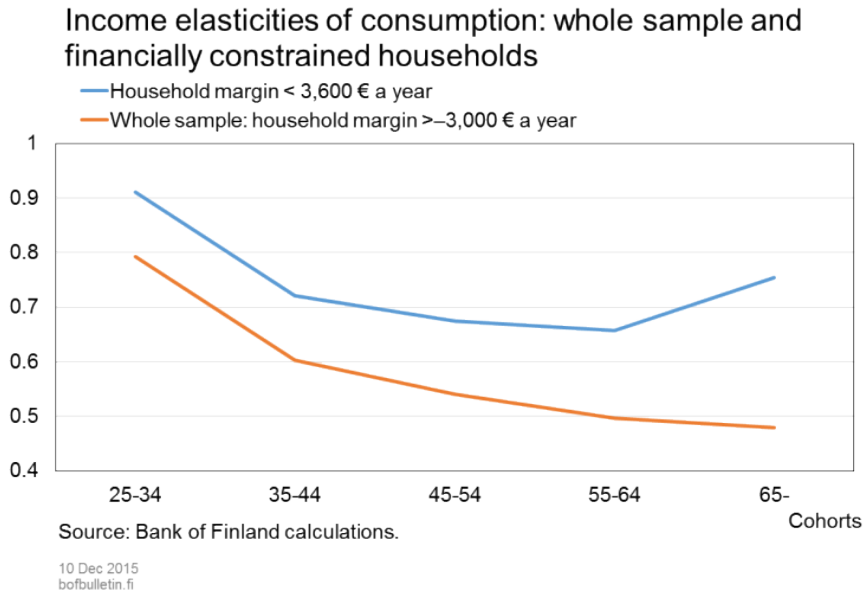
12. Helander (2014) has estimated the income and wealth effects of consumption using Finnish data.

variables, marital status, children and the income and wealth quintiles turned out to be statistically significant.

Household margins may play an important role in explaining differences in consumption elasticity. Households living at subsistence level naturally respond more strongly to changes in disposal income. The consumer credit on offer is typically expensive, which acts as a constraint on the liquidity of these households. To control for this factor, consumption functions were estimated separately for households whose household margin was assumed to be below EUR 250 a month per consumption unit.[13]

The amount of disposable income provides a statistically significant explanation for consumption in all age groups. The income elasticity of consumption for liquidity-constrained households with little means of subsistence is in all age groups higher than for other households and broadly in line with the life-cycle model (Chart 5), i.e. saving is highest in the age group approaching retirement. The fluctuation range of elasticity estimates for liquidity-constrained households is fairly large, at 0.9–0.65. Consumption elasticity for these households is smallest among 55–64-year-olds, i.e. the age group transferring to retirement.

Chart 5.



In contrast, consumption elasticity for the whole sample diminishes steadily with age until retirement (Chart 5). An examination of all households irrespective of household margin shows the income elasticity of consumption varies from 0.8 among those aged 25–34 to 0.5 among those over 65. Income elasticities of consumption in the present analysis are larger than e.g. the elasticities estimated by Helander on the basis of 1998

13. This limit excludes clear outliers from the sample. The estimation results were, in some respects, sensitive to these outliers so that income elasticities of consumption increased when the financially most distressed were dropped from the sample.

household data. Irrespective of the estimation model, average elasticities estimated for the population as a whole remained below 0.4 in Helander's (2014) study.[14]

In no age group does consumption respond significantly to changes in wealth.[15] Consumption elasticities in respect of financial or housing wealth variables had in cohort-specific models only in some cases a statistically significant effect.[16] Even then the estimated elasticities were typically low or negative. Wealth has the strongest effect on consumption among 35–44-year-olds. In this age group, an increase of one euro in risky investments boosts consumption by 0.7 of a cent.

The wealth effects estimated here are weaker than the wealth effects estimated by Helander (2014) for Finland on the basis of 1998 data or the effects estimated by Sousa (2009) for euro area households.[17] According to Helander, net housing wealth, in particular, has a statistically significant positive impact on consumption. However, this wealth effect was in size minor or even negative for households with a small amount of housing wealth.[18]Sousa suggests that, instead, at the level of the euro area as a whole, consumption displays a high degree of elasticity with regard to financial, but not housing, wealth.

