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<p>Abstract</p> <p>Fiscal risks refer to a range of factors that can have unpredictable consequences for government finances. Fiscal liabilities and associated risks may emanate from multiple potential sources within the state budget economy, government funds and state enterprises. In addition to state debt and pension liabilities, government fiscal liabilities mainly consist of guarantees. Fiscal liabilities may also accrue from the local government sector, private sector (e.g. government-controlled enterprises), or the financial market (e.g. the banking sector). Furthermore, the government often bears ultimate de facto responsibility for securing functions that are critical to society in terms of continuity of operation, even if it is under no direct legal or contractual obligation to do so. The government's liabilities have increased sharply in recent years. There has been a particularly strong rise in the volume of government guarantees of Finnvera and the National Housing Fund. The nominal value of the government guarantees in focus here now stands at approx. 21% of GDP. This is a high figure by international comparison, although differences in reporting procedures make it difficult to compare the true nominal values of guarantees. However according to Eurostat data collected in 2015, Finland's general government guarantees to GDP ratio was the highest in the EU at 28.34%. Likewise, Finland recorded the highest annual growth from 2014 to 2015 at 2.84% of GDP. Government fiscal risks may be broadly defined as comprising any deviations from budget forecasts that adversely affect the central government balance or budgetary position. These risks include macroeconomic shocks, market risks and other risks involved in central government assets and debts, and risks involved in the implicit contingent liabilities taken on by or otherwise falling upon central government. Several factors may work simultaneously to undermine the financial position of general government. Risks associated with macroeconomic development, general government debt, government holdings, export guarantees issued and other risks related to government liabilities correlate with one another. Typically, under conditions of normal cyclical fluctuations, only some of these risks materialise. The costs arising from the realisation of the government's guarantee obligations may constitute a significant burden for the national economy. This underscores the importance of carefully monitoring and managing fiscal liabilities.</p>			
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1 Abstract

- *Fiscal risks refer to a range of factors that can have unpredictable consequences for government finances. Fiscal liabilities and associated risks may emanate from multiple potential sources within the state budget economy, government funds and State enterprises. In addition to state debt and pension liabilities, government fiscal liabilities consist mainly of guarantees. Fiscal liabilities may also accrue from the local government sector, the private sector (e.g. government-controlled enterprises) or the financial market (e.g. the banking sector). Furthermore, the government often bears ultimate de facto responsibility for securing functions that are critical to society in terms of continuity of operation, even if it is under no direct legal or contractual obligation to do so. This makes it necessary to adopt a fairly broad perspective when assessing risk sources, even if not all of the fiscal risks a government may face can ever be identified.*
- *By international comparison, Finland's guarantees are at a high level, although different reporting procedures, among other reasons, make it difficult to compare the true nominal values of guarantees. According to the most recent Eurostat data (2015), Finland's general government guarantees to GDP ratio was the highest in the EU. The nominal value of all government guarantees has doubled in a few years to EUR 46 billion, or 21% of GDP. The increase in 2016 was EUR 1.7 billion. In addition, the callable capital contributions payable to international financial institutions have grown multifold, mainly as a result of EU financial crisis management. Their ratio to GDP is 8.4%.*
- *There has been a particularly sharp rise in the volumes of guarantees of Finnvera and other government funds – mainly housing loan guarantees. Even though export financing liabilities did not increase in 2016, these remain subject to growth pressures. During 2016, Parliament approved several increases in the maximum authorisations for export financing. This is indicative of government liabilities continuing to grow strongly also in the foreseeable future. Financing arrangements arising from the regional government reform may result in a significant increase in the government guarantee portfolio due to the transfer of properties and loans (hospital districts in particular).*

- *Low interest rates in recent years have brought down interest expenses despite the sharp rise in the amount of debt. In the Finnish State Budget, interest expenses have decreased from EUR 2.2 billion euro in 2008 to EUR 1.5 billion in 2016. At the same time, interest expenses as a percentage of GDP have been halved. Over the same period, the combined debt of central and local government has nearly doubled. Interest rates will not remain low in perpetuity, however. A permanent increase of e.g. one percentage point in the general rate of interest on government debt would increase the government's interest expenses so that in 2019, for example, annual interest expenses on debt would be approximately EUR 500 million higher than at present. Rising interest rates are reflected in interest expenses i.a. when central and local government have the need to issue new debt.*
- *The banking sector in Finland is characterised by its fairly large size relative to the economy, its centralised structure and its strong links to other Nordic countries and to Sweden in particular. While these constitute potential risk factors, for now the banks have healthy capital adequacy and liquidity. The banking sector in Finland is currently undergoing a major restructuring that will result in considerable changes to the Finnish banking landscape when compared to e.g. the start of 2014. In the coming year, two of the three largest credit institutions active in Finland may be under the control of other Nordic authorities, while the third may come under the control of European authorities. This would leave only small and medium-sized domestic credit institutions under the direct control of Finnish authorities. Going ahead, previously unknown uncertainty will attach to the timely and comprehensive availability of information with regard to key actors in the financial sector. Any crisis resolution concerning the three largest actors will also be decided by non-Finnish authorities. On the other hand, the risk of covering large deposit guarantee compensations from State funds has decreased and may continue to decrease in the coming year. Nonetheless, the Finnish scheme will remain liable for a significant volume of guaranteed deposits.*
- *Risks related to general government finances are usually linked to general economic trends. Under exceptionally difficult economic circumstances, general government finances may be eroded for several reasons. Risks related to macroeconomic development, general government debt, government holdings, the export guarantees issued and other risks related to other government liabilities correlate with each other. Under the conditions of normal cyclical fluctuations, only some of these risks will typically be realised.*

2 Introduction

Fiscal risks refer to a range of factors that can have unpredictable consequences for government finances. Since the government often bears ultimate responsibility for securing functions to ensure the functioning and continuity of the social system, its responsibilities reach far and wide. This in turn means that the risks affecting government finances can emanate from countless sources. Fiscal risks are typically divided into two categories: unpredictable macroeconomic disturbances and contingent liabilities. Macroeconomic disturbances include situations such as a disruption of the financial markets originating outside Finland, which through various channels causes a decline in our domestic financial activity. Contingent liabilities include government guarantees and collateral involving the guarantor's obligation to pay that depends on factors beyond the government's control.¹

Risks related to macroeconomic development, general government debt, government holdings, the export guarantees issued and other risks related to other government liabilities correlate with each other. Under the conditions of normal cyclical fluctuations, only some of these risks will typically be realised.

Therefore, the fiscal costs involved when liabilities are realised may put a considerable strain on government finances and, in the light of average figures, the probability of a major liability materialising is not particularly small. The instability of the external environment underscores the importance of carefully monitoring and managing fiscal liabilities. The Ministry of Finance for its part has started implementing the recommendations of the risk management working group of 2015² and work has continued on developing the government's fiscal risk reporting and management.

This report provides an overview of the government's risks and liabilities. It seeks to provide a detailed explanation of the risks involved in macroeconomic development and fis-

1 Government guarantee refers to a legal commitment by the state to assume liability for the debt of another party. Government collateral meanwhile is a legal commitment to compensate for the losses arising from certain activities. Below, the term government guarantee will be used collectively for both of these.

2 Development of the government's financial risk reporting and management. Ministry of Finance publications 11/2015.

cal liabilities emanating from various sources, and to assess the associated risks. The report also includes a government overall balance and a summary of the report is also included in the General Government Fiscal Plan.

Assessing the risks involved in government liabilities is by no means a simple task. The least complicated system used by many countries in their government risk re-views involves reporting the nominal value of liabilities³, possibly as a ratio of a key figure, such as the state budget or nominal GDP. The nominal value of liabilities indicates the maximum loss if the government were required to settle all of the liabilities shown in full, assuming no provisions such as a funding system had been made. In this report, the nominal values of liabilities are primarily used, with different sensitivity analyses and key indicators elaborating the significance of risks and liabilities as far as possible. Besides indicating the nominal values, this report seeks to explain the provisions made for losses potentially arising from liabilities.

3 E.g. New Zealand, Australia and the Netherlands.

3 Risks associated with macroeconomic development

Information on future economic prospects is essential for financial planning and decision-making. Forecasts are used as a basis for budget planning and for outlining the spending limits. A full understanding of the economic outlook will help to situate economic policy actions in their proper scale and promote their timely execution.

The objective of macroeconomic forecasts is to provide the most likely future scenario. However, forecasts always involve risks which, if they materialise, may lead to a more negative or more positive development than anticipated. Weaker than predicted development tends to result in a higher than expected increase in government borrowing. The financial crisis resulted in Finland's total output shrinking by more than 8%, which no economic development forecast was able to predict. Similarly, recovery from the financial crisis has been weaker than anticipated; in fact, Finland's national economy has still not reached the pre-crisis total output level.

3.1 Macroeconomic development a major element in budget planning

Macroeconomic development scenarios provide a starting point for tax revenue forecasts. Tax revenue forecasts are based on estimates of the development of variables such as private consumption, salary and pension income, and corporate revenues, and the impact of any known changes in the tax basis. The rate of growth in real GDP is the key indicator of economic activity. To a large extent, national economic output determines how income is generated and provides the financial basis for public finances.

A study commissioned by the Parliament's Audit Committee concluded that the forecast errors made by the Ministry of Finance were not materially different from forecast deviations made by other forecast organisations. An analysis of tax revenue accumulation over

a period of 20 years indicated that the forecast deviations were not systematic. Typically, major over- or underestimates of tax revenue occur at turning points of the economic cycle, where their magnitude and/or timing has not been accurately forecast.

Besides providing a basis for tax revenue assessment, economic forecasts are also used to predict budgetary expenditure. The economic cycle reflects particularly strongly on unemployment-linked expenditure. Forecasts of the general price and earnings level moreover affect the development of current transfers to private households and local government. Interest expenditure is also becoming a more significant expense item in the foreseeable future. Despite rapid debt growth, interest expenses have remained fairly modest due to the exceptionally low interest rate level.

3.2 Sensitivity of general government finances to economic cycles

The sensitivity of Finnish government finances to economic cycles has been assessed by organisations such as the OECD. Due to the size of its government finances and the structure of the national economy, Finland is more sensitive to macroeconomic developments than many other EU countries. In Finland's case, total output remaining at one percentage point lower than anticipated would translate into a decline of almost 0.6% in general government finances in relation to total output. The impact on government finances is strongest in the case of tax revenues sensitive to economic cycles, and that of unemployment-related expenditure. Using the above example, the central government's fiscal position in relation to total output would be 0.3–0.4% weaker than forecast. Most of the effects materialise through tax revenue. The sensitivity of different tax types to changes in economic activity varies, corporation tax paid by companies and capital income tax paid by natural persons being the most sensitive. This is because the financial results of companies and capital income, such as capital gains, tend to fluctuate very strongly in response to changes in financial activity. For instance, capital income fell by 21% in 2009 as a result of the financial crisis. Capital income tax revenue decreased by more than EUR 500 million from the previous year, and corporation tax revenue by more than EUR 1,100 million (21%). Table 1 illustrates the sensitivity of different tax types to changes in the tax base.

Table 1. Budget sensitivity and economic development

Tax type	Tax base / demand category	Change	Change in tax revenue*, EUR million	Taxes collected in 2015, EUR million
Income tax (incl. employees' contributions)	Earned income	1%	387	4 871
	Pension income	1%	123	611
Capital income tax	Capital income	1%	34	2 645
Corporate income tax	Operating surplus	1%	45	2 761
VAT	Value of private consumption	1%	119	16 628
Vehicle tax	No. of new passenger cars sold	in 1,000	6	884
Energy tax	Electricity consumption	1%	9	862
	Petrol consumption	1%	13	1 290
	Diesel consumption	1%	14	1 248
Tax on alcoholic beverages	Alcohol consumption	1%	14	1 356
Tobacco tax	Cigarette consumption	1%	9	881
Expense type	Basis of payment	Change	Change in expenses, EUR million	Expenditure in 2015, EUR million
Unemployment-related expenditure	Unemployment rate	1%	300	2 700
Compensation of employees	Salary level	1%	66	6 600
Interest expenditure	Interest rate level	1%	200	1 531

* From 2016

Source: Ministry of Finance

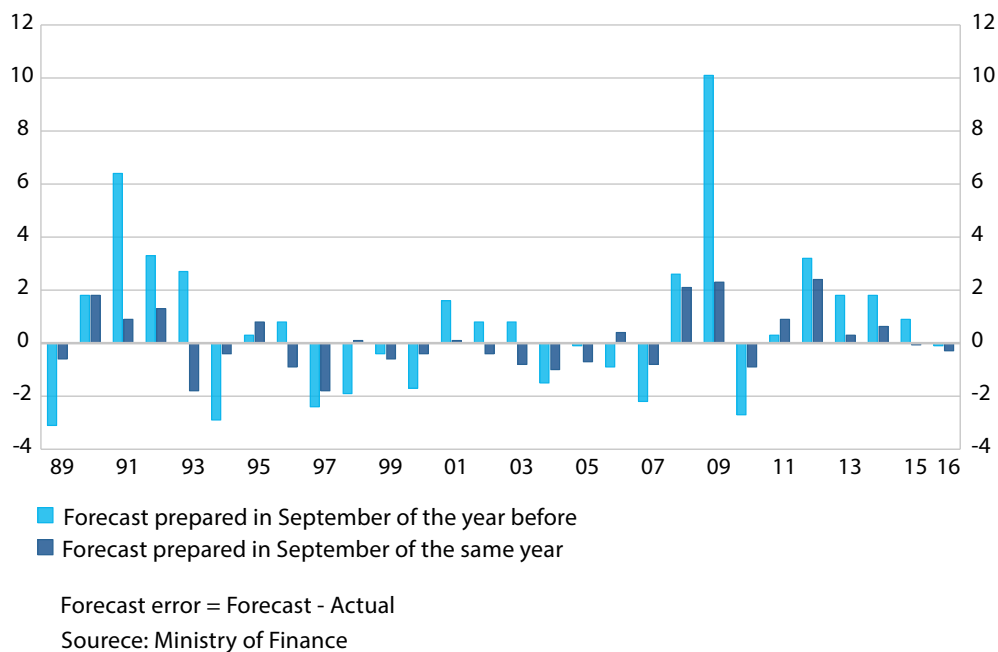
Overall, automatic stabilisers are clearly less significant on the expenditure side than on the revenue side. During a recession, other factors besides automatic stabilisers which may increase expenditure include any discretionary public intervention measures needed. The effects of the cyclical fluctuation on government finances and borrowing may vary depending on which factors contributed to the weaker or stronger-than-anticipated development. The more economic activity is affected by domestic demand, the stronger the effect on government finances.

3.3 Actual economic cycles and forecast errors

The reasons for deviations between the forecast and actual development may include false initial assumptions and an inaccurate picture of the interaction between economic players or sectors. Figure 1 below illustrates the accuracy of the cycle forecasts published by the Ministry of Finance in September 1989–2016 in terms of gross domestic product

growth in the current (forecast preparation year) and the following year⁴. These forecasts were used for planning the government budget for the following year. An examination reveals that forecast errors have been more significant than usual during deep recessions and depression. In terms of GDP growth, the average forecast error in year t+1 in the period 1988–2016 was -0.7 percentage points, which means economic growth was forecast to be stronger than it actually turned out. The audit performed by the National Audit Office in 2016 concluded that the economic forecasts produced by the Ministry of Finance are statistically reliable and correspond in terms of accuracy to those published by other forecasting institutes.

Figure 1. GDP percentage growth forecast deviations, %



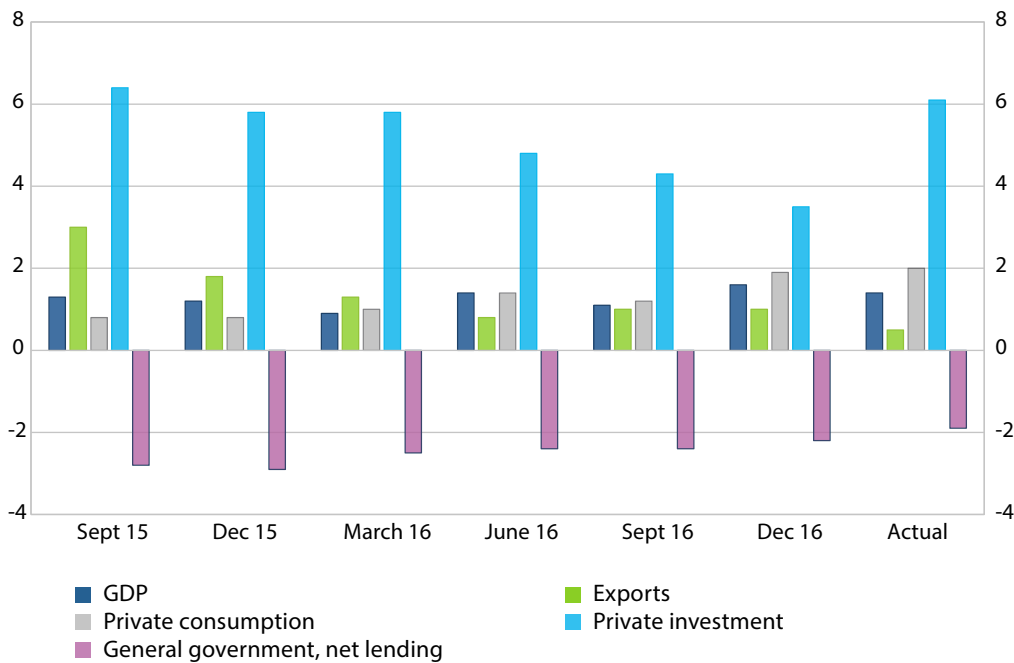
3.4 Development in 2016 and the realisation of macroeconomic risk

According to preliminary data published by Statistics Finland in March 2017, total output increased by 1.4% in 2016. The Budget for 2016 was based on the forecast published in September 2015, which predicted GDP growth of 1.3%. In subsequent forecast updates, the views taken of development in economic activity were a touch more cautious. While

⁴ The Ministry of Finance publishes annually a report on forecast deviations and their reasons (Forecast Deviation Report)

exports showed a slow upward swings in 2016, development turned out to be weaker than forecast in autumn 2015. Private consumption, on the other hand, showed stronger than expected growth, partly due to inflation being more moderate than anticipated. The rise in investments was driven by housing construction. Figure 2 illustrates how better than anticipated macroeconomic development was reflected also in the general government balance and indebtedness.

