

## ANALYSIS

# Is Finland following the same path as Japan?

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Finland is now facing problems similar to those with which Japan has already struggled for more than a decade. The population is ageing, and slow economic growth is not generating sufficient funds to cover swelling public expenditure. General government debt threatens to become unsustainable. From the perspective of Finnish economic policy, an examination of the situation in Japan emphasises the importance of structural measures. If decisions on reforming the structures of the economy are postponed far into the future, in the light of Japan's experiences this may result in reduced growth and employment, with consequent high costs.



## Two countries facing the same questions

Of industrialised Western countries, population ageing has gone furthest in Japan. As for Finland, its population is currently ageing rapidly and, according to population forecasts, the large share of elderly people will remain a more or less permanent basic feature of the economy.

With population ageing, public expenditure and central government debt increase at the same time as the economy's output potential declines. Japan has been poorly placed to confront the problems of ageing, as the country's debt crisis in the 1990s and financial market disruptions have kept public finances deeply in deficit for more than 20 years. During this period, the country also slipped into protracted deflation.<sup>1</sup>

Japan is ensnared in a difficult spiral, in which its ageing population, growing deficit and debt ratio are creating uncertainty and pessimism in the economy. Achieving debt sustainability is a considerable challenge for the country's economy.

For Finland, it is interesting to assess how population ageing has changed the Japanese economy. Could Finland learn from Japan's experiences?

## Finland's population structure 15 years from now similar to Japan's today

Population trends in Japan have been mostly similar to those in Finland. Post-World War II baby boomer cohorts were large in Japan, even larger than in Finland in relative terms. Birth rates in both countries continued to fall from the end of the 1950s. Finland witnessed low birth rates particularly in the 1970s, and migration to Sweden further reduced the cohorts born in the early 1970s. The birth rate later recovered slightly in Finland, but continued to decline in Japan. Meanwhile, both countries saw an increase in life expectancy.

Finland's current population structure is markedly more favourable than Japan's. Apart from a higher birth rate, this is due to Finland's lower life expectancy and, above all, to a substantial increase in immigration in Finland, in contrast with very low levels of immigration in Japan. However, according to population forecasts, the structure of the Finnish population around 15 years from now – i.e. at the end of the 2030s – will likely resemble Japan's current population structure (Table). The relative share of over 65-year-olds of the population will then be roughly the same in both countries. On the basis of the forecasts, the median age and the old-age dependency ratio in Finland in 2030 will, on average, be the same as in Japan today. Certainly, there are also differences. For example, the relative share of children is higher in Finland and, correspondingly, the number of those in prime working age is slightly lower.

Table

Population share of older age cohorts, median age, dependency ratio, life expectancy at different ages									
		Finland				Japan			
		1980	2015	2030	2050	1980	2015	2030	2050
Population share of elderly people, %									
60+		16.4	27	31.3	33.1	12.8	33.1	37.3	42.5
65+		12	19.7	25.4	27	9	26.3	30.4	36.3

Sources: UN and Bank of Finland.

Population share of older age cohorts, median age, dependency ratio, life expectancy at different ages								
80+	1.8	5.1	8.6	11.1	1.4	7.8	12.7	15.1
Median age	32.8	42.5	44.4	45.1	32.6	46.5	51.5	53.3
Dependency rate, %								
Children	30	25.8	25.8	25.1	35	21.1	21.3	24.3
Eldery people	17.7	31.8	42.8	46.3	13.4	43.3	53.1	70.9
<b>Total</b>	<b>47.7</b>	<b>57.6</b>	<b>68.6</b>	<b>71.4</b>	<b>48.4</b>	<b>64.4</b>	<b>74.4</b>	<b>95.2</b>

Sources: UN and Bank of Finland.

The economic changes that have taken place during the phase of rapid population ageing provide an opportunity to examine the development of the Japanese economy from the perspective of trends in Finland over the next two decades. It is not easy, however, to assess the mark that ageing has left on the Japanese economy. During the recession, economies have been following development paths independent of population trends, such as globally slow productivity growth and low levels of corporate investment. Accordingly, in the following analyses, the benchmarks for the Finnish economy are, besides Japan, also Sweden and the United States, in which population ageing has not been a factor hindering growth.