On the basis of these consumption function analyses, it appears that the savings behaviour of Finnish households does not correspond very well to the life cycle model. Saving increases steadily with age, which weakens the role of the interest rate channel of monetary policy in Finland. Nor will population ageing reinforce the wealth effect of monetary policy. Admittedly, wealth in the economy will increase along with changes in the age structure, but consumption barely appears to respond to changes in wealth. Overall, responses of consumer demand to interest rate changes will fade to some extent as ageing continues to advance.

Simulations using the general equilibrium model

Simple empirical models may not be sufficient to capture the relative importance of, and changes in, different monetary policy transmission channels in the context of population ageing. In contrast, better insights into different channels of influence can be obtained by using a macroeconomic general equilibrium model.

The general equilibrium model analyses presented here made use of the Bank of Finland's general equilibrium model calibrated for the Finnish economy and age structure.[19] In this model, consumers' life cycle behaviour is conveyed via two types of households. The consumer is either a worker, i.e. a working-age person, or a retirement-age person whose income mainly comprises pension benefits but who can also

14. Helander (2014), p. 27–31.
15. Wealth variables received statistically significant values particularly in the income model, but consumption elasticity with regard to wealth also remained very small in these cases.
16. Based on Finnish data, Kilponen (2012) has presented similar results for housing prices.
17. Sousa (2009).
18. Helander (2014), p. 27–31.
19. For a more detailed description of the model, see Kilponen – Ripatti (2006) and Kilponen – Kinnunen – Ripatti (2006).

participate in working life. The household types differ in terms of productivity and planning horizon.

Household wealth in the model comprises discounted earned income, financial assets and pensions. Financial assets comprise bonds, for which the nominal yield corresponds to risk-free interest, and shareholdings, reflecting the present value of future corporate profits.

In their decisions on consumption and labour supply, both types of households take into account their expected discounted lifetime wealth. Interest rate increases boost bond yields, thereby adding to disposable household income. On the other hand, interest rate increases reduce the present value of expected earned income, public transfers and pensions, as well as the value of shareholdings. An essential aspect for the model results, and a difference compared with typical overlapping generation models, is that this model also allows pensioners to increase their labour supply, thereby seeking to maintain their level of consumption in the event of negative wealth shocks. Although the model describes the pension system as a defined benefit-based regime, it also includes features from an earnings-related, defined contributions scheme. Accordingly, for example, longer working careers also have an impact on future pension wealth. In the model, life expectancy is reflected in the length of households' planning horizon. Working-age persons discount their future earnings over much longer horizons than do those of retirement age. On the other hand, longer life-spans lengthen the discount period for both working-age and retirement-age persons.

The impact of ageing on monetary policy transmission becomes visible in comparisons of responses to interest rate changes between young and aged economies. In the latter, the average life expectancy is longer and the number of those reaching labour market age is smaller than in the former. For assessing the effects of monetary policy, the simulations assumed a unexpected interest rate increase of 25 basis points, with half of the shock effect disappearing in a year's time. A three years longer life-span was assumed for the aged economy than for the young economy. Additionally, it was assumed there was no growth in the working-age population of the aged economy, whereas the young economy was assumed to boost working-age population at an annual rate of 0.18%. Otherwise, the model's key parameters affecting corporate and household behaviour were kept unchanged. A matter of interest is the extent to which the macroeconomic impact of a nominal interest rate shock differs in these economies.

Chart 6a.

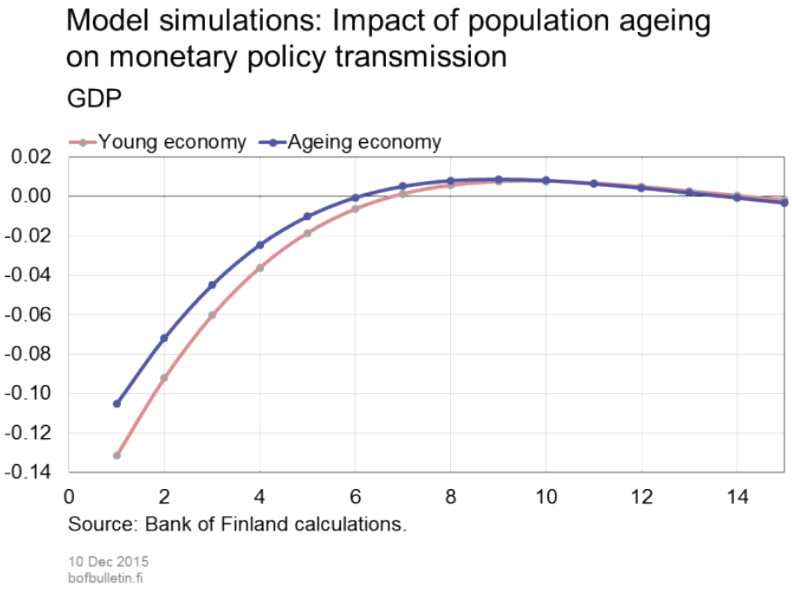


Chart 6b.