Figure 2. More detailed macro forecasts for development in 2016, %



Sources: Statistics Finland, Ministry of Finance

3.5 Risks associated with macroeconomic development

Risks relating to global economic development tend towards weaker than forecast development. Rising protectionism may serve to slow global trade to a greater extent than anticipated. Economic recovery in the euro area may prove even more difficult than projected now that the impact of favourable conditions has come to an end. A weaker global economy represents a downward risk for Finland’s exports. However, there is also a positive risk associated with exports. The outcome/result of the Competitiveness Pact will create the conditions to exploit the export potential opening up and will bolster confi-

dence in domestic economic policy. However, it should be borne in mind that there will be a lag before the pact's effects on economic development become evident.

Both negative and positive risks are associated with the private consumption forecast. Private consumption may develop more favourably than anticipated if households continue to accumulate debt at the same rate as seen in recent years. Low interest rates and the availability of credit together with higher confidence among households may thus accelerate the growth of debt beyond the rate projected, which would be reflected not only as a rise in private consumption, but also as rising prices in the housing market. The negative risks associated with private consumption may be realised in the event of weaker than anticipated improvement in employment. The impacts on consumption would arise through both income formation and consumer expectations, which might make consumers more cautious and result in a higher savings rate.

4 Government liabilities

The financial liabilities of a government are often described using the fiscal risk matrix shown here (Table 2).⁵ In the matrix, liabilities are divided as follows:

- Liabilities involve a contractual, lawful or other legal obligation, or social/political obligation, in which case the government considers it necessary to take action to avoid any disruption to the national economy or society.
- Liabilities represent an obligation in all circumstances, or the government is only required to fulfil its obligation if a particular event occurs.

Table 2. Government liabilities

Liability / obligation	Direct Obligation in any event	Contingent Obligation if a particular event occurs
Explicit Liability recognised by a law	<ul style="list-style-type: none"> - loan, interest - public-private-partnership (PPP) - other contractual obligations - legal obligations to pay - budgetary expenditure 	<ul style="list-style-type: none"> -government collateral -government guarantee -export financing obligations -Such -callable capital in international financial institutions -climate change liabilities -nuclear liabilities
Implicit Social/political obligation	<ul style="list-style-type: none"> - citizens' basic social security 	<ul style="list-style-type: none"> -deposit guarantee - other support to the banking sector - state enterprises (increase in share capital to maintain ownership or to ensure business capability) - municipal sector - environmental liabilities, disasters, external security

Source: Ministry of Finance

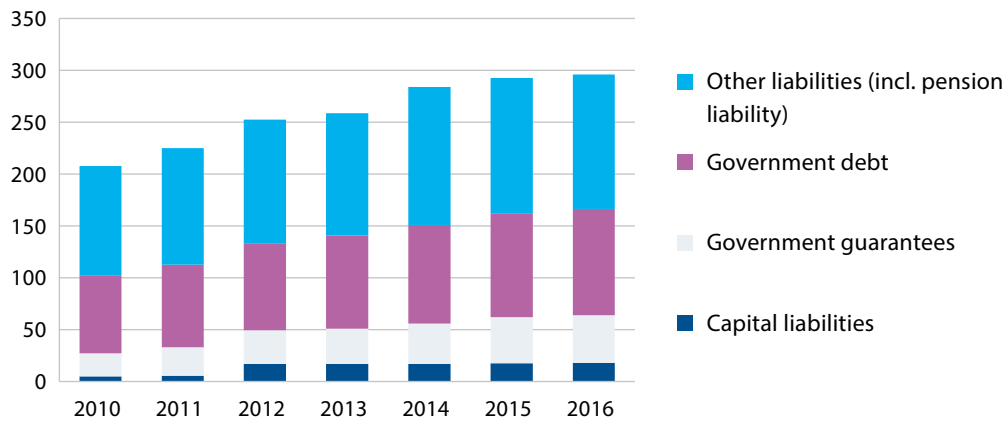
This division allows liabilities to be examined as explicit direct liabilities (such as a government loan), explicit contingent liabilities (such as government guarantees or capital in in-

⁵ See Polackova (1989), and Polacova Brix and Mody (2002).

ternational financial institutions), or implicit contingent liabilities (such as support for the banking sector, or activities in the local government sector).⁶

The following figure summarises the development of liabilities that for the most part are under government control (Figure 3). In the Figure, pension liability (EUR 93 billion) is included under other liabilities. Items showing a particular increase are guarantees by Finvera and the National Housing Fund.

Figure 3. Development of government liabilities 2010–2016, EUR billion



Sources: Ministry of Finance, Statistics

In the following, liabilities are reported in accordance with the division into direct government liabilities and contingent government liabilities.

4.1 Direct government liabilities

This Chapter examines direct government liabilities that are recognised by law. Such liabilities include government debt, life cycle model projects (PPP) and government pension liabilities.

⁶ Implicit direct liabilities have been excluded from this analysis.

4.1.1 Debt

The concept of debt

The term 'government debt' usually means the debt managed by the State Treasury, which at present mainly indicates the on-budget nominal debt. Since 2015, this concept of debt has also included the new borrowing of Senate Properties. Another commonly used concept is 'general government debt,' or public debt. This term is used for international comparison and it is generally expressed as a percentage of GDP. In 2014, Finland's general government debt-to-GDP ratio exceeded the 60% reference value⁷ set out in the Treaty on European Union and threatens to remain above the reference value also in the coming years.

On-budget nominal debt at the end of 2016 stood at EUR 102 billion. Debt has been on the rise every year since 2008. The debt of municipalities and joint municipal authorities has grown by more than EUR 10 billion since 2008 and now stands at approximately EUR 19 billion. General government debt mainly consists of central and local government debt. The Unemployment Insurance Fund, one of the social security funds, has also been forced to borrow approximately EUR 1 billion in the past few years, as contributions and government transfers have not been sufficient to cover rising unemployment expenditure. There is a major risk of both state and municipal debt continuing to grow, and not just nominally, but also relative to GDP.

Coverage of the debt recorded by the State Treasury is less extensive than debt as understood in national accounting terms. The debt recorded by the State Treasury includes on-budget nominal debt and, as of 2015, the new borrowing of Senate Properties, but excludes the debt of other units included in general government finances in the national accounts. Other off-budget entities include the universities, Solidium Oy, Yle Oy, VTT, and the real estate companies of universities. The total debt of these off-budget entities amounts to approximately EUR 3 billion, with real estate companies accounting for the majority of the debt. The debt of Finnvera, a state-owned company, is not included in public debt because the company is classified as a financial institution.⁸

Finland's participation in the management of the euro crisis has caused an increase in public debt of roughly EUR 6 billion, which includes the capital contribution made to the European Stability Mechanism in 2012 and the loan granted to Greece. In addition, bor-

7 Incorporating items included in EDP debt (excessive deficit procedure) in the State Treasury's definition of debt produces what is known as the general government debt, or EDP debt. The most significant items include Finland's guarantees to the European Financial Stability Facility (EFSF) and security deposits associated with derivative contracts. Other items included in EDP debt include capital in the National Nuclear Waste Management Fund, debt arising from the government's PPP projects, and coins in circulation.

8 In accordance with the Eurostat guidelines, Statistics Finland will carry out an assessment this year to determine whether Finnvera will be classified as a financial institution or a public sector entity. In the latter case, Finnvera's debt would, in the future, be included in public debt.

rowing by the European Financial Stability Facility has added more than EUR 3.5 billion to Finland's public debt.

Government debt management risks

Debt management refers to budgetary borrowing, the investment of the government's cash assets, the risks arising from budgetary debt and invested cash assets, and the management of such risks. Cash assets consist of funds in government accounts in financial institutions and in the Bank of Finland.

The objective of the government's budgetary debt management is to meet government budgetary borrowing needs and to minimise debt-related costs at a risk level considered acceptable in the long term. A policy specifying the objective of risk management and acceptable risk levels has been prepared for debt management related risks.

The government assumes no foreign exchange risk in its borrowing activities. Flows relating to the government's other income and expenses in foreign currencies are examined individually for each currency and managed primarily from the viewpoint of liquidity management. The foreign exchange risk associated with these cash flows is managed within the framework of the limitations imposed.

A quantitative model has been drawn up for the interest rate risk associated with debt and a target has been set. The Ministry of Finance makes decisions concerning the debt management policy and provides instructions to the State Treasury, which is responsible for the operative side of debt management.

Government debt management risks can be grouped as follows:

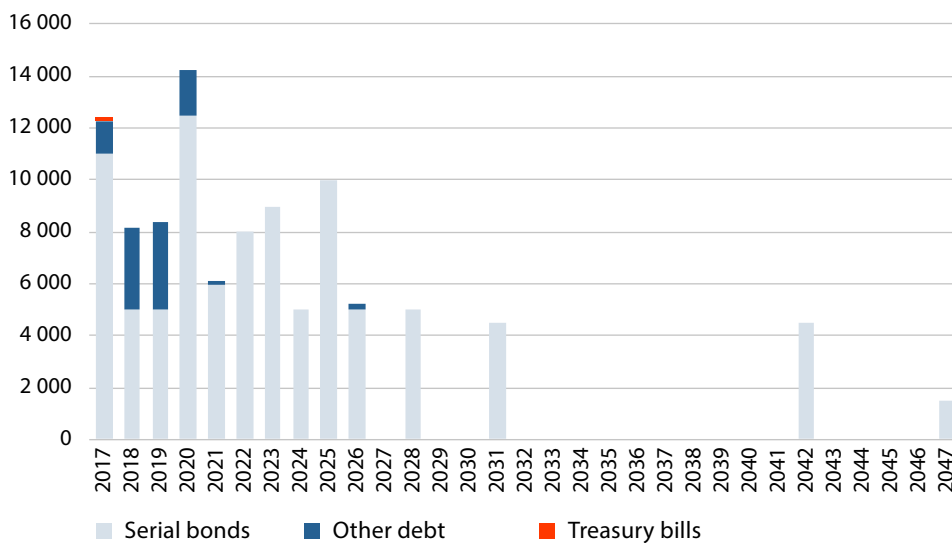
- Financial risks (liquidity and refinancing risks)
- Market risks (interest rate and foreign exchange risks)
- Credit risks, and
- Legal and operational risks, and model risks

Financial risks include risks associated with the availability or terms of financing. This may refer to the risk of insolvency or an increase in the cost of debt caused by exceptional market conditions, government credit rating decline, or other adverse economic conditions. At present, borrowing accounts for approximately 10% of government income. Even if central government finances were balanced, loans maturing annually need to be refinanced with market financing. In 2016, government borrowing was approximately EUR 17 billion gross and EUR 2.3 billion net.

Liquidity risk refers to a situation in which the sources of financing available to the government are insufficient to allow the government to cost-efficiently meet its payment obligations in the next 12 months.

The objective of financial risk management is to ensure that the government is able to fulfil its payment obligations in any given situation. This is achieved by maintaining sufficient short-term liquidity with cash assets and invested liquid assets. To ensure long-term liquidity, fundraising is diversified to avoid excessive reliance on individual sources and the formation of temporal financial risk clusters. For this purpose, long-term fundraising is arranged in such a way as to permit evenly spread maturities for government loans over future years.

Figure 4. Government debt amortisation in 2017–2043 (31 December 2016), EUR million



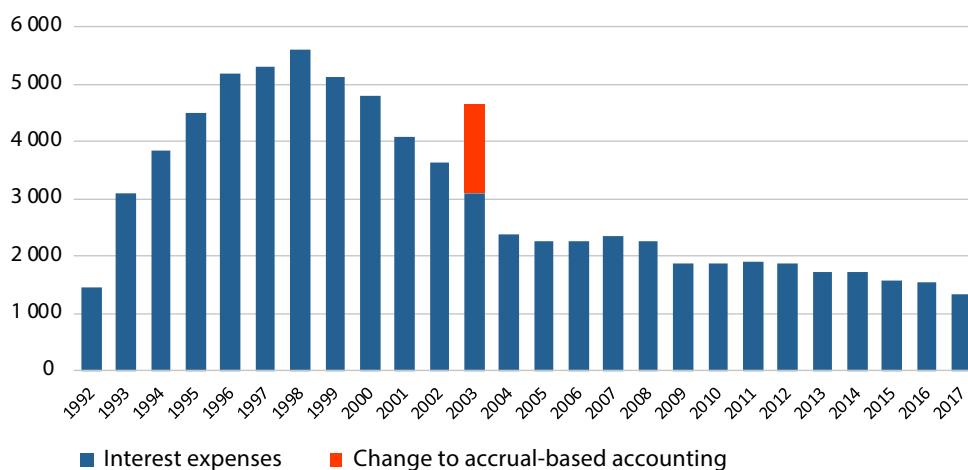
Source: State Treasury

Government debt securities, cash assets and other debt management instruments involve interest rate risk.

In government debt management, interest risk assessment (debt, cash assets, other debt management instruments) is based on Cost at Risk (CaR) analysis, in other words an analysis of the variance of interest cash flow. This includes systematic modelling of the interest sensitivity of the debt, and comparison of the costs of different debt management strategies using model analyses. The purpose of the strategic interest rate risk target selected on the basis of analyses is to minimise expected long-term interest expenses at the selected

risk level. Despite central government debt having almost doubled since 2007, interest expenses have remained virtually unchanged or even decreased somewhat (Figure 5).

Figure 5. On-budget interest expenses, EUR million



Source: State Treasury

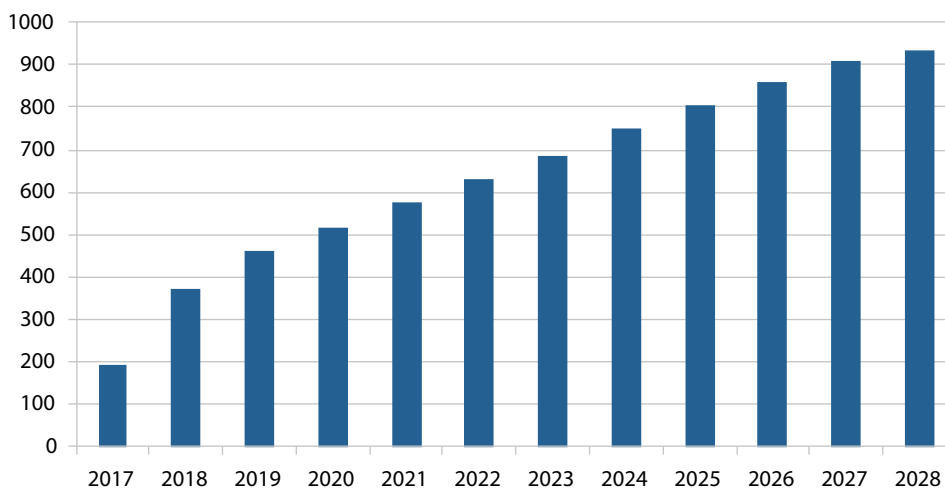
The interest rate risk associated with debt management can also be analysed using the concept of budgetary risk; this involves examining the change in interest expenses when the general interest rate level rises permanently by one percentage point. This type of rate increase would lead through current debt repricing to an increase in the government's budgeted/forecast interest expenses which would, in 2019 for instance, be approximately EUR 500 million higher than projected.

Budgetary risk in Figure 6 shows the change in interest expenses when the amount of debt remains unchanged.

Credit risk refers to the risk of loss in the event of the counterparty's insolvency. The government's credit risks arise from cash assets, invested liquid assets and derivative contracts. Credit risk is measured using receivables at risk. The objective of debt-management related credit risk management is to minimise risks.

Foreign exchange risk refers to the risk of financial losses caused by a change in currency exchange rates. In accordance with the current debt management policy, the Finnish Government does not assume any foreign exchange risks in its debt management activities. Foreign exchange risk associated with other income and expenses in foreign currencies is managed within the framework of the limitations imposed.

Figure 6. Change in net interest expenses when interest rates rise by one percentage point, 2017–2028, EUR million



Source: State Treasury

Government debt management also entails operational, legal and model risks. The purpose of debt management is to minimise these risks, which in practice means adequate competence and resourcing, clearly defined processes and internal control, and, in terms of legal risks, having standard documentation practices in place.

4.1.2 Life cycle model (public-private partnership, PPP)

Within the Budget, Parliament authorises the Finnish Transport Agency to carry out life cycle projects. Such authorisation includes the costs of actual road construction, and the service fee for road maintenance payable to the road infrastructure company. To this end, Parliament decides annually on the agreed allocations. In a life cycle model, or a public-private partnership, PPP, the service provider (road infrastructure company) is responsible for project financing, planning, implementation and maintenance as agreed for a period of approximately 15–25 years.

Projects being carried out under a life cycle model for which agreements are currently in effect:

- E18 Muurla–Lohja (EUR 700 million), completed in 2008, agreement in effect until 2029
- E18 Koskenkylä–Kotka (EUR 650 million), completed in 2014, agreement in effect until 2026
- E18 Hamina–Vaalimaa (EUR 660 million), completion in 2018, agreement in effect until 2035

The life cycle model was also used in the construction of the Järvenpää–Lahti motorway but the agreement is no longer in effect and the project has been paid for in full. The life cycle model has been used to carry out major new road construction projects.

