Finland: 2016 Article IV Consultation-Press Release; Staff Report; and Statement by the Executive Director for Finland

FINLAND

November 2016

2016 ARTICLE IV CONSULTATION—PRESS RELEASE; STAFF REPORT; AND STATEMENT BY THE EXECUTIVE DIRECTOR FOR FINLAND

Under Article IV of the IMF's Articles of Agreement, the IMF holds bilateral discussions with members, usually every year. In the context of the 2016 Article IV consultation with Finland, the following documents have been released and are included in this package:

- A **Press Release** summarizing the views of the Executive Board as expressed during its November 23, 2016 consideration of the staff report that concluded the Article IV consultation with Finland.
- The **Staff Report** prepared by a staff team of the IMF for the Executive Board's consideration on November 23, 2016, following discussions that ended on October 4, 2016, with the officials of Finland on economic developments and policies. Based on information available at the time of these discussions, the staff report was completed on November 4, 2016.
- An **Informational Annex** prepared by the IMF staff.
- A **Statement by the Executive Director** for Finland.

The documents listed below have been or will be separately released.

Selected Issues

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IMF Executive Board Concludes 2016 Article IV Consultation with Finland

On November 23, 2016 the Executive Board of the International Monetary Fund (IMF) concluded the Article IV consultation with Finland.¹

Following a deep recession, growth has turned tepidly positive again. GDP increased by 0.2 percent in 2015 driven by stronger private consumption and a rebound in investment. While net export growth was weak, falling oil prices contributed to the nominal trade balance shifting into surplus, reducing the current account deficit. Better-than-expected fiscal performance brought the deficit back under the 3 percent Stability and Growth Pact (SGP) limit in 2015. Nevertheless, fiscal space is limited, as public debt reached 63.6 of GDP, which is above the SGP threshold. Banks are well-capitalized and profitable despite the weak economy and low credit demand.

The recovery is likely to continue but growth is set to remain slow at about 0.9 percent in 2016 and 1.1 percent in 2017. This outlook is subject to downside risks. Weaker-than-expected global growth could further slow the recovery, while a protracted uncertainty surrounding post-Brexit arrangements could weigh on confidence and investment. Domestically, fiscal and structural policy efforts could weaken the recovery in the near-term, even if their longer run effects should be positive.

The government has made progress on its ambitious structural reform agenda. The Competitiveness Pact agreed by social partners will reduce labor costs, increase hours worked, and aims to introduce more firm-level flexibility in the wage bargaining system. Draft bills on the reform of health and social services provision are being discussed with stakeholders. A fiscal consolidation plan is also being implemented. The short-term pace of consolidation has been

¹ Under Article IV of the IMF's Articles of Agreement, the IMF holds bilateral discussions with members, usually every year. A staff team visits the country, collects economic and financial information, and discusses with officials the country's economic developments and policies. On return to headquarters, the staff prepares a report, which forms the basis for discussion by the Executive Board. At the conclusion of the discussion, the Managing Director, as Chairman of the Board, summarizes the views of Executive Directors, and this summary is transmitted to the country's authorities. An explanation of any qualifiers used in summing up can be found here: <http://www.imf.org/external/np/sec/misc/qualifiers.htm>.

eased in return for reforms, without jeopardizing medium-term adjustment goals. Work is continuing on the macroprudential policy framework and efforts to deepen regional cooperation are ongoing.

Executive Board Assessment²

Executive Directors welcomed Finland's return to positive growth, but noted that the recovery will be slow and fragile and faces downside risks. Against this backdrop, Directors underscored that reviving growth remains the country's preeminent challenge, and should be achieved with ambitious structural reforms and prudent macroeconomic and financial policies.

Directors commended the recent progress on structural reforms, including the reduction in the maximum duration of unemployment benefits and the agreement on the Competitiveness Pact to reduce labor costs. They recommended closely monitoring the implementation of the pact to ensure that the wage bargaining process becomes more flexible at the firm level and better aligns wages with productivity. Directors agreed that the draft bills on the health and social services reform constitute major progress, and encouraged the authorities to develop the important remaining elements of the new system quickly. Given the complexity of this reform, they noted that clear and timely communication with stakeholders as well as regular progress assessment will be critical.

Directors emphasized that efforts are also needed in other priority areas. In this regard, they noted substantial scope for product market reforms, particularly in the retail sector and in state-dominated sectors, which could increase competition and yield productivity gains. To promote innovation, Directors generally advised reversing cuts to public research and development (R&D) spending and creating stronger incentives for private R&D. They also called for strengthening active labor market programs (ALMPs) and for additional measures to increase affordable housing in urban areas to facilitate labor mobility.

Directors emphasized that fiscal policy needs to strike a balance between safeguarding long-term sustainability and protecting the nascent economic recovery. In this regard, they generally welcomed the near-term easing of the fiscal stance in return for structural reforms. A few Directors considered that Finland has additional fiscal space that could be employed. A number of Directors, however, stressed the importance of adhering to the fiscal rules under the Stability and Growth Pact, including in the context of staff's recommendation to implement faster the remaining growth package spending. Directors

² At the conclusion of the discussion, the Managing Director, as a Chairman of the Board, summarizes the views of Executive Directors, and this summary is transmitted to the country's authorities. An explanation of any qualifiers used in summings up can be found here: <http://www.imf.org/external/np/sec/misc/qualifiers.htm>.

recommended making the composition of fiscal policy more growth-friendly, including by reallocating resources toward R&D spending, well-designed ALMPs, and productive public investment, and away from poorly-targeted transfers and tax expenditures. They noted that if growth disappoints, automatic stabilizers should be allowed to operate fully. More broadly, Directors agreed that the decisive implementation of the structural reform agenda remains critical to securing long-term fiscal sustainability.

Directors welcomed the Financial System Stability Assessment's finding that the banks are well capitalized and profitable. They concurred that financial sector policy frameworks should be further bolstered to prepare for future risks. In this regard, Directors urged continued strengthening of bank supervision, including by ensuring effective monitoring of banks' internal risk models and by intensifying oversight of their liquidity positions. They generally called for increasing resources allocated to supervision to reflect the growth in regulatory complexity and supervision intensity. While welcoming plans to introduce a systemic risk buffer and a floor on mortgage risk weights, Directors also suggested adding instruments based on borrower and loan characteristics to the macroprudential policy toolkit.

Directors stressed the importance of further deepening regional supervisory cooperation. They noted that a strong agreement on data sharing and cooperation between the key supervisors will be critical to mitigate risks from close regional linkages and Nordea Finland's conversion from subsidiary into a branch. Directors recommended conducting joint stress tests, enhancing joint crisis planning, running regular crisis simulation exercises, and strengthening collaboration between Nordic macroprudential authorities.

Finland: Selected Economic Indicators, 2012–21

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
	Proj.									
	(Percentage change, unless otherwise indicated)									
Output and demand (volumes)										
GDP	-1.4	-0.8	-0.7	0.2	0.9	1.1	1.3	1.5	1.6	1.6
Domestic demand	-1.2	-1.1	-0.2	1.4	1.1	1.1	1.3	1.4	1.5	1.5
Private consumption	0.3	-0.5	0.6	1.5	1.4	0.9	1.0	1.3	1.4	1.4
Public consumption	0.5	1.1	-0.5	0.4	-0.3	-0.4	-0.1	0.1	0.3	0.3
Gross fixed capital formation	-1.9	-4.9	-2.5	0.7	3.6	3.5	3.4	3.2	2.9	2.9
Change in stocks (contribution to growth in percent of GDP)	-1.0	0.0	0.2	0.3	-0.3	0.0	0.0	0.0	0.0	0.0
Exports of goods and services	1.2	1.1	-1.7	-0.2	1.0	1.8	2.2	2.8	3.0	3.1
Imports of goods and services	1.6	0.5	-0.2	1.9	1.7	1.8	2.2	2.7	2.8	2.8
Net exports (contribution to growth in percent of GDP)	-0.2	0.3	-0.6	-0.8	-0.2	0.0	0.0	0.0	0.1	0.1
Prices, costs, and income										
Consumer price inflation (harmonized, average)	3.2	2.2	1.2	-0.2	0.4	1.2	1.6	1.9	2.0	2.0
Consumer price inflation (harmonized, end-year)	3.4	1.9	0.6	-0.2	0.9	1.4	1.6	1.9	2.0	2.0
GDP deflator	3.0	2.6	1.7	1.6	1.4	1.4	1.6	1.9	2.0	2.0
Unit labor cost, manufacturing	10.7	-5.0	-1.9	-1.3	-0.1	-1.5	-1.0	-0.5	0.0	0.5
Labor market										
Labor force	0.3	-0.6	0.2	0.3	-0.1	0.0	-0.2	-0.3	-0.3	-0.2
Employment	0.4	-1.1	-0.4	-0.4	0.3	0.3	0.2	0.2	0.2	0.2
Unemployment rate (in percent)	7.7	8.2	8.7	9.3	9.0	8.7	8.3	7.8	7.3	7.0
Potential output and NAIRU										
Output gap (in percent of potential output) ¹	-1.9	-2.7	-3.3	-2.9	-2.4	-1.9	-1.6	-1.2	-0.7	-0.2
Growth in potential output	0.3	0.1	-0.1	-0.2	0.3	0.7	0.9	1.1	1.1	1.2
	(Percent of GDP)									
General government finances²										
Overall balance	-2.2	-2.6	-3.2	-2.8	-2.4	-2.6	-2.0	-1.5	-1.2	-0.9
Primary balance ³	-0.8	-1.4	-1.9	-1.6	-1.3	-1.5	-1.0	-0.5	-0.1	0.5
Structural balance (in percent of potential GDP)	-1.2	-1.0	-1.0	-0.5	-0.5	-0.9	-0.7	-0.5	-0.5	-0.6
Structural primary balance (in percent of potential GDP) ³	0.2	0.2	0.2	0.6	0.6	0.1	0.3	0.5	0.6	0.8
Gross debt	53.9	56.5	60.2	63.6	65.0	66.2	66.6	66.7	66.2	65.2
Net debt ⁴	-50.2	-53.7	-54.4	-50.6	-47.1	-43.4	-40.1	-37.3	-34.8	-32.7
	(Percent)									
Money and interest rates										
M3 (Finnish contribution to euro area , growth rate, e.o.p.)	0.5	4.1	1.3	5.0	...	...	...	...	...	...
Finnish MFI euro area loans (growth rate, e.o.p.)	7.1	7.7	3.8	0.9	...	...	...	...	...	...
Domestic nonfinancial private sector credit growth (e.o.p.)	3.8	4.4	1.2	4.1	4.5	4.7	5.0	5.4	5.7	5.8
3-month Euribor rate (percent)	0.6	0.2	0.2	...	...	...	...	...	...	...
10-year government bonds yield	1.9	1.9	1.4	0.7	...	...	...	...	...	...
	(Percent of GDP)									
National saving and investment										
Gross national saving	20.5	19.8	19.8	20.4	21.0	21.4	21.8	22.2	22.5	22.9
Gross domestic investment	22.5	21.4	20.9	21.1	21.4	22.0	22.5	22.8	23.1	23.4
Balance of payments										
Current account balance	-1.9	-1.6	-1.1	-0.4	-0.5	-0.5	-0.6	-0.6	-0.6	-0.5
Goods and services balance	-1.1	-0.5	-0.5	0.1	0.3	0.3	0.2	0.2	0.2	0.3
Net international investment position	11.7	3.9	-2.6	0.6	0.2	-0.3	-0.8	-1.3	-1.7	-2.1
Gross external debt	227.5	207.7	218.5	210.9	210.5	209.7	207.9	204.4	200.7	197.5
Exchange rates (period average)										
Euro per US\$	0.78	0.75	0.75	0.90	...	...	...	...	...	...
Nominal effective rate (appreciation in percent)	-3.3	2.6	1.9	-2.4	...	...	...	...	...	...
Real effective rate (appreciation in percent) ⁵	-2.9	2.2	1.3	-4.0	...	...	...	...	...	...

Sources: Bank of Finland, BIS, International Financial Statistics, IMF Institute, Ministry of Finance, Statistics Finland, and IMF staff calculations.

¹ A negative value indicates a level of actual GDP that is below potential output.

² Fiscal projections include measures as specified in the General Government Fiscal Plan.

³ Adjusted for interest expenditure.

⁴ Defined as the negative of net financial worth (i.e., debt minus assets).

⁵ CPI-based real effective exchange rate.

FINLAND

STAFF REPORT FOR THE 2016 ARTICLE IV CONSULTATION

November 4, 2016

KEY ISSUES

Context: Following a deep recession, growth has turned positive again. However, a large output gap remains and the structural decline of key high-productivity sectors (Nokia and paper) weigh on medium-term prospects. As a member of the euro area and with the fiscal deficit and debt close to or above European limits, macroeconomic policy space is limited. The FSAP found that the banking system is well capitalized and profitable, but also highly concentrated and dependent on wholesale funding.

Policy recommendations: Policies should support the recovery, boost potential growth, and contain economic and financial stability risks.

- **Structural reform.** Liberalizing retail trade and selected network sectors should raise productivity. Already initiated reforms of wage bargaining and public health and social services should be closely monitored to ensure intended results are achieved.
- **Fiscal policy.** Fiscal policy needs to strike a balance between long-term sustainability and protecting the recovery. Consolidation is needed, but to support growth, faster implementation of the remaining *growth package* spending should be considered. Resources should also be reallocated toward R&D spending, well-designed active labor market programs, and productive public investment, and away from poorly-targeted transfers and tax expenditures. Automatic stabilizers should be allowed to operate fully if growth disappoints.
- **Financial sector policy.** Supervisory oversight should be bolstered to contain liquidity risks at banks. The macroprudential toolbox should be expanded with the addition of a systemic risk buffer and instruments based on borrower and loan characteristics (e.g., a loan to income limit). Regional supervisory coordination needs to be strengthened, including to help contain risks from the impending conversion of Nordea—Finland’s largest bank—into a branch.

Approved By
Mahmood Pradhan
(EUR) and
Daria Zakharova (SPR)

Discussions for the 2016 Article IV consultation were held in Helsinki during September 22–October 4. The mission comprised Messrs. Hofman (head), Arnold; and Mmes. Geng and Mircheva. The mission was assisted from headquarters by Mr. Scutaru and Ms. Tenali (all EUR). Messrs. Piñón (MCM) and Virolainen (OED) joined the discussions. The mission met with Mr. Liikanen, Governor of the Bank of Finland; Mr. Orpo, Minister of Finance; Ms. Tuominen, head of the FIN-FSA; other senior officials; the ECB; social partners; and representatives of the financial sector and academic communities.

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RECENT ECONOMIC DEVELOPMENTS AND OUTLOOK

A. Recent Developments

1. Following a deep recession, growth has turned tepidly positive again. After declining by 3 percent over 2012–14, GDP grew at 0.2 percent in 2015 driven by stronger private consumption and a rebound in private investment (Figure 1 and Table 1). Consumption was supported by lower inflation—which boosted real wages—and temporary mortgage amortization holidays while the upswing in investment reflected catch-up spending on machinery and equipment, especially in the manufacturing sector. Net exports remained a drag on growth as stronger domestic demand translated into higher real import growth, while real exports stagnated reflecting weak global demand, a further drop in exports to Russia, and a loss of competitiveness since the crisis. Recent data suggest that GDP growth continued to improve in the first half of 2016 (0.8 percent higher than 2015H1), driven by a further strengthening of domestic demand. But the recession has left a large output gap (-3 percent of potential GDP) and high unemployment, which peaked at 9.3 percent in 2015. Headline inflation has slowed sharply, from 2.2 percent in 2013 to -0.2 percent in 2015, largely due to falling oil and food prices (core inflation remains close to one percent). After a surge in asylum seekers last year, the flow of new refugees has returned to normal levels.