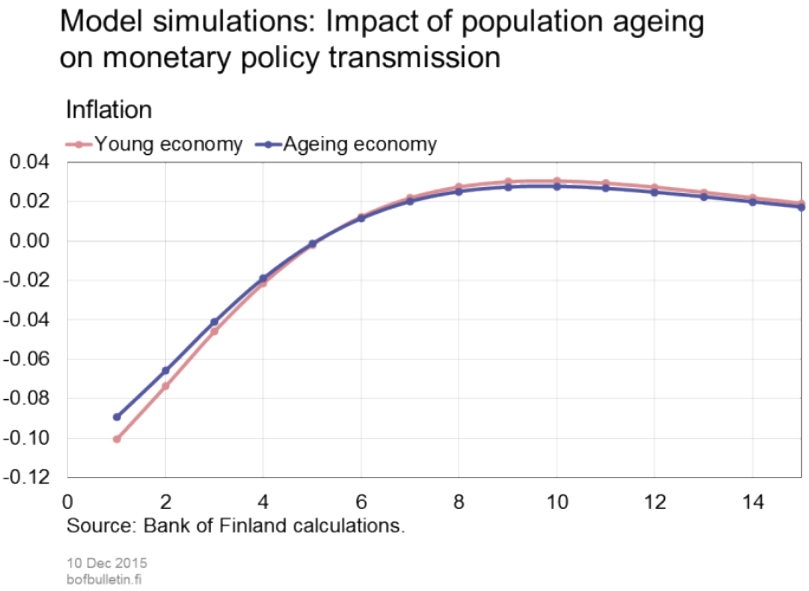


Chart 6c.

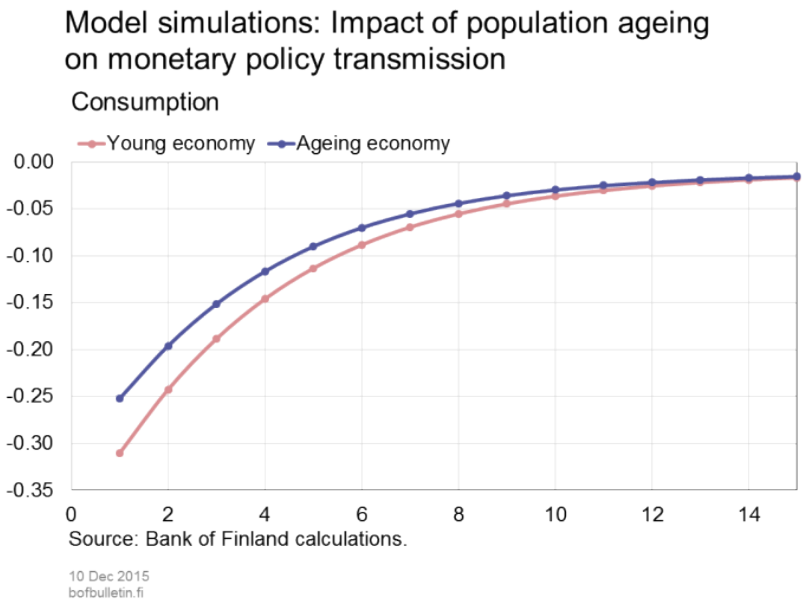
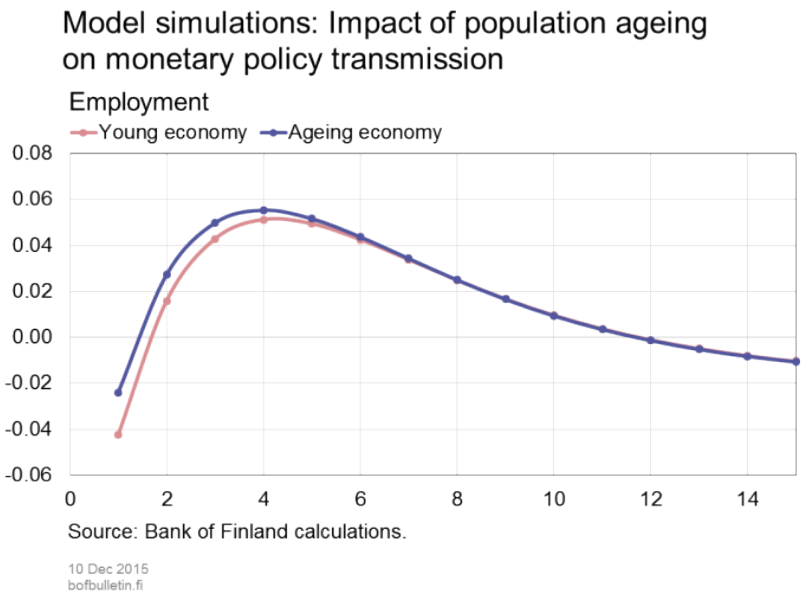