It has been suggested that the model should only be used if the cost of project implementation is lower than with direct budget financing. However, there are no comparison data available to prove this. In the case of the life cycle model, the agreement includes financing costs, whereas this is not the case with projects funded from the budget. It is fair to assume that based on its good credit rating, the Finnish government could acquire funding on more favourable terms than a private road infrastructure company. The cost-efficiency of project implementation would then rely on the assumption that the project would be carried out more efficiently and with better results than a budget-funded project. No such cost-efficiency has been clearly proven to date, however.

Generally speaking, the risks involved in a life cycle model include, besides financing risk, also an increase in building costs, delays and quality issues in construction work, and maintenance quality and cost risk. There were no delays in the completed projects VT4 Järvenpää–Lahti and E18 Koskenkylä–Kotka, and the construction period was shorter than anticipated. The actual construction works in the E18 Muurla–Lohja motorway project were completed ahead of schedule, but some problems occurred during implementation and efforts to resolve them caused a slight delay in the project's completion. It has been suggested that the model should be improved by focusing more on risk sharing at the tendering stage. It has also been pointed out, however, that it is challenging for the client to identify the correct level of risk allocation because common European financing terms and conditions do not exist.

The life cycle model ties up government funds for decades, limiting the opportunities of future governments to start new projects. In the 2018–2021 budget planning period, life cycle projects represent approximately 25–39% of appropriations allocated under key transport network items (31.10.77, 31.10.78 and 31.10.79). It is already apparent that the authorised total for the E18 Muurla–Lohja project will likely be exceeded by roughly EUR 35 million due to actual cost development, whereas the E18 Hamina–Vaalimaa project will probably undercut the authorised total by some EUR 60 million thanks to successful tendering.

Table 3. Life cycle projects in the Budget, EUR million

Life cycle projects: 31.10.79	Authorisation	2008–2021	2022–2026	2027–2036	2008–2035
E18 Muurla-Lohja	700.0	498.9	145.10	91.0	735.0
E18 Koskenkylä–Kotka	650.0	406.8	243.2	0.0	650.0
E18 Hamina–Vaalimaa	660.0	149.0	156.0	295.0	600.0
TOTAL	2,010.0	1,054.7	544.3	386.0	1,985.0

Source: Ministry of Finance

4.1.3 Multiannual government liabilities

The table below indicates the government's multiannual liabilities. The largest item in the State budget economy is government pension liabilities.

Table 4. Government liabilities 2006–2016, EUR billion

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Liabilities / state budget economy*	88.25	93.57	96.13	99.48	103.34	110.43	116.96	115.38	130.40	128.30	126.89
Other multiannual liabilities, appropriations required	-	-	-	-	-	6.79	8.69	8.95	7.48	6.81	6.26
Government pension liability	79.30	82.70	85.60	88.40	90.60	89.70	92.60	94.00	95.40	95.70	93.00
Appropriations required following the exercise of authorisations	8.95	10.87	10.53	11.08	12.74	12.76	14.50	11.28	10.00	9.28	9.62
Liabilities / Off-budget entities	-	-	-	-	0.32	0.39	0.53	0.58	0.74	0.92	1.20
Other multiannual liabilities, appropriations required	-	-	-	-	-	0.05	0.06	0.06	0.07	0.16	0.13
Investment commitments	-	-	-	-	0.32	0.34	0.47	0.52	0.67	0.76	1.07
Liabilities / State enterprises	-	-	-	-	1.40	1.50	1.50	1.80	1.80	1.60	1.40
Senate Properties' loans	0.71	0.84	1.08	1.29	1.00	1.06	1.20	1.22	1.35	1.08	1.69
Rental liabilities	-	-	-	-	0.27	0.25	0.25	0.26	0.26	0.36	0.38
Leasing liabilities	-	-	-	-	0.01	0.01	0.01	0.01	0.01	0.01	0.07
Investment commitments	-	-	-	-	0.13	0.15	0.06	0.13	0.14	0.20	0.10

* Includes the capital liabilities presented in Table 5 in addition to the below

Source: State Treasury

Pension liability means the amount required, including future investment income, to cover the costs of pension benefits accumulated. Government pension liabilities indicate the total cost of the government's pension commitment to former and present employees included in the government pension system.

Besides the expected return on investment, other factors affecting pension liabilities include the life expectancy of the insured, the retirement age and the number of people retiring due to disability. In practice, pension liability changes annually: those employed continue to earn more pension, new people retire, and people entitled to pension die. At the end of 2016, government pension liabilities totalled approximately EUR 93 billion and the funding rate was 20%.

Government pensions paid out amounted to approximately EUR 4.5 billion in 2016. Pensions are paid out of appropriations reserved in each year's budget. Every year, the amount recognised as revenue in the budget by the State Pension Fund accounts for 40% of the year's pension expenses. Approximately EUR 1.8 billion was transferred into the budget in 2016. Considering that contributions in 2016 totalled roughly EUR 1.5 billion, the Fund's net contributions came to approximately EUR 300 million.

The income of the State Pension Fund consists of employer and employee pension contributions on the one hand and of investment income on the other. The funding system for the government pension expenses is exposed to risks arising from unexpected changes in the wage bill on the one hand and in investment assets and return on investment on the other. The development of pension expenditure also involves uncertainties. While a decrease in the wage bill would weaken the Fund's income base, from the government perspective it would not only reduce direct labour costs, but also curb the growth of pension liabilities. In concrete terms, the realisation of risks would increase the need for direct budget financing for the payment of pensions if the Fund was unable to comply with the current practice of recognising 40% of the government pension expenditure as income in the budget.

At the end of 2016, the State Pension Fund's investments had a market value of EUR 18.8 billion. Equity investments account for 45% of these, fixed income investments 46% and other investments 9%. The risk level guidelines in investment activities are governed by the allocation limits set by the Ministry of Finance as well as by the investment plan, investment limits and risk management plan annually approved by the Board of Directors of the State Pension Fund. Responsibility for arranging operational risk management in investment activities resides with investment management. Portfolio stress testing is reported to the Fund's risk management committee and the government on a quarterly basis.

Other multiannual liabilities amounted to approximately EUR 6.3 billion in 2016. These include i.a. rental agreements for government agencies and universities, compensation payable under government accident and motor vehicle insurances, and agreements and contracts related to basic transport infrastructure management. This information has only been included in the government's annual report since 2011.

An authorisation to commit to an investment, an acquisition or a subsidy may be granted in the budget. When such authorisations are exercised, appropriations are required in the budget. The ceiling for these appropriations is the maximum amount of the authorisation. Appropriations based on authorisations granted in the budget year or earlier increased in the 2000s and reached a peak of EUR 14.5 billion in 2012. In 2016, the appropriations required due to authorisations had decreased to just over EUR 9 billion.

The multiannual liabilities of off-budget entities and State-owned enterprises are relatively small. The biggest item is the State Pension Fund's investment commitments (binding commitments which have not been paid out yet, but for which there are existing agreements), which amounted to roughly EUR 1 billion in 2016.

Senate Properties finances its real estate investments through loans from the State Treasury. Senate Properties is a State-owned enterprise and the government answers for the loans taken out by Senate Properties earlier from financial institutions. The Act on State Treasury (305/1991) was amended in 2014 such that the State Treasury is permitted to manage Senate Properties' borrowing in conjunction with the government's current borrowing. Funding through the State Treasury keeps Senate's own financing expenditure lower. New loans taken out by Senate Properties through the State Treasury amounted to EUR 530 million in 2016. Loan repayments during the year totalled EUR 535 million. Net borrowing thus came to EUR 5 million.

Government liabilities for the loans of Senate Properties stood at EUR 1,689.6 million at the end of 2016. Government loans accounted for EUR 866.8 million and loans from financial institutions for EUR 830.3 million. Senate Properties has a high equity ratio, 62% in the financial statements for 2016, and its income financing is strong. Senate Properties hedges against interest rate risk in accordance with the relevant risk policy prepared by its Board of Directors.

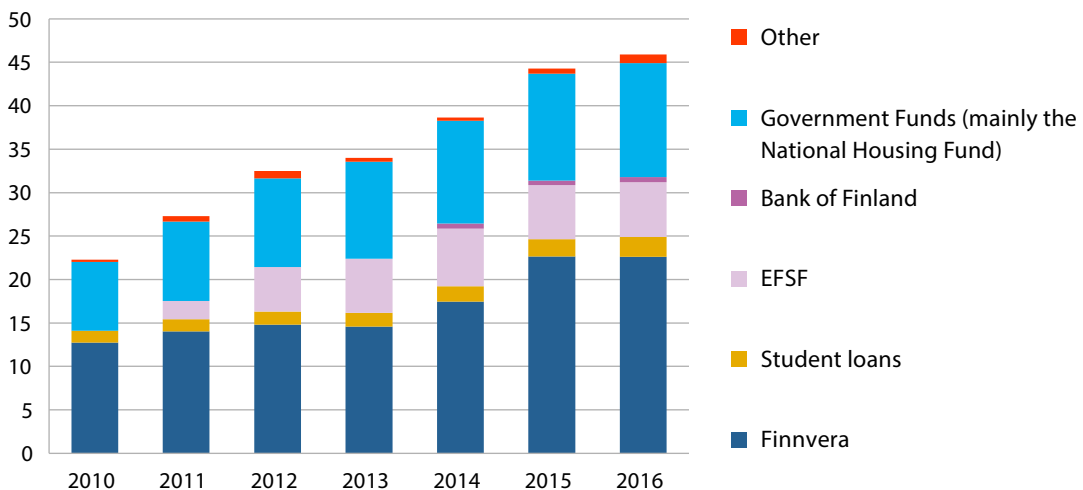
4.2 Contingent government liabilities

This Chapter addresses so-called off-balance sheet liabilities, which include government guarantees, other multiannual liabilities and capital liabilities. Government guarantees have been issued i.a. to Finnvera, students, state enterprises, the European Financial Stabilisation Facility, and the Bank of Finland. Guarantees are also provided by off-budget entities.

4.2.1 Government guarantees⁹

Growth of the government guarantee portfolio has levelled off and the portfolio increased by EUR 1.7 billion in 2016. According to the (preliminary) final central government accounts, the maximum government guarantees available totalled nearly EUR 63 billion at the end of 2016. Guarantees in effect accounted for approximately EUR 46 billion¹⁰ of the maximum. The largest liabilities relate to Finnvera's export financing and the activities of the National Housing Fund.

Figure 7. Development of government guarantees, EUR billion



Source: Ministry of Finland, State Treasury

⁹ Government guarantee refers to a legal commitment by the state to assume liability for the debt of another party. Meanwhile, government collateral is a legal commitment to compensate for the losses arising from certain activities.

¹⁰ The maximum amount of government guarantees refers to the maximum amount based in law and approved by Parliament. Guarantees in effect refers to the amount by which the government is actually encumbered. As a rule, the maximum amount of guarantees and guarantees in effect are the same.

Table 5. Government liabilities 2006–2016, EUR billion

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Finnvera*	7.25	7.20	10.52	13.40	12.75	14.02	14.81	14.58	17.46	22.64**	22.60
Export guarantee and special guarantee activities, total liabilities	5.07	4.98	8.29	9.67	8.93	10.37	11.20	11.00	12.60	16.28	15.3
Domestic liability portfolio	2.18	2.22	2.22	2.65	2.79	2.77	2.68	2.53	2.32	2.25	2.23
Government guarantees on loans	-	-	-	1.09	1.03	0.89	0.92	1.06	2.55	3.94	4.85
Student loans	1.31	1.31	1.31	1.33	1.36	1.41	1.49	1.58	1.77	2.01	2.33
EFSF	0	0	0	0	0	2.10	5.13	6.23	6.61	6.23	6.28
Bank of Finland	3.99	3.75	3.86	3.80	3.89	3.89	4.07	7.66	7.92¹	0.46	0.61
Government funds	5.40	5.60	5.70	6.30	7.91	9.15	10.20	11.17	11.84	12.31	13.10
National Housing Fund	5.40	5.60	5.70	6.30	7.85	9.08	10.15	11.12	11.80	12.26	13.06
Development Fund of Agriculture and Forestry	-	-	-	-	0.01	0.02	0.02	0.03	0.03	0.04	0.04
National Export Guarantee Fun	-	-	-	-	0.05	0.04	0.03	0.03	0.00	0.00	0.00
Other	0.25	0.23	0.35	1.16	0.28	0.63	0.84	0.45	0.34	0.59	1.05
TOTAL	18.19	18.09	21.73	25.98	26.18	31.20	36.54	41.67	38.62	44.24	45.97

** The figures for Finnvera have been updated in respect of 2009–2005 to correspond to Appendix 12 to the final central government accounts. The government guarantee granted for the EMTN loan programme also covers interest swaps and currency swaps. Derivative contracts are concluded within the framework of the standard international ISDA Master Agreement and a Credit Support Annex (CSA) related to the collateral arrangement and serving to reduce credit risk is also incorporated into the agreement. The figures for Finnvera include liabilities in effect. Any overlapping liabilities among the different guarantees have been eliminated. Unlike in the equivalent documents for 2015 and 2016, government guarantees for derivative contracts have been excluded from the figures for Finnvera in this report. The liabilities related to export guarantees and guarantees on borrowing are not cumulative such that they could be realised in the combined full amount. The risk related to the repayment of export credit granted by Finnish Export Credit, which is part of Finnvera Group, is covered by an export guarantee granted by the parent company Finnvera plc. The government's liability for this guarantee is 95% as a rule. Where debt guaranteed by the government has been applied towards financing export credit, the government's liability is not doubled.

**** The 2015 figure for Finnvera furthermore adjusted as follows: the figure is EUR 1,010 million lower than reported in the 2015 financial statements. The adjustment is due to change in manner of reporting, Appendix 12.

Sources: Ministry of Economic Affairs and Employment, Ministry of Justice, State Treasury

¹ Until 2014, this figure represents the maximum amount available at the time and not the amount in effect at the time due to the Bank of Finland only starting to report the amounts in effect in 2015.

Export financing by Finnvera plc

There are three types of public export financing instruments in Finland: government export guarantees, interest equalisation, and export and ship credits. Export financing is provided through Finnvera, a specialised financing company owned by the State of Finland, and its wholly owned subsidiary Finnish Export Credit. Finnvera also provides financing to SMEs in Finland.¹¹

The government grants authorisations as a means of regulating the scope of public export financing activities. In its programme, the current Government set the objective of aligning the elements of export financing and the level of financing at least with those of

11 Liabilities with regard to domestic financing have not increased in step with those relating to export financing. The statutory portfolio of liabilities subject to an obligation to cover credit and guarantee losses in domestic financing totalled c. EUR 2.6 billion at year-end 2016.

key competitor countries. The authorisations related to the export financing system have indeed been increased on several occasions over the past few years and twice in 2016, in April and again in December. In 2016, the following increases in the maximum authorisations for export financing were approved by Parliament:

- the combined maximum authorisation to Finnvera plc for export guarantees and hedging arrangements was raised to EUR 27 billion;
- the maximum authorisation to Finnish Export Credit for export and ship credit was raised to EUR 22 billion;
- the interest equalisation authorisation was likewise raised to EUR 22 billion;
- the guarantee authorisation for special risk-taking was raised to EUR 5 billion;
- the maximum authorisation to Finnvera for government guarantees on funding was raised to EUR 15 billion; and
- the maximum authorisation for any loan arrangement granted to Finnvera by the government was raised to EUR 3 billion.

Over the same time frame, total government liabilities related to export financing have increased rapidly. In 2005, total liabilities amounted to just under EUR 5 billion; by the end of 2016, total liabilities related to export guarantees and associated hedging arrangements had ballooned to EUR 18.4 billion¹². Guarantees on Finnvera's funding were further in effect to the amount of EUR 4.9 billion¹³ at the end of 2016. The aforementioned increases in the maximum authorisations for export financing would suggest that this intense rise in the government's liabilities will persist in the coming years despite there being no increase in Finnvera's total liabilities in 2016. A number of factors may result in the realisation of the liabilities related to export guarantees and guarantees for Finnvera's funding. However, these liabilities are not accruing in the sense that they could be realised in the combined full amount. The risk related to the repayment of export credit granted by Finnish Export Credit, which is part of Finnvera Group, is covered by an export guarantee granted by the parent company Finnvera plc. The government's liability for this guarantee is 95% as a rule. Where debt guaranteed by the government has been applied towards financing export credit, the government's liability is not doubled.

12 The figure includes liabilities in effect and liabilities for tenders. Any overlapping liabilities have been eliminated. The statutory total amount of liabilities (maximum liability EUR 27.0 billion) stood at EUR 14.4 billion at year-end 2016.

13 The government guarantee also covers the interest and currency swaps associated with loans. As at 31 December 2016, the nominal value of these swaps was roughly EUR 4.9 billion. Derivative contracts are concluded within the framework of the standard international ISDA Master Agreement and a Credit Support Annex (CSA) related to the collateral arrangement and serving to reduce credit risk is also incorporated into the agreement. According to the company, the CSA limits counterparty risk to approximately EUR 5 million per counterparty. Finnvera states that ten counterparties could thus expose it to a guarantee liability of roughly EUR 50 million. In the event of dissolution, hedging contracts may of course also be advantageous to the government.

Finnvera's activities involve risks such as credit and guarantee risks, financing, interest and currency risks, and operational risks. Finnvera's Board of Directors confirms the principles of risk management, the policies to be observed, and the guidelines for risk-taking. Finnvera's risk appetite is determined so that its equity and other risk buffers are deemed adequate relative to the level of risk taken.