## Ageing has slowed the rise in living standards

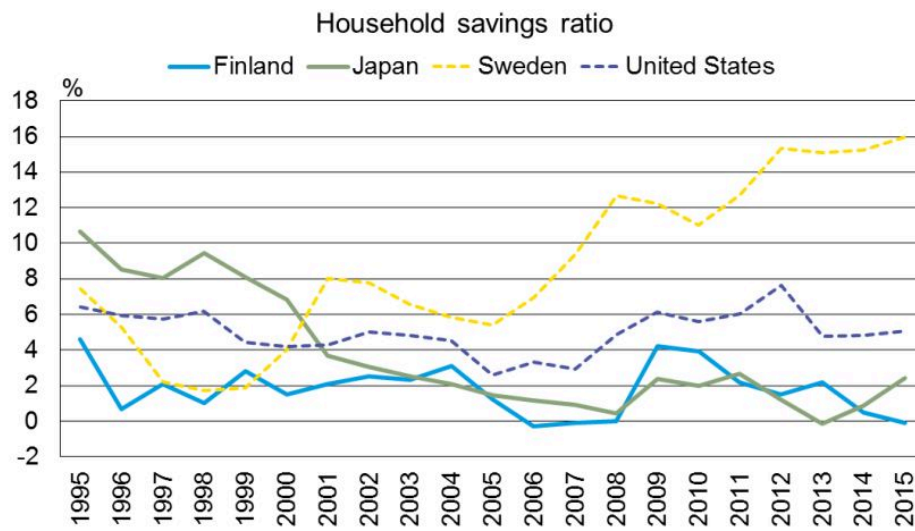
Japan's far advanced population ageing is reflected in the evolution of economic welfare. An examination of real GDP growth per capita shows that, in the past 20 years, Japan has clearly lagged behind development not only in Finland but also in Sweden and the United States (Chart 1). In terms of per capita GDP, Finland's living standards have risen by around 40% since the mid-1990s, whereas in Japan the rise has been around 15%. During the recent recession Finland has lost nearly 10 percentage points of its relative lead.

These comparisons are slightly distorted by differences in the age structure. If the situation is compared relative to the working-age population, Japanese output performance has barely lagged behind that of the United States (Chart 2).<sup>2</sup> Since 2008, economic performance per working-age person has been positive in Japan vis-à-vis its benchmark countries. In Finland, too, growth in the number of elderly people partly explains the weak evolution of per capita GDP, but only for a small

extent.

Chart 1.

### The savings ratio in Japan has dropped to the same level as in Finland

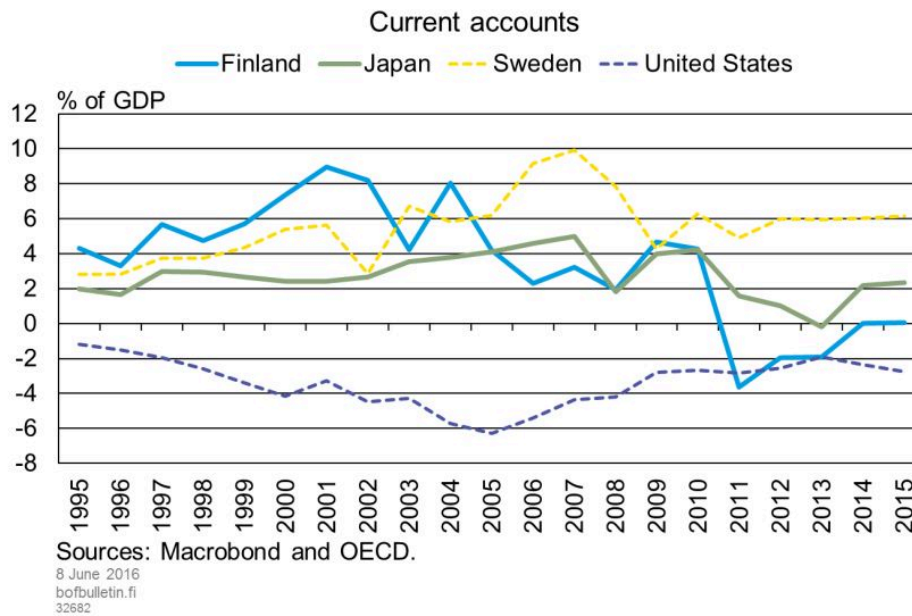


Sources: OECD and Macrobond.

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Chart 2.