2. The recovery is aided by a dissipating drag from the structural shocks that hit Finland in recent years. The sharp decline in key export industries (Nokia and paper) since 2007 seems to now have largely bottomed out. Exports have stabilized and in particular the paper industry is investing in new products and technology, resulting in an increase in investment worth ¼ percent of GDP in 2015. However, these high-productivity industries will continue to account for a much smaller share of employment and value added than in the past, implying slower productivity growth than before the crisis. Rapidly declining labor force growth due to population aging remains an additional structural drag on potential growth.

Indexed Real Investment Levels, 2008-15
(Index, 2008=100)

Exports of Key Industries
(Percent of GDP)

3. Improving terms of trade have helped to reduce the current account deficit. Though in real terms net exports have detracted from growth, falling import prices, especially oil prices, contributed to the nominal trade balance shifting into surplus in 2015, shrinking the current account deficit (Table 2 and Figure 2). The net international investment position, however, has continued to deteriorate (Table 3). After being undervalued before the crisis, the real effective exchange rate now appears broadly in line with fundamentals (Annex I).

Current Account
(Percent of GDP)

4. The fiscal deficit was brought back under the Stability and Growth Pact (SGP) limit, but fiscal space remains limited. The general government balance has been in deficit since 2009 reflecting the protracted downturn and increases in spending related to aging (Figure 3, Tables 4 and 5). In 2014 the deficit breached the SGP's 3 percent of GDP threshold but Finland escaped the

Fiscal Deficit and Debt
(Percent of GDP)

Difference between Actual and Forecast 2015 Deficit
(Percent of 2015 GDP)

Excessive Deficit Procedure (EDP) as the European Commission (EC) judged the excess to be small, temporary, and exceptional. In 2015, the deficit narrowed to -2.8 percent of GDP—a positive surprise as the original 2015 budget had forecast a -3.4 percent of GDP deficit. The better than expected outcome was driven by revenue overperformance and lower than budgeted spending, especially on public consumption. Public debt nearly doubled over the past decade and reached 63.6 percent of GDP in 2015, breaching the SGP threshold and making the government's financial position more vulnerable to shocks (Annex II). The growth in indebtedness along with the mounting pressures from aging related spending and the need to adhere to the SGP constrain fiscal space.

5. Financial cycle measures and debt levels provide a mixed picture. The credit-to-GDP

gap has been declining since 2009 and was at a moderate level in early 2016. Credit growth picked up slightly in 2015, but remains much lower than before the crisis. Meanwhile, a sectoral financial balance sheet analysis finds that debts of nonfinancial corporations and households have risen markedly in the post-crisis period, making them more vulnerable to potential shocks (Box 1 and Figure 4). The increase in household debt, however, has not been associated with rapid growth in house prices and the latter do not appear significantly overvalued.

6. Despite the weak economy and low credit demand, the banks remain broadly sound.

The 2016 FSAP found that banks have remained profitable in a low interest rate environment by reducing cost-to-income ratios and increasing income from trading and insurance. Banks are also well capitalized compared to peer countries, with a risk-weighted capital adequacy ratio (CAR) at 23.1 percent in 2015, up from 17.3 percent in 2014 (Figure 5 and Table 6). This said, their simple leverage ratio (capital to total assets) of 5.6 percent is low compared to peers. Banks' health and the low level of nonperforming loans (1.6 percent of gross loans in 2015) suggest that the marked slowdown in credit growth since 2011 mostly reflects weaker credit demand associated with the weak economy and increased indebtedness.

Sources: FIN-FSA, IMF FSI database, and Fund staff calculations.

Sources: FIN-FSA, IMF FSI database, and Fund staff calculations.

Box 1. Sectoral Balance Sheet Analysis

Vulnerabilities stemming from indebtedness and cross-border exposures have risen since the crisis.¹

An analysis of sectoral balance sheets shows that, in an environment of slow growth and low interest rates the total indebtedness of the economy has increased by nearly 100 percent of GDP since 2007 to around 360 percent of GDP in 2015. Similarly, total foreign liabilities have increased by around 90 percent of GDP over this period, though the economy's external net financial position has improved as foreign assets grew by 115 percent of GDP.

Debts of nonfinancial corporations (NFCs) have increased nearly 20 percentage points of GDP since 2007. Correspondingly, the share of debt in total liabilities has risen 10 percentage points to half of the total, increasing the financial fragility of NFCs' balance sheets. Moreover, NFCs' debt service costs will rise faster when interest rates begin to normalize. Also, they could find it harder to rollover the larger debt load in the event of a severe downturn, especially since one-third of the debt is foreign financed.

Total and External Debt in 2015 and Changes since 2007
(Percent of GDP)

Sources: Statistics Finland and Fund staff calculations.

Note: "Debt" is sum of bonds, loans, and other accounts payable.

Households' indebtedness has also steadily increased since the crisis, though assets have risen too.

Most of households' liabilities are loans from banks—predominantly mortgage loans—which have increased by 16 percent of GDP since 2007. Household debt stood at more than 120 percent of disposable income in 2015. Meanwhile, households' equity holdings, which constitute nearly half of their financial assets, expose their net financial position to significant fluctuations, such as the more than 20 percent of GDP decline they experienced during 2006-08. Households also have nonfinancial assets worth 212 percent of GDP in 2015, mainly in real estate, so a drop in house prices would damage their net worth. Most mortgages have variable interest rates but fixed monthly payments, which helps buffer households from interest rate shocks.

The government's financial position has weakened, driven by rising debt eroding fiscal space. The general government's debt has risen by more than 30 percent of GDP since 2007, with debt held by foreign investors accounting for 25 percentage points of that. Higher debt levels increase the vulnerability to macroeconomic risks, where negative shocks to GDP growth or inflation or a rapid rise in interest rates could have a sizeable impact on the future trajectory of the debt ratio. The erosion of fiscal space also constrains the government's capacity to respond to new shocks.

Banks' balance sheets swelled by over 100 percent of GDP since 2007 and cross-border exposures increased considerably. About one-quarter of this was due to Nordea shifting its derivatives book to Finland in 2010. The rise in foreign liabilities accounts for 80 percent of the increase in total liabilities. Overall, banks' net financial position with the rest of the world deteriorated by more than 20 percent of GDP. At the same time, banks' net financial position vis-à-vis domestic households improved, as increased foreign wholesale funding has been channeled into mortgage credit, increasing banks' exposure to the housing market. Higher foreign-financed wholesale funding also increases banks' exposure to liquidity funding risks.

Nonbanks' vulnerabilities remain limited though low interest rates have damped returns and motivated a shift to riskier assets. Lower interest rates have reduced returns on fixed income assets, prompting nonbanks (e.g., insurers, pension funds, and investment funds) to increase the share of equities in their portfolios. Half of nonbanks' portfolios consist of foreign assets, which provides diversification benefits but also exposes them to spillovers from global financial market volatility.

¹ See Selected Issues Chapter "A Sectoral Balance Sheet Analysis for Finland."

7. Substantial reforms are underway to address Finland's challenges. The government's ambitious structural reform agenda published last year includes key reforms of the labor market and healthcare and social services, and work on implementation has begun. Agreement was reached between social partners on a Competitiveness Pact that will reduce labor costs (including via a wage freeze in 2017) and increase hours worked, and could introduce more firm-level flexibility into the wage bargaining system. Bills on the reform of healthcare and social services provision have been drafted and are being discussed with stakeholders. A fiscal consolidation plan is being implemented. Work is continuing on the improvement of the macroprudential policy and resolution frameworks.

B. Outlook and Risks

8. Growth is expected to remain sluggish over the medium term. GDP growth is expected to rise to 0.9 percent in 2016 and 1.1 percent in 2017, before gradually increasing further to around 1½ percent in the outer years of the forecast—a markedly lower growth rate than before the crisis. Private consumption and investment are expected to be the main drivers of medium-term growth, even as consumption will be weighed down in the short run by slower real wage growth reflecting higher inflation and the Competitiveness Pact. Potential growth will only rebound slowly as investment rises and TFP growth begins to recover from the decline of key high-productivity industries. Credit growth should pick up in line with rising nominal GDP growth. Unemployment is expected to decline slowly to 9.1 percent this year and to 8.9 percent in 2017. Inflation should gradually rise as the economy recovers and the effects of oil and food price declines abate, rising to 0.4 percent in 2016, 1.2 percent in 2017, and reaching 2 percent by 2020. The current account is forecast to remain in deficit as gradually strengthening export growth—with the drop in exports to Russia bottoming out—is offset by rising imports and the unwinding of the terms of trade shock from falling oil prices.

Real GDP Growth Contributions, 2016-21
(Percentage points and percent)

Sources: IMF WEO and Fund staff calculations

9. The outlook is subject to significant downside risks (Table 7). Weaker-than-expected global growth, in particular slower growth in advanced Europe, could further slow the recovery given Finland's tight integration with European and world markets. Also, protracted uncertainty surrounding post-Brexit arrangements could weigh heavier on confidence and investment than currently envisaged. Meanwhile, a financial or economic shock in any of the other Nordics—e.g., a correction in housing markets—could spill over to Finland through the interconnected regional banking system and close trade links. Domestically, fiscal and structural policy efforts could weaken the recovery in the near term, even if their longer run effects should be positive.

Authorities' Views

10. The authorities broadly shared the staff's assessment of the outlook and risks. They generally noted the same external and domestic risks identified by staff and underscored that the ability of the Finnish economy to adjust to new shocks remained limited. On Brexit, the authorities noted that the impact could be less large than originally feared. They also pointed out that, with the UK accounting for only about five percent of Finnish merchandise exports, the impact would be largely indirect—via the EU and the global economy.

POLICY DISCUSSION

A. Structural Policies

11. Reviving growth remains Finland's preeminent challenge. Annual labor productivity growth dropped from about 2½ percent during 2000-07 to negative territory during 2007-14, mainly reflecting a sharp reduction in TFP growth in manufacturing following the decline of Nokia and the paper industry (Figure 6). Coupled with ill-timed wage increases in 2008-10, this has led to a surge in Finland's unit labor costs (ULC), which rose 5-15 percent more than in peer countries over the post-crisis period. Meanwhile, declining labor participation, population ageing, and high unemployment have resulted in slower workforce growth, further adding to the growth challenge. Substantial cuts in R&D spending by both the private and public sectors (down by over 10 percent in real terms since 2007), also weaken growth opportunities. These factors combined have reduced potential growth to less than half its pre-crisis average. The reduced growth potential also highlights pre-existing constraints on economic activity, including relatively strict regulation in retail trade and selected network sectors (e.g., gas, rail and postal services), which exceeds the average in peer countries and best practices, thereby constraining private sector dynamics and productivity growth.

Product Market Regulation, 2013

(Index, 0-6, higher=more restrictive regulation)

Sources: OECD and Fund staff calculations.

Note: Frontier is average of best 3 European OECD countries.

Gross Domestic Expenditure on R&D

(Constant PPP USD Indexed, 2001=100)

Sources: OECD and Fund staff calculations.

12. Structural reforms are needed in three mutually reinforcing areas. First, labor market reforms are needed to raise labor supply, facilitate labor mobility (in particular between economic sectors), and boost labor demand through better aligning wages with productivity. Second, public

sector reforms should improve public sector efficiency and help contain aging-related spending pressures, especially in health and social services. Third, product market reforms should promote competition and help boost productivity.

13. The new Competitiveness Pact could achieve several key labor market reforms. The pact, which was agreed in June 2016 and covers over 90 percent of Finnish workers, includes (i) a wage freeze for 2017, (ii) an unremunerated increase in annual hours worked of 24 hours, (iii) a temporary 30 percent cut in holiday bonuses for public sector employees during 2017-19, and (iv) a 2 percentage point shift of social security contributions from employers to employees over 2017-19. In addition, the pact calls for modifications to the highly-centralized wage bargaining process aimed at increasing firm-level flexibility and better aligning wages with productivity. In return, starting in 2017 the government will provide income tax cuts that will more than offset the impact of the shift in social security contributions on workers' disposable income in the short run.

14. Other new measures should help labor market activation, participation, and mobility. The government has decided to shorten the maximum duration of unemployment benefits from 500 to 400 days starting in 2017, and additional activation measures are being considered. Separately, study grants for higher education are being tightened to help reduce overly long study duration, thus getting younger people into the labor market sooner. New financial incentives for developers to promote housing construction in key urban areas and measures to improve the allocation of subsidized housing should facilitate labor mobility across regions.

15. Progress is also being made on the plans to reform health and social services. Draft bills on the first phase of the health, social services, and local government reforms have been circulated to key stakeholders for consultation and a final proposal should go to Parliament by end 2016 (Box 2). Details of the second phase are still being developed and are expected next spring.

Box 2. Reforming Health and Social Services

In June 2016, the government presented draft bills on reforms of health and social services which aim to contain long-run aging-related fiscal pressures by improving the efficiency of health and social services, including by exploiting economies of scale. The main elements of the reforms are as follows:

- **Provision of services.** Starting in 2019, all public health and social services delivery will be shifted from the more than 300 municipalities that are currently providing such services to 18 newly established administrative areas. The latter will be responsible for integrating the services such that public and private sector services work more closely together, while meeting certain centrally-set quality criteria.
- **Financing arrangement.** The reform also entails a fiscally neutral shift in taxation from local governments to the central government, which will make transfers to administrative regions to pay for health and social services. Correspondingly, local government tax rates and transfers they receive from the central government will be lowered so that the overall taxation level will not increase. The modalities of the transfer of expenses and revenues under the new financial model and related equalization elements across regions are under preparation and will be finalized by 2020.

An envisaged second phase of the reform will aim to expand service options by allowing people to choose between public, private, and nonprofit providers, but modalities are still being worked out.

16. The progress with reform implementation is encouraging, but results should be closely monitored. In particular, the government should follow up closely on the implementation of the Competitiveness Pact to ensure that the envisaged increase in firm-level flexibility in wage formation materializes. If the current agreement is not successful at better aligning wages with productivity at the firm level, other approaches should be considered, including legislative changes to the wage bargaining process. The legal, organizational, and fiscal changes required by the reform of health and social services provision will be complicated to implement and key elements of the new system still need to be developed. Clear and timely communication with stakeholders will be critical and implementation results need to be carefully examined to identify any problems early on and ensure the reforms generate the intended improvements in public sector productivity.

17. Reform efforts also need to be broadened in other priority areas. Staff analysis suggests that deregulation in selected network sectors could strengthen competition and yield substantial productivity gains, including through downstream effects on the broader economy.¹ There is ample scope for deregulation, particularly in the retail sector—which is subject to relatively tight zoning and planning restrictions—and in government dominated sectors such as rail and postal services, where effective barriers to entry restrict competition. In this context, staff welcomes the recent work to update the transportation code as well as the renewed privatization efforts initiated by the government. Also, cross-country experience suggests that well-targeted R&D spending could foster innovation and higher productivity growth. Recent cuts in public R&D spending should therefore be reversed and ways to incentivize private sector R&D—such as through well-designed R&D tax credits—should be explored further. Additional measures to facilitate labor mobility should also be pursued. Strengthening active labor market programs (ALMPs) would help workers retrain and move between industries. Further efforts to increase affordable housing in urban areas, such as streamlining planning and development processes, would support labor mobility between regions.

Authorities' Views

18. The authorities agreed that structural reforms are critical to reviving growth. They believed that the government program addressed the main issues, but the challenge now is in implementation. In this regard, they underscored the importance of the agreement on the Competitiveness Pact, which will reduce relative labor costs, lower taxes, and help Finland's exports regain competitiveness. They agreed that more firm-level flexibility in wage bargaining was also critical and pointed to a recent decision by the construction workers' union to lower the minimum wage for new entrants as a possible early sign of increasing flexibility in the system. The authorities emphasized, however, they are ready to take further measures if needed. On product markets, the authorities agreed there is scope for further deregulation. They pointed to several new initiatives currently under consideration, including relaxing store-size limits and opening the passenger rail market to competition.