Chart 6d.



The simulations suggest that a tightening of monetary policy has a smaller impact on consumption in the aged economy than in the young economy. The response of both private consumption and GDP to monetary tightening is weaker in the aged economy than in the young economy (Chart 6). An interest rate increase in the model triggers a negative wealth effect, with a stronger-than-average impact on ageing people. On the other hand, longer life expectancy lengthens the planning horizon for both working-age and retirement-age persons. Both households are able to smooth out their consumption paths over a longer period of time. Persons of retirement age, in particular, increase labour supply in response to interest rate rises in order to smooth out the negative wealth effect on consumption. Ageing barely affects inflation responsiveness, but the impact of

the interest rate on inflation is slightly smaller in the aged economy than in the young economy.

The marginally smaller impact of the interest rate on inflation in the aged economy also means that, following an interest rate increase, the real interest rate rises somewhat less. This serves to weaken the responsiveness of consumption by both working-age persons and pensioners in the aged economy. The bulk of the differences in the responses of consumption and, as a consequence, of GDP to interest rate shocks is accounted for by more moderate reactions from consumption by working-age persons. This is specifically attributable to the fact that the impact of an interest rate shock on the discounted financial wealth of working-age persons is smaller in the aged economy than in the young economy.

Population ageing weakens the impact of interest rate changes

The way ageing changes monetary policy transmission has already been an important issue in the relevant literature for some time. The main finding is that interest rate changes would appear to have less of an impact on economic activity than before. In Finland, the question of the effects of population ageing on monetary policy transmission is topical precisely now that post-war baby boomers are approaching retirement and preparing for a longer pension period.

A key outcome of these analyses was that ageing weakens the effectiveness of monetary policy via the interest rate channel. Retirement-age consumption is less responsive to income developments than in the case of younger people. Consequently, ageing weakens the effects of interest rate changes on demand. Although the income elasticity of retirement-age persons with small incomes is slightly higher than for other households, average income elasticity will barely increase as the population ages. This is due to the fact that those of retirement age include relatively fewer households who live at subsistence level and would therefore respond strongly to changes in income. In addition, this age group includes more debt-free households living in owner-occupied housing than do younger age groups.

Ageing would not appear to change the transmission of monetary policy to the economy via the wealth effect channel. Admittedly, households' net wealth grows with age, but the consumption of Finnish households does not generally seem to respond in a statistically significant manner to changes in wealth in any age group. In the absence of significant changes in households' wealth portfolio, the role of the wealth effect channel in monetary policy transmission appears likely to remain limited in the future, too. The internationally weak wealth effect could be explained by the concentration of Finnish household wealth in owner-occupied housing.

The simulation results of the general equilibrium model were similar. An unexpected tightening of monetary policy has a smaller impact on consumption and economic growth in the aged economy than in the younger economy.

Monetary policy channels of influence appear to weaken to some extent as the population ages. Nevertheless, the significance of monetary policy will not diminish in the future. Owing to the weakening of the interest rate channel, a more active interest rate policy will be needed and, in addition, the relative importance of non-standard monetary policy channels of influence may become more pronounced.

Bibliography

Ahonen, Kati – Vaittinen, Risto (2015) Eläkeikäisten kulutus Suomessa 1985-2012 ('Consumption of retiree households in Finland, 1985–2012'). Reports by the Finnish Centre for Pensions 06/2015.

Cowell, F.A. – Karagiannaki, E. – McKnight, A. (2013) Accounting for cross-country differences in wealth inequality, Centre for Analysis of Social Exclusion, London School of Economics, CASE/168 March 2013.