## Current account strongly positive in Japan, not particularly negative in Finland either



Annual productivity growth in Japan has already been roughly below 1% for a long time. According to OECD calculations, for Japan to achieve an annual GDP growth rate of 2%, an annual productivity growth rate of 3.3% would be required.<sup>3</sup> In Finland, the average annual change in productivity has been slightly negative since 2008, and growth prospects are poor. Long-term growth estimates foresee Finland's annual pace of increase in productivity remaining at approximately 1 percentage point, despite the fact that productivity within different sectors is assumed to improve at its average historical pace.<sup>4</sup> The slow progress reflects the fact that, as the population ages, the production structure is focused more on service sectors, in which productivity is typically lower than average. Accordingly, at the level of the economy as a whole, the growth contribution from productivity improvement threatens to remain weaker than previously seen.

## Non-financial corporations post financial surpluses in Japan and Finland

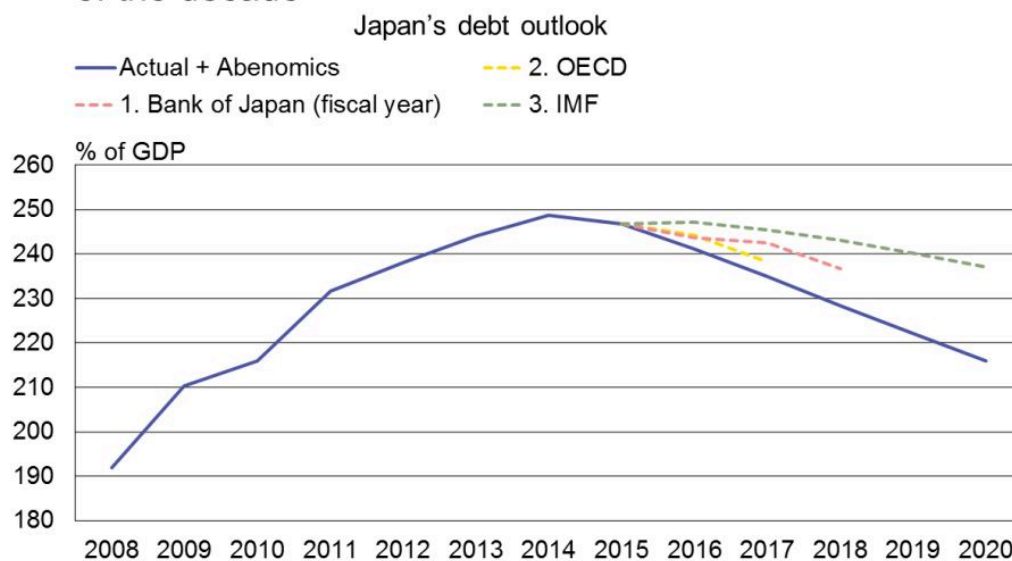
The performance of the different sectors of the economy shows that the financial balance of Finnish households and non-financial corporations has largely followed the same trend as in

Japan. Attention is focused particularly on the evolution of corporate balance sheets. Finnish non-financial corporations have been in surplus since the mid-1990s (Chart 3). Investment activity has been muted in the recession years. Japanese non-financial corporations have also shown financial surpluses, as domestic investment has been on a downward trend.

An indication of strong corporate balance sheets is that cash holdings alone have exceeded the amount of interest-bearing debt in nearly half of Japanese non-financial corporations.<sup>5</sup> In Finland, growth in corporate debt has been slow, but the debt relative to the level of output has risen. Admittedly, corporate financial surpluses have risen on a global scale, for example in the United States. But this has not happened in Sweden. Nonetheless, corporate financial surpluses in Japan, and similarly in Finland, clearly exceed, for example, the average level of EU countries.

Chart 3.

### Aim of Abenomics is to reduce the debt ratio by the end of the decade



Sources: Bank of Japan, OECD, IMF and calculations by the Bank of Finland.