¹ See Selected Issues Chapter "Product Market Reform, R&D Spending, and Firm-Level Productivity in Finland."

B. Fiscal Policy

19. Fiscal policy needs to strike a balance between ensuring long-term sustainability and protecting the recovery. While Finland had a very strong fiscal position up to 2007, having one of the fastest aging populations in the world has contributed to a 12 percentage point of GDP increase in public spending since then. Aging-related fiscal pressures also contribute to a sizable long-run fiscal sustainability gap—defined as the adjustment needed to stabilize the debt ratio over the long term—estimated at about 5 percent of GDP in 2015. To address the pressures and comply with European rules, in 2015 the government initiated a slightly frontloaded multi-year consolidation plan worth 2 percentage points of GDP during 2016–19. While the plan appropriately addressed long-term sustainability needs, in the short term the substantial adjustment posed a risk to the budding recovery. To mitigate some of the risk the authorities introduced a *growth package* of one-off infrastructure and technology investments worth 0.7 percent of GDP and financed through asset sales—though the package is back-loaded with most of the spending planned in 2017 and 2018 (0.3 percent of GDP in each year). Meanwhile, the allocation of public spending leaves room for improvement as generous unemployment benefits with a long duration reduce incentives to work while extensive tax breaks for energy-intensive industries support incumbent firms instead of spurring innovation and productivity growth.

20. The near-term pace of fiscal consolidation has been eased in return for labor market reforms. Updates to the authorities' fiscal plan, released in April and in the draft 2017 budget, feature similar targets for the total adjustment (2 percent of GDP) and the 2019 deficit (–1.5 percent of GDP) as the original plan. However, the fiscal overperformance in 2015 allowed for the pace of consolidation to be slowed in 2016 and for the fiscal stance to be slightly expansionary in 2017. The easing measures include the new income tax cuts to support the Competitiveness Pact (0.2 percent of GDP per year, starting in 2017) and related reductions in social security contributions (0.4 percent of GDP in 2017, but diminishing thereafter), as well as unanticipated refugee-related outlays (0.1 percent of GDP per year during 2016–20). Some additional expenditure cuts are also planned—including holiday bonus cuts for civil servants in 2017–19 and longer working hours agreed to as part of the Competitiveness Pact (0.1 percent of GDP per year). Altogether, the new measures should bring the deficit broadly back to the originally projected deficit path from 2018.

General Government Fiscal Plan Deficit Paths
(Percent of GDP)

Sources: Ministry of Finance and Fund staff calculations.

21. The short-term easing of the pace of consolidation is appropriate and should help support the recovery. The more accommodative fiscal stance in 2016–17—which does not jeopardize medium-term adjustment goals—is welcome and in line with staff's 2015 Article IV recommendations. To further support the economy in the short term, the authorities should also

consider a faster implementation of the remaining spending under the *growth package*. The growth-friendliness of fiscal consolidation could also be improved by reallocating resources toward R&D spending, well-designed ALMPs, and productive public investment, and away from poorly-targeted transfers and tax expenditures. If growth disappoints, automatic stabilizers should be allowed to operate fully, while revenue windfalls should be used to reduce borrowing needs.

22. To close the long-run sustainability gap, effective implementation of the structural reform agenda remains critical. An earlier-agreed pension reform that becomes effective in 2017 is expected to close about 1 percentage point of the gap. With the 2017–19 consolidation plan accounting for an additional 2 percentage point reduction, the successful implementation of other structural reforms—most notably the reform of health and social services—will be key to closing the remaining 2 percentage points and ensuring that public finances are robust to aging-related spending pressures that will continue to build rapidly over the next decade and a half. Advancing these reforms should therefore be a top priority from a fiscal perspective as well.

Authorities' Views

23. The authorities agreed that the short-run easing of the pace of consolidation in return for reforms was a good policy bargain. They underscored that the government is committed to its consolidation program and will make the necessary adjustment to achieve long-term fiscal sustainability. The Competitiveness Pact and unemployment benefits reform would help boost the labor supply and growth and would thus contribute to long-run fiscal sustainability. The authorities also emphasized that the health and social services reform is one of the most significant reforms in Finnish history and will improve public sector productivity and curb expenditure growth. On ALMPs and R&D spending, they considered that the efficient use of current appropriations was more important than shifting resources back towards these areas. They were also hesitant to bring forward spending under the growth package as they thought it might risk breaching SGP limits.

C. Financial Sector Policies

24. The recent FSAP found that while the banking system is well capitalized and profitable key structural vulnerabilities remain. In the low interest rate environment, banks have successfully offset the impact of smaller interest margins with cost reductions and increased income from trading and insurance. Nonperforming loans remain low and capital levels are well above the regulatory minima. Along with financial cycle indicators, this suggests near-term financial stability risks are limited. However, the banking system is large (230 percent of GDP) and highly concentrated, with three banks accounting for 93 percent of system assets. Banks are also reliant on wholesale funding, which makes them particularly vulnerable to global financial market volatility. The extent of regional interconnectedness is very high with two of Finland's largest banks (*Nordea* and *Danske*), headquartered in Nordic neighbors (Sweden and Denmark, respectively).

Banks' Funding Structure
(Percent of total funding)

Sources: FIN-FSA, ECB, and Fund staff calculations

Banks' Foreign Liabilities, 2007 and 2015
(Percent of GDP)

Sources: Statistics Finland and Fund staff calculations.

25. FSAP stress tests suggest that banks' use of low risk weights may exaggerate their capital ratios, while their reliance on wholesale funding exposes them to liquidity risks.

Although risk-weighted capital ratios would generally remain above regulatory minima under a severe macroeconomic stress scenario, simple leverage ratios would fall below the 3 percent minimum. Along with the largest banks' relatively low risk density (RWA over total assets) compared to peers, this indicates that banks using internal ratings based (IRB) models may be lowering risk weights on some assets too much, particularly on mortgages. That said, banks would still satisfy regulatory capital requirements with reasonably higher risk weights. Liquidity stress tests also found that severe disruption in external wholesale funding or a collapse in the covered bond market—for example in the case of a crisis in other Nordic countries—could lead to systemic liquidity shortfalls.

Core Tier 1 Capital Ratio
(fully-loaded, in percent)

Leverage Ratio

(fully-loaded Tier 1/Total assets, in percent)

26. The impending conversion of Nordea Bank Finland (NBF) from a subsidiary to a branch raises concerns. The plan by its parent to convert NBF—a systemically important bank that accounts for about 30 percent of Finnish deposits and loans—into a branch in 2017 will bring the bank under the supervision of the Swedish authorities and out of the direct purview of the ECB and FIN-FSA. This raises issues regarding information sharing, supervisory responsibility and

cooperation, macroprudential policy, depositor protection, and recovery and resolution planning.² The ease with which liquidity can be transferred within the banking group poses a particular concern for Finland. As the shift calls for further enhanced cross-border cooperation, the relevant Swedish, Finnish, European, and other Nordic authorities have begun negotiating an agreement on the treatment of systemic branches that should address the key issues.

27. Progress has been made on the policy framework, but further efforts are needed to prepare for potential future shocks. Since the 2010 FSAP update, the authorities have transposed the new EU financial sector directives and regulations into national law, including the required elements of CRD-IV and BRRD. In the process, a new macroprudential policy framework was also introduced. As a result of the substantial changes in financial sector policies and the regulatory approach since the crisis, bank and nonbank supervision and contingency planning have also become more intense and intrusive (and, inevitably, thereby also more resource-intensive, stretching supervisory resources thin, especially at the FIN-FSA). The progress notwithstanding, a number of gaps remain and the FSAP made recommendations to address remaining issues (Annex III).

28. Banking supervision needs to be further strengthened. To bolster the resilience of banks, the FIN-FSA should ensure that banks' internal risk models are calibrated to reflect periods of severe stress (e.g., 1990s Nordic crisis). In this context, following the ECB's current comprehensive review of banks' internal risk models, the ECB and FIN-FSA should ensure the effective ongoing monitoring of these models. The oversight of banks' liquidity positions in foreign currencies (and crossholdings of covered bonds used as collateral) should also be intensified and liquidity stress tests for various time horizons should be introduced. The FIN-FSA should stand ready to take supervisory action if imbalances emerge. More generally, to facilitate adequate oversight the financial and human resources allocated to banking supervision should be increased to reflect the growth in regulatory complexity and supervision intensity.

29. The macroprudential policy framework should be further enhanced. The authorities should venture beyond the range of mandatory tools under CRD-IV in order to have appropriate tools in place to address risks when they emerge. In this regard, the recent plans to add a systemic risk capital buffer and a floor on risk weights for mortgages are welcome. Adding tools based on the terms of loans (such as a limit on the maximum maturity) and borrowers' debt service capacity (e.g., a loan-to-income cap) should also be considered. To strengthen the decision making framework, the macroprudential policy mandate of the FIN-FSA should be more clearly defined. Also, a household loan registry should be created to facilitate macroprudential policy analysis.

30. Better coordinated contingency planning and deeper cross-border cooperation are also key. To mitigate risks from regional linkages and the branchification of Nordea it will be key that the pending agreement on systemic branches between the key supervisors provides for sufficiently strong data sharing and supervisory cooperation provisions. It would also help to expand the existing protocols with Nordic supervisors to include (i) formal region-wide sharing of

² See the 2016 Financial System Stability Assessment for a full discussion of implications of Nordea's branchification.

supervisory data (including for branches), (ii) joint stress tests that take account of inter-linkages, (iii) stronger collaboration between macroprudential authorities, and (iv) enhanced crisis management cooperation and regular crisis simulation exercises. Domestically, the crisis management framework can also be strengthened, including by formalizing inter-agency cooperation on crisis preparedness and management and by expediting the resolution planning for systemically important banks.

Authorities' Views

31. The authorities broadly concurred with the FSAP findings. They welcomed the FSAP analysis and recognized the identified vulnerabilities. They mostly agreed with recommendations to bolster banking supervision, enhance the macroprudential policy toolkit, and deepen regional cooperation. While endorsed by the FIN-FSA, some authorities were not convinced there is a need to increase resources for domestic supervisors. They argued this would be at odds with the transfer of supervisory responsibility for Finland's largest banks to the ECB (and, in the case of Nordea, to Sweden). The authorities agreed that the macroprudential policy toolkit should be expanded and pointed to the planned addition of a systemic risk buffer and a floor for mortgage risk weights. Some authorities, however, wanted to first assess the impact of these tools, before introducing additional instruments. They also acknowledged the importance of deepening regional cooperation and noted that an agreement between regional supervisors and the ECB on the treatment of systemic branches should be finalized soon.

STAFF APPRAISAL

32. The economy is emerging from recession, but the recovery will be slow and fragile. Growth has turned positive again and the upturn is expected to continue and become more broad based. However, with past engines of growth (Nokia, paper) significantly diminished, medium-term growth is forecast to remain sluggish. The recovery is also vulnerable to substantial downside risks, including weaker than expected global growth, uncertainty over post-Brexit arrangements, spillovers from a shock in another Nordic country, and the possibility that in the short term fiscal adjustment and labor market reforms weigh heavier on growth than anticipated.

33. Reviving growth remains Finland's preeminent challenge. This requires deep structural reforms to help raise productivity and labor supply growth, well-calibrated fiscal adjustment to restore long-term sustainability while minimizing negative short-term impacts on output, and strong financial sector policies to safeguard financial stability.

34. Recent progress on structural reforms is welcome but requires close follow up. The Competitiveness Pact will reduce relative labor costs over the next few years. It could also make the wage bargaining process more flexible at the firm level and help better align wages with productivity. However, this outcome is not assured and the government should closely monitor the pact's implementation. The draft bills on the health and social services reform also constitute major progress, but important elements of the new system remain unclear and should be developed quickly. Given the complexity of the reform, clear and timely communication with stakeholders will

be critical and progress should be assessed regularly to identify any potential problems early on. The recent reduction in the maximum duration of unemployment benefits is an important step and should help increase activation.

35. Further efforts are needed in other priority areas. There is substantial scope for product market reforms, particularly in the retail sector and in state-dominated sectors such as rail and postal services, that could increase competition and yield productivity gains, including through downstream effects on the wider economy. Also, reversing cuts to public R&D spending and creating stronger incentives for private R&D would promote innovation. Strengthening ALMPs and further measures to increase affordable housing in urban areas would facilitate labor mobility.

36. The near-term fiscal easing in return for reforms is appropriate, but more can be done to protect growth. Structural fiscal adjustment is needed to close the sustainability gap but potential adverse effects on the recovery need to be minimized. The easing of the fiscal stance in 2016-17, in return for structural reforms, is welcome in this regard. The economy could be further supported by bringing forward the remaining growth package spending. The composition of fiscal policy could also be made more growth-friendly, including by reallocating resources toward R&D spending, ALMPs, and productive public investment, and away from poorly-targeted transfers and tax expenditures. If growth disappoints, automatic stabilizers should be allowed to operate fully. More broadly, the decisive and effective implementation of the structural reform agenda remains critical to ensuring long-term fiscal sustainability.

37. While the banks are sound, financial sector policy frameworks should be further strengthened to prepare for future risks. Substantial progress has been made with the implementation of European legislation, participation in the banking union, and the introduction of a new macroprudential policy framework. Bank supervision should be further strengthened, however, including by ensuring ongoing effective monitoring of banks' internal risk models and by intensifying oversight of their liquidity positions. Resources allocated to supervision should be bolstered to reflect the growth in regulatory complexity and supervision intensity. Enhancing the set of macroprudential tools is also important. The plans to introduce a systemic risk buffer and a floor on mortgage risk weights are welcome in this regard, but adding instruments based on borrower and loan characteristics should also be considered. Inter-agency cooperation on national crisis preparedness and management should be formalized.

38. Regional supervisory cooperation should be further deepened. Ensuring strong data sharing and supervisory cooperation provisions in the pending agreement on systemic branches between the key supervisors will be critical to mitigate risks from close regional linkages and Nordea's conversion from subsidiary into a branch. It is also important to conduct joint stress tests to capture regional interlinkages between banks, enhance joint crisis planning, run regular crisis simulation exercises, and strengthen collaboration between Nordic macroprudential authorities.

39. It is proposed that the next Article IV consultation with Finland occur on the standard 12-month cycle.

Figure 1. Finland: Recent Developments

Finland is slowly emerging from recession...

Real GDP Growth Contributions
(Percentage points)

Sources: IMF WEO and Fund staff calculations

...and private investment begins to grow again.

Private Investment Growth
(Percent)

Sources: Statistics Finland and Fund staff calculations.

Consumer confidence, though volatile, has also gained strength recently...

Consumer Confidence Indicator
(Balance, percent of persons / households)

...as domestic demand gradually strengthens...

Domestic and External Demand
(Y/Y percent change)

Sources: IMF WEO and Fund staff calculations.

The pick-up is also reflected in high frequency indicators, with building permits and starts both up.

Building Permits and Starts
(January 2007 = 100, sa)

...while business confidence indicators in most sectors are rising.

Business Confidence Indicators
(Percent, sa)

Figure 1. Finland: Recent Developments (concluded)

The trend in industrial production has also turned up since early 2015.

Industrial Production Index

(2010 = 100, sa)

Meanwhile, nominal wage growth continues to moderate even as the unemployment rate has begun to fall.

Wage Growth and Unemployment Rate

(Y/Y percent change, left; Percent of labor force, right)

Sources: Statistics Finland, IMF WEO, and Fund staff calculations.

Inflation is picking up as core inflation strengthens and the drag from commodity price declines gradually abates.