Fujiwara, Ippei – Teranishi, Yuki (2007) A Dynamic New Keynesian Life-Cycle Model: Financial stability and monetary policy. IMES Discussion Paper No. 2007-E-4. Bank of Japan.

Helander, Maria (2014) Estimating Wealth Effects n Consumption in Finland – A Cross-Sectional Household Level Data Study Focus on Housing and Forest Wealth. Statistics Finland WP 4/2014.

Imam, Patrick (2013) Shock from Graying: Is the Demographic Shift Weakening Monetary Policy Effectiveness. IMF WP/13/191.

Jönsson, Kristian – Nordberg, Anders – Wallin Fredholm, Maria (2011) Household Indebtedness – Consequences for the Banks' Credit Losses and Financial Stability. The Riksbanks Inquiry into Risks in the Swedish Housing Market. Sweden.

Kara, Engin – von Thadden, Leopold (2010) Interest Rate Effects of Demographic Changes in a New-Keynesian Life-cycle Framework. ECB WP No.1273.

Kilponen, Juha – Ripatti, Antti (2006) Suomen Pankin dynaaminen yleisen tasapainon malli (Aino) ja reaalisten suhdannevaihteluiden teoria ('The Bank of Finland's dynamic general equilibrium model, Aino, and the real business cycle theory'). Kansantaloudellinen aikakauskirja 102, 4/2006 (Finnish Economic Journal 102, 4/2006).

Kilponen, Juha (2012) Consumption, Leisure and Borrowing Constraints. The B. E. Journal of Macroeconomics. Volume 12, Issue 1. May 2012.

Kilponen, Juha – Kinnunen, Helvi – Ripatti, Antti (2006) Population Ageing in a Small Open Economy – Some Policy Experiments with a Tractable General Equilibrium Model. Bank of Finland Discussion Papers 28.

Kinnunen, H. – Mäki-Fränti, P. (2015) Households increasingly dependent on public transfers. Bank of Finland Bulletin 3/2015.

Miles, David (2002) Should Monetary Policy be Different in a Greyer World? In Auerbach, Alan J. – Herrmann, Heinz (eds.) Ageing, Financial Markets and Monetary Policy. Springer.

Mäki-Fränti, P. (2014) Kotitalouksien velkaantuminen ja taloudellinen liikkumavara ('Household indebtedness and economic margin'). BoF Online 7/2014.

Persson, Mattias (2009) Household Indebtedness in Sweden and Implications for Financial Stability – the use of Household Level Data. BIS Paper 46.

Risku, Ismo (2015) Yksityisalojen palkansaajien työeläkkeet syntymävuoden ja sukupuolen mukaan. (Summary in English: 'Private sector wage-earners' earnings-related pensions by birth cohort and gender'.) Reports by the Finnish Centre for Pensions 09/2015.

Saarenheimo, Tuomas (2005) Ageing, interest rates and financial flows. Bank of Finland Discussion Papers 2/2005.

Sousa, Ricardo (2009) Wealth Effects on Consumption. ECB WP No. 1050.

Wong, Arlene (2014) Population Aging and the Aggregate Effects of Monetary Policy. Munich Personal RePEc Archive Paper No. 57096.

Tags

- monetary policy
- ageing
- consumption

Authors

Juha Kilponen
Head of Forecasting
firstname.lastname(at)bof.fi

Helvi Kinnunen
Senior Adviser
firstname.lastname(at)bof.fi

Petri Mäki-Fränti
Senior Economist
firstname.lastname(at)bof.fi

FORECAST TABLES

Forecast for the Finnish economy in 2015–2017

10 DEC 2015 11:00 AM • BANK OF FINLAND BULLETIN 5/2015 • ECONOMIC OUTLOOK

December 2015

1. Balance of supply and demand, at reference year 2010 prices

% change on previous year

	2013	2014	2015[f]	2016[f]	2017[f]
GDP at market prices	-1.1	-0.4	-0.1	0.7	1.0
Imports of goods and services	0.0	0.0	-2.8	3.2	2.8
Exports of goods and services	1.1	-0.7	0.1	2.1	2.7
Private consumption	-0.3	0.5	0.5	0.6	0.6
Public consumption	0.8	-0.2	-0.1	0.6	0.6
Private fixed investment	-7.1	-3.9	-1.1	3.3	2.8
Public fixed investment	3.5	-0.9	-2.3	1.3	1.4

Source: Bank of Finland forecast December 2015.