Finnvera uses the statistical model VaR (Value at Risk) to assess its credit risks. The credit risk model is based on an assessment of the probability of default, the loss given default, and the exposure at default. In export guarantee activities, the probabilities of default are derived from the ratings of credit institutions while the losses given default are estimated on an empirical basis. Risks associated with individual counterparties and clusters are hedged, to some extent, through reinsurance. The VaR model seeks to estimate the probability that losses from the liability portfolio will not exceed a given euro amount. The model indicates that with a probability of 99% losses on the total liability portfolio calculated at year-end 2016 will not exceed EUR 1.3 billion. When only liabilities drawn by 31 Dec 2016 are included in the liability portfolio, the VaR figure falls to EUR 578 million. Another risk indicator estimated expected loss, or average annual losses. Annual income should cover expected loss. Finnvera estimates that expected loss on liabilities drawn stood at EUR 50 million at year-end 2016.

As the export financing provider, Finnish Export Credit commits to pre-agreed terms of credit (incl. Commercial Interest Reference Rates, CIRR¹⁴) over a long delivery time. Customers may nonetheless be given alternatives with respect to loan withdrawal, terms of interest and currency due to the competitive situation. Such flexibility offered to customers means that financing and interest rate risks are associated with Finnvera's funding. According to its policy, Finnvera primarily covers financing risk with a prefunded liquidity buffer. In addition, the company's financing risk is covered by the credit line included in the Budget, the maximum authorisation of which Parliament raised to EUR 3 billion at the end of 2016. The interest risk associated with fixed-rate export credits is transferred to the State with interest equalisation agreements. If the interest rate is set at a very low level (CIRR excluding margin) in accordance with the OECD export credit agreement, for competitive reasons, the State may be exposed to a significant interest rate risk depending on the terms and conditions of the transaction and the market conditions.

The State of Finland incurs significant financial liabilities from Finnvera's activities. Any losses arising from Finnvera's export financing activities may be covered from two funds. Losses from export guarantee activities are primarily covered from the reserve for export credit guarantee and special guarantee operations in Finnvera's balance sheet, which at

14 The CIRR interest is based on the return on long-term government bonds, plus a fixed margin.

the end of 2016 amounted to EUR 668 million.¹⁵ Losses are secondarily covered from an off-budget fund, the National Export Guarantee Fund, which has an equity of roughly EUR 666 million. If the reserves are insufficient, Finnvera's losses will ultimately be covered from the State Budget.

From Finnvera's risk management perspective, the strong focus in export financing on three sectors may turn out to be problematic. Taken together, the telecommunications, shipbuilding and forest industry sectors represent 88% of corporate liabilities. This exposes the company's risk management to so-called model risk, if the realisation of corporate liabilities correlate more strongly than anticipated¹⁶. This issue was also raised in the international evaluation of Finnvera's export financing completed early in the year. Finnvera's three largest customers account for 35% of the company's credit risk (i.e. EUR 5.3 billion), its ten largest for 61% (i.e. EUR 9.2 billion) and its twenty largest for 82% (i.e. EUR 12 billion). Presuming that the company's largest customer were to go bankrupt and the company could collect on only 43% of its claim, this would drain the entire loss buffer in Finnvera's export financing reserves.

From the perspective of financial and market risk (such as interest rate and currency risk) management, the pressure to provide financing at very competitive rates and with various options is also problematic. Loan pricing should be market-based, meaning that all market risks are transparently priced and included in the cost of the loan (i.e. a margin on top of the CIRR and a fee/premium). Similarly, limiting the options offered to customers would facilitate risk hedging. The opportunities for providing market-based export credit are generally limited by competitive factors, as Finnvera strives to offer terms similar to those of public export financing institutions in competitor countries. A key consideration in terms of risk management is indeed to work towards modification of OECD credit loan agreement terms modified to achieve greater consistency with market terms.

Liabilities associated with financial assistance programmes in the euro area (euro crisis management)

Finland's total liabilities arising from the euro crisis that began in 2010 amounted to roughly EUR 9.5 billion at the end of 2016. These consist of a bilateral loan to Greece, guarantees given for fundraising to the European Financial Stability Facility (EFSF) and capital contributions paid into the European Stability Mechanism (ESM). With Cyprus exiting the

¹⁵ This provides cover also against losses in domestic financing. In accordance with the obligation to cover credit and losses, the government has undertaken to make primary compensation for 35–80% of losses from SME financing. Any losses beyond this government compensation will be covered from Finnvera's domestic operations fund, which at year-end 2016 held EUR 155 million, and from other equity (EUR 384 million).

¹⁶ Any development with a significant impact on the profitability of shipping companies may result in the realisation of the liabilities. This might be, for example, the creation of excess capacity in the market or a major decline in demand. It is very difficult to model this type of risk.

financial assistance programme in spring 2016, the only financial assistance programme remaining under way concerns Greece.

Table 6. Liabilities associated with financial assistance programmes in the euro area (31 Dec 2016), EUR billion

Country	Bilateral loans	EFSF loans	ESM loans	IMF	EFSM loans	Total	Finland's calculated share
Greece	52.9	130.9	31.7	12.9	-	228.4	4.2
Cyprus	-	-	6.3	1.0	-	7.3	0.1
Portugal	-	26.0	-	16.3	24.3	66.6	1.0
Ireland	(4.8)**	17.7	-	4.8	22.5	49.8	0.7
Spain	-	-	34.7	-	-	34.7	0.6

*Finland's calculated share of the financial assistance given. The figure is different from Finland's guarantee and capital liabilities. The figures do not include interest on the EFSF/ESM programmes.

**The United Kingdom, Sweden and Denmark made a bilateral loan to Ireland amounting to a total of EUR 4.8 billion.

Source: Ministry of Finance, European Stability Mechanism ESM, International Monetary Fund IMF

Bilateral loan to Greece

As part of Greece's first programme, Finland granted Greece a bilateral loan of EUR 1.005 billion in 2010–2011. The loan was granted under an intergovernmental loan agreement. The loan repayment period is 2020–2041, and the rate of interest is the 3-month Euribor + 50 basis points. Greece will pay annual interest on the loan. Cumulative interest and commissions at the end of 2016 totalled EUR 71.7 million. The interest rate was lowered and the repayment period extended on three occasions in 2011–2012. The loan was conditional on a commitment by the Greek government to make economic policy reforms, whose implementation is supervised by the European Commission in cooperation with the European Central Bank.

European Financial Stability Facility (EFSF)

EFSF is a limited liability company founded by the euro area member states in Luxembourg in 2010 to serve as a temporary crisis resolution mechanism by providing financial assistance to euro area member states. Fund raising by the EFSF is backed by guarantees of the euro area member states. The guarantee also covers interest and over-guarantee. The maximum amount of the EFSF funding programme approved in February 2012 is EUR 241 billion, used to provide financial assistance to Greece, Ireland and Portugal. No new financial assistance has been provided by the EFSF since 30 June 2013. The total amount of funds raised may exceed the specified maximum as the EFSF interest rates rises, until Greece begins its loan amortisation in 2023.

Finland's share of guarantees in the funds raised by the EFSF, including interest and over-guarantee, was approximately EUR 6.28 billion on 31 December 2016.

On 31 December 2016, the nominal-value loan receivables of the EFSF from Greece amounted to approximately EUR 130.9 billion, from Ireland EUR 17.7 billion, and from Portugal EUR 26 billion. Portugal and Ireland have exited the financial assistance programme and made a successful return to the bond market. Greece's EFSF programme expired on 30 June 2015. EFSF financial assistance totalling EUR 13.7 billion was undisbursed for Greece's second programme.

The EFSF funding programme approved in February 2012 totalled EUR 241 billion, of which a loan principal of approximately EUR 185.1 billion or approximately EUR 204.4 billion including net interest, was in use in December 2016 for the funding of financial assistance programmes of Greece, Ireland and Portugal. Finland's share of the used principal and net interest was approximately EUR 3.94 billion, and with over-guarantees approximately EUR 6.28 billion. From the end of June 2016, Finland's guarantee liabilities fell by approximately EUR 110 million. The fluctuation in the guarantee liabilities is primarily due to the schedules of EFSF bond maturities and issuances.

The lending terms of the EFSF programmes for Greece, Ireland and Portugal were eased during the programme period. In 2011–2012, the countries were given a grace period of 10 years. The weighted average maturities were furthermore extended to 21 years for Ireland and Portugal and to 32.5 years for Greece. The interest rate was lowered to match the EFSF's funding expenses. In 2012, an agreement was made to capitalise the interest on Greece's EFSF loans for a period of 10 years. New funding is required to cover this capitalisation. Changes in the lending terms mean that the EFSF will require funding for longer and the need for funding will only start to diminish when loan repayment begins. Consequently the EFSF will continue to need guarantees on its funding.

European Stability Mechanism (ESM)

The purpose of the European Stability Mechanism (ESM) is to safeguard financial stability within the euro area using funds raised from the markets. The ESM is a permanent stability mechanism acting as an international financial institution, backed up by its own paid-in capital. The maximum lending capacity of the ESM is EUR 500 billion. The EUR 704.8 billion subscribed capital of the ESM consists of EUR 80.55 billion in paid-in capital and a maximum of EUR 624.3 billion in callable capital. The ESM shareholder contribution key is based on the ECB capital subscription.

Finland's capital subscription to the ESM is approximately EUR 12.58 billion, with paid-in capital accounting for approximately EUR 1.44 billion and callable capital for approximate-

ly EUR 11.14 billion. The Finnish government used approximately EUR 1.44 billion worth of funds from the 2012 Budget to capitalise the ESM. Participation in the ESM also entails a commitment by the government to contribute EUR 11.14 billion in callable capital in the event of the insolvency of the ESM, or if the reserve fund and paid-in capital are insufficient to cover losses. The need to contribute callable capital in the future depends on whether new financial assistance programmes will be approved, and to what extent the euro area is able to restore stability in the near future. The commitment to contribute callable capital may account for up to 5% of Finland's GDP. Paid-in capital of EUR 1.44 billion accounts for less than 1% of GDP. This is not a contingent liability; instead, it is regarded as a government asset.

At the end of 2016, the ESM's lending capacity amounted to EUR 500 billion with approximately EUR 72.7 billion being used. A total of EUR 127 billion of the overall capacity was tied up in the programmes of Spain, Cyprus and Greece. The available capacity stood at EUR 373 billion in December. The financial assistance programme granted to Greece in summer 2015 is the only ESM programme currently under way. The programme is capped at EUR 86 billion. At the end of December 2016, ESM loans to Greece totalled EUR 31.7 billion. Tranches of the remaining EUR 54.3 billion may be made available until 21 August 2018 in step with Greece's fulfilment of the conditions of the programme. The size of the tranches will be determined in the context of each mid-term evaluation.

Cyprus successfully completed its adjustment programme in March 2016 and returned to the financial markets. The country's banking sector was successfully stabilised during the programme. The sum of EUR 9 billion was set aside for Cyprus in the ESM and the sum of EUR 6.3 billion was disbursed.

At the end of 2016, ESM's loan to Spain totalled EUR 34.7 billion. Spain made a voluntary early repayment of EUR 1 billion of financial assistance in November 2016. In total, Spain has repaid EUR 6.6 billion of the financial assistance of EUR 41.3 billion disbursed to it, EUR 6.3 billion of it ahead of schedule.

Management of risks related to the euro area stability mechanisms

The financial impacts, liabilities and risks associated with financial assistance programmes are assessed from Finland's perspective before programme approval. Financial assistance programmes require a unanimous decision of the euro area countries. After the start of a programme, there are also other factors limiting the risk involved. All decisions and actions affecting the nominal value of the loan require a unanimous decision. Under Article 125 of the Treaty on the Functioning of the European Union, a Member State shall not be liable for the commitments of another member state. Accordingly, it is not possible to record losses by cutting the nominal value of a loan. In risk assessment, consideration may

be given to the fact that, historically speaking, insolvency among developed economies is extremely rare

The main vehicle for managing liability risk is the conditionality of financial assistance, specified in detail after the approval of a financial assistance programme. Financial assistance is conditional to implementing agreed reforms designed to rehabilitate the economy and society; progress made with such reforms is monitored and assessed regularly. These reviews are carried out by the commission and the ECB, in cooperation with the IMF where necessary. A representative of the ESM also takes part in the evaluation. Disbursement of loan tranches during the programme is conditional on beneficiary country meeting the agreed mid-term financial reform objectives (conditionality).

A financial assistance programme ordinarily has a duration of three years. After the close of the programme, the country in question will remain in post-programme monitoring until 75% of the financial assistance it was granted has been repaid. The risk of the country failing to repay its EFSF, EFSM and ESM loans is assessed in connection with semi-annual reporting, which is part of the post-programme monitoring.

The low interest rates reduces the interest expenditure arising from the assistance loans given to the programme countries; this decreases the risk associated with repayment. In 2016, the interest rate on the EFSF and ESM loans ranged from appr. 1% to 1.35% and the loan period was 20–30 years. The inexpensive loans and the reforms the programme countries are required to implement will improve their competitiveness and the sustainability of public finances, particularly in the medium to long term. This will make them better equipped to repay their loans and will decrease Finland's liability risk.

The ESM's preferred creditor status, immediately after the IMF, limits the risks to which the ESM and thereby the euro area countries are subject. Bilateral and EFSF loans do not have a similar status. Under the ESM agreement, any losses would be covered firstly from the reserve fund and, if the fund is insufficient, from paid-in capital. A return, which can be placed in the reserve fund, also accrues on the ESM's paid-in share capital of EUR 80.55 billion. If these are not sufficient, losses will be covered from the callable capital. If paid-in capital has been used to cover losses, a simple majority decision may be made to restore the paid-in capital to its previous level.

Based on the guarantees given, Finland may have to make payments to the EFSF if a beneficiary country fails to repay the financial assistance or its interest to the EFSF. In such a case, Finland would have to pay the EFSF an amount representing its share of guarantees required by the EFSF in order to make payments to its financiers in keeping with its commitments. Moreover, the EFSF's diversified funding strategy involves operational risks and

counterparty and market risks which may to some extent materialise regardless of the beneficiary's solvency.

Finland has received collateral payments to limit the risks associated with financial assistance provided under the second programme for Greece and the programme for Spain. The value of the collateral arrangement represents 40% of Finland's calculated share of the loan. The market value of the accumulated collateral is approximately EUR 0.3 billion in Spain's programme and approximately EUR 0.93 billion in Greece's programme. All told, the market value of collateral given to Finland stood at approximately EUR 1.23 billion on 31 December 2016. The collateral payments, made in euro, have been invested in government bonds in euro countries with high credit ratings (Finland, the Netherlands, Austria and France).

Assessment of risks related to the euro area stability mechanisms

There are a number of ways to assess the risks for Finland arising from the management of the debt crisis within the euro area. One way is to calculate the total liabilities for Finland of different financial instruments and assess the potential of these to jeopardise the sustainability of Finland's public finances if, in extreme conditions, Finland was required to answer for all of its liabilities.

Another way of assessing the risks related to Finland's liabilities is to make assumptions, based on existing market information, as to the liabilities and the probability of default by existing and potential beneficiary countries, as well as to the expected value of financial losses in the case of receivables being restructured. Simplified assumptions, such as the following, must be made to calculate the expected value of a potential financial loss: (1) the probability of default by existing and potential future crisis states is assumed to be 30%, and (2) in the event of insolvency, the write-down on EFSF funding is 40% and for the ESM it is 10%. Due to its preferred creditor status, the IMF has not been forced to write down receivables from crisis funding provided to emerging economies. In the case of the ESM, the write-down could be set on a formulaic basis at 10%. Furthermore, (3) in addition to the current EFSF programmes for Ireland, Portugal and Greece, total financial assistance is assumed to include the ESM's entire capacity, totalling EUR 700 billion.

Based on these assumptions, the expected value of potential financial losses from Finland's liabilities in the EFSF and ESM's crisis funding would come to approximately EUR 700 million. If the probability assumption for insolvency rises to 50%, the expected value of potential financial losses from Finland's liabilities would rise to EUR 1.2 billion. This risk assessment is simplified and indicative only, and involves a great deal of uncertainty. For example, the assumed probabilities of insolvency may underestimate or overestimate the risks. The expected write-down rate also affects the probability calculation. A change

in one affects the other. Moreover, potential losses do not materialise all at once but over a long period of time. The risks related to Greece's programme are limited by the repayments on its loans which do not start until 2020 in respect of the first programme, 2023 in respect of the second and 2034 in respect of the third. Moreover, Greece can service its debt quite affordably because the interest on the loan matches the cost of funding of the ESM and EFSA.

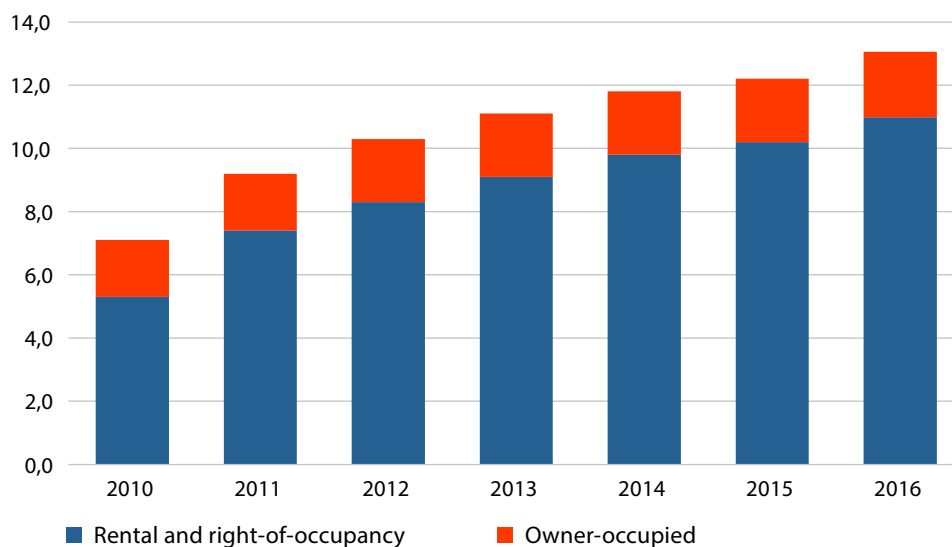
Off-budget central government funds

The central government currently has eleven off-budget funds. By far the most significant in terms of liabilities is the National Housing Fund. Government guarantees are also held by the Development Fund of Agriculture and Forestry, the National Emergency Supply Fund and the State Guarantee Fund.