Harmonized Consumer Price Inflation

(Contribution to Y/Y percentage point change in inflation)

Sources: Eurostat, Statistics Finland, and Fund staff calculations.

The influx of refugees has returned to normal levels.

Asylum Seekers

(Number of applicants per month)

Sources: Eurostat and Fund staff calculations.

Figure 2. Finland: External Sector Indicators

The current account and trade balance improved largely due to lower commodity prices...

Current Account (Percent of GDP)

...though the decline in the oil price also reduced the value of exports of chemicals and refined petroleum products.

Merchandise Exports (Percent of GDP)

Exports also continue to stagnate in real terms, while real imports have been edging up.

Real Exports and Imports (Index, 2007Q1=100)

...which substantially improved the terms of trade...

Terms of Trade (Index, 2010=100)

Goods exports have been slipping as a share of GDP, with notable drops in exports to Russia and Sweden.

Goods Exports to Main Trade Partners (Percent of GDP)

Finland's market share continues to fall.

Finland Export Shares (Percent of EU exports and percent of world exports)

Figure 3. Finland: Fiscal Indicators

The fiscal position has slipped into persistent deficit, breaching the SGP 3 percent deficit criterion in 2014...

Fiscal Balances
(Percent of GDP)

This deterioration has come despite efforts to cut the growth of public consumption and investment...

Real Public Consumption and Investment Growth
(Percent)

...and causing a steady rise in the debt ratio, which breached the 60 percent of GDP SGP criterion in 2015.

General Government Gross Debt
(Percent of GDP)

...as the weak economy drove real revenue growth even lower than that of spending until last year.

Real Revenue and Expenditure Growth
(Percent)

Figure 4. Finland: Sectoral Financial Assets and Liabilities**Non-Financial Corporations**

(Percent of GDP)

Sources: Statistics Finland and Fund staff calculations.

Households

(Percent of GDP)

Sources: Statistics Finland and Fund staff calculations.

General Government

(Percent of GDP)

Sources: Statistics Finland and Fund staff calculations.

Central Bank

(Percent of GDP)

Sources: Statistics Finland and Fund staff calculations.

Banks

(Percent of GDP)

Sources: Statistics Finland and Fund staff calculations.

Non-Banks

(Percent of GDP)

Sources: Statistics Finland and Fund staff calculations.

Figure 5. Finland: Financial Sector Indicators

Credit growth has slowed due to weaker credit demand...

Growth in Private Sector Credit from Banks
(Percent)

Sources: BIS and Fund staff calculations.

...but household and corporate debt are still rising...

Household and Non-Financial Corporations Debt
(Percent of disposable income and percent of GDP)

Sources: Statistics Finland and Fund staff calculations.

...in an environment of historically low interest rates.

Interest Rates
(Percent)

Sources: Eurostat, Bank of Finland, and Fund staff calculations.

Regulatory capital to RWA indicates banks are well capitalized, though the leverage ratio is less reassuring.

Capital Ratios
(Percent of assets)

Sources: FIN-FSA, IMF FSI database, and Fund staff calculations.

However, higher household debt has not caused rapid rises in house prices or significant house price overvaluation.

House Price Valuation Measures, 2000Q1-2016Q2
(Index, 2010=100)

Sources: OECD and Fund staff calculations.

Note: Dashed lines indicate averages for 2000Q1-2016Q2.

Banks' reliance on wholesale funding, over half of which has maturity <90 days, exposes them to liquidity risks.

Wholesale Funding Maturity Profile
(Percent of total wholesale funding)

Sources: FIN-FSA, ECB, and Fund staff calculations

Figure 6. Finland: Structural Indicators*Labor productivity growth has lagged peers...***Labor Productivity in Selected Countries**
(Index, 2007=100)

Sources: OECD and Fund staff calculations.

Note: Labor productivity is GDP per hour worked in 2005 international US\$.

*...driven by the drop in productivity in manufacturing.***Productivity in Key Sectors**
(Index 2007=100)

Sources: OECD and Fund staff calculations.

*Combined with wage hikes, this has raised unit labor costs.***Contribution to Unit Labor Cost Change, 2007-2014**
(Percentage points and percent)

Sources: OECD and Fund staff calculations.

*High wage compression inhibits wages adjusting in line with productivity developments in different sectors.***Wage Dispersion**
(Ratio of gross earnings, decile 9/decile 1)

Sources: OECD and Fund staff calculations.

*Regulation is tight in some sectors.***Product Market Regulation, 2013**
(Index, 0-6, higher=more restrictive regulation)

Sources: OECD and Fund staff calculations.

Note: Frontier is average of best 3 European OECD countries.

*While R&D spending has been falling.***Gross Domestic Expenditure on R&D**
(Constant PPP USD Indexed, 2001=100)

Sources: OECD and Fund staff calculations.

Table 1. Finland: Selected Economic Indicators, 2012–21

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
	Proj.									
	(Percentage change, unless otherwise indicated)									
Output and demand (volumes)										
GDP	-1.4	-0.8	-0.7	0.2	0.9	1.1	1.3	1.5	1.6	1.6
Domestic demand	-1.2	-1.1	-0.2	1.4	1.1	1.1	1.3	1.4	1.5	1.5
Private consumption	0.3	-0.5	0.6	1.5	1.4	0.9	1.0	1.3	1.4	1.4
Public consumption	0.5	1.1	-0.5	0.4	-0.3	-0.4	-0.1	0.1	0.3	0.3
Gross fixed capital formation	-1.9	-4.9	-2.5	0.7	3.6	3.5	3.4	3.2	2.9	2.9
Change in stocks (contribution to growth in percent of GDP)	-1.0	0.0	0.2	0.3	-0.3	0.0	0.0	0.0	0.0	0.0
Exports of goods and services	1.2	1.1	-1.7	-0.2	1.0	1.8	2.2	2.8	3.0	3.1
Imports of goods and services	1.6	0.5	-0.2	1.9	1.7	1.8	2.2	2.7	2.8	2.8
Net exports (contribution to growth in percent of GDP)	-0.2	0.3	-0.6	-0.8	-0.2	0.0	0.0	0.0	0.1	0.1
Prices, costs, and income										
Consumer price inflation (harmonized, average)	3.2	2.2	1.2	-0.2	0.4	1.2	1.6	1.9	2.0	2.0
Consumer price inflation (harmonized, end-year)	3.4	1.9	0.6	-0.2	0.9	1.4	1.6	1.9	2.0	2.0
GDP deflator	3.0	2.6	1.7	1.6	1.4	1.4	1.6	1.9	2.0	2.0
Unit labor cost, manufacturing	10.7	-5.0	-1.9	-1.3	-0.1	-1.5	-1.0	-0.5	0.0	0.5
Labor market										
Labor force	0.3	-0.6	0.2	0.3	-0.1	0.0	-0.2	-0.3	-0.3	-0.2
Employment	0.4	-1.1	-0.4	-0.4	0.3	0.3	0.2	0.2	0.2	0.2
Unemployment rate (in percent)	7.7	8.2	8.7	9.3	9.0	8.7	8.3	7.8	7.3	7.0
Potential output and NAIRU										
Output gap (in percent of potential output) ¹	-1.9	-2.7	-3.3	-2.9	-2.4	-1.9	-1.6	-1.2	-0.7	-0.2
Growth in potential output	0.3	0.1	-0.1	-0.2	0.3	0.7	0.9	1.1	1.1	1.2
	(Percent of GDP)									
General government finances ²										
Overall balance	-2.2	-2.6	-3.2	-2.8	-2.4	-2.6	-2.0	-1.5	-1.2	-0.9
Primary balance ³	-0.8	-1.4	-1.9	-1.6	-1.3	-1.5	-1.0	-0.5	-0.1	0.5
Structural balance (in percent of potential GDP)	-1.2	-1.0	-1.0	-0.5	-0.5	-0.9	-0.7	-0.5	-0.5	-0.6
Structural primary balance (in percent of potential GDP) ³	0.2	0.2	0.2	0.6	0.6	0.1	0.3	0.5	0.6	0.8
Gross debt	53.9	56.5	60.2	63.6	65.0	66.2	66.6	66.7	66.2	65.2
Net debt ⁴	-50.2	-53.7	-54.4	-50.6	-47.1	-43.4	-40.1	-37.3	-34.8	-32.7
	(Percent)									
Money and interest rates										
M3 (Finnish contribution to euro area , growth rate, e.o.p.)	0.5	4.1	1.3	5.0	...	...	...	...	...	...
Finnish MFI euro area loans (growth rate, e.o.p.)	7.1	7.7	3.8	0.9	...	...	...	...	...	...
Domestic nonfinancial private sector credit growth (e.o.p.)	3.8	4.4	1.2	4.1	4.5	4.7	5.0	5.4	5.7	5.8
3-month Euribor rate (percent)	0.6	0.2	0.2	...	...	...	...	...	...	...
10-year government bonds yield	1.9	1.9	1.4	0.7	...	...	...	...	...	...
	(Percent of GDP)									
National saving and investment										
Gross national saving	20.5	19.8	19.8	20.4	21.0	21.4	21.8	22.2	22.5	22.9
Gross domestic investment	22.5	21.4	20.9	21.1	21.4	22.0	22.5	22.8	23.1	23.4
Balance of payments										
Current account balance	-1.9	-1.6	-1.1	-0.4	-0.5	-0.5	-0.6	-0.6	-0.6	-0.5
Goods and services balance	-1.1	-0.5	-0.5	0.1	0.3	0.3	0.2	0.2	0.2	0.3
Net international investment position	11.7	3.9	-2.6	0.6	0.2	-0.3	-0.8	-1.3	-1.7	-2.1
Gross external debt	227.5	207.7	218.5	210.9	210.5	209.7	207.9	204.4	200.7	197.5
Exchange rates (period average)										
Euro per US\$	0.78	0.75	0.75	0.90	...	...	...	...	...	...
Nominal effective rate (appreciation in percent)	-3.3	2.6	1.9	-2.4	...	...	...	...	...	...
Real effective rate (appreciation in percent) ⁵	-2.9	2.2	1.3	-4.0	...	...	...	...	...	...

Sources: Bank of Finland, BIS, International Financial Statistics, IMF Institute, Ministry of Finance, Statistics Finland, and Fund staff calculations.

¹ A negative value indicates a level of actual GDP that is below potential output.

² Fiscal projections include measures as specified in the General Government Fiscal Plan.

³ Adjusted for interest expenditure.

⁴ Defined as the negative of net financial worth (i.e., debt minus assets).

⁵ CPI-based real effective exchange rate.

Table 2. Finland: Balance of Payments, 2012–21
(In billions of euros, unless otherwise indicated)

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
					Proj.					
Current account	-3.9	-3.3	-2.3	-0.9	-1.0	-1.2	-1.5	-1.4	-1.3	-1.3
<i>(percent of GDP)</i>	-1.9	-1.6	-1.1	-0.4	-0.5	-0.5	-0.6	-0.6	-0.6	-0.5
Goods and services	-2.2	-1.1	-1.0	0.3	0.6	0.6	0.4	0.4	0.5	0.7
<i>(percent of GDP)</i>	-1.1	-0.5	-0.5	0.1	0.3	0.3	0.2	0.2	0.2	0.3
Exports of goods and services	79.2	79.2	77.7	77.2	76.7	79.3	81.5	83.9	86.8	90.4
Goods	56.9	56.8	56.1	54.7	54.6	56.6	58.1	59.8	61.9	64.4
Services	22.4	22.4	21.6	22.5	22.1	22.7	23.4	24.1	25.0	26.0
Imports of goods and services	81.5	80.3	78.7	76.9	76.1	78.7	81.1	83.5	86.3	89.6
Goods	57.3	56.5	56.0	52.8	52.7	54.6	56.2	57.8	59.7	62.0
Services	24.2	23.7	22.8	24.1	23.4	24.1	24.9	25.7	26.5	27.6
Income	-1.6	-2.2	-1.3	-1.1	-1.6	-1.8	-1.9	-1.8	-1.9	-2.0
Investment income	-1.6	-2.2	-1.3	-1.1	-1.6	-1.8	-1.9	-1.8	-1.9	-2.0
Capital and financial account	-16.7	-7.0	-9.4	-1.9	-0.7	-0.9	-1.1	-1.0	-0.9	-0.8
Capital account	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Financial account	-16.9	-7.2	-9.6	-2.0	-0.9	-1.0	-1.3	-1.2	-1.1	-1.0
Direct investment ¹	2.6	-1.7	-12.9	-15.8	-1.3	-1.5	-1.4	-1.1	-2.1	-3.1
In Finland	3.9	-3.8	13.0	15.3	0.9	1.2	1.0	0.7	1.7	2.7
Abroad	6.5	-5.5	0.1	-0.5	-0.3	-0.4	-0.4	-0.4	-0.4	-0.4
Portfolio investment	-9.3	-3.8	3.2	-2.8	-1.8	-1.6	-1.6	-1.4	-1.0	-1.7
Financial derivatives	-1.1	-2.0								
Other investment	-9.7	-0.5	1.0	21.8	2.2	2.1	1.7	1.3	2.0	3.8
Assets	1.7	-28.4	-2.4	-2.7	1.3	1.5	1.2	1.4	2.0	3.8
Liabilities	11.3	-28.0	-3.3	-24.5	-0.9	-0.6	-0.5	0.1	0.0	0.1
Official										
Private										
Reserve assets	0.5	0.8	-0.2	-0.2	0.0	0.0	0.0	0.0	0.0	0.0
Net errors and omissions	-13.3	-4.2	-7.5	-1.3	0.0	0.0	0.0	0.0	0.0	0.0
Memorandum item:										
GDP at current prices	199.8	203.3	205.4	209.1	214.0	219.5	225.7	233.4	241.7	250.5

Sources: Bank of Finland, Statistics Finland, and Fund staff calculations.

¹ Large inward FDI flows in 2014 and 2015 are mainly due to large mergers and acquisitions (M&A) in those years such as Microsoft's purchase of Nokia's handset business (worth 2.6 percent of GDP) and various M&A deals in the energy, manufacturing and shipbuilding sectors worth more than 0.5 percentage points of GDP each.

Table 3. Finland: Net International Investment Position, 2006–15
(Percent of GDP)

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Assets	203.9	207.3	254.0	263.2	327.7	392.6	356.2	309.3	374.6	342.3
Direct investment	50.5	52.4	67.4	64.9	75.4	71.9	71.3	64.9	66.7	64.6
Portfolio investment	89.4	87.6	73.0	93.0	115.2	112.9	117.7	119.9	150.0	142.4
Equity & investment fund shares	40.2	41.9	25.4	37.7	52.9	47.0	51.9	57.0	73.5	73.1
Debt securities	49.2	45.8	47.6	55.3	62.4	65.9	65.7	63.0	76.5	69.3
Fin. deriv. (other than reserves)	15.3	18.3	52.0	42.7	58.1	99.0	66.5	40.7	65.5	48.9
Other investment	45.6	46.2	58.3	58.4	75.2	104.6	96.6	79.9	87.8	81.9
Reserve assets	3.1	2.9	3.3	4.2	3.8	4.3	4.1	3.9	4.6	4.5
Liabilities	217.4	233.5	259.0	260.2	311.1	376.6	344.8	305.5	377.4	341.7
Direct investment	39.5	43.6	55.0	48.4	54.9	53.5	50.9	45.4	56.0	59.2
Portfolio investment	120.4	129.3	92.6	101.9	111.3	109.0	118.3	125.8	153.0	145.4
Equity & investment fund shares	64.7	78.7	38.9	38.1	39.1	27.7	31.0	39.2	47.8	49.4
Debt securities	55.7	50.6	53.7	63.8	72.2	81.3	87.2	86.6	105.3	96.0
Fin. deriv. (other than reserves)	14.9	17.5	51.9	41.6	55.4	94.8	62.4	38.3	61.8	47.4
Other investment	42.6	43.1	59.5	68.3	89.5	119.4	113.2	96.1	106.5	89.7
Net International Investment Position	-13.5	-26.2	-5.0	3.0	16.6	15.9	11.5	3.7	-2.8	0.6
Direct Investment	10.9	8.7	12.4	16.5	20.4	18.4	20.4	19.5	10.7	5.5
Portfolio Investment	-30.9	-41.6	-19.6	-8.8	3.9	3.9	-0.6	-5.8	-3.1	-3.0
Fin. deriv. (other than reserves)	0.4	0.8	0.1	1.2	2.7	4.2	4.1	2.4	3.7	1.6
Other Investment	2.9	3.1	-1.3	-10.0	-14.3	-14.8	-16.6	-16.3	-18.7	-7.9

Sources: Statistics Finland and Fund staff calculations.