2. Contributions to growth[1]

	2013	2014	2015[f]	2016[f]	2017[f]
GDP, % change	-1.1	-0.4	-0.1	0.7	1.0
Net exports	0.4	-0.3	1.1	-0.4	0.0
Domestic demand excl. inventory change	-1.1	-0.5	0.0	1.1	1.0
of which Consumption	0.0	0.2	0.3	0.5	0.5
Investment	-1.2	-0.7	-0.3	0.6	0.5
Inventory change + statistical discrepancy	-0.4	0.4	-1.2	0.1	0.0

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

Source: Bank of Finland forecast December 2015.

3. Balance of supply and demand, price deflators

Index, 2010 = 100 and % change on previous year

	2013	2014	2015[f]	2016[f]	2017[f]
GDP at market prices	108.4	110.1	110.7	111.8	112.9
	2.6	1.6	0.5	1.0	1.0
Imports of goods and services	106.8	105.2	103.3	104.6	107.0
	-1.4	-1.6	-1.8	1.2	2.3
Exports of goods and services	104.5	103.7	103.0	104.5	106.9
	-1.0	-0.7	-0.7	1.5	2.3
Private consumption	108.6	110.3	110.5	111.0	112.0
	2.3	1.6	0.2	0.4	1.0
Public consumption	111.2	112.7	114.1	115.2	116.6
	2.5	1.3	1.2	0.9	1.3
Private fixed investment	108.2	108.8	109.7	110.4	111.1
	1.4	0.5	0.8	0.7	0.7
Public fixed investment	109.3	110.1	110.0	111.1	112.6
	2.0	0.8	-0.1	1.0	1.3
Terms of trade (goods and services)	97.8	98.6	99.7	99.9	99.9
	0.4	0.8	1.1	0.3	-0.1

Source: Bank of Finland forecast December 2015.

4. Balance of supply and demand, at current prices

EUR million and % change on previous year

	2013	2014	2015[f]	2016[f]	2017[f]
GDP at market prices	202,743	205,178	206,014	209,474	213,586
	1.5	1.2	0.4	1.7	2.0
Imports of goods and services	80,624	79,392	75,839	79,262	83,369
	-1.4	-1.5	-4.5	4.5	5.2
Total supply	283,367	284,570	281,852	288,735	296,955
	0.6	0.4	-1.0	2.4	2.8
Exports of goods and services	78,979	77,810	77,326	80,106	84,145
	0.1	-1.5	-0.6	3.6	5.0
Consumption	161,622	164,523	165,883	167,831	170,597
	2.4	1.8	0.8	1.2	1.6
Private	111,311	113,621	114,384	115,551	117,355
	2.0	2.1	0.7	1.0	1.6
Public	50,311	50,902	51,499	52,280	53,242
	3.3	1.2	1.2	1.5	1.8
Fixed investment	42,805	41,608	41,307	42,828	44,252
	-3.8	-2.8	-0.7	3.7	3.3
Private	34,415	33,225	33,124	34,457	35,654
	-5.8	-3.5	-0.3	4.0	3.5
Public	8,390	8,383	8,183	8,371	8,598
	5.5	-0.1	-2.4	2.3	2.7
Inventory change + statistical discrepancy	-39	629	-2,664	-2,030	-2,040

Source: Bank of Finland forecast December 2015.

4. Balance of supply and demand, at current prices

% of previous year's total demand	-0.2	0.2	-1.2	0.2	0.0
Total demand	283,367	284,570	281,852	288,735	296,955
	0.6	0.4	-1.0	2.4	2.8
Total domestic demand	204,388	206,760	204,526	208,629	212,809
	0.8	1.2	-1.1	2.0	2.0

Source: Bank of Finland forecast December 2015.

5. Balance of supply and demand

% of GDP at current prices

	2013	**2014**	**2015[f]**	**2016[f]**	**2017[f]**
GDP at market prices	100.0	100.0	100.0	100.0	100.0
Imports of goods and services	39.8	38.7	36.8	37.8	39.0
Exports of goods and services	39.0	37.9	37.5	38.2	39.4
Consumption	79.7	80.2	80.5	80.1	79.9
Private	54.9	55.4	55.5	55.2	54.9
Public	24.8	24.8	25.0	25.0	24.9
Fixed investment	21.1	20.3	20.1	20.4	20.7
Private	17.0	16.2	16.1	16.4	16.7
Public	4.1	4.1	4.0	4.0	4.0
Inventory change + statistical discrepancy,	0.0	0.3	-1.3	-1.0	-1.0
Total demand	139.8	138.7	136.8	137.8	139.0
Total domestic demand	100.8	100.8	99.3	99.6	99.6

Source: Bank of Finland forecast December 2015.