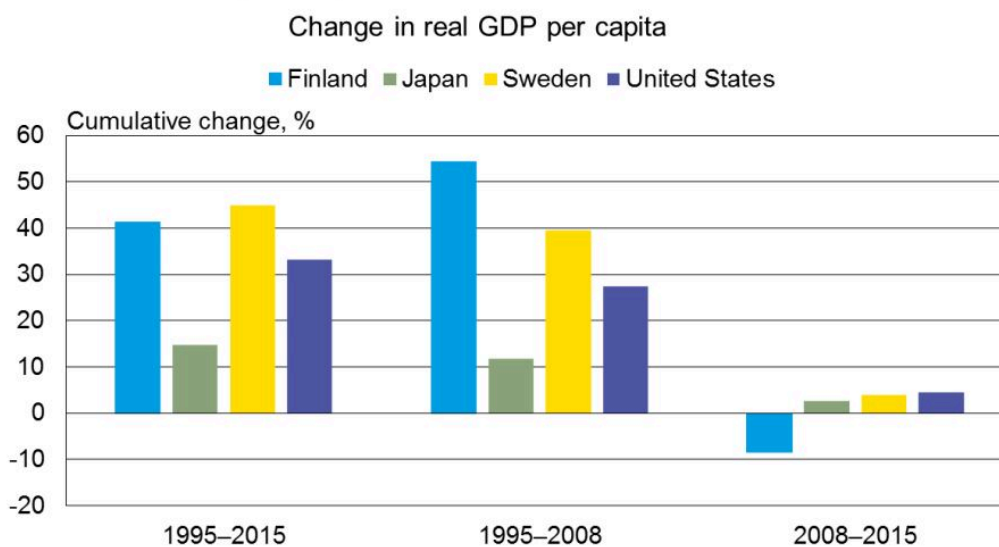
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Compared with Finland, population ageing, which began earlier in Japan, and households' more modest social benefits have served to lower Japanese households' savings ratio, i.e. savings relative to disposable income. The country's savings ratio has dropped from a good 10% at the beginning of the 1990s to the same level as in Finland, i.e. about 1–2% (Chart 4). This pattern is thus different from that in the United States, where post-crisis household savings have returned to broadly their former levels. By contrast, Sweden has witnessed an increase in household saving

during the recession years.

Chart 4.

### Living standards in Finland have risen in 20 years by around 40%, in Japan by around 15%



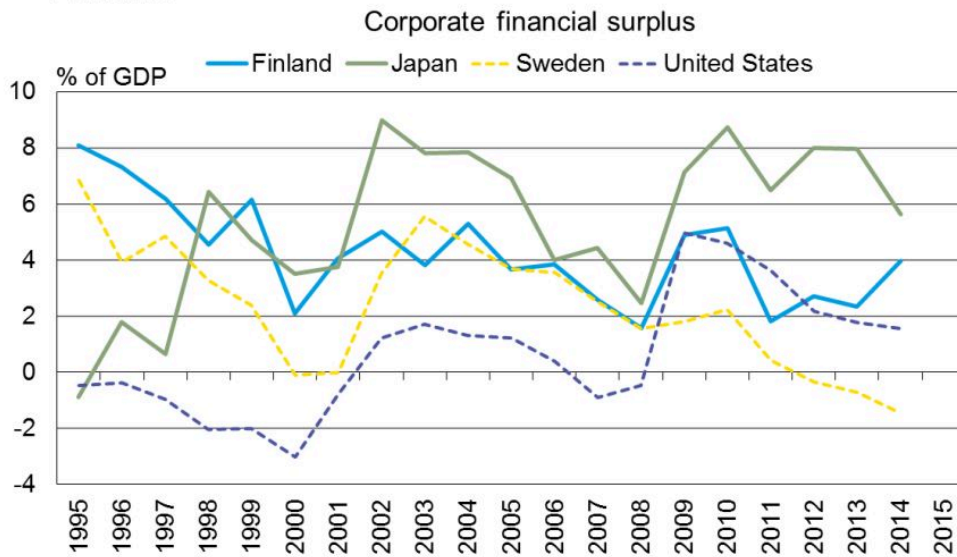
Sources: Macrobond, BEA and national statistical authorities.

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With low residential investment, there have been sizeable household financial surpluses in Japan despite the low savings ratio. Finnish households have mainly been in deficit. The private sector's robust financial surplus in Japan has compensated for the deepening general government deficit, and the current account surplus has also been strong (Chart 5). In Finland, the corporate financial surplus, in particular, has slowed the economy's debt accumulation, and the current account has not posted any substantial deficit.

Chart 5.

## Corporate financial surpluses in Japan even larger than in Finland



Sources: Macrobond and OECD.