National Housing Fund

Interest subsidies on loans granted by financial institutions for government-supported housing production and for major renovations, as well as investment grants to special groups related to subsidised loans, are paid from the National Housing Fund. Other Fund expenses include housing production start-up assistance, municipal engineering aid, certain building repair grants, assistance for housing area development, financing for development projects and various support measures for rental housing corporations in financial difficulties. The Fund is furthermore responsible for providing deficiency guarantees for subsidised loans, government guarantees for owner-occupied housing loans, guarantees for preferred loans associated with Arava loans, and expenses arising from guarantee loans and loan receivable recovery in rental housing corporations. The Fund also uses its assets for loan amortisation and interest payments as necessary. At present, the Fund has no debts.

The Fund's revenue consists of Arava loan repayments and interest along with various payments associated with government guarantees. Figure 8 below illustrates the development of the housing loan guarantee portfolio.

Figure 8. Development of housing loan guarantee portfolio 2010–2016, EUR billion

Almost the entire guarantee portfolio of off-budget funds consists of housing loan guarantees for state-subsidised housing production. The Government housing finance guarantee portfolio stood at EUR 13.06 billion at the end of 2016, an increase of approximately EUR 850 million since 2015. In the past ten years, the housing loan guarantee portfolio has shown rapid growth following the 2008 switchover in the housing loan system from direct loans to subsidised loans and the deficiency guarantees granted for such loans.

The National Housing Fund's guarantees for loans to corporations total EUR 10.99 billion. The majority of the guarantees, approximately EUR 10.2 billion in 2016, are linked to interest-subsidised loans granted by financial institutions to rental and right-of-occupancy housing corporations. Subsidised loans and guarantees for rental and right-of-occupancy buildings are available to municipalities, other general government entities and non-profit corporations. Subsidised short-term loans and the associated guarantees may also be granted to limited liability companies which only engage in the development, holding and renting of subsidised rental housing. The guarantee applies to the entire subsidised loan, which may cover up to 95% of the costs of land and construction. Guarantees for right-of-occupancy housing cover up to 85% of the costs of land and construction. No separate application is required for the deficiency guarantees related to subsidised loans and these are instead granted automatically when an application for a subsidised loan is approved.

Older Arava loans granted directly by the State may be converted into loans granted by other financial institutions and the debt to the State may be fully repaid. A government

guarantee is granted for the full amount of these converted loans. The guarantee fee is 0.5% of the loan principal.

Government guarantees for rental housing production are also available to entities other than those mentioned above. These guarantees are subject to a guarantee fee of 0.5% of the loan principal.

Government guarantees may also be granted to private individuals. This type of guarantee accounted for EUR 2.1 billion of the total portfolio in 2016. The portfolio increased by approximately EUR 70 million year on year. Deficiency guarantees for the home loans of private individuals are not subject to pre-approval by the State and the guarantee may be incorporated into the home loan by the lender bank in compliance with the provisions concerning guarantees and the guidelines of the State Treasury. The government guarantee is granted in situations where the applicant is unable to provide adequate collateral for the home loan. Banks may grant government guarantees as part of their home loan decisions.

Customers are not required to apply for the government guarantee separately, nor are there any limitations regarding income or wealth. Customers who request a government guarantee on their home loan will be granted one. The maximum government guarantee is 20% (25% in ASP loans) or EUR 50,000 per home. The guarantee is subject to a fee of 2.5% of the guaranteed amount. Guarantee fees are not charged for interest-subsidised loans (ASP loans). When deciding on an application for guarantee compensation, the State Treasury makes a retrospective evaluation of whether the criteria for granting the guarantee were met and whether the bank will be paid the compensation.

Since the beginning of 2015, guarantees are also available for housing corporation loans to be used for major improvements. The maximum amount of such a guarantee loan is 70% of the approved costs of improvement. The guarantee fee is 2% of the loan principal. No guarantees of this kind were granted in 2015 or 2016.

Guarantees were previously granted for low-energy home construction or for home purchases to private individuals on the basis of means testing, but since the beginning of 2015 such subsidised loans or guarantees have no longer been granted.

All of the guarantees referred to above include terms and conditions, particularly with respect to the amount of the guarantee. Furthermore, the government guarantee is secondary collateral in all home loan guarantees. If the income on realisation is not sufficient to cover the bank's loan receivables, the government will pay the bank a guarantee compensation prescribed by law.

The National Housing Fund is exposed to two main risks: credit loss risk and interest risk. Interest risks on subsidised loans paid from the National Housing Fund have grown following temporary reductions in the co-payment portion of interest and an annual in average increase of approximately one billion euro of the subsidised loan portfolio since 2010.

The reduced interest co-payment, 1%, was discontinued at the end of 2015.

The ordinary interest co-payment on government-issued loans is 3.4% and the government covers expenses in excess of this rate in accordance with descending percentage rates. An interest subsidy over the interest co-payment of 1.7% is paid for rental housing loans subject to extended interest subsidy and approved in the period of 1 August 2016–31 December 2019. According to the National Housing Fund's estimate, at an interest rate of 5% interest expenditure from the existing subsidised loan portfolio would grow to approximately EUR 1.7 billion during the remaining maturity of the portfolio while at the current interest rate they would be EUR 33 million.

Until now, guarantee fee income has exceeded the credit losses on loans by a factor of ten. About 81% of the principal of the loan portfolio falls into the category of very low risk. At their highest, payment delays affected roughly 4% of the principals in 1994. The volume of delays has again been trending upwards since 2009, however. Between 2000 and 2012 delays remained at below 1.5%, but since 2013 the trend has grown alarming. At present, loans with delayed repayment represent approximately 1.9% of the total loan portfolio and the proportion is expected to show continued growth, largely because the loans repaid early or according to plan are removed from the Arava loan portfolio. This results in the loan portfolio containing a relatively larger proportion of loans made to customers struggling to make the payments specified in the loan terms. Rental housing corporations struggling with payments are typically located in areas of declining population. These same regions tend to have problems with their collateral since the value of the property is insufficient to cover the remaining loans in full or, in the worst case, at all. Until now, credit and collateral risk have mainly applied to the Arava loan portfolio, but it is anticipated that they will also affect interest-subsidised loans in the future. Difficult economic conditions are not the only reason underlying these problems; structural change and especially migration to growth centres are also key contributors. Credit and collateral risks mainly materialise in regions of population decline where a decrease in housing needs coincides with the ageing and devaluation of the housing stock. Another risk-increasing factor is that home loan repayment schedules tend to leave the biggest instalments for the final years, when homes are often also in need of full refurbishment.

Student loans

The portfolio of government-guaranteed student loans shrank from the mid-1990s to 2005, since when it has gradually grown to EUR 2.3 billion in 2016. In 2016, the amount of guarantee liability receivables being collected through a recovery procedure totalled EUR 131.7 million and loans repayable by the government under its guarantee commitment amounted to EUR 12.9 million (approximately EUR 3,406 per debtor). Guarantee liability receivables and loans repayable by the government have been falling since 2000. Compared to 2014, the amounts payable by the government as guarantor decreased by EUR 0.4 million. Annual revenue from recovery procedures has more or less matched annual guarantee liability expenditure. In 2016, revenue amounted to EUR 17.8 million against guarantee liability expenses of EUR 18.4 million. So-called statute-barred receivables totalled EUR 9.8 million in 2016. Legislation on statute-barred debt was amended in 2008 so that a debt will become statute-barred in 15 years.

Other

Unemployment Insurance Fund

The Unemployment Insurance Fund answers for the expenses arising from earnings-related unemployment security in cases where responsibility does not fall on the State or individual unemployment funds. In April 2015, the government granted the Unemployment Insurance Fund a guarantee for a syndicated loan arrangement with banks to cover the Fund's deficit.

The Fund had no need to resort to any loan from the arrangement, however, as it has obtained its funding from the bond markets without any government guarantee. Nonetheless, the Fund applied for renewal of the guarantee for a second two-year term. In April 2017, the Government granted a government guarantee for the Fund's stand-by credit line of EUR 400 million in the event of worse than anticipated economic development. The guarantee also covers the interest on the loans. At present, it would appear that the Fund will have no further need to rely on borrowing in the near future.

Bank of Finland

In February 2016, the Government granted the Bank of Finland a government guarantee equivalent to EUR 3.5 billion in Special Drawing Rights (SDR) against any losses incurred by the central bank from funding to the International Monetary Fund¹⁷. No counter guarantee

¹⁷ The government guarantee consists of a guarantee of SDR 2.4 billion relating to the application of the IMF member's quota towards covering any losses incurred by the central bank and a guarantee of SDR 1.1 billion relating to any losses incurred by the central bank from the use of the IMF's New Arrangements to Borrow (NAB arrangement).

was required. On the same occasion, the Government rescinded the earlier government guarantees to the Bank of Finland for the same purpose. No guarantee fee is charged.

In addition to the member's quota and the NAB¹⁸ arrangement, Finland has also had in place a bilateral loan agreement with the IMF as a backup. The bilateral loan agreement of EUR 3.76 billion has gone unexercised to date. A government guarantee for the said loan was granted by the Government in December 2012. The bilateral loan agreement expired in February 2017, however. Based on a Government proposal, in February 2017 Parliament gave its consent to renewal of the government guarantee to the Bank of Finland in order to renew the bilateral loan. The Government renewed the guarantee in March.

The guarantee liabilities of the State of Finland relating to IMF funding thus consist of the member's quota, the NAB arrangement and the bilateral loan. All told, these total approximately EUR 8.2 billion after the 14th member's quota review and reduction of the NAB arrangement. Approximately 10% of the funding granted by Finland to the IMF has been used in recent years.

Government guarantees associated with the member's quota and the NAB arrangement are given in the IMF's accounting currency SDR. Any compensation to the Bank of Finland on the basis of government guarantee would be paid in euros. The euro-denominated value of the guarantee thus depends on the euro exchange rate. The EUR/SDR exchange rate effective at the given time is used to calculate the guarantee liabilities in euros.

The IMF financing involves, first and foremost, credit risks associated with the solvency of the eventual beneficiary. To limit these credit risks, debt sustainability analyses are carried out before any financing is granted, various economic policy conditions are attached to lending, and financing is offered in tranches with disbursement tied to the implementation of an adjustment programme. Moreover, the position of IMF as the lender of last resort for its member countries gives it a preferred creditor status, which reduces the credit risk of its financing. In its 70 years in existence, the IMF has resorted to debt write-downs mainly in the poorest member countries, as part of more extensive debt relief programmes.

Terrafame Oyj

In its 2017 supplementary budget, Parliament granted the Government authorisation to grant Terrafame Oyj an absolute guarantee to a maximum amount of EUR 107 million. No counter guarantee is required for this guarantee, which serves as a counter guarantee for environmental guarantees related to waste processing.

18 New Arrangements to Borrow

Based on Parliament's approval the Government granted in February 2017 a government guarantee of EUR 68 million as a counter guarantee for the bank guarantee granted to Terrafame Oy by Danske Bank. The government guarantee covers 80% of the maximum amount of the bank guarantees. The bank guarantees issued pursuant to the agreement on the bank guarantee limit have been restricted for use as a guarantee for the fulfilment of the conditions of the environmental permit required for the mining and metal processing activities pursued by Terrafame Oy in Sotkamo and the associated waste processing. The government guarantee is secondary to the tranche of 20% outside the government guarantee, as provided in the bank guarantee limit agreement, and any compensation from the government guarantee is thus payable only after the latter has been used.

The guarantee is subject to a non-recurring fee of 0.25% of the total guarantee liability as well as an annual fee of 2.50% of the total counter-guaranteed bank guarantees used. The annual fee will rise to 2.65% in February 2018 and to 2.80% in February 2019. The guarantee is in effect for no more than three years and three months from the date of execution of the bank guarantee limit agreement, i.e. until 2 May 2020.

Saint Petersburg Foundation

The operations of Finland House in St Petersburg are run by the Saint Petersburg Foundation, which is an independent private entity. The Foundation took out a loan for the renovation of Finland House and the Government granted guarantees totalling EUR 13.5 million for this loan in 2008 and 2009.

The Saint Petersburg Foundation has had financial problems for a long time. The renovation costs of Finland House turned out to be much higher than anticipated, and the situation has only escalated in recent years. In November 2012, the Foundation was no longer able to make loan repayments to Danske Bank and as guarantor, the government had to amortise the loan with a total of approximately EUR 3.2 million in the years 2012–2016. The outstanding loan balance now stands at approximately EUR 8.8 million. In late 2016, the Finnish and Russian Prime Ministers Federation agreed that the State of Finland would acquire the building from the Russian Federation. The transaction is expected to close in the spring.

4.2.2 Capital liabilities

Capital liabilities refer to payment the government is required to make to international financial institutions in the event that capital is required to cover losses or to avoid insolvency. Several international financial institutions have increased their capital in recent years, causing a consistent rise in callable capital. By far the most significant increase in capital liabilities was caused by the establishment of the European Stability Mechanism (ESM),

however. The liabilities associated with ESM are discussed in more detail in section ‘Liabilities associated with financial assistance programmes in the euro area’ of this report.

Table 7. Government capital liabilities, EUR billion

	2008	2009	2010	2011	2012	2013	2014	2015	2016
Asian Development Bank (AsDB)*	0.12	0.12	0.40	0.41	0.40	0.38	0.41	0.44	0.44
African Development Bank (AfDB)*	0.11	0.10	0.11	0.35	0.35	0.33	0.35	0.38	0.38
Inter-American Development Bank (IDB)**	0.11	0.11	0.12	0.12	0.13	0.14	0.18	0.22	0.25
European Bank for Reconstruction and Development (EBRD)	0.18	0.18	0.18	0.30	0.30	0.30	0.30	0.18	0.30
World Bank Group (WBG) ¹ **	0.70	0.68	0.74	0.76	0.79	0.87	0.97	1.15	1.29
European Investment Bank (EIB)	2.00	2.82	2.82	2.82	2.82	2.82	2.82	3.10	3.10
Council of Europe Development Bank (CEB)	0.04	0.04	0.04	0.06	0.06	0.06	0.06	0.07	0.07
Nordic Investment Bank (NIB)	0.69	0.69	0.69	1.01	1.01	1.01	1.01	1.09	1.09
European Stability Mechanism (ESM)	0.00	0.00	0.00	0.00	11.14	11.14	11.14	11.14	11.14
TOTAL	3.96	4.75	5.10	5.83	17.01	17.06	17.25	17.77	18.05

* Capital expressed in SDR (**USD), converted into euro at the closing exchange rate for the year.

¹ Includes the International Bank for Reconstruction and Development (IBRD), International Finance Corporation (IFC), Multilateral Investment Guarantee Agency (MIGA).

Sources: Financial statements, Ministry of Finance, Ministry for Foreign Affairs

4.2.3 Risks and liabilities associated with the banking sector

Background

Financial and banking crises are rare¹⁹, but the resulting costs are extremely high. In general, these crises have a significant and negative impact on economic development, but the most recent financial crisis has been exceptionally harmful in this respect. It has also demonstrated that when the banking sector or individual large credit institutions experienced major difficulties, the public sector had to resort to support measures to ensure the continuity of financial operations necessary for the economy and society, even though such measures were not required by law.

While the new crisis resolution regulation has altered the set-up (see below under *Risks and risk management*), recent incidents in e.g. Italy have demonstrated the very high

¹⁹ According to the IMF's calculations, 147 systemic banking crises occurred globally in the period 1970–2011 (Laeven and Valencia 2012). In a systemic crisis, deposit flight is a common phenomenon. It is also typical that banks sustain major losses, the authorities are forced to support the banks' liquidity, provide guarantees on the banks' debts, or to nationalise or capitalise banks. Major reorganisation of the banking sector is another repercussion of the crisis.

threshold in place for the concrete implementation of new regulation without the involvement of government.

Considering the size of the Finnish economy, the banking sector is fairly large (the combined banking balance is approximately 270–280% of GDP) and the dominant features include a centralised structure and strong links to other Nordic countries. Three credit institution groups control the banking market and two of these are under foreign/Nordic ownership. The high degree of centralisation within Finland and, through ownership arrangements, with Sweden and Denmark, increases the banking sector's sensitivity to disruptions. It is fair to say that the Finnish banking sector is subject to a systemic risk arising from its structure. Systemic risk usually enhances cyclical risk and vice versa.

Continued good financial situation despite challenging operating environment

In spite of several years of slow economic growth and very low interest rates, the financial situation of the banks active in Finland has continued to be good. It should be noted that even though several risk indicators stand at fairly good levels for the entire sector, there is variance among individual banks.

In December 2016, the banks' combined Common Equity Tier 1 (CET1) capital stood at EUR 25.2 billion while own funds totalled EUR 27.7 billion. CET1 capital increased by approximately EUR 1.1 billion and own funds by EUR 1.2 billion since the end of 2015. Capital adequacy ratios improved slightly due to the fairly slow rise in risk-weighted receivables, which in the entire banking sector increased by approximately EUR 1.2 billion. At the end of 2016, these stood at EUR 116.2 billion. The banks' combined own funds exceeded the general 10.5% requirement by EUR 15.5 billion. The buffer grew by more than a billion euro on the year. When the capital add-on requirement imposed on the four banks of systemic importance in Finland (Nordea Bank Finland, OP Group, Danske Bank and Municipality Finance) is deducted from the buffer, the year-end surplus comes to EUR 13.7 billion.