6. Prices

Index, 2010 = 100, and % change on previous year

	2013	2014	2015[f]	2016[f]	2017[f]
Harmonised index of consumer prices, 2005=100	120.4	121.8	121.7	122.0	123.2
	2.2	1.2	-0.1	0.3	1.0
Consumer price index, 2005=100	118.3	119.6	119.3	119.6	120.8
	1.5	1.0	-0.2	0.2	1.0
Private consumption deflator	108.6	110.3	110.5	111.0	112.0
	2.3	1.6	0.2	0.4	1.0
Private investment deflator	108.2	108.8	109.7	110.4	111.1
	1.4	0.5	0.8	0.7	0.7
Exports of goods and services deflator	104.5	103.7	103.0	104.5	106.9
	-1.0	-0.7	-0.7	1.5	2.3
Imports of goods and services deflator	106.8	105.2	103.3	104.6	107.0
	-1.4	-1.6	-1.8	1.2	2.3
Value-added deflators					
Value-added, gross at basic prices	108.0	109.9	110.4	111.2	112.6
	2.5	1.7	0.4	0.8	1.2
Private sector	106.9	108.7	108.9	109.7	111.1
	2.4	1.7	0.2	0.8	1.2
Public sector	112.8	114.8	116.4	117.3	118.8
	2.8	1.7	1.4	0.8	1.3

Source: Bank of Finland forecast December 2015.

7. Wages and productivity

% change on previous year

	2013	2014	2015[f]	2016[f]	2017[f]
Whole economy					
Index of wage and salary earnings	2.1	1.4	1.1	1.1	1.3
Compensation per employee	1.4	1.4	1.8	1.4	1.5
Unit labour costs	1.4	1.4	1.7	1.1	1.0
Labour productivity per employed person	-0.1	0.0	0.2	0.3	0.5

Source: Bank of Finland forecast December 2015.

8. Labour market

1,000 persons and % change on previous year

	2013	2014	2015[f]	2016[f]	2017[f]
Labour force survey (15–74-year-olds)					
Employed persons	2,457	2,447	2,440	2,450	2,461
	-1.1	-0.4	-0.3	0.4	0.4
Unemployed persons	219	232	252	247	245
	6.1	5.8	8.6	-2.0	-0.6
Labour force	2,676	2,679	2,692	2,697	2,706
	-0.5	0.1	0.5	0.2	0.3
Working-age population (15–64-year-olds)	3,508	3,491	3,477	3,475	3,470
	-0.5	-0.5	-0.4	-0.1	-0.1
Labour force participation rate, %	65.5	65.4	65.6	65.6	65.4
Unemployment rate, %	8.2	8.7	9.4	9.2	9.1
Employment rate (15–64-year-olds), %	68.5	68.3	68.2	68.5	68.9

Source: Bank of Finland forecast December 2015.

9. General government revenue, expenditure, balance and debt

% of GDP

	2013	2014	2015[f]	2016[f]	2017[f]
General government revenue	55.0	54.9	55.6	55.7	55.8
General government expenditure	57.6	58.3	58.8	58.6	58.6
General government primary expenditure	56.3	57.0	57.6	57.5	57.5
General government interest expenditure	1.3	1.2	1.2	1.1	1.1
General government net lending	-2.5	-3.3	-3.2	-2.9	-2.7
Central government	-3.6	-3.9	-3.2	-3.1	-3.0
Local government	-0.7	-0.8	-0.8	-0.9	-0.8
Social security funds	1.8	1.3	0.9	1.1	1.1
General government primary balance	-1.3	-2.1	-2.0	-1.8	-1.6
General government debt (EDP)	55.6	59.3	62.8	65.7	68.1
Central government debt	44.3	46.4	49.2	51.5	53.6
Tax ratio	43.8	43.9	44.5	44.7	44.8

Source: Bank of Finland forecast December 2015.