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## Sizeable fiscal sustainability problems

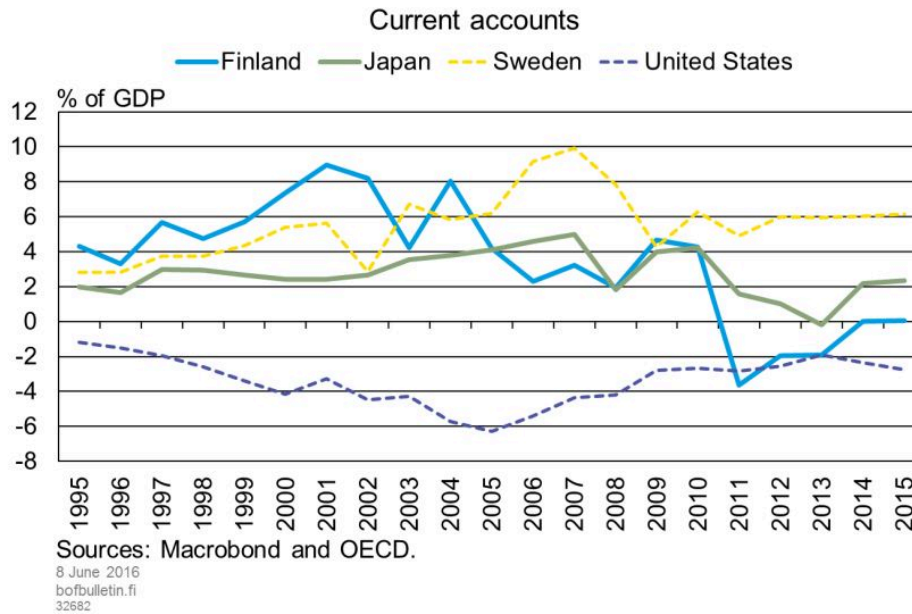
Problems stemming from population ageing are most strongly focused on the financial position of the general government sector. Certainly, there are major differences in the provision of public services and the scale of social benefits between Finland and Japan. For example, it is well-known that the defined benefit-based pension regime in Japan is, on average, less generous than the corresponding system in Finland.<sup>6</sup> As the level of personal liability regarding long-term care services is also lower in Finland than in Japan, the effects of ageing on public expenditure are in relative terms smaller in Japan than in Finland. Even so, the increase in ageing-related expenditure has also been rapid in Japan.<sup>7</sup>

Japan's general government primary balance has been continuously negative since the end of the 1990s. Weak economic growth and the simultaneous expansionary stance of fiscal policy have led to the imbalance of the economy amid diminishing tax revenues and strong increases in public expenditure. The situation in Finland was distinctly more favourable until the recession (Chart 6). Since 2009, the general government primary balance has been negative in both countries. From the viewpoint of general government debt dynamics, the situation is weak in these two countries, as the deficit is mainly structural. According to the IMF, Japan's structural primary balance in the

next few years will show a shortfall of 3 percentage points. The corresponding estimate for Finland is in the region of -1%.

Chart 6.

### Current account strongly positive in Japan, not particularly negative in Finland either



The same factors lie behind the Japanese debt dynamics as can be expected for Finland in this decade and the next. The working-age population is no longer growing, the outlook for productivity growth is weak and there is a structural general government deficit.

In Japan, the debt ratio rose at an accelerating pace in the first years of the new millennium, and the debt has risen rapidly after the recession years, in particular, so as to currently reach around 240% of GDP. However, in both Japan and Finland, public sector receivables, of which the bulk comprises pension funds, are substantial. In Japan, these broadly account for half of the debt. In Finland, the receivables are still slightly higher than public debt. The Japanese general government debt dynamics has also been strongly affected by lower inflation. After the mid-1990s, inflation slowed from around 1½% to zero, on average, in 1996–2015.

In Finland and Japan, the development of debt in the period ahead will depend, in addition to policy actions, on both structural measures and inflation performance. Looking ahead, Japan’s measures directed at the labour market and labour supply, and aimed at curbing growth in public expenditure, are expected to halt the rise in the debt ratio.

The aim of the economic policy conducted in Japan, Abenomics, is to stop the build-up of the country's debt in the near term and to reduce the debt ratio by the end of the decade (Chart 7). Another aim is to reach both 2% real GDP growth and 2% annual inflation.<sup>8</sup> So far, it has not been possible to attain the objectives, nor does the outlook for the next few years promise an immediate turn for the better. An examination of the debt dynamics on the basis of OECD, IMF or Bank of Japan growth and inflation forecasts shows that turning the trend in the debt ratio downwards will be slower. The difference primarily arises from assumptions for inflation and economic growth.