Note: Changes to the NIIP since the 2014 Article IV are mainly due to the switch to the BPM6 statistical standard.

Table 4. Finland: General Government Statement of Operations, 2012–21

(In percent of GDP, unless otherwise indicated)

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
								Proj.		
Revenue	54.0	54.9	54.9	54.9	54.8	53.5	53.8	53.9	54.0	54.2
Tax revenues	29.9	30.9	31.1	31.2	31.1	30.4	30.4	30.4	30.3	30.5
Taxes on production and imports	14.1	14.4	14.4	14.2	14.2	14.0	13.9	13.9	13.7	13.8
Current taxes on income, wealth, etc.	15.6	16.2	16.5	16.6	16.6	16.1	16.2	16.3	16.4	16.5
Capital taxes	0.3	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2
Social contributions	12.8	12.7	12.8	12.9	13.1	12.5	12.5	12.4	12.5	12.6
Grants	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Other revenue										
Expenditure	56.2	57.5	58.1	57.7	57.2	56.1	55.9	55.4	55.2	55.2
Expense	55.6	56.9	57.5	57.3	56.7	55.7	55.5	55.1	55.1	55.1
Compensation of employees	14.3	14.3	14.2	13.9	13.5	12.8	12.5	12.2	12.1	12.0
Use of goods and services	11.3	11.5	11.5	11.5	11.5	11.5	11.6	11.7	11.8	11.8
Consumption of fixed capital (CFC)	3.4	3.5	3.5	3.5	3.6	3.6	3.7	3.7	3.7	3.7
Interest	1.4	1.3	1.2	1.2	1.1	1.0	1.0	1.0	1.1	1.4
Subsidies	1.4	1.3	1.3	1.4	1.2	1.2	1.2	1.2	1.1	1.1
Grants	1.3	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
Social benefits	20.7	21.6	22.3	22.7	22.7	22.6	22.8	22.7	22.6	22.5
Other expense	1.8	2.0	2.0	1.9	1.6	1.5	1.4	1.3	1.2	1.2
Net acquisition of nonfinancial assets	0.6	0.6	0.6	0.3	0.5	0.4	0.3	0.3	0.1	0.0
Net operating balance	-1.6	-2.0	-2.5	-2.4	-1.9	-2.1	-1.7	-1.2	-1.1	-0.9
Net lending/borrowing	-2.2	-2.6	-3.2	-2.8	-2.4	-2.6	-2.0	-1.5	-1.2	-0.9
Net acquisition of financial assets	3.6	2.6	-0.2							
Currency and deposits	-1.1	-0.8	-0.8							
Securities other than shares	-0.5	1.3	-0.5							
Loans	1.8	0.4	-0.6							
Shares and other equity	3.3	2.5	1.0							
Financial derivatives	0.0	0.0	0.0							
Other accounts receivable	0.1	-0.9	0.6							
Net incurrence of liabilities	5.7	4.9	3.0							
Special Drawing Rights (SDRs)	0.0	0.0	0.0							
Currency and deposits	-0.1	0.0	0.1							
Securities other than shares	3.3	2.8	3.3							
Loans	1.9	0.7	0.9							
Shares and other equity	0.0	0.0	0.0							
Financial derivatives	0.2	0.8	-0.7							
Other accounts payable	0.4	0.6	-0.7							
<i>Memorandum items:</i>										
Primary balance ¹	-0.8	-1.4	-1.9	-1.6	-1.3	-1.5	-1.0	-0.5	-0.1	0.5
Structural balance (in percent of potential GDP)	-1.2	-1.0	-1.0	-0.5	-0.5	-0.9	-0.7	-0.5	-0.5	-0.6
Structural primary balance (in percent of potential GDP)	0.2	0.2	0.2	0.6	0.6	0.1	0.3	0.5	0.6	0.8
Central government net lending/borrowing	-3.7	-3.7	-3.7	-3.0	-2.8	-2.8	-2.3	-2.0	-1.6	-1.3
General government gross debt	53.9	56.5	60.2	63.6	65.0	66.2	66.6	66.7	66.2	65.2
General government net debt ²	-50.2	-53.7	-54.4	-50.6	-47.1	-43.4	-40.1	-37.3	-34.8	-32.7
Central government gross debt	48.1	49.8	52.3	54.2	54.4	54.3	53.6	52.8	51.6	50.0
Output gap (percent of potential GDP)	-1.9	-2.7	-3.3	-3.0	-2.4	-1.9	-1.6	-1.2	-0.7	-0.2
Nominal GDP (billions of euros)	199.8	203.3	205.4	209.1	214.0	219.5	225.7	233.4	241.7	250.5

Sources: Eurostat, Government Finance Statistics, International Financial Statistics, Ministry of Finance, and Fund staff.

¹ Adjusted for interest expenditure.² Defined as the negative of net financial worth (i.e., debt minus assets).

Table 5. Finland: General Government Balance Sheet, 2006–13
(In percent of GDP)

	2006	2007	2008	2009	2010	2011	2012	2013
Net worth	...	...	...	...	...	...	...	...
Nonfinancial assets	...	...	...	...	...	...	...	...
Net financial worth	66.5	69.7	50.0	59.6	61.8	48.8	50.2	53.7
Financial assets	110.5	109.8	88.8	109.2	118.1	106.5	113.8	118.8
Currency and deposits	6.1	6.0	6.2	5.8	8.3	9.1	8.2	7.2
Securities other than shares	25.2	22.3	21.9	26.0	21.0	20.8	21.1	20.9
Loans	11.7	10.9	12.3	14.7	14.7	13.7	15.3	15.5
Shares and other equity	61.9	64.4	42.9	58.1	68.2	57.3	63.3	70.4
Insurance technical reserves	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0
Financial derivatives	1.2	1.7	1.0	0.6	1.2	0.9	1.2	1.1
Other accounts receivable/payable	4.2	4.5	4.4	4.1	4.7	4.6	4.7	3.7
Liabilities	43.9	40.1	38.8	49.5	55.9	57.1	62.9	64.7
Currency and deposits	0.2	0.2	0.2	0.4	0.4	0.4	0.3	0.3
Securities other than shares	32.5	28.3	27.4	35.6	41.3	42.5	46.5	46.4
Loans	6.2	6.0	6.4	7.4	7.8	9.3	11.0	11.5
Shares and other equity	0.0	0.0	0.0	0.0	0.3	0.3	0.3	0.3
Insurance technical reserves	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Financial derivatives	0.8	1.0	0.5	0.3	0.6	-0.7	-0.8	0.1
Other accounts receivable/payable	4.1	4.5	4.2	5.8	5.6	5.3	5.7	6.1

Sources: Government Finance Statistics and Fund staff calculations.

Table 6. Finland: Financial Soundness Indicators for the Banking Sector, 2010–16

	2010	2011	2012	2013	2014	2015	2016	Obs.
Households								
Total household debt (in percent of GDP)	59.9	60.1	62.3	62.8	64.5	65.8	65.7	2016Q1
Total household debt (in percent of disposable income)	113.9	115.0	118.1	117.8	121.6	124.9	124.6	2016Q1
Financial assets/GDP	120.1	110.5	117.4	125.4	130.7	134.4	132.4	2016Q1
Non-financial corporations								
Gross debt (in percent of GDP) ¹	79.8	76.3	77.4	76.5	74.6	81.6	82.2	2016Q1
Government								
General government debt (EMU definition, in percent of GDP)	47.1	48.5	52.9	55.5	59.3	62.6	63.6	2016Q1
Central government debt (in percent of GDP)	42.7	44.7	48.1	49.8	52.3	54.2	55.2	2016Q1
Banking sector								
Total assets (in billions of euro)	418.2	542.4	496.2	455.3	508.6	475.8	508.1	2016Q1
in percent of GDP	223.5	275.5	248.3	223.9	247.7	227.5	241.6	2016Q1
Total deposits (in billions of euro)	119.1	130.3	135.7	139.4	140.5	141.8	147.7	2016Q1
in percent of GDP	63.7	66.2	67.9	68.6	68.4	67.8	70.2	2016Q1
Credit to nonfinancial and housing corporations (annual percent change, e.o.p.)	5.4	9.1	4.8	6.1	5.1	5.2	4.6	2016Q2
Credit to nonfinancial corporations (annual percent change, e.o.p.)	2.4	8.3	2.5	3.9	2.0	3.2	2.3	2016Q2
Credit to households (percent change, e.o.p.)	5.8	5.6	4.9	2.2	1.9	2.7	2.8	2016Q2
Housing loans in percent of total lending	47.4	42.1	42.7	40.3	39.3	41.0	40.8	2016Q2
Asset quality ²								
Non-performing loans (in billions of euro)	1.2	1.3	1.3	1.4	4.1	4.3	4.3	2016Q1
Non-performing loans/total loans (in percent)	0.6	0.6	0.5	0.6	1.8	2.0	2.0	2016Q1
Provisions to non-performing loans (in percent)	N.A.	N.A.	N.A.	N.A.	32.4	30.7	30.6	2016Q1
Household non-performing loans/total household loans (in percent)	0.5	0.6	0.6	0.7	1.5	1.6	1.7	2016Q1
Household non-performing loans/total non-performing loans (in percent)	43.5	47.5	51.9	54.5	41.3	43.3	47.2	2016Q1
Capital adequacy								
Regulatory capital as percent of risk-weighted assets	14.4	14.2	17.0	16.0	17.3	23.1	22.8	2016Q1
Regulatory tier 1 capital to risk-weighted assets	13.6	13.6	16.1	15.2	16.4	21.7	21.4	2016Q1
Equity/total assets (in percent)	5.5	4.4	4.4	5.0	4.3	5.7	5.4	2016Q1
Profitability								
Interest rate margin (percentage points, e.o.p.) ³	1.7	1.9	1.4	1.5	1.6	1.5	1.4	2016Q2
Net interest income (in percent of total income)	44.7	48.1	43.8	40.0	41.7	43.1	38.5	2016Q1
Return on equity (in percent)	6.9	7.6	8.5	8.1	8.8	9.0	8.5	2016Q1
Return on assets (in percent)	0.4	0.4	0.4	0.4	0.4	0.4	0.5	2016Q1
Liquid assets/total assets (in percent) ⁴	6.8	6.8	14.6	12.3	15.0	20.1	20.0	2016Q1
Deposits as percent of assets	28.5	24.1	27.5	30.6	27.0	27.8	29.8	2016Q1
Off-balance sheet liabilities/total assets (in percent)	13.6	10.8	11.1	11.6	12.6	12.6	13.1	2016Q1
Use of ECB refinancing (billions of euro) ⁵	0.1	2.3	3.7	2.5	0.7	0.7	0.7	2016Q1
in percent of banks total assets	0.0	0.4	0.7	0.6	0.1	0.1	0.1	2016Q1
in percent of total ECB refinancing operations	0.0	0.3	0.3	0.3	0.1	0.1	0.1	2016Q1
Asset prices								
Change in stock market index (in percent, e.o.p.) ⁶	18.7	-30.1	8.3	26.5	5.7	10.8	-2.7	2016Q3
Change in housing price index (in percent, year average)	8.7	2.6	1.6	1.3	-0.8	-0.9	1.2	2016Q2

Sources: Bank of Finland, Financial Supervision Authority, Finnish Bankers' Association, Haver Analytics, Statistics Finland, and Fund staff calculations.

¹ This excludes debt owed by non-financial corporations (NFCs) to other NFCs.

² The definition of NPLs changed in 2014, explaining most of the increase in NPLs from 2013 to 2014. Total loans includes other receivables, undrawn credit facilities and guarantees.

³ Average of margins (average lending rate minus average deposit rate) on loans to non-MFIs.

⁴ Before 2014, liquid assets are defined as the sum of cash, claims on central bank payable on demand and debt securities eligible for central bank refinancing. From 2014, the definition will be expanded to include all liquid assets eligible for the LCR (data will come from LCR reports).

⁵ Sum of main and long-term refinancing operations and marginal facility.

⁶ For 2016 the observation is for January to July.

Table 7. Finland: Risk Assessment Matrix¹

(Scale—high, medium, or low)

Source of Risks	Overall Level of Concern	
	Relative Likelihood ²	Impact if Realized
1. Sharp rise in risk premia with flight to safety.	Medium <ul style="list-style-type: none">Given cross-border financial linkages, especially in the banking sector, Finland could be affected if tighter and more volatile global financial conditions materialize.	Low/Medium <ul style="list-style-type: none">Finland is a core euro area member whose sovereign yields would likely fall during a flight to safety episode. However, severe financial market stress could impair asset values and cause bank funding difficulties, leading to curtailed lending and higher borrowing costs for firms, with negative effects on growth.
Policy response:	Full implementation of the macroprudential policy toolkit will help reduce vulnerabilities in the medium-run. Banks with potentially significant credit and funding risks should be pushed to improve buffers in the short-run. If financial market stress materializes, the ECB should provide ample liquidity.	
2. Structurally weak growth in key advanced and emerging economies.	High <ul style="list-style-type: none">Finland's exports are tightly linked to Euro area markets, as well as Russia, China, and the U.S.	Medium/High <ul style="list-style-type: none">Further weakness in external demand could push Finland back into recession.
Policy response:	Ease the pace of fiscal consolidation; allow automatic stabilizers to operate if growth deteriorates; focus on structural reforms to improve productivity.	
3. Protracted uncertainty associated with negotiating post-Brexit arrangements.	Medium <ul style="list-style-type: none">As an EU member, the Brexit negotiations matter to Finland, particularly if the negotiations create uncertainty that impacts private investment.	Low/Medium <ul style="list-style-type: none">The UK is Finland's 7th largest trade partner. Direct effects of uncertainty from Brexit negotiations may be limited, but there could be spillovers through trade partners more exposed to the UK (e.g., Germany).
Policy response:	Allow fiscal policy and automatic stabilizers to act a shock absorber.	
4. Adverse shock in an interconnected neighboring Nordic country.	Medium <ul style="list-style-type: none">Household debt is high and house prices are elevated in the other Nordics due to easy access to credit, low interest rates, and tax incentives for housing.Two of the largest banks in Finland are Swedish and Danish.	Medium <ul style="list-style-type: none">Declining demand from other Nordics would lower growth.Rising non-performing loans and funding costs for Swedish or Danish banks could translate into curtailed lending in Finland, with negative effects on investment and housing.
Policy response:	Full adoption of the macroprudential toolkit and introduction of the systemic risk buffer to bolster the largest banks' ability to absorb losses.	

^{1/} The Risk Assessment Matrix (RAM) shows events that could materially alter the baseline path (the scenario most likely to materialize in the view of the IMF staff). The relative likelihood of risks listed is the staff's subjective assessment of the risks surrounding this baseline. The RAM reflects staff's views on the source of risks and overall level of concern as of the time of discussions with the authorities.

^{2/} In case the baseline does not materialize.