10. Balance of payments

EUR million

	2013	2014	2015[f]	2016[f]	2017[f]
Exports of goods and services (SNA)	78,979	77,810	77,326	80,106	84,145
Imports of goods and services (SNA)	80,624	79,392	75,839	79,262	83,369
Goods and services account (SNA)	-1,645	-1,582	1,488	844	776
% of GDP	-0.8	-0.8	0.7	0.4	0.4
Investment income and other items, net (+ statistical discrepancy)	664	2,055	452	672	742
Current transfers, net	-2,381	-2,406	-2,233	-2,038	-2,083
Current account, net	-3,363	-1,932	-293	-522	-564
Net lending, % of GDP					
Private sector	0.9	2.4	3.1	2.6	2.5
Public sector	-2.5	-3.3	-3.2	-2.9	-2.7
Current account, % of GDP	-1.7	-0.9	-0.1	-0.2	-0.3

Source: Bank of Finland forecast December 2015.

11. Interest rates

%

	2013	2014	2015[f]	2016[f]	2017[f]
3-month Euribor[1]	0.2	0.2	0.0	-0.2	-0.1
Average interest rate on new loan drawdowns[2]	2.3	2.4	2.1	1.9	2.0
Average interest rate on the stock of loans[2]	1.8	1.8	1.6	1.5	1.5
Average interest rate on the stock of deposits[3]	0.5	0.4	0.3	0.2	0.2
Yield on Finnish 10-year government bonds[1]	1.9	1.4	0.7	1.0	1.3

[1] Technical assumption derived from market expectations.

[2] Finnish credit institutions' loans to households and non-financial corporations (excl. overdrafts, credit card credits

and repurchase agreements).

[3] Finnish credit institutions' deposits from households and non-financial corporations.

Source: Bank of Finland forecast December 2015.

12. International environment

Eurosystem staff projections

	2013	2014	2015[f]	2016[f]	2017[f]
GDP, % change on previous year					
World	3.2	3.4	2.9	3.4	3.7
USA	1.5	2.4	2.4	2.7	2.6
Euro area	-0.3	0.9	1.5	1.7	1.9
Japan	1.6	-0.1	0.5	0.8	0.6
Imports, % change on previous year					
World	2.5	3.5	1.5	3.5	4.2
USA	1.1	3.8	5.1	4.3	4.6
Euro area	1.4	4.5	5.3	4.8	5.3
Japan	3.0	7.3	1.3	2.5	1.8
Index, 2010 = 100, and % change on previous year					
Import volume in Finnish export markets	113.1	116.1	116.2	119.5	124.2
	2.4	2.7	0.1	2.8	3.9
Export prices (excl. oil) of Finland's trading partners, national currencies	102.2	103.0	103.4	105.5	108.5
	-1.0	0.7	0.4	2.0	2.9
Export prices (excl. oil) of Finland's trading partners, in euro	104.8	104.7	109.4	112.3	115.5
	-2.9	-0.1	4.5	2.6	2.9
Industrial raw materials (excl. energy), HWWA index, in US dollars	93.6	89.0	71.1	61.6	64.4
	-2.7	-4.9	-20.1	-13.3	4.5
Oil price, USD per barrel[1]	108.8	98.9	53.8	52.2	57.5

Source: Bank of Finland forecast December 2015.

12. International environment

	-2.8	-9.1	-45.6	-2.9	10.1
Finland's nominal competitiveness indicator[1,2]	101.3	102.2	98.2	97.5	97.5
	1.5	0.9	-3.9	-0.6	0.0
US dollar value of one euro[1]	1.33	1.33	1.11	1.09	1.09
	3.4	0.0	-16.8	-1.6	0.0

[1] Technical assumption derived from market expectations.

[2] Narrow plus euro area, 1999Q1 = 100

Source: Bank of Finland forecast December 2015.

13. Current and June 2015 forecast

	2014	2015[f]	2016[f]	2017[f]
GDP, % change	-0.4	-0.1	0.7	1.0
June 2015	-0.1	0.2	1.2	1.3
Inflation (HICP), %	1.2	-0.1	0.3	1.0
June 2015	1.2	0.2	1.0	1.5
Current account, % of GDP	-0.9	-0.1	-0.2	-0.3
June 2015	-1.1	-1.1	-0.8	-0.6
General government net lending, % of GDP	-3.3	-3.2	-2.9	-2.7
June 2015	-3.2	-3.1	-3.1	-3.0
General government debt (EDP), % of GDP	59.3	62.8	65.7	68.1
June 2015	59.3	62.5	65.1	67.3
Unemployment rate, %	8.7	9.4	9.2	9.1
June 2015	8.7	9.1	8.9	8.6

Source: Bank of Finland forecast December 2015.

Tags

- forecast
- Finland
- economic situation