In Finland's case, the development of debt in the next few years will also depend much on growth in nominal GDP. If near-term inflation were around zero instead of the currently estimated 1% in 2016–2020, the debt ratio would rise markedly faster than currently projected (Chart 8). On the other hand, an increase in inflation to approximately 2% would definitely help stabilise the accumulation of public debt. Should economic growth additionally accelerate by 1% to 2%, public debt would already begin to decline in the immediate years ahead.

Chart 7.

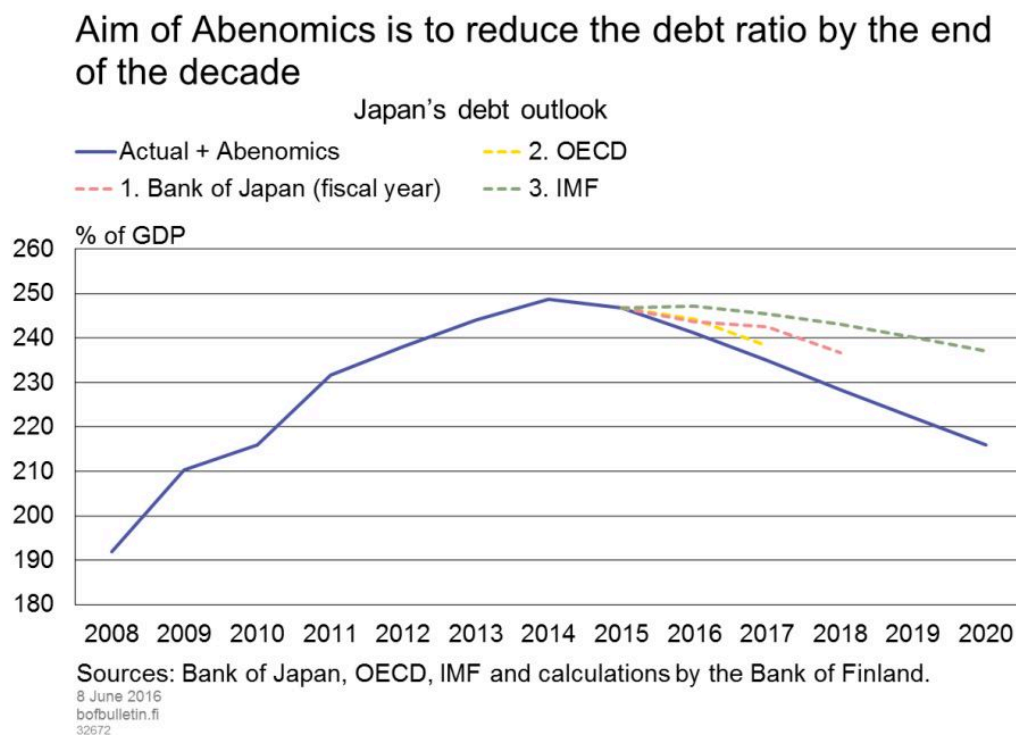
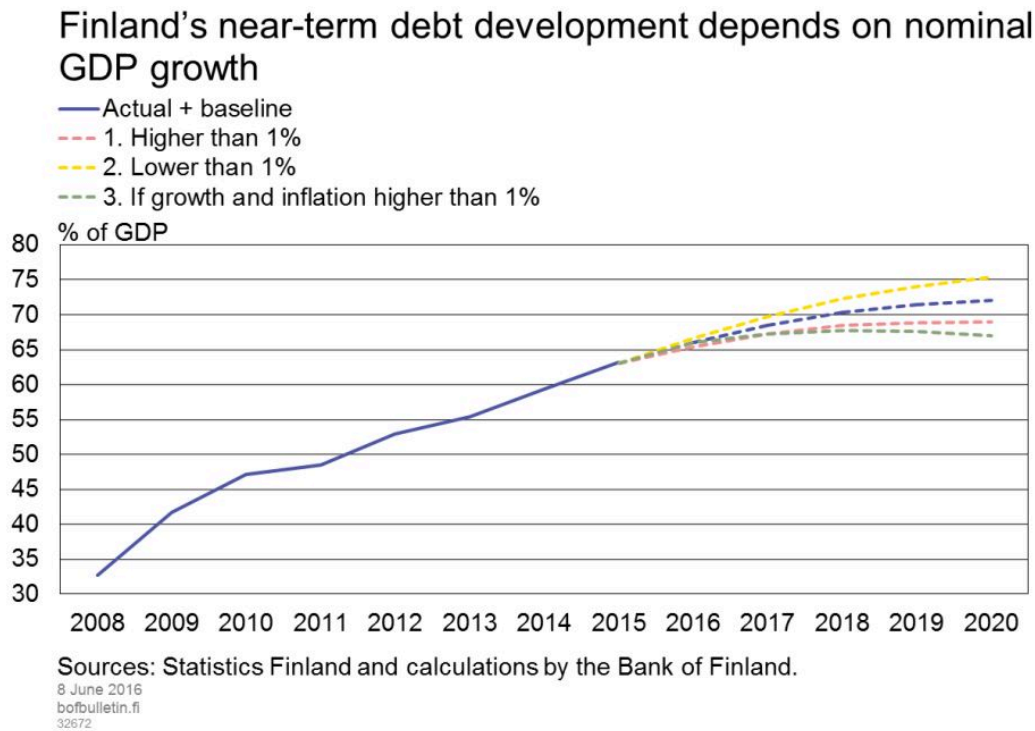