Annex I. External Sector Assessment

1. Structural shocks to key export industries caused the current account (CA) balance to deteriorate sharply over 2007–12. Finland's annual CA surplus averaged 5½ percent of GDP from 1998–2007, before falling nearly 6 percentage points of GDP from 2007 to 2012, driven by the deterioration in the trade balance. Behind the fall in the trade balance was the simultaneous decline of Nokia and the wood and paper industry. Since 2005, exports of electrical and optical equipment have fallen 5½ percentage points of GDP, to around 3 percent of GDP in 2015. Meanwhile, wood and paper exports have declined by about 2½ percentage points of GDP since 2002 to around 5½ percent of GDP currently. These structural shocks were exacerbated by weak global demand, including a drop in exports to Russia, and a sharp rise in ULCs since 2007, due to a mix of rapid wage increases during 2008–10 and falling productivity.

2. The gradual dissipation of the drag from these shocks and an improvement in the terms of trade helped shrink the CA deficit in 2015. The fall in commodity prices since 2013 contributed to a nearly 10 percent improvement in the terms of trade over 2013–15, even as it also weakened prices for exports of refined petroleum products and related chemicals, which are among Finland's main exports. While the effects of falling commodity prices on the trade balance are expected to abate, this should be offset by a pick-up in real export growth as external demand strengthens and new investments in industries such as paper and shipbuilding bear fruit. The trade balance should remain in surplus, around 0.3 percent of GDP during 2016–21, while the CA shows a small deficit over this period.

Terms of Trade
(Index, 2010=100)

Sources: Statistics Finland and Fund staff calculations

3. The deterioration of the CA has weakened the net international investment position (NIIP). Though the NIIP improved between 2007 and 2010 as the value of equity liabilities fell—primarily due to the collapse in Nokia's market value—it has deteriorated since then as the CA slipped into deficit. The CA deficits were financed by net inflows in the financial account. The financial account experienced positive portfolio debt inflows due to Finland's status as a "safe haven" amid euro area distress during 2009–12. In 2014–15, foreign direct investment (FDI), including Microsoft's purchase of Nokia's handset business, outweighed portfolio investment flows. However, portfolio investment flows are expected to be a larger than FDI in coming years, with gross inflows and outflows averaging around 4 percent of GDP per year over the forecast horizon. The NIIP is projected to deteriorate by around 2½ percentage points of GDP

Net International Investment Position
(Percent of GDP)

Sources: Statistics Finland and Fund staff calculations.

by 2021 due to continuing small CA deficits. Though the evolution of the stock of net FDI is expected to continue to cause the NIIP to deteriorate, this is offset by the change in the stock of *Net Other Investments*. Gross external debt is expected to grow more slowly than GDP, so the debt-to-GDP ratio will decline slightly over 2015–21.

4. Staff analysis suggests the external position is broadly in line with fundamentals. The results from the various components of the External Balance Assessment (EBA) are mixed. CA and REER (Level) analyses suggest a very small overvaluation, while the REER

(Index) and External Sustainability (ES) analyses indicate the REER was slightly undervalued in 2015. As there is some uncertainty around these estimates, staff conclude that the range of results around zero indicate that the REER is broadly in line with fundamentals. The EBA cyclically adjusted CA is -0.8 percent of GDP and the CA norm is 0.1 percent of GDP. Based on past estimates of REER gaps from Article IV Staff Reports, using different CGER and EBA approaches over time, the REER appears to have transitioned over the past decade from initially being undervalued to roughly in line with fundamentals at present. This correction in the estimated REER undervaluation is consistent with the deterioration of the CA balance.

External Balance Assessment (EBA) for 2015

Methodology	CA gap (Percent of GDP)	REER gap (Percent)
CA Analysis	-0.8	1.9
REER (Index) Analysis	--	-2.7
REER (Level) Analysis	--	1.8
External Sustainability (ES) Approach	0.6	-2.1

Source: Fund staff calculations.

Note: CA gaps: minus indicates overvaluation. REER gaps: minus indicates undervaluation. REER gaps between -5 and +5 percent are considered to indicate the REER is broadly in line with fundamentals. EBA estimates are for 2015, based on data available in June 2016.

5. A counterfactual exercise illustrates the possible path of the CA balance if the REER had been consistently in equilibrium. The exercise uses estimates of REER gaps from different

components of the CGER (for 2007–2013) and EBA (for 2013–2015) approaches and asks what would be the impact on the trade balance if the REER gap had been closed in every year. Estimates of export and import elasticities are taken from the October 2015 WEO Chapter 3 (Leigh and others, 2015) and are multiplied by the various estimates of the REER gaps for each year to estimate the total change in the trade balance that would have occurred if the REER gap had been zero. This is then added to the actual CA balance each year to get a range of estimates for the counterfactual CA balances. The analysis suggests that before 2011, as the REER was assessed as undervalued, the CA balance would have been substantially lower than the actual CA. For 2012–14, however, it appears the CA balance would have improved more quickly if the REER had not been slightly overvalued, while for 2015 the actual CA balance is squarely in the middle of the range of the estimated counterfactual CA balances.

Current Account Balance Counterfactual
(Percent of GDP)

Annex II. Debt Sustainability Analysis

Public debt rose to 63.6 percent of GDP in 2015, despite the fiscal deficit being better than expected, and is forecast to be 65 percent of GDP in 2016. Under the baseline, debt is expected to peak just shy of 67 percent of GDP in 2019 and to gradually decline thereafter. A contingent liability shock is the stress scenario with the greatest impact on the public debt-to-GDP ratio. Under the assumptions of this scenario, the debt ratio would peak to around 91 percent of GDP in 2020.

A. Baseline Scenario

- 1. Macroeconomic assumptions.** Real GDP growth is expected to gradually pick-up, from 0.2 percent in 2015 to 0.9 percent this year and to 1.6 percent in 2021. GDP deflator inflation remains around 1.5 percent in 2016–18, then rises to around 2.0 percent in 2019–21. Interest rates are expected to remain subdued in the near-term due to QE and the pace of rates rises is likely to be gradual when monetary policy eventually begins to normalize.
- 2. Finland's debt level breached 60 percent of GDP in 2015, which calls for using the higher scrutiny framework.** Though 2015 is the first year debt breached the 60 percent of GDP threshold, it is projected to continue rising until 2019 and remain above 60 percent over the forecast horizon. The Finnish government has announced fiscal consolidation plans to stabilize and begin reducing the debt. The impact of these efforts on the debt ratio is partially undermined by the expected negative growth impact of the measures, which is already incorporated in the baseline. However, given the relatively long average maturity of Finnish public debt, the gross financing needs remain below 15 percent of GDP every year in the baseline scenario. Moreover, the net debt ratio remains negative due to the large stock of pension assets, though the net debt deteriorates more than gross debt rises over time as net inflows to pension funds slowdown.
- 3. Realism of baseline assumptions.** The median forecast error for real GDP growth is moderate at 0.58 percent (60th percentile). This is mostly driven by the large negative shock Finland suffered in 2009 and the initial rapid rebound from the crisis. Median forecast errors for the primary balance (0.33 percent of GDP) and inflation (0.22 percent) are relatively moderate as well.
- 4. The forecast fiscal adjustment is not large in either absolute terms or by comparison to other countries' experiences.** The 3-year average change in the cyclically adjusted primary balance (CAPB) is around 0.5 percent of potential output. This places it firmly in the middle of the distribution of CAPB adjustments across countries.

B. Stress Testing

- 5. Finland's debt ratio would remain under 100 percent of GDP even in the worst shock scenario examined.** For the standard macro-fiscal stress scenarios, the debt ratio stays below 70 percent of GDP, except in the real GDP shock scenario. The contingent liability shock scenario causes the largest debt ratio increase, to a peak of slightly above 91 percent of GDP in 2020.

6. The shock scenarios include:

- **Real GDP growth shock.** Under this scenario, growth is one-standard deviation lower than the baseline in 2017 and 2018 (i.e. 3.8 percentage points lower). This also causes inflation to be around 90-100 basis points (bps) lower in these years and interest rates to be higher, by 67 bps in 2017 and by 137 bps in 2018. The debt ratio peaks at just above 81 percent of GDP in 2019 and the gross financing need (GFN) peaks just below 20 percent of GDP in 2018.
- **Primary balance shock.** In this scenario, the primary balance (PB) is 1.6 percentage points of GDP lower than in the baseline in 2017 and 2018. The debt ratio is just below 70 percent of GDP in 2018 and 2019, while the GFN peaks at just over 14 percent of GDP in 2018.
- **Real interest rate and real exchange rate shocks.** Under the real interest rate shock scenario, the real interest rate is 295 bps higher than the baseline over 2017-21. Despite this, debt peaks just under 68 percent of GDP in 2020 and the GFN peaks below 13 percent of GDP. The impact of the real exchange rate shock is even smaller, with the debt ratio only 1 percent of GDP higher than in the baseline at its peak in 2019 and the GFN is practically the same as in the baseline.
- **Combined macro-fiscal shock.** This scenario is a combination of the effects of the macro-fiscal scenarios above. In this scenario, growth and inflation fall, the primary balance deteriorates, the exchange rate depreciates, and interest rates rise relative to the baseline. The debt ratio peaks around 84 percent of GDP in 2020, while the GFN hits an apex of 20 percent of GDP in 2018.
- **Contingent liability shock.** A contingent liability shock could emerge in the event of a financial crisis (e.g., as a result of spillovers from a housing market correction in another Nordic country impacting Finland through financial, trade, and confidence channels). In this scenario, the contingent liability shock in 2017 equals about 15 percent of GDP. Additionally, growth falls as in the real GDP shock scenario and the real interest rate spikes 379 bps in 2017. As a result, the debt ratio jumps by 20 percent of GDP between 2016 and 2017 and the GFN peaks at nearly 27 percent of GDP in 2017. The debt ratio peaks slightly above 91 percent of GDP in 2020.

Finland Public Sector Debt Sustainability Analysis (DSA) - Baseline Scenario

(in percent of GDP unless otherwise indicated)

Debt, Economic and Market Indicators ^{1/}

	Actual			Projections						As of August 23, 2016	
	2005-2013 ^{2/}	2014	2015	2016	2017	2018	2019	2020	2021		
Nominal gross public debt	43.6	60.2	63.6	65.0	66.2	66.6	66.7	66.2	65.2	Sovereign Spreads	
										EMBIG (bp) ^{3/}	15
Public gross financing needs	8.3	9.8	9.7	10.8	11.2	12.5	9.6	7.4	7.8	5Y CDS (bp)	
											25
Real GDP growth (in percent)	0.9	-0.7	0.2	0.9	1.1	1.3	1.5	1.6	1.6	Ratings	Foreign Local
Inflation (GDP deflator, in percent)	2.0	1.7	1.6	1.4	1.4	1.6	1.9	2.0	2.0		
Nominal GDP growth (in percent)	2.9	1.0	1.8	2.3	2.5	2.9	3.4	3.6	3.6		
Effective interest rate (in percent) ^{4/}	3.5	2.2	2.0	1.8	1.6	1.6	1.6	1.7	2.2		
										Moody's	Aa1 Aa1
										S&P's	AA+ AA+
										Fitch	AA+ AA+

Contribution to Changes in Public Debt

	Actual			Projections						cumulative	debt-stabilizing primary balance ^{9/}
	2005-2013	2014	2015	2016	2017	2018	2019	2020	2021		
Change in gross public sector debt	1.5	3.8	3.4	1.4	1.2	0.5	0.0	-0.5	-1.0	1.5	
Identified debt-creating flows	-0.2	4.4	3.9	2.4	2.7	2.0	1.3	0.9	0.6	9.9	
Primary deficit	-0.4	2.9	2.5	2.1	2.4	1.9	1.5	1.2	0.6	9.8	0.0
Primary (noninterest) revenue and grants	51.3	53.9	54.0	53.9	52.6	52.9	52.8	52.9	53.1	318.3	
Primary (noninterest) expenditure	50.8	56.9	56.5	56.0	55.0	54.9	54.4	54.0	53.8	328.1	
Automatic debt dynamics ^{5/}	0.2	1.5	1.4	-0.3	-0.6	-0.8	-1.2	-1.2	-0.9	-5.0	
Interest rate/growth differential ^{6/}	0.2	0.7	0.1	-0.3	-0.6	-0.8	-1.2	-1.2	-0.9	-5.0	
Of which: real interest rate	0.6	0.3	0.2	0.2	0.1	0.0	-0.2	-0.2	0.1	0.0	
Of which: real GDP growth	-0.3	0.4	-0.1	-0.6	-0.7	-0.8	-1.0	-1.0	-1.0	-5.1	
Exchange rate depreciation ^{7/}	0.0	0.8	1.3	...	...	...	...	...	...	...	
Other identified debt-creating flows	0.0	0.0	0.0	0.6	0.9	0.9	0.9	0.9	0.9	5.1	
Please specify (1) (e.g., drawdown of	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Contingent liabilities	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Please specify (2) (e.g., ESM and Euro	0.0	0.0	0.0	0.6	0.9	0.9	0.9	0.9	0.9	5.1	
Residual, including asset changes ^{8/}	1.7	-0.6	-0.5	-1.0	-1.6	-1.5	-1.3	-1.4	-1.6	-8.4

Source: IMF staff.

1/ Public sector is defined as general government.

2/ Based on available data.

3/ Long-term bond spread over German bonds.

4/ Defined as interest payments divided by debt stock (excluding guarantees) at the end of previous year.

5/ Derived as $[(r - \pi(1+g) - g + ae(1+r))/(1+g+\pi+g\pi)]$ times previous period debt ratio, with r = interest rate; π = growth rate of GDP deflator; g = real GDP growth rate; a = share of foreign-currency denominated debt; and e = nominal exchange rate depreciation (measured by increase in local currency value of U.S. dollar).

6/ The real interest rate contribution is derived from the numerator in footnote 5 as $r - \pi(1+g)$ and the real growth contribution as $-g$.

7/ The exchange rate contribution is derived from the numerator in footnote 5 as $ae(1+r)$.

8/ Includes asset changes and interest revenues (if any). For projections, includes exchange rate changes during the projection period.

9/ Assumes that key variables (real GDP growth, real interest rate, and other identified debt-creating flows) remain at the level of the last projection year.

Finland Public DSA - Composition of Public Debt and Alternative Scenarios

Composition of Public Debt

By Maturity

(in percent of GDP)

By Currency

(in percent of GDP)

Alternative Scenarios

— Baseline

..... Historical

- - - Constant Primary Balance

Gross Nominal Public Debt

(in percent of GDP)

Public Gross Financing Needs

(in percent of GDP)

Underlying Assumptions
(in percent)

Baseline Scenario

	2016	2017	2018	2019	2020	2021
Real GDP growth	0.9	1.1	1.3	1.5	1.6	1.6
Inflation	1.4	1.4	1.6	1.9	2.0	2.0
Primary Balance	-2.1	-2.4	-1.9	-1.5	-1.2	-0.6
Effective interest rate	1.8	1.6	1.6	1.6	1.7	2.2

Constant Primary Balance Scenario

	2016	2017	2018	2019	2020	2021
Real GDP growth	0.9	1.1	1.3	1.5	1.6	1.6
Inflation	1.4	1.4	1.6	1.9	2.0	2.0
Primary Balance	-2.1	-2.1	-2.1	-2.1	-2.1	-2.1
Effective interest rate	1.8	1.6	1.6	1.6	1.7	2.1

Historical Scenario

	2016	2017	2018	2019	2020	2021
Real GDP growth	0.9	0.5	0.5	0.5	0.5	0.5
Inflation	1.4	1.4	1.6	1.9	2.0	2.0
Primary Balance	-2.1	-0.4	-0.4	-0.4	-0.4	-0.4
Effective interest rate	1.8	1.6	1.7	2.0	2.2	2.8

Source: IMF staff.