Credit risk is by far the most significant source of risk, accounting for approximately 84% of risk-weighted items. The remaining 16% consist of market risk or operational risk. The Finnish banks' realised risks, i.e. impairment losses on receivables and non-performing loans, have remained at a very low level. The proportion of non-performing loans held steady at approximately 1.6% of all receivables.

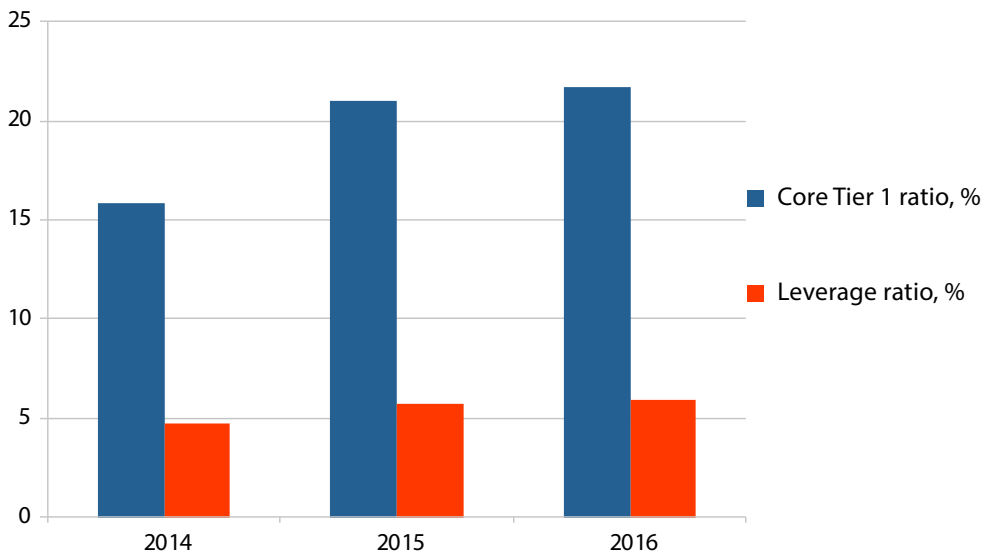
The banks' leverage ratio improved somewhat in the past year. The own funds to non-risk-weighted balance sheet items ratio rose from 5.7% in December 2015 to 5.9% at the end of 2016. The Basel Committee on Banking Supervision has proposed a minimum leverage ratio of 3% but no decision has yet been made in the EU. The European Banking Authority submitted a report on the effects of the minimum leverage ratio on the operations of

banks to the European Commission in July. The aim is for a binding minimum leverage ratio requirement to take effect at the start of 2018.

Finnish banks have been able to obtain funding and maintain good liquidity without any problems. In December 2016, the Finnish banks' market funding requirement (lending less deposits) came to EUR 42 billion and funding was primarily obtained by means of longer-running bonds, more than half of which are secured. The banks' liquidity buffers satisfy and exceed the liquidity requirements taking effect in October 2015. The Financial Supervisory Authority nonetheless reported significant variance among the banks at various times in the past year.

Despite multiple uncertainty factors such as the fluctuation of the international equity and currency markets, the Finnish banking sector has remained stable, with no major disruptions in the domestic financial markets or in the provision of financing. However, the global economic outlook is uncertain and market disturbances with repercussions in Finland – either directly or via e.g. Sweden – are possible in the current year.

Figure 9. Core Tier 1 ratio and leverage ratio of the Finnish banking sector, %



Source: Financial supervisory Authority

Structural change

A structural change of considerable significance is under way in the Finnish banking sector. At the start of the current year, Nordea Bank Finland (NBF) became the Finnish branch of the Swedish Nordea AB and thus also came under the supervision of Finansinspektionen, Sweden's financial supervisory authority. Until last year, NBF was under the direct supervision of the ECB working in close cooperation with the Finnish Financial Supervisory Authority. NBF was also a member of the Finnish Deposit Guarantee Fund, but at the turn of the year liability for guaranteeing the deposits of Finnish customers with NBF transferred to the Swedish deposit guarantee authorities.

Besides Nordea, Danske Bank has also announced its plans to convert its subsidiary into a branch. The transition will be under preparation in the current year and the new operating model is to be adopted at the start of the following year.

In February 2017, foreign branches held a market share of slightly under 26% in loans granted by credit institutions and approximately 35% in deposits. The equivalent figures prior to Nordea's restructuring in December 2016 were under 6%²⁰. The implementation of Danske Bank's plans would bring the market share of the Finnish branches of foreign credit institutions to approximately 36% in loans and approximately 48% in deposits²¹.

The restructuring of Danske Bank would leave OP Group, which is under the direct supervision of the ECB, standing as a giant among Finnish banks. This scenario would put its market share at 55% of Finnish credit institution loans and a whopping 73% of deposits with Finnish credit institutions.

The restructuring will result in the Finnish banking landscape looking quite different from e.g. the start of 2014. At that time, all major actors and a vast majority of the smaller ones were under Finnish supervision and were also covered by the deposit guarantee and the resolution regulation in effect at the time. In the coming year, two of the three largest financial institutions active will be under the control of Nordic authorities and the third under the control of European authorities. This leaves only small and medium-sized domestic credit institutions under the direct control of Finnish authorities.

Advances in finance technology and the market entry of actors besides traditional banks also seem likely. The banks themselves are in transition: OP Group is a case in point. The business is gradually being expanded beyond the traditional model of financing and insurance to become "a diversified services company of the digital era with strong financial

20 Source: Bank of Finland

21 Market shares as at 31 December 2016 used in the calculations. Source: FK, Finnish Banking in 2016.

services expertise". The supervision of new actors and business models also presents novel challenges to the Finnish financial market authorities.

Risks and risk management

Restructuring will bring the Finnish financial market authorities face to face with new challenges of risk management and sustained financial stability. The new structure may also strengthen the links between the financial markets of Finland and the other Nordic countries. A bank active in more than one country is still subject to only one balance sheet and one set of capital adequacy requirements. The balance sheet may serve as the conduit whereby trouble in one country of operation is reflected in another country in the form of e.g. contraction in lending.

This underscores the importance of consensus and information-sharing between the supervisory authorities of Finland and Sweden on the one hand and Finland and Denmark on the other. The principles of crisis resolution will also have to be re-examined. Officially, NBF and Danske Bank are moving outside the banking union and under the umbrella of their home states' resolution authorities. Among other things, this will bar them from access to the banking union's Resolution Fund. In the event of a crisis, the deposits made in these banks by Finnish depositors will be covered by the deposit guarantee schemes under Swedish and Danish law. Timely and comprehensive mutual coordination among the Nordic authorities to minimise the damage and safeguard the continuity of critical operations will be vital in the event of any major crisis.

The Nordic and Baltic financial market authorities have already in various forums voluntarily agreed on crisis management procedures primarily relating to information-sharing (Memoranda of Understanding). There is the perceived risk that under circumstances of extreme difficulty and pressure, the parties will be unable to adhere to agreement. This would prove highly problematic for operations of the Finnish market in particular.

Bank resolution legislation has been in force since the start of 2015 and the Single Resolution Mechanism (SRM) in place since 2016. The resolution for banks central to the financing system will be designed and implemented by the Single Resolution Board in cooperation with the Finnish Financial Stability Authority (RVV). At present, the Finnish banks involved are OP Group, Danske Bank and Municipality Finance. Providing that its restructuring takes place, Danske Bank will become the responsibility of the Danish resolution authorities at the start of next year. RVV has responsibility for resolution also in respect of smaller Finnish actors.

RVV is also responsible for arranging deposit guarantee coverage for Finnish deposit banks. A project to build a European Deposit Insurance Scheme (EDIS) for Member States

in the bank union is under way, but still in the very early stages in the EU. In any case, it would be years before the shared scheme could fully replace national deposit guarantee coverage. At the end of 2016, the Deposit Guarantee Fund managed by RVV held funds of approximately EUR 122 million, in addition to which the old equivalent fund (VTSR) holds funds of approximately EUR 930 million that will be available in crisis situations.

Under current regulation, when the Deposit Guarantee Fund is unable to compensate for a loss, the Fund may obligate its member banks to pay an additional contribution equal to 0.5% of compensable deposits. When even this proves insufficient, the Fund may borrow from its members in proportion with compensable deposits. Under the by-laws of the Fund, members may not refuse such a request to borrow. The combined assets of the Fund (incl. VTSR) and the additional contribution would total approximately EUR 1.5 billion. In this scenario, any compensable deposits in excess of this sum would need to be financed means of loans from members. Under difficult market conditions where more than one bank is likely to experience financing problems due to the interconnectedness of the system, it may prove a challenge to make any significant loan to the Fund without government support.

Nordea's compensable deposits in Finland came under the responsibility of the Swedish deposit guarantee scheme at the start of the current year. A similar transfer to Denmark will take place at the start of next year in respect of Finnish deposits with Danske Bank if the bank implements its planned legal restructuring. At the end of the 2016, RVV reported guaranteed deposits totalling approximately EUR 76 billion. According to Nordea, an estimated EUR 16–21 billion of this has transferred under the Swedish scheme. A further EUR 8–10 billion might migrate into the Danish deposit guarantee scheme at the start of 2017, leaving the Finnish Fund liable for a minimum of approximately EUR 45 billion in compensable deposits.

The banks active in Finland have in place here no domestic backup systems against severe disruptions in payment services, payments by card or securities brokerage in emergency conditions or equivalent settings. This poses a clear risk in terms of the overall security and functioning of society, and efforts are being made to address the situation in cooperation with the sector within the framework of the National Emergency Supply Organisation. The work has been hampered by differences of opinion between the authorities and the sector as to the manner of execution of preparedness, however.

The EU is currently in negotiations on the Commission's initiatives for a Single Deposit Insurance Scheme, measures to reduce banking sector risks, and a backstop arrangement for the Single Resolution Mechanism. The path of the Commission's proposals to EU regulation, the national implementation of such regulation in the Member States, and the timing of such implementation remain to be determined.

4.2.4 Local government

As part of general government finances, local government finances are used to organise and provide services to municipal residents. Municipalities organise basic services for their residents, including social services, healthcare, education and culture, and technical services.

Municipalities are responsible for performing two types of tasks: statutory and those assigned by the municipalities themselves. Statutory tasks refer to tasks the municipality is required to perform under legislation. The majority of municipal duties are based on law, most of them on special legislation. To assign new tasks and duties to municipalities, or to remove existing tasks or rights, the government is required to pass a law to that effect. This is to ensure the local self-government laid down in Section 121 of the Constitution of Finland.

As a rule, municipalities can use their discretion to determine how these services are provided in practice. Local councils have responsibility to decide on how to organise the service-providing units and to set them up. If the municipality's own service provision system is unable to meet the needs or the operations are ineffective, the council will consider other service provision alternatives. Under section 2 of the current Local Government Act, municipalities may perform the functions prescribed by law alone or in cooperation with other municipalities, acquire services from another municipality or joint municipal authority, establish a limited liability company to provide services or be a shareholder in such a company, or acquire services from a private service provider.

Municipalities may enter into agreements to perform their duties jointly. They may agree to assign specific duties to one municipality on behalf of one or several other municipalities. Such an agreement may pertain to setting up a joint public position, procuring some official duties as a service, or establishing a joint municipal authority. Municipalities may also enter into a contractual arrangement whereby a municipality with primary responsibility provides the services required by the other contracting municipalities, as specified in the contract. The most important form of inter-municipal cooperation is the joint municipal authority, the establishment of which requires local councils to sign an agreement. Membership in a joint municipal authority may be voluntary or mandatory.

There are three types of statutory joint municipal authorities: hospital districts (20), special care districts (16) and regional councils (18). In addition to these, municipalities have a large number of voluntarily arranged joint municipal authorities. In 2016, the total number of joint municipal authorities was 140. Joint municipal authorities represented approximately 25% of total local government spending. The highest decision-making body in a joint municipal authority is a council, whose membership primarily consists of local councillors appointed by member municipalities.

Municipal service and investment financing requires stable economic growth. Unexpected changes in local government finances affect the ability of municipalities to manage their finances and provide basic services. This can affect Finland's credit rating and thereby the general government's ability to manage fiscal policy. Furthermore, an increase in municipal tax rates could have a negative impact on economic growth. Municipal investment and consumer behaviour also affect the current status and development of the economy.

According to municipal accounting, the annual contribution margin has been positive but, aside from a few exceptional years, insufficient to cover depreciation and net investments. This has resulted in an increase in municipal debt.

At the same time, municipalities have been forced to raise their local tax rates to ensure the availability of funds needed to guarantee basic services. The weighted average local tax rate in Finland has risen from 18.13% (in 2014) to 19.89% in 2017.

Municipal loan portfolio

Municipal loans have been growing annually and according to the final accounts estimate for 2016, municipal loans currently amount to approximately EUR 16.04 billion. Municipal loan growth remained slow and steady for a long time, but took a sharp upward turn in 2003 with loans growing from approximately EUR 5.5 billion to the present-day level. The total loan portfolio of municipalities and joint municipal authorities stood at EUR 18.0 billion at the end of 2016. Total loans of the local authority corporation²² amounted to approximately EUR 32.7 billion at the end of 2015. Municipalities with more than 100,000 inhabitants (nine towns and cities) accounted for approximately 48% of the local authority corporation's loan portfolio and for 40% of municipal loans.

Municipality Finance provides approximately 50%–60% of municipal loans. Currently, some 65% of new loans and 75% of the financing for government-subsidised social housing production is provided by Municipality Finance. Municipality Finance is a credit institution owned by municipalities, municipal companies and the local government pension institution Keva, with the State holding a 16% stake. Other funding providers include commercial banks and the European Investment Bank.

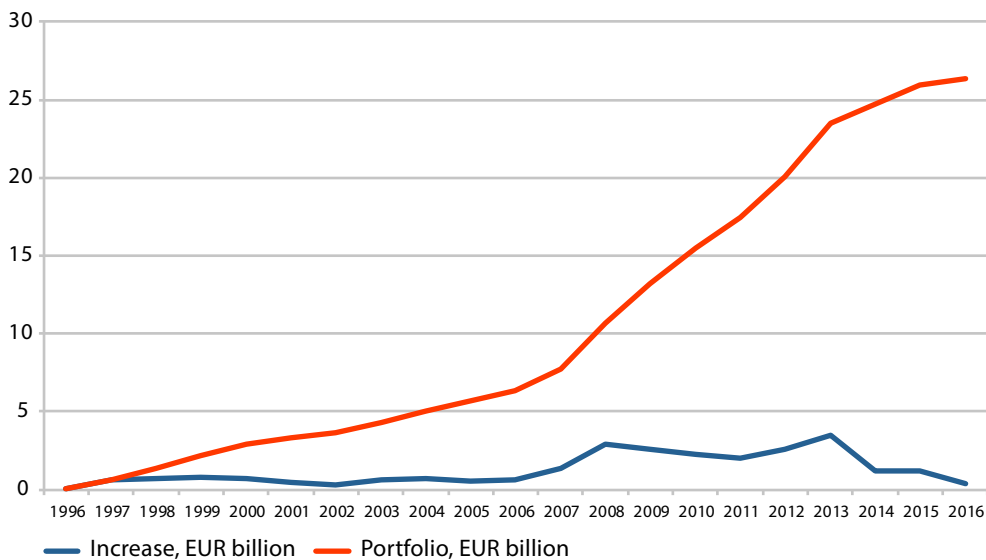
The Municipal Guarantee Board guarantees the fundraising of Municipality Finance in international and domestic financial markets. Under the Act on the Municipal Guarantee Board, the member municipalities of the Board are jointly liable in proportion with their population for the funding of the commitments and expenditure of the Board that it is

²² Under Chapter 1, sections 5(1) and 6(1) of the Accounting Act, a group relationship between a municipality and another corporation is based on the former's control in the latter. A group relationship may arise from a majority of the votes or other actual control.

unable otherwise to cover. All municipalities in mainland Finland are members of the Guarantee Board.

The number of guarantees given by the Municipal Guarantee Board has grown on a par with the operations of Municipality Finance. Its guarantee portfolio has multiplied in less than ten years from just over EUR 5 billion in 2005 to approximately EUR 26 billion in 2015. Since 2015, the portfolio has grown by about EUR 0.36 billion.

Figure 10. Guarantee portfolio of the Municipal Guarantee Board 1996–2016, EUR billion



Source: Municipal Guarantee

The shared mission of Municipality Finance and the Municipal Guarantee Board is to ensure competitive funding for the local public sector and for social housing production in all market conditions. Thanks to the clean credit history of Finnish municipalities and legislation that addresses the financial problems of individual municipalities, the Finnish municipal sector has been able to maintain a high credit standing in the financial markets; as a result, there are no major differences in the prices of financing for municipalities, unlike in the prices of financing from the banking sector. This may involve some degree of risk as financially weaker municipalities are granted loans on reasonable terms, which may then be used to maintain liquidity instead of making financially sound investments aimed at ensuring basic services. Risk is managed with an assessment procedure based on the final accounts of municipalities that has proven effective over its years of use. It allows the Ministry of Finance to monitor and when necessary advise on municipal finances on a municipi-

pality-specific basis. Very weak finances and the lack of reorganisation potential may result in a municipality being merged with another municipality with more sustainable finances.

However, the inability of an individual municipality to repay its loans is very unlikely, and would be caused by highly exceptional circumstances. If a municipality were in such financial hardship that loan repayment would be impossible, the lender would incur a credit loss regardless of whether the lender was within the municipalities' joint funding scheme or a private credit institution.