Chart 8.



## Review of Japan emphasises importance of structural measures

Finland is now facing problems similar to those with which Japan has already struggled for more than a decade. The population is ageing, and slow economic growth is not generating sufficient funds to cover growing public expenditure. General government debt threatens to become unsustainable.

Recession-induced slow economic growth is a global phenomenon. Its consequences are particularly calamitous, however, for countries simultaneously undergoing their own structural changes. Of these, rapid ageing is dramatic in respect of both its costs and its other effects. Non-financial corporations are not willing to increase production capacity when the outlook for labour availability is poor. Meanwhile, households cannot have confidence in ongoing increases in living standards. The risk of higher taxes keeps expected lifetime earnings small, and low inflation the real value of debt high. Under these circumstances, even strong stimulus would not – at least in the light of Japan's experiences – be expected to increase economic growth.

The longer-term impact of ageing in Finland will be markedly smaller than in Japan. This is largely

due to the fact that in Finland immigration has maintained population growth. Population forecasts also expect immigration to prevent an equally strong reduction in the working-age population. Another important factor is women's considerable labour force participation. Despite Japan's female labour force participation rate being, on average, the same as Finland's, the difference measured on the basis of work input is large, as more than a third of Japanese women are in part-time employment.

From the perspective of Finnish economic policy, an examination of the situation in Japan emphasises the importance of structural measures. If decisions on reforming the structures of the economy are postponed far into the future, in the light of Japan's experiences this may result in reduced growth and employment, with consequent high costs.

## Footnotes

1. For more detail on Japan's economic situation and economic policy in the 1990s, see Vanhala, Juuso (2009) *Japanin talouspolitiikka 1990-luvun taantumassa* ('Japan's economic policy in the 1990s recession') BoF Online 4/2009. ↑
2. Apart from output, living standards are also determined by returns from investment abroad and the terms of trade. Taking account of these factors appears to barely change the outcome of the comparison. ↑
3. OECD (2015) *OECD Economic Surveys, JAPAN*. April 2015. ↑
4. For more detail on long-term calculations, see Mäki-Fränti, Petri (2015) *Rakenteellisen tekijät hidastavat pitkän aikavälin kasvua* ('Structural factors hinder long-term growth'). *Kansantaloudellinen aikakauskirja* 3/2013 (The Finnish Economic Journal 3/2015). ↑
5. Shirakawa, Masaaki (2013) *Toward strengthening the competitiveness and growth potential of Japan's economy*. Speech 28 February 2013. ↑
6. See e.g. memorandum of the Finnish Centre for Pensions (2012): *the Japanese pension system*. ↑
7. See e.g. OECD (2015) *OECD Economic Surveys, JAPAN*. April 2015. ↑
8. For more detail on Abenomics, see Oinonen, Sami (2016) *Abenomics: three years – the big ship turns slowly*. *Bank of Finland Bulletin* 1/2016. ↑

## Key words

ageing, Finland, Japan, public finances