Finland Public DSA - Realism of Baseline Assumptions

Forecast Track Record, versus surveillance countries

Real GDP Growth

(in percent, actual-projection)

Finland median forecast error, 2004-2012:

0.58

Has a percentile rank of:

60%

Primary Balance

(in percent of GDP, actual-projection)

Finland median forecast error, 2004-2012:

0.33

Has a percentile rank of:

65%

Inflation (Deflator)

(in percent, actual-projection)

Finland median forecast error, 2004-2012:

0.22

Has a percentile rank of:

27%

Assessing the Realism of Projected Fiscal Adjustment

3-Year Adjustment in Cyclically-Adjusted Primary Balance (CAPB)

(Percent of GDP)

3-Year Average Level of Cyclically-Adjusted Primary Balance (CAPB)

(Percent of GDP)

Boom-Bust Analysis ^{3/}

Real GDP growth

(in percent)

Finland

Source : IMF Staff.

^{1/} Plotted distribution includes surveillance countries, percentile rank refers to all countries.

^{2/} Projections made in the spring WEO vintage of the preceding year.

^{3/} Not applicable for Finland, as it meets neither the positive output gap criterion nor the private credit growth criterion.

^{4/} Data cover annual observations from 1990 to 2011 for advanced and emerging economies with debt greater than 60 percent of GDP. Percent of sample on vertical axis.

Finland Public DSA - Stress Tests

Macro-Fiscal Stress Tests

Additional Stress Tests

Underlying Assumptions
(in percent)

Primary Balance Shock							Real GDP Growth Shock						
	2016	2017	2018	2019	2020	2021		2016	2017	2018	2019	2020	2021
Real GDP growth	0.9	1.1	1.3	1.5	1.6	1.6	Real GDP growth	0.9	-2.7	-2.5	1.5	1.6	1.6
Inflation	1.4	1.4	1.6	1.9	2.0	2.0	Inflation	1.4	0.5	0.6	1.9	2.0	2.0
Primary balance	-2.1	-4.0	-3.5	-1.5	-1.2	-0.6	Primary balance	-2.1	-5.1	-7.4	-1.5	-1.2	-0.6
Effective interest rate	1.8	1.6	1.6	1.7	1.8	2.2	Effective interest rate	1.8	1.6	1.6	1.9	2.0	2.4
Real Interest Rate Shock							Real Exchange Rate Shock						
Real GDP growth	0.9	1.1	1.3	1.5	1.6	1.6	Real GDP growth	0.9	1.1	1.3	1.5	1.6	1.6
Inflation	1.4	1.4	1.6	1.9	2.0	2.0	Inflation	1.4	1.8	1.6	1.9	2.0	2.0
Primary balance	-2.1	-2.4	-1.9	-1.5	-1.2	-0.6	Primary balance	-2.1	-2.4	-1.9	-1.5	-1.2	-0.6
Effective interest rate	1.8	1.6	2.1	2.6	3.0	3.7	Effective interest rate	1.8	1.7	1.5	1.6	1.7	2.1
Combined Shock							Contingent Liability Shock						
Real GDP growth	0.9	-2.7	-2.5	1.5	1.6	1.6	Real GDP growth	0.9	-2.7	-2.5	0.5	0.8	1.1
Inflation	1.4	0.5	0.6	1.9	2.0	2.0	Inflation	1.4	0.5	0.6	1.6	1.8	1.9
Primary balance	-2.1	-5.1	-7.4	-1.5	-1.2	-0.6	Primary balance	-2.1	-17.5	-1.9	-1.5	-1.2	-0.6
Effective interest rate	1.8	1.7	2.1	2.7	3.1	3.7	Effective interest rate	1.8	1.7	2.6	2.4	2.4	2.7

Source: IMF staff.

Finland Public DSA Risk Assessment

Heat Map

Debt level ^{1/}	Real GDP Growth Shock	Primary Balance Shock	Real Interest Rate Shock	Exchange Rate Shock	Contingent Liability Shock
Gross financing needs ^{2/}	Real GDP Growth Shock	Primary Balance Shock	Real Interest Rate Shock	Exchange Rate Shock	Contingent Liability Shock
Debt profile ^{3/}	Market Perception	External Financing Requirements	Change in the Share of Short-Term Debt	Public Debt Held by Non-Residents	Foreign Currency Debt

Evolution of Predictive Densities of Gross Nominal Public Debt

(in percent of GDP)

Debt Profile Vulnerabilities

(Indicators vis-à-vis risk assessment benchmarks, in 2015)

Source: IMF staff.

1/ The cell is highlighted in green if debt burden benchmark of 85% is not exceeded under the specific shock or baseline, yellow if exceeded under specific shock but not baseline, red if benchmark is exceeded under baseline, white if stress test is not relevant.

2/ The cell is highlighted in green if gross financing needs benchmark of 20% is not exceeded under the specific shock or baseline, yellow if exceeded under specific shock but not baseline, red if benchmark is exceeded under baseline, white if stress test is not relevant.

3/ The cell is highlighted in green if country value is less than the lower risk-assessment benchmark, red if country value exceeds the upper risk-assessment benchmark, yellow if country value is between the lower and upper risk-assessment benchmarks. If data are unavailable or indicator is not relevant, cell is white.

Lower and upper risk-assessment benchmarks are:

400 and 600 basis points for bond spreads; 17 and 25 percent of GDP for external financing requirement; 1 and 1.5 percent for change in the share of short-term debt; 30 and 45 percent for the public debt held by non-residents.

4/ Long-term bond spread over German bonds, an average over the last 3 months, 25-May-16 through 23-Aug-16.

5/ External financing requirement is defined as the sum of current account deficit, amortization of medium and long-term total external debt, and short-term total external debt at the end of previous period.

Annex III. FSAP 2016 Key Recommendations

Table 1. Finland FSAP: Key Recommendations	
Recommendations and Responsible Authorities	Time*
General	
1. Increase the FIN-FSA and FFSA's financial and human resources in accordance with the increase in regulatory complexity and supervision intensity in (i) prudential supervision of banks (including systemic branches), (ii) prudential supervision of insurers, (iii) contingency planning/crisis management, (iv) macroprudential policy analysis, and (v) investment funds and their managers.	I, C
2. Expand cooperation arrangements with other Nordic supervisors to include (i) formal region-wide sharing of supervisory data and coordinated inspections, including foreign branches and cross-border management of investment funds, (ii) conduct Nordic stress tests, (iii) strengthen collaboration with macroprudential authorities, and (iv) enhanced CPCM cooperation on systemically important branches and regular crisis simulation exercises.	NT
3. Strengthen legal protection for staff of all financial oversight agencies.	I, C
Risk Analysis	
4. Ensure banks' Internal Ratings Based models are calibrated to reflect severe stress.	NT
5. Intensify monitoring of banks' liquidity positions in foreign currencies and crossholdings of covered bonds used as collateral. Perform liquidity stress tests for various time horizons and stand ready to take supervisory action if imbalances emerge.	NT
Banking Supervision	
6. Amend law to grant the FSA full Pillar 2 powers for decisions on capital and liquidity requirements and other supervisory measures.	NT
7. Ensure effective ongoing monitoring of banks' internal risk models following the upcoming SSM comprehensive review (TRIM project).	MT
Macroprudential policy framework	
8. Clearly define a macroprudential policy mandate of the FIN-FSA beyond the measures approved in laws.	NT
9. Create a household loan registry.	NT
10. Introduce a systemic risk buffer and a loan-to-income limit.	I, NT
11. Finalize the plan to introduce floors for the risk-weights used in internal models.	I
Contingency Planning and Crisis Management	
12. Formalize inter-agency cooperation on crisis preparedness and management at the national level, possibly through an expanded mandate for the FFSA Advisory Council.	I
13. Under the oversight of the FFSA Advisory Council, ensure agency-specific and national financial crisis planning.	I, C
14. Expedite resolution planning for systemic financial institutions.	I
15. Define strategies for liquidity assistance to banks in resolution and introduce an indemnification arrangement for ELA losses if incurred by the BoF.	NT
Non-banks	
16. Upgrade legislation to cover the supervisory actions and any other measures required in the event of pension insurer or fund distress and if resolution becomes necessary.	I
17. Ensure adequacy of action plans for life insurers to meet Solvency II requirements, including by conducting regular stress testing under adverse scenarios.	NT
18. Monitor fund managers' risk management processes, increase the use of supervisory data to analyze risks, and improve FIN-FSA's capability to conduct market surveillance.	NT, C

* C = continuous; I (immediate) = within one year; NT (near term) = 1–3 years; MT (medium term) = 3–5 years.

Annex IV. Product Market Reforms, R&D Spending, and Firm-Level Productivity in Finland¹

1. Finland has suffered a unique combination of structural and cyclical shocks since 2007 and boosting productivity growth is crucial to restarting growth. Average labor productivity growth has dropped from about 2½ percent per annum during 2000-07 to negative territory during 2007-14, mainly reflecting the decline in TFP growth in manufacturing and public services, as well as low productivity growth in private services.

2. There is scope to further ease product market regulation and promote innovation.

Despite the substantial progress that Finland has made in deregulating its product markets since the 1990s, OECD indicators of product market regulation at the sector level indicate that several sectors (such as rail, retail, postal services, and airline services) remain more regulated when compared with best practice in peer countries. Widespread state ownership and extensive regulations in these sectors may be impeding market entry and competition, thereby dampening private sector dynamics and holding back productivity growth. In addition, there have been substantial reductions in research and development (R&D) spending by both the private and public sectors—which are down by over 10 percent in real terms since 2007. This may also weaken opportunities for future productivity growth.

Finland: Product Market Regulation, 2013

3. An extensive firm-level dataset is employed to estimate the productivity payoffs of product market reforms and R&D spending. The Orbis database compiled by Bureau Van Dijk provides financial data at the firm level on value added, number of employees, and fixed assets, among other variables. We focus on firms in the nonfinancial private sector based on a final sample of about 78,000 firm-year observations for the period between 2005 and 2014. Different measures of firm productivity are calculated for the analysis, including both labor productivity (i.e., real value added per worker) and two measures of total factor productivity (TFP) using the OLS residual methodology and the Levinsohn-Petrin methodology, respectively.

4. We measure the burden from PMR on all sectors in the Finnish economy using input-output linkages between regulated and downstream sectors. As a measure of product market regulation (PMR), we use the OECD indicators for seven network sectors as well as retail and professional services. Regulation in those industries can affect firms in other sectors of the economy (i.e., the “downstream” sectors) through their use of upstream inputs. For example, a manufacturer

¹ This annex summarizes the findings of the second chapter of the Selected Issues Paper (SIP). For more detail please refer to the SIP.

who relies extensively on the use of railway and postal services would bear a burden from regulation in the railway and postal services sectors, either through paying higher prices or enduring a lack or sub-optimal quality of services. We call this indirect burden from regulation *upstream PMR* and measure it by combining the PMR indicator with the intensity of upstream input usage calculated from Finland's input-output table for the year 2013.

5. Panel regression results suggest that regulation in upstream sectors has a significant negative impact on firm productivity in downstream sectors. The results are robust to multiple specifications and different productivity measures. Firms operating in sectors that rely more heavily on inputs from the regulated industries are likely to be less productive than others. Our results also suggest that for network PMR the impact on downstream productivity is more pronounced for large firms than for SMEs. For example, a one standard deviation reduction in network PMR is associated with higher TFP by 2.1 percent for large firms, but only by 1.1 percent for SMEs.² Meanwhile, the economic significance of the effect of regulation in retail trade on productivity is higher than for network regulation. However, the impact there is only significant for SMEs, with a one standard deviation reduction in *retail PMR* implying about 10 percent higher TFP, whereas there is no evidence that large firms are affected. This possibly reflects the reliance of large firms on wholesale markets instead of retail trade.

6. We also find evidence that R&D plays a significant role in large firms' productivity. Sector level R&D expenditure from the OECD database is used to gauge the impact of R&D spending on firm productivity. The elasticity of productivity with respect to R&D spending for large firms in Finland is estimated to be about 0.08. That is, a 10 percent increase in the sector's R&D expenditure is associated with a 0.8 percent improvement in firm's productivity.³ This magnitude is near the median of estimates in the literature – at about 0.10, and is comparable with findings from cross-country studies using a sample of non-G7 OECD countries. The productivity elasticity for large firms is remarkably stable across different productivity measures. Neither of the estimated elasticities is statistically significant for SMEs, however. This could be due to the industry-level measure of R&D spending not capturing the private returns for SMEs to the extent that the measure is dominated by large firms' spending.

7. These results suggest that further product market reforms and maintaining strong government support for R&D could help boost productivity growth.

² To calculate the average effect on firm productivity from reducing *Upstream PMR*, we keep input use intensity across all sectors constant at the average level.

³ Given that the spillover effect of R&D could reach beyond the sector in which it is invested, the overall returns of R&D, including both private and social returns, could be much larger than the estimated firm-level gains here.

FINLAND

STAFF REPORT FOR THE 2016 ARTICLE IV CONSULTATION—INFORMATIONAL ANNEX

November 4, 2016

Prepared By

European Department

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FUND RELATIONS

(As of September 30, 2016)

Membership Status: Joined January 14, 1948; Article VIII.

General Resources Account:	SDR Million	Percent of Quota
Quota	2,410.60	100.00
Fund holdings of currency	2,127.72	88.26
Reserve Tranche Position	282.89	11.74
Lending to the Fund		
New Arrangements to Borrow	198.16	

SDR Department:	SDR Million	Percent of Quota
Net cumulative allocation	1,189.51	100.00
Holdings	1,122.10	94.33

Outstanding Purchases and Loans: None

Latest Financial Arrangements: None

Projected Payments to Fund:

(SDR million; based on existing use of resources and present holdings of SDRs):

	Forthcoming				
	2016	2017	2018	2019	2020
Principal					
Charges/Interest	0.01	0.08	0.08	0.08	0.08
Total	0.01	0.08	0.08	0.08	0.08

Exchange Rate Arrangements:

Finland's currency is the euro, which floats freely and independently against other currencies.

Finland has accepted the obligations under Article VIII, Sections 2(a), 3, and 4 of the Fund's Articles of Agreement. It maintains an exchange system free of restrictions on the making of payments and transfers for current international transactions, except for those measures imposed for security reasons in accordance with Regulations of the Council of the European Union, as notified to the Executive Board in accordance with Decision No. 144-(52/51).

Article IV Consultation:

Finland is on the 12-month consultation cycle.

FSAP Participation:

Finland had a review under the Financial Sector Assessment Program (FSAP) in 2016.

STATISTICAL ISSUES

(As of October 14, 2016)

I. Assessment of Data Adequacy for Surveillance	
General: Data provision is adequate for surveillance. The country has a full range of statistical publications, many of which are on the internet. The quality and timeliness of the economic database are generally very good.	
II. Data Standards and Quality	
Subscriber to the Fund's Special Data Dissemination Standard (SDDS) since June 3, 1996. Uses SDDS flexibility option for timeliness on data for central government operations.	A data ROSC was electronically published on October 31, 2005.
The authorities have expressed initial interest to adhere to the Special Data Dissemination Standard Plus.	

National Accounts: Finland publishes the national accounts according to the *European System of Accounts (ESA) 2010* since September 2014.

Government Finance Statistics: Government finance statistics were published based on *ESA 2010* methodology since September 2014.

External Sector Statistics: Finland publishes external sector statistics based on the sixth edition of the *Balance of Payments and International Investment Position Manual (BPM6)* format since December 2014.

Monetary and Financial Statistics: Monetary data reported for *International Financial Statistics* are based on the European Central Bank's (ECB) framework for collecting, compiling, and reporting monetary data.