The government is also permitted under existing legislation to address the financial problems of municipalities and to introduce previous legal provisions, as was the case with the town of Karkkila and its inability to repay its loans during the recession of the 1990s.

The significant annual increase in total municipal loans, coupled with growing loans in the public sector, could pose a problem when the markets assess Finland's ability to manage its finances and to repay its loans in accordance with its agreements.

On the whole, the municipal loan portfolio cannot in all likelihood be deemed to constitute a material risk factor for the government or local government finances. However, the growth trend and rate are a cause for concern. Financial statements for the last four years show that the increase in loans is already translating into a decline in the municipal equity ratio and in the debt-to-equity ratio. Municipalities obtain loans easily and at low cost, regardless of their ability to manage their finances. This may pose an additional risk to the local government finances due to lack of sufficient coordination in major investment projects and competition between municipalities for wealthy residents. Easy access to loans may 'blind' municipal decision-makers and lead to unnecessary investments and falsely optimistic estimates of the annual costs of investments. Investments are not limited by a deficit coverage requirement, nor are any checks in place to prevent overlapping investments.

HEALTH, SOCIAL SERVICES AND REGIONAL GOVERNMENT REFORM

The objectives of the health, social services and regional government reform are to reduce inequities in wellbeing and health between people, improve the availability and equality of services, and to manage costs and help bridge the sustainability gap in general government finances. The reform aims to bring down annual health and social services costs in 2029 down to EUR 3 billion less than without the reform. According to the Government proposal to be submitted to Parliament in March 2017, responsibility for organising health and social services will shift from municipalities and joint municipal authorities to 18 counties effective as of 1 January 2019. In future, Finland will thus have three levels of public administration: those of the State, county and municipality. The new counties will be established largely on the basis of the current regions to serve a multi-sectoral purpose. In addition to healthcare and social welfare, effective as of 1 January 2019 the counties will also assume responsibility for rescue services and environmental healthcare, the duties of the current regional councils, regional development duties and tasks related to the promotion of business enterprise, and the planning and steering of the use of regions. The organisation and provision of services will be separated in the operations of the counties. The government's scope for steering the healthcare and social welfare for which the counties are responsible will also be broadened in the context of the reform.

The operations of the counties will be financed primarily with a universal central government transfer and partly also with fees charged to customers. As financing responsibility transfers from local to central government, State revenue must be boosted and the revenues of the municipalities correspondingly reduced by an amount equal to the funding responsibility of approximately EUR 17.42 billion relinquished by them. The State's tax revenue will be increased by introducing higher state income tax rates. In order to keep the overall tax rate unchanged, municipalities will be required to make an equivalent reduction to their municipal tax rates. Current estimates put the reduction at 12.47 percentage points in all municipalities. This translates into approximately EUR 11.14 billion. The municipalities' share of corporation tax revenue will also be decreased by 10.69%, or by approximately EUR 0.5 billion, and the State's share will be increased correspondingly. The reforms will have significant impacts on the system of central government transfers for municipal basic services. These transfers will be reduced by approximately EUR 5.8 billion in reflection of the duties no longer performed by the municipalities.

The point of departure in modifying the system of central government transfers is to introduce equalisation measures in order to moderate effects at the level of municipality: a limitation of 'automatic changes' resulting purely from the transfer of health and social services duties, and a transitional equalisation in which all changes in financial position are taken into account. In the year in which the reform enters into force, this transitional equalisation will limit the change in the balance of municipal finances to zero and as of 2023, the change is to be made permanent and capped at +/- EUR 100 per resident.

The reform will also result in the dissolution of statutory joint municipal authorities, which as a rule will be transferred to the county in which the authority's member municipalities are located. The holdings of the joint municipal authorities inclusive of assets, debts and commitments follow responsibility to organise and will remain in the use for which they were originally acquired. Based on the 2015 financial statements, the buildings owned by the hospital district joint municipal authorities have a balance sheet value of approximately EUR 2.3 billion while their other non-current assets are valued at approximately EUR 1.1 billion. The hospital districts' debts for which the counties will assume liability are approximately EUR 1.4 billion according to the preliminary

estimates of the 2016 financial statements. Based on the investment dispensations granted to the hospital districts by the Ministry of Social Affairs and Health to date, debt is projected to rise by at least EUR 1.4 billion. A government guarantee will be issued for these debts transferring from joint municipal authorities to counties. The premises used for basic and specialised healthcare, social services and rescue services organised by the municipality would be rented by the county for a period of three years at least. Under these circumstances, municipal debt remains unchanged while the local authority corporation's debt is reduced by the aforementioned amount. As part the reform, joint municipal authorities are required to cover by 2018 any deficit they may have in their balance sheet, which may undermine the finances of some municipalities.

Municipal guarantees

Guarantees granted to municipalities have also been growing: financial statements for 2015 show that total municipal guarantees amounted to EUR 8.9 billion, EUR 1.2 billion of which were paid to extra-Group entities. The biggest growth is seen in guarantees to intra-Group entities. In 2008, municipal guarantees totalled EUR 4.6 billion, EUR 0.9 billion of which was for extra-Group entities. Joint municipal authorities had considerably smaller guarantees: in 2015, their guarantees for intra-Group entities amounted to approximately EUR 350 million and for others approximately EUR 10 million.

An examination of the municipal guarantee practices reveals that small municipalities in particular have given significant guarantees considering their fiscal resilience. Realisation of the guarantee obligations could put the municipality's operations and the provision of basic services at risk. In some municipalities, the guarantee liabilities are equivalent to a full year's operating expenses in the social and healthcare sector. If an individual guarantee obligation realises, municipalities typically cover the losses by taking out a loan. The analysis above does not include municipal liabilities for guarantees of approximately EUR 26 billion issued by the Municipal Guarantee Board. Municipalities' share of these liabilities is calculated on a euro-per-capita principle, which means liabilities amounted to approximately EUR 4,800 per capita in each municipality. This sum includes EUR 13 billion in guarantees issued by Municipality Finance, in other words, it does not include the portion recorded as local government debt in statistics. It consists of government-guaranteed loans for non-profit housing production represent of about EUR 7 billion and investment assets of EUR 6 billion associated with the liquidity of Municipality Finance.

Municipal life cycle projects

In recent years, municipalities have on many occasions opted for a life cycle model, or the so-called public-private partnership (PPP) for investments instead of borrowing. When

a project is carried out through a PPP, a private company assumes overall responsibility for a public project, typically for a much longer period than in conventional agreements. In most PPPs, the private service provider is responsible for project planning, financing, implementation and maintenance, with the service period running from several years to decades.

All costs arising from a PPP are typically charged in the form of service fees, distributed over the entire contract period, which means no major initial investment is required from the client, as is the case with conventional publicly funded projects.

The estimated value of PPP projects carried out by municipalities and joint municipal authorities in 1997–2015 is EUR 0.5 billion. This consists of about ten different projects, primarily involving the construction of schools and day care centres. Data on PPPs is scattered, and no extensive data is available on the number of projects or their costs to municipalities.

According to estimates, the PPP model has not grown more prevalent. Reasons for slow adoption may include the novelty of the PPP model, and comparisons between financial costs, particularly against the municipality's own costs.

4.2.5 State-owned enterprises

There are two kinds of State-owned enterprises: State-majority owned companies in which the State holds the majority of voting rights, and State-associated companies in which the State holds at least 10% and no more than 50% of the share capital and the voting rights carried by the holdings²³. The State Shareholdings and Ownership Steering Act was amended effective 1 January 2017 to require authorisation from Parliament also for change in ownership or corporate restructuring that would result in the State's proportion of the votes carried by all of the company's shares falling to one third or lower. The amendment also made it possible to establish a state development company. Shares in State-owned enterprises will likely be transferred to the development company in order to finance its operations. The initial transfer is envisioned at a value of approximately EUR 2.5 billion. The development company's acquisitions and disposals of shares would be considered by the Government plenary session. The company's acquisitions and disposals of shares as well as any dividends from holdings are outside the government budget economy, which translates into an abridgement of Parliamentary budget authority. The aim of

²³ The State's holdings in companies are governed by the State Shareholdings and Ownership Steering Act (1368/2007/1315/2016) which among other things provides for the powers of Parliament, the Government and the ministry responsible for ownership steering. A Government resolution concerning ownership steering has also been issued (13 May 2016) addressing i.a. the points of departure and objectives of ownership steering as well as corporate social responsibility.

the development company is to foster the development of new businesses in sectors of higher productivity development and to promote the more efficient implementation of mergers and acquisitions. The State Business Development Company Vake Oy was established in August 2016.

Ownership steering is divided between the Prime Minister's Office and the various ministries on the grounds of whether the State has a strategic interest in a company in terms of e.g. security of supply, infrastructure maintenance, national defence or the provision of basic public services. The interest in special assignment companies is one relating to regulation or statutory duties. The principle of permanent holding does not apply to financial interest companies, the capitals of which should be invested to boost economic growth when the timing is appropriate. Responsibility for ownership steering of companies operating on a business basis lies with the Ownership Steering Department of the Prime Minister's Office, while ministries responsible for regulatory issues in the sector in question are in charge of special assignment companies. At mid-2016, the Ownership Steering Department was responsible for 47 companies including those held by Solidium. The various ministries were responsible for 18 special assignment companies involving a strategic special interest related to regulations or official obligations.

Information regarding the risks involved in the operations of these companies and risk management is provided to external stakeholders in an annual report, which the companies are required to prepare under the Limited Liability Companies Act (624/2006 as amended). In addition, the Accounting Act (1336/1997 as amended) contains more specific provisions regarding the obligation of companies to prepare a report on operations and the contents of such reports.

The Accounting Board operating under the auspices of the Ministry of Economic Affairs and Employment offers instructions and statements regarding the application of the Act. The Board has issued general instructions (on 12 September 2006) on the estimate for key risks such as operational risks, financial risks and damage risks, which is to be included in the annual report. Companies applying the IFRS standards in the preparation of their financial statements are also required to comply with these standards, for instance concerning the management of risks involved in financial instruments and the related reporting (IFRS 7).

As concerns decision-making, under Chapter 6:2 of the Limited Liability Companies Act, the Board of Directors is responsible for organising the company administration and the proper conduct of its operations. Consequently, the Board of Directors has overall responsibility for internal control and risk management.

In recent years, the most significant materialised risk in terms of capital lost was the investment of EUR 150 million made by Solidium Oy in the Talvivaara Mining Company, starting from 2011. The investment was written off after the bankruptcy of Talvivaara Sotkamo Oy in November 2014.

In addition, the production method used at the Talvivaara mine caused significant environmental harm, the prevention of which required funding of approximately EUR 126.5 million through the State budget. Loss compensation of EUR 44 million also was paid to Finnvera plc for its guarantees to the mining company. All told, the funds provided from the budget for preventing environmental harm arising from the mining operations of Talvivaara Sotkamo Oy, loss compensation paid to Finnvera, and the investment losses of Solidium come to a total of approximately EUR 320 million.

Talvivaara mining and metal processing operations have been revived during 2016 and for the time being, environmental safety has been successfully secured. The company Terrafame Oy, which is held by the State via Terrafame Group Oy, has been established to continue the mining operations. The additional capital injection to Terrafame Group Oy to date comes to EUR 491.5 million, which is estimated to cover operating costs until summer 2017. Private financing was furthermore obtained by means of an agreement concluded in early 2017 with Galena Asset Management, the investment arm of the Singaporean Trifigura Group, that will become a new owner of Terrafame. Under the agreement, Terrafame Group Oy is required to make an equity investment of EUR 25 million plus an additional commitment of EUR 50 million to Terrafame Oy. The State's exposure to the risks of the mining operations remains, since after the above arrangement its stake in Terrafame Oy stands at 84.2%.

4.2.6 Liabilities associated with environmental and chemical safety

The purpose of secondary environmental liability systems is to prepare for the need to pay compensation for environmental damage and to eliminate environmental risks in situations where the party causing the damage or risks is insolvent, unknown or unavailable. In Finland, these systems include compulsory insurance, based on the Environmental Damage Insurance Act (81/1998 as amended), and the oil pollution compensation fund. The government budget represents last-resort financing.

In the past five years, four incidents have occurred in which the government was forced to assume financial responsibility for ensuring environmental and chemical safety following an operator's bankruptcy and in the absence of the actual guilty party. This goes to show that the existing secondary environmental liability systems and securities do not cover all

situations and are not optimal. The proposals of the working group on the topic²⁴ include more extensive coverage in environmental damage insurance, the establishment of a fund similar to the oil pollution compensation fund for environmental damage, or the introduction of a tax collected from companies to replace the insurance, and an equivalent appropriation.

4.2.7 Contractual liabilities

The government is responsible for the achievement of emissions targets in the non-ETS sector, or the so-called burden-sharing sector (transport, agriculture, housing). At the moment, it seems that the current emissions reduction obligation (-16% from the 2005 level by 2020) will be met. If the emissions development were to take an unfavourable turn, for whatever reason, the government would be forced either to decide on new actions to reduce emissions in the sectors involved or to acquire emission allowances from the markets to cover the reduction obligation. This would be a possible scenario if economic growth was stronger than anticipated, translating into higher emission volumes from transport in particular. Otherwise, the housing and agriculture sectors do not create any pressures on emissions.

Nuclear liability is specified in the Nuclear Liability Act. Nuclear liability refers to liability the nuclear power plant licensee has for damage to third parties. Under the Act on the temporary amendment of the Nuclear Liability Act entering into force on 1 January 2012, the licensee of a nuclear power plant located in Finland has unlimited liability for nuclear damage in Finland. Maximum liability for damage incurred outside Finland is 600 million SDR, equivalent to approximately EUR 700 million. The licensee is required to have insurance of 600 million SDR to cover these liabilities. Finland has joined international conventions that obligate the participating countries to compensate for damage in excess of the licensee's liabilities. These conventions provide compensation for damage up to 125 million SDR (approximately EUR 146 million).

24 Ministry of the Environment Reports 23/2014, Development of Secondary Environmental Liability Systems

5 Government assets

More than half of the government's financial assets are in shares and holdings, and less than a third in loans. In 2008, central government financial assets declined by more than EUR 13 billion, accounting for over 8 percentage points of GDP, mainly due to the fall in share prices. Financial assets also diminished significantly in 2011. Since 2011, financial assets have grown due to rising share prices. In recent years, the government has received approximately EUR 1.2 billion in dividends on its holdings, representing approximately 2.5% of all income included in government accounts. During the peak year of 2007, the share of dividend income was nearly 4%. The sale of holdings naturally reduces the dividend yield permanently.

Fiscal accounting offers information on the financial balance sheet and financial transactions in all sectors of the national economy. Fiscal accounting is part of the national economic accounting system. Fiscal accounts contain information on some, but not all real assets. Real assets include manufactured assets such as buildings and stocks, and non-manufactured assets such as land. Total assets are the sum of financial and real assets.

Table 8. Government financial and real assets, EUR billion, % of GDP.

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Financial assets, EUR billion	56.3	62.2	64.9	51.7	58.5	63.7	55.5	58.5	59.5	60.4	61.3	61.1
% of GDP	34.3	36	34.8	26.7	32.3	34.1	28.2	29.3	29.3	29.4	29.3	28.6
Real assets, EUR billion						47.7	49.5	51.1	52.4	51.8	53.0	
% of GDP						25.5	25.2	25.6	25.8	25.2	25.3	
Total, EUR billion						111.4	105.1	109.6	111.9	112.2	114.3	
% of GDP						59.5	53.4	54.9	55.0	54.6	54.6	

Source: Statistics Finland

5.1 General government overall revenue and expense statement and overall balance sheet

Steps have been taken to enhance the transparency and openness of central government reporting practices by making use of the financial statements commonly used in companies and other corporations alongside the macroeconomic analyses used to describe the state of central government finances. Financial accounting on an accrual basis and the related financial statements reporting were introduced in central government in 1998. The requirement of including in the Government's annual report a review of the revenue and expenses (overall revenue and expense statement) and financial standing (overall balance sheet) of the entity consisting of the state budget economy, State-owned enterprises and off-budget entities, as well as a review of off-balance sheet liabilities. These overall calculations have been presented in the Government's annual report since the 2015 fiscal year and were also included in the General Strategy and Outlook of the budget proposal for 2017 for the first time. The overall calculations have featured in the Overview of Central Government Risks and Liabilities since 2016.

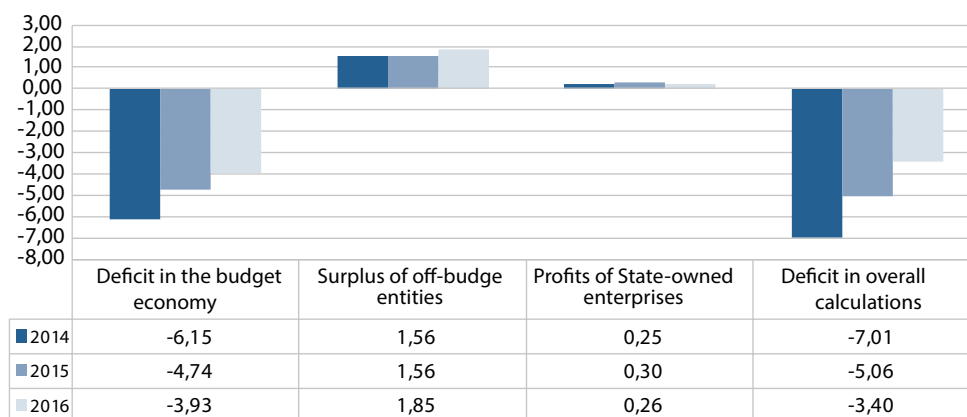
Prepared by the State Treasury, these overall calculations seek to provide a better overall picture of the central government finances under the steering of the Government (legal entity). The overall calculations are prepared on the basis of the aforementioned units' official final accounts, which are unaudited. In the overall calculations, the impact of internal central government finance items – in other words transactions between government agencies, Funds and State-owned enterprises – have been eliminated. Significant items of this nature include the asset items of State-owned enterprises and profit recognised as revenue, cash assets of funds, internal pension contributions and transfers to the state budget economy as well as internal rents. The government overall balance sheet and the overall revenue and expense statement are not equal in scope with the consolidated balance sheet and consolidated income statement, as the former include e.g. companies under government control as investments under 'Securities'.