Finland: Table of Common Indicators Required for Surveillance
(As of October 14, 2016)

	Date of latest observation	Date received	Frequency of Data ⁷	Frequency of Reporting ⁷	Frequency of Publication ⁷	Memo Items:	
						Data Quality–Methodological soundness ⁸	Data Quality–Accuracy and reliability ⁹
Exchange Rates	10/14/16	10/14/16	D	D	D		
International Reserve Assets and Reserve Liabilities of the Monetary Authorities ¹	08/2016	10/2015	M	M	M		
Reserve/Base Money	08/2016	10/2015	M	M	M		
Broad Money	08/2016	10/2015	M	M	M		
Central Bank Balance Sheet	08/2016	10/2015	M	M	M		
Consolidated Balance Sheet of the Banking System	08/2016	10/2016	M	M	M		
Interest Rates ²	10/14/16	10/14/16	D	D	D		
Consumer Price Index	09/2016	10/2016	M	M	M	O, O, O, O	LO, O, LO, O, O
Revenue, Expenditure, Balance and Composition of Financing ³ – General Government ⁴	2015	03/2016	A	A	A	LO, LO, LNO, O	LO, O, O, O, O
Revenue, Expenditure, Balance and Composition of Financing ³ – Central Government	2015	03/2016	A	A	A		
Stocks of Central Government and Central Government-Guaranteed Debt ⁵	09/2016	10/2016	M	M	M		
External Current Account Balance	08/2016	09/2016	M	M	M	O, O, O, LO	LO, O, LO, O, O
Exports and Imports of Goods and Services	08/2016	09/2016	M	M	M		
GDP/GNP	Q2 2016	09/2015	Q	Q	Q	O, O, O, O	LO, O, LO, O, O
Gross External Debt	Q2 2016	09/2015	Q	Q	Q		
International Investment Position ⁶	Q2 2016	09/2015	Q	Q	Q		

¹ Includes reserve assets pledged or otherwise encumbered as well as net derivative positions.

² Both market-based and officially-determined, including discount rates, money market rates, rates on treasury bills, notes, and bonds.

³ Foreign, domestic bank, and domestic nonbank financing.

⁴ The general government consists of the central government, including National Insurance Scheme, and local governments.

⁵ Including currency and instrument composition.

⁶ Includes external gross financial asset and liability positions vis-a-vis nonresidents.

⁷ Daily (D); weekly (W); monthly (M); quarterly (Q); annually (A); irregular (I); and not available (NA).

⁸ Reflects the assessment provided in the data ROSC (published in October 2005, and based on the findings of the mission that took place during May 10–25, 2005) for the dataset corresponding to the variable in each row. The assessment indicates whether international standards concerning concepts and definitions, scope, classification/sectorization, and basis for recording are fully observed (O); largely observed (LO); largely not observed (LNO); or not observed (NO).

⁹ Same as footnote 8, except referring to international standards concerning source data, statistical techniques, assessment and validation of source data, assessment and validation of intermediate data and statistical outputs, and revision studies.

PAST FUND STAFF RECOMMENDATIONS AND IMPLEMENTATION

Past Staff Recommendations	Implementation
Fiscal Policy	
Fiscal policy should balance consolidation needs against growth objectives to avoid derailing the fragile recovery.	Without jeopardizing the medium-term adjustment, the authorities' updated fiscal plan provides a more accommodative fiscal stance in 2016-17, which supports growth.
Make the composition of adjustment as growth friendly as possible, including by shifting cuts from public investment and targeted transfers to public consumption and untargeted transfers, and by shifting some of the tax burden from direct taxes to indirect taxes.	The 2017 budget includes income tax cuts and tobacco tax and real-estate tax will be raised. Tax deductions will be implemented to promote entrepreneurship.
To contain aging related spending pressures and ensure fiscal sustainability, structural reform is needed, particularly reforms to improve the cost efficiency of health and social services.	Draft bills on the reform to improve the cost efficiency of healthcare and social services provision have been prepared and are being discussed with stakeholders.
Labor Market Policy	
Improving the flexibility of the wage bargaining system at the firm-level could improve cost competitiveness and help better align wages with productivity.	The Competitiveness Pact agreed by social partners will reduce labor costs (including via a wage freeze in 2017) and increase hours worked. It also aims to increase firm-level flexibility into the wage bargaining system.
Reducing the generosity and long duration of unemployment benefits, and measures to encourage younger workers to enter labor market sooner, could help raise labor force participation.	From 2017, the maximum duration of unemployment benefits will be shortened by 100 days to 400 days, and eligibility requirements are being tightened. Study grants for higher education will be tightened to reduce overly long study duration.
Increasing the quantity of affordable housing in Helsinki would facilitate labor mobility between regions.	The 2017 budget includes measures to promote housing construction, and improved allocation of subsidized housing through the introduction of income limits.
Financial Sector Policy	
Enhancing regional cooperation on financial stability, supervisory, and bank resolution issues is needed, particularly in view of the branchification of Nordea Bank.	The relevant Nordic and European authorities are negotiating an agreement on the treatment of systemic branches that should address the key issues and an agreement is on the horizon
Add a systemic risk buffer (SRB) to further strengthen the macroprudential toolkit.	Preparations have been started to add a SRB.

**Statement by Mr. Kimmo Virolainen,
Alternate Executive Director for Finland
November 23, 2016**

On behalf of the Finnish authorities would like to convey their gratitude for the comprehensive and candid discussions during the Article IV consultation and the FSAP mission. The authorities find the analysis in the reports of great value and useful for assessing progress of key reforms adopted in the government's ambitious program for reviving economic growth and stabilizing public finances, and for maintaining a well-functioning and stable financial system. The authorities' views have been accurately documented and they broadly concur with staff's analysis and policy recommendations.

Recent Economic Developments, Outlook and Risks

According to the Ministry of Finance, the Finnish economy is expected to grow 1.1 percent in 2016. Over the next two years, growth will hover around 1 percent, and cumulative growth for the whole outlook period will reach no more than some 3 percent. Despite the slight rebound, the outlook for Finland's immediate future is one of continued economic weakness. The 2018 forecast for the GDP will still be some 2 percent lower than in 2008, and industrial output will be around one-fifth lower than 10 years ago. Export performance will remain weaker than global trade, and Finland will continue to lose market share in world trade. These developments are well described in the staff report and the selected issues papers.

Nominal earnings will rise by just over 1 percent in 2016 and, with agreement between the social partners on a Competitiveness Pact, the growth rate of wage and salary earnings will slow and employers' social security contributions will decrease in 2017. Finnish competitiveness will improve in comparison with Sweden and Germany, for instance.

The risks for the international economy remain skewed to the downside. Uncertainty is expected to continue in the financial markets. Domestic risks are related to the development of the real economy and the labor market. Economic growth in Finland will continue to remain slower than in peer countries over the next couple of years. The Finnish economy will be sensitive to negative shocks, and the growth rate will not be sufficient to bring a significant improvement in the labor market. The Government's employment target will be difficult to reach under the conditions forecasted, and the growth of long-term and structural unemployment will scar the economy for a long time to come. The projected economic scenario will not significantly improve the health of public finances in Finland.

Fiscal Policy

General government finances will remain in deficit till the end of the decade. Slow economic growth is not generating enough tax revenue to finance public

expenditure, which is increasing with population aging. For these reasons, public sector debt has grown rapidly for several years, and the same trend is set to continue, albeit at a slowing pace, in the years ahead. The central government deficit is expected to shrink to less than half the current figure by the end of the decade. The deficit in local government is also projected to decrease over the forecast horizon. However, the growing demand for social and healthcare services as a result of population aging will cause mounting expenditure pressure in the local government sector over the longer term. The combined deficit of central and local government will remain high throughout the outlook period.

The deficit will remain under the EU Stability and Growth Pact's 3 percent of GDP reference value limit throughout the forecast horizon. The public debt-to-GDP ratio has climbed to over 60 percent. The Government has set itself the target of halting the growth of the public debt-to-GDP ratio by the end of the government term.

Fiscal policy objectives include immediate savings, promoting efficiency in public administration and service production, and steps to improve the conditions for economic growth. The immediate savings measures outlined in the Government Program are entered in the central government spending limits and included in the State Budget. These measures account for some EUR 4 billion of total targeted savings (of EUR 10 billion to cover the entire sustainability gap). The remaining EUR 6 billion of savings depend upon restructuring measures designed to strengthen public finances and to increase employment.

Preparations for the social and healthcare reform are proceeding according to plan. Together with other measures designed to promote efficiency in public administration, the reforms have the potential to strengthen public finances by EUR 4 billion, but only in the longer term.

Structural Issues

Structural reforms will continue on several fronts, most notably in social and healthcare services

The authorities concur with staff that deep structural reforms are critical for the revival of economic growth. When the Government took office in 2015, it committed to an ambitious reform agenda that is aimed to strengthen competitiveness and to raise the long-term growth potential of the economy. Policies to allow more room for competition in regulated sectors and to reduce labor costs have already been adopted. Further reforms are ongoing and under preparation aiming at improving the functioning of labor and product markets.

The most significant reform ever taken by the Finnish authorities is the social and healthcare services reform (SOTE) that is targeted to bring estimated savings of EUR 3 billion from more efficient operations and administration, as well as higher productivity of services owing to increased competition.

The first phase of the SOTE reform, concerning the establishment of new regional governance structures of 18 counties that are responsible for organizing the services, is undergoing the legislative process and a final proposal will be submitted to the Parliament by the end of this year. All of the services covered in the reform can be provided by public, private and the so called “third sector” service providers. At present, the relevant stakeholders, such as current service providers, have already submitted their opinions on the Government’s draft reform bills. A draft proposal on the second phase of the reform, dealing with freedom of choice and financing, will be submitted to the Parliament next year.

Labor market reforms

Raising the employment rate. The government’s goal is to raise the labor participation rate from 68 percent in 2015 to 72 percent by 2019, implying an increase in the number of employed by 110,000. Demographics in Finland are limiting labor supply. That said, the government has already tightened allowance criteria for tertiary education in order to promote faster graduation. The pension reforms have already raised the effective retirement age and the latest changes taking effect in 2017 will continue this trend. Changes in the maternity and child care benefits are also geared towards raising the labor supply of women of childbearing age.

The Competitiveness Pact is estimated to cut unit labor costs by 4.2 percent (including the wage freeze) from 2019 onwards. As a consequence, the Ministry of Finance estimates an increase in employment by some 35,000 people.

More effective measures to tackle high youth unemployment. The authorities agree that more effective measures are needed to tackle the high level of youth unemployment. The introduction of an apprentice system has gained support, provided that wages below minimum level during the training period can be agreed upon. A youth guarantee agreement aims to secure vocational training for all young people who have left secondary school and are not employed.

More effective public employment services. Public employment services are undergoing wide-ranging reforms. It has already been agreed, in connection with the SOTE reform, that public employment services will be reorganized into the 18 new regional governance structures effective in 2019. Due to increased digitalization, currently over 80 percent of jobseekers use online services. The groundwork is underway for a common platform and a national database for recruiting agencies and others providing online employment services. Moreover, there will be regular follow-up on the progress of the adopted individual employment plans, and in cases of non-implementation, there would be sanctions in the legislated benefits.

Removal of the incentive trap. The Government is working on a solution to the incentive trap by preparing changes to the benefit system whereby a combination of tighter unemployment benefits and transfer payments would make it more attractive

to accept employment rather than remain unemployed. This would help increase employment particularly for low skilled labor.

Active labor market policies. Past experience of ALMPs, in particular for securing longer term or permanent employment for low skilled and older unemployed, suggests that they have not been effective. The authorities concur with staff that new activation policies need to be considered.

Collective wage bargaining under scrutiny. As agreed in the new Competitiveness Pact, further discussions for reforming the highly centralized wage bargaining process have been ongoing for some time, albeit at a slow pace. The goal is to align wage growth with productivity growth by making the bargaining process more flexible and increasing competition in the labor market, resulting in higher productivity of labor. The next wage bargaining round will be conducted at industry level in 2017.

Enhancing labor mobility. Job openings are increasing mostly in growth centers and measures to enhance labor mobility need to be stepped up. A major obstacle is the lack of affordable housing in growth centers, particularly in the Helsinki metropolitan area. Most Finns live in owner-occupied housing due to the lack of a well-functioning rental housing market. On a positive note, housing construction in the Helsinki Metropolitan area is increasing, but it will take time to meet the current demand for affordable housing. The Government and local authorities are taking measures to deal with the housing situation in growth centers by adjusting zoning rules and building regulations.

Product market reforms

The authorities concur with staff on the importance of product market reforms to enhance competition and operational efficiency. The government has submitted a new transport market regulation proposal, concerning passenger and goods transport, to the Parliament this fall. The Transport Code allows more competition in the taxi market through deregulation and elimination of taxi quotas. Opening railway passenger transportation for competition is currently under discussion. The authorities agree that there is room for more deregulation in the retail sector and in postal services.

Research & Development and Productivity

The Research & Development (R & D) expenditure peaked in 2010 at 3.8 percent (share in GDP) and has since fallen to about 2.8 percent. The Government, in the context of the fiscal plan, encourages more efficient use of the current resources. Moreover, the Government has turned the focus more on promoting the utilization of R & D results, rather than increasing resources to R & D activity per se. Funding for seed and start-up companies with international growth potential will be increased reflecting the idea of application of knowledge rather than creation of knowledge.

Financial Sector Stability

According to staff, the Finnish financial sector is stable and robust to shocks, and the banking system is profitable and well capitalized. The authorities broadly concur with staff's main findings and with most of the FSAP recommendations.

Almost all of the recommendations from the previous FSAP in 2010 have been implemented, including improvements in financial stability analysis and monitoring of the mortgage market in particular. The top-down stress testing framework has been enhanced and a new regime for bank resolution has been set up. Moreover, the effectiveness of cross-border supervision has been enhanced through the establishment of the SSM and a Nordic-Baltic MoU, and the FIN-FSA's sanctioning powers have been improved. All of these measures have contributed to strengthening the supervisory and regulatory framework.

Vulnerabilities still remain in the financial system, such as a highly concentrated banking sector relying heavily on wholesale and external funding. Two foreign owned banks have a significant role in the financial sector giving rise to large and complex cross-border Nordic exposures and risks of adverse spillover effects. Current low interest rates pose challenges for both the banking and insurance sector.

The household debt to disposable income ratio has risen quite rapidly during the past few years and currently stands at 125 percent. The authorities recognize this trend, but also note that the macroprudential measures already taken, particularly a loan-to-collateral cap on housing loans, are aimed at curbing excessive rise in household debt.

The authorities concur with the recommendation that *banking supervision* should be further strengthened. Due to significant changes in the supervisory structure and environment, this needs to be considered in the context of the Single Supervisory Mechanism and regional supervisory cooperation. The authorities also agree that regional supervisory cooperation, data sharing as well as systemic branch supervision need to be enhanced.

The authorities also largely agree with staff's assessment on the *macroprudential policy framework*. There is agreement to further enhance the framework by adding *macroprudential instruments*, and work is already ongoing to include the systemic risk buffer into the toolbox. Additional instruments shall be considered based on the review of the EU legislation, as well as further analytical work by the authorities assessing experiences from other countries. Staff's suggestion that the FIN-FSA's macroprudential policy mandate should be clarified and strengthened in the law is not fully shared by the authorities, some of which consider the existing legislation adequate.

Staff's advice to formalize the inter-agency strategy on *contingency planning and crisis management* is well noted. Work to this effect is already ongoing and there is confidence that the arrangements for crisis management and resolution can be implemented timely given well-functioning and close institutional cooperation.

The authorities will use the FSAP findings and recommendations when considering policies and new instruments in order to maintain a well-functioning and stable financial system.