5.1.1 Government revenue and expense statement

The revenue and expense statement indicates whether revenues generated during the fiscal year were sufficient to cover the expenses incurred. In 2016, the stated deficit totalled EUR 3.4 billion, showing a decrease of EUR 1.7 billion from 2015 largely attributable to the rise in tax revenues and the decline in operating expenses. The State has still had to resort to borrowing to cover its operating expenses, however.

The deficit in the overall revenue and expense statement and in the budget economy, the surplus of off-budget entities and the profits of State-owned enterprises are reported individually in the below Figure.

Figure 11. Surpluses and deficits in government finances 2014–2016, EUR billion



Source: State Treasury

The deficit of EUR 3.4 billion in the overall government revenue and expense statement was EUR 1.6 billion higher than the deficit arrived at by adding up the state budget economy deficit (EUR 3.9 billion), the profits of State-owned enterprises (EUR 0.3 billion) and the surplus of off-budget entities (EUR 1.8 billion). This is due to the elimination of internal items, the largest of which are transfers to funds and the recognition of enterprises' profits as income in the budget economy:

- Elimination of the transfers made from the State Pension Fund to the budget reduces transfer economy revenue by EUR 1,790 million.
- Elimination of the transfer from the budget economy to the State Television and Radio Fund reduces transfer economy expenses by EUR 508 million.
- Elimination of the income recognition of enterprises' profits reduces financial revenue by EUR 237 million.
- The rents received by Senate Properties from agencies within the State budget economy reduce rental income and rental expenses by EUR 535 million.
- The pension contributions of agencies and bodies (employer's contribution) reduce other income and personnel expenses by EUR 658 million.

5.1.2 Balance sheet

The balance sheet reflects financial position, i.e. assets and liabilities, on the closing day of the fiscal year. At EUR 83.1 billion, total assets in the overall balance sheet are lower by EUR 9.3 billion than the combined non-eliminated total assets of the state budget economy (EUR 56.7 billion), State-owned enterprises (EUR 8.6 billion) and off-budget entities (EUR 27.0 billion). This is due to consolidations and eliminations, the largest of which are as follows:

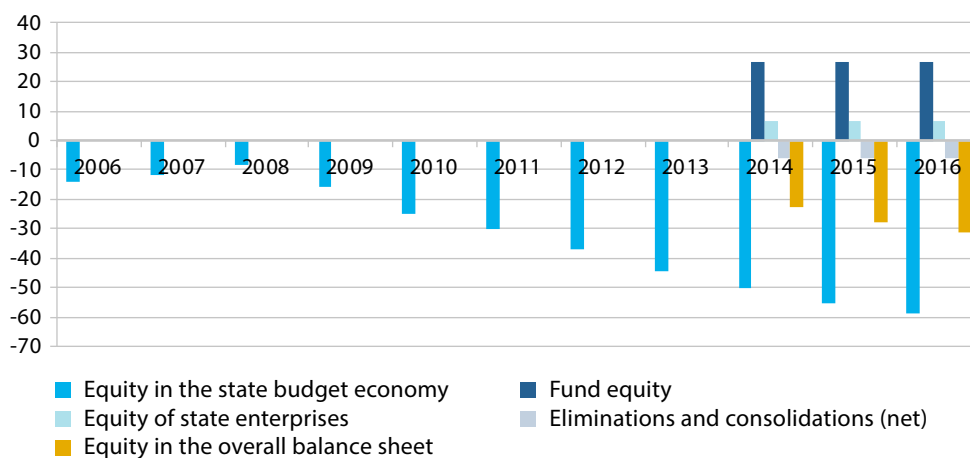
- The assets of enterprises, such as buildings and land, are reported in the budget economy balance sheet as investments in the enterprises' basic capital, whereas in the overall balance sheet they are reported in accordance with the nature of each asset. Elimination of enterprise holdings reduces equity and investments in fixed assets by EUR 6,006 million.
- Cash assets held by funds are a part of government cash assets. Thus elimination of the funds' liaison account receivables reduces bank receivables and current liabilities by EUR 2,317 million.
- Elimination of the transfers made from the State Pension Fund to the budget reduces equity in the balance sheet by EUR 1,790 million.
- Elimination of the income recognition of enterprises' profits increases equity by EUR 237 million.

Key developments in the balance sheet include the increase of EUR 2.2 billion in liabilities and the decrease of EUR 1.3 billion in current and financial assets. Expenses were covered from financial assets in lieu of higher borrowing.

Equity

Equity reflects net assets when provisions and liabilities have been deducted. Equity in the overall state balance sheet consists of the equities of funds, State-owned enterprises and the State as a budget entity. Equity in the overall balance sheet was EUR 31.2 billion negative in 2016. Since 2015, negative equity has increased by EUR 3.5 billion.

Figure 12. Changes in equity 2006–2016 in the government overall balance, EUR billion



Source: Ministry of Finance, State Treasury

The equity shown in the overall balance sheet is clearly negative by less than the equity shown in the state budget economy. This can be attributed to the positive equity of the off-budget entities and State-owned enterprises. However, combined equity has decreased in the last three years for which data was available. This is largely due to the accumulation of deficits in the state budget economy.

In the opening balance sheet of the state budget economy at 1 January 1998, equity was EUR 30 billion negative. For the most part, assets were valued at cost in the balance sheet. As a rule, central government revenue and expense statements were positive in 1998–2008, which strengthened the central government's assets. In 2008, equity in the state budget economy was only EUR 8.1 billion negative.

The financial statements of the state budget economy have shown a deficit since 2009. This has undermined the central government's asset position and prompted negative equity growth. Since 2012, the central government's nominal asset position has been weaker than in the opening balance in 1998. The increase in assets has not been on par with the increase in liabilities.

Liabilities

Liabilities include loans denominated in euro and foreign currencies, accrued expenses, accounts payable and other current and non-current debt. Liabilities in the state budget economy in 2016 totalled EUR 115.7 billion. Government liabilities in the overall balance sheet at 31 December 2016 totalled EUR 114.3 billion, an increase of EUR 2.2 billion.

State budget economy loans in euro and foreign currencies totalled EUR 104.6 billion in 2016. The funds have no loans in euro or foreign currencies, whereas in enterprises these total EUR 1.8 billion. Loan eliminations came to EUR 867 million. Loans in the amount of EUR 105.5 billion were included in the overall balance sheet

Listed securities

The holdings of listed equities and other securities in the budget economy had a total market value of EUR 11.5 billion at the end of 2016 and EUR 10.2 billion at the end of 2015. The following Table shows the carrying amounts and market values of the listed shares held by the State Pension Fund and Solidium. For the state budget economy, only investments held as fixed assets and other long-term investments are shown.

Table 9. Listed shares and holdings, EUR billion

	Budget economy		State Pension Fund*		Solidium**		Total	
	Carrying amount	Market value	Carrying amount	Market value	Carrying amount	Market value	Carrying amount	Market value
Total 2016	5.7	11.5	13.2	16.9	8.5	8.5	27.3	37.0
Total 2015	5.7	10.2	13.2	16.7	7.3	7.3	26.1	34.2
Change from 2015 to 2016, EUR	0.0	1.3	0.0	0.2	1.2	1.2	1.2	2.8
Change from 2015 to 2016, EUR	0.0 %	13.1 %	-0.1 %	1.3 %	17.0 %	17.0 %	4.7 %	8.2 %

* In the 2015 risk report, the figures for the State Pension Fund also include unlisted shares and holdings. The relevant figures for 2015 have been corrected in this report.

** Solidium's financial statements were not prepared as at 31 December 2016. Solidium values listed equities at market value and the carrying amount of its shareholdings is thus given as the said market value. Correspondingly, the carrying amount of money market investments is given as their market value at 31 December 2016.

Source: State Treasury

6 Summary of government risks and liabilities

As stated at the start of this report, fiscal responsibilities, and thereby risks, may emanate from decentralised sources within the government (e.g. state budget economy), other public finance (e.g. government funds, state enterprises, municipalities), the private sector (e.g. government-controlled enterprises), or the financial markets (e.g. the banking sector). However, it will not be possible to identify all fiscal risks.

Table 10 shows a summary of government assets and the nominal values of specific, definable liabilities. Because the explicit assessment of risks related to liabilities is difficult, nominal values of liabilities have been used in this report for the purpose of clarity. Information on the central government's real and financial assets is based on fiscal accounts and differs from the figures shown on the overall balance sheet. The difference can be attributed to the extensive scope of the concept of the State, and the treatment of asset items.

Table 10. Government assets and liabilities, EUR billion

	2010	2011	2012	2013	2014	2015	2016
ASSETS							
Central government real assets	47.7	49.5	51.1	52.4	51.8	53.0	
% of GDP	25.5	25.2	25.6	25.8	25.2	25.3	
Central government financial assets	63.7	55.5	58.5	59.5	60.4	61.3	61.1
% of GDP	34.1	28.2	29.3	29.3	29.4	29.3	28.6
Central government liquid assets	11.2	10.3	7.4	4.6	3.1	4.4	3.1
Solidium	9.3	6.9	7.2	8.2	7.6	6.8	7.8
Other holdings of listed equities	12.1	8.6	7.8	9.5	10.9	10.2	11.5
Loan receivables from the National Housing Fund	8.2	7.7	7.2	6.5	6.0	5.4	4.8
LIABILITIES							
Central government debt	75.2	79.7	83.9	89.7	95.1	99.8	102.3
% of GDP	40.2	40.5	42.0	44.1	46.6	48.2	47.8
Municipal debt	10.6	11.4	12.9	14.9	16.9	18.1	18.8
% of GDP	5.7	5.8	6.4	7.3	8.2	8.5	8.8
Government guarantees*	22.3	27.3	32.5	34.0	38.6	44.2	46.0
% of GDP	11.9	13.9	16.2	16.8	18.8	21.1	21.5
Finnvera**	12.8	14.0	14.8	14.6	17.5	22.6	22.6
Student loans	1.4	1.4	1.5	1.6	1.8	2.0	2.3
EFSF	0.0	2.1	5.1	6.2	6.6	6.2	6.3
Bank of Finland						0.5	0.6
Government funds	7.9	9.1	10.2	11.2	11.8	12.3	13.1
Other***	0.3	0.6	0.8	0.5	0.3	0.6	1.0
Capital liabilities	5.1	5.8	17.0	17.1	17.2	17.8	18.0
% of GDP	2.7	3.0	8.5	8.4	8.4	8.5	8.4
Other liabilities	105.1	112.3	119.0	117.8	132.9	130.8	129.5
% of GDP	56.2	57.0	59.6	57.8	64.8	63.2	60.5
Budget economy	103.3	110.4	117.0	115.4	130.4	128.3	126.9
Off-budget entities	0.3	0.4	0.5	0.6	0.7	0.9	1.2
State enterprises	1.4	1.5	1.5	1.8	1.8	1.6	1.4

* Government guarantees and government collateral are reported in greater detail in Appendix 12 to the central government final accounts.

** The figures for Finnvera have been corrected in respect of 2009–2015. The government guarantee granted for Finnvera plc's ENTM loan programme also covers interest swaps and currency swaps (overlapping liabilities among the various guarantees have been eliminated. Derivative contracts are concluded within the framework of the standard international ISDA Master Agreement and a Credit Support Annex (CSA) related to the collateral arrangement and serving to reduce credit risk is also incorporated into the agreement. (Nominal amount EUR 4,881 million at 31 Dec 2016). The liabilities related to export guarantees and guarantees on borrowing are not cumulative such that they could be realised in the combined full amount. The risk related to the repayment of export credit granted by Finnish Export Credit, which is a part of Finnvera Group, is covered by an export guarantee granted by parent company Finnvera plc. The government's liability for this guarantee is 95% as a rule. Where debt guaranteed by the government has been applied towards financing export credit, the government's liability is not doubled. The figures for Finnvera include liabilities in effect. In addition, the 2015 figure for Finnvera has been adjusted down by EUR 1,010 million from the figure reported in the 2015 financial statements. The adjustment is due to change in the manner of reporting, Appendix 12.

*** Capital liabilities excluded

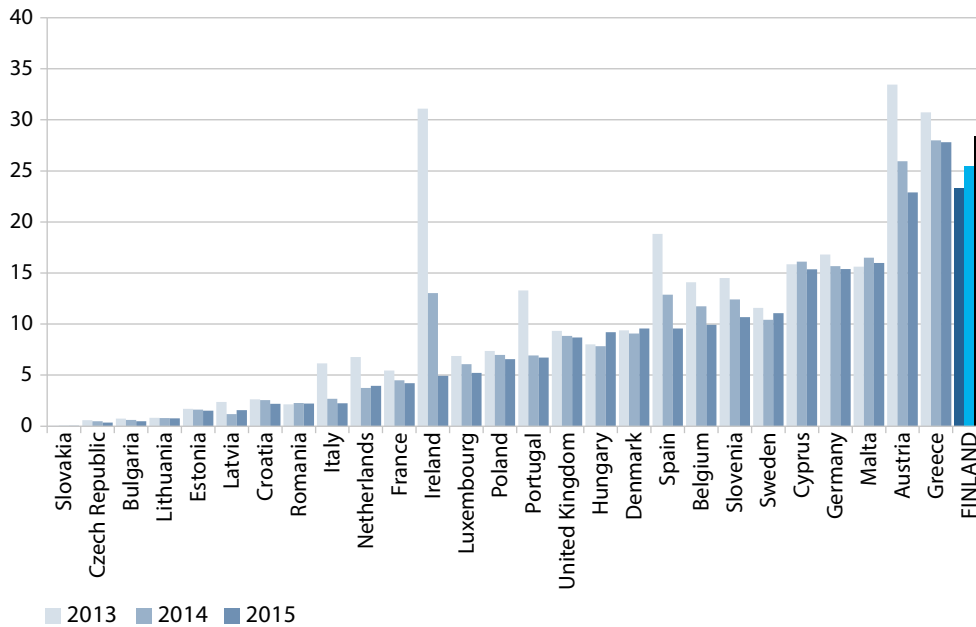
Source: Ministry of Finance, State Treasury

Central government liabilities, in addition to debt and pension liabilities, largely comprise guarantees, the nominal amount of which has increased significantly in recent years. A sharp rise has been seen especially in the guarantees of Finnvera and other government funds – mainly housing loan guarantees. Since 2009, these guarantees have grown by about EUR 20 billion.

The nominal value of all government guarantees has doubled in a few years to EUR 46 billion, or 21.5% of GDP. In addition, the callable capital contributions payable to international financial institutions have grown multifold, mainly as a result of EU financial crisis management. Their nominal amount, as a share of GDP, is 8% (approximately EUR 18 billion).

On a global scale, Finland's guarantees are at a high level. Different reporting practices, among other reasons, make it difficult to compare the nominal values of guarantees between countries. According to the most recent statistics compiled by Eurostat (2015), Finland's general government guarantee-to-GDP ratio is among the highest in the EU (see Figure 13).

Figure 13. General government guarantees* in EU countries in 2013–2014, % of GDP



* The liabilities concerning on the administration of the financial crises in European Union are not included
 Source: Eurostat

Risks related to general government finances are usually linked to general economic trends. Weaker-than-predicted economic development tends to result in a higher than expected increase in government borrowing. Especially in times of deep recession and depression, public debt has clearly outpaced projections.

The sensitivity of Finnish government finances to economic cycles has been assessed by organisations such as the OECD. Due to the size of its government finances and the structure of the national economy, Finland is more sensitive to macroeconomic developments than many other EU countries. In Finland's case, total output remaining at one percentage point lower than anticipated would translate into an almost 0.6% decline in general government finances in relation to total output. The impact on government finances is strongest in the case of tax revenues sensitive to economic cycles, such as corporation taxes, and that of unemployment-related expenditure.

However, using average elasticity as a sensitivity indicator may provide an unrealistic picture of the risks associated with macroeconomic development. Under exceptionally difficult economic circumstances, general government finances may be eroded for several reasons. Risks related to macroeconomic development, general government debt, government holdings, the export guarantees issued, and other risks related to other government liabilities correlate with each other. Typically, under the conditions of normal cyclical fluctuations, only some of these risks will be realised.

The costs arising from the realisation of government liabilities may result in a significant burden on the national economy. The instability of the external environment places a special emphasis on the careful monitoring and management of economic liabilities.

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Appendix 1

State overall revenue and expense statement EUR 1,000	1.1.- 31.12.2016	1.1.- 31.12.2015	Change	Change, %
OPERATING INCOME				
Service revenue	1,066,323	1,501,240	-434,917	-29.0%
Rental revenue and charges for utilities paid	127,074	118,394	8,680	7.3%
Other operating income	2,028,765	1,773,760	255,005	14.4%
TOTAL	3,222,161	3,393,394	-171,232	-5.0%
OPERATING EXPENSES				
Materials and consumables				
Purchases during the year	684,016	828,442	-144,426	-17.4%
Increase (-) or decrease (+) in inventories	-323,468	188,189	-511,657	-271.9%
Personnel expenses	3,803,392	3,855,668	-52,276	-1.4%
Rents	242,872	260,413	-17,541	-6.7%
Purchases of services	3,002,601	2,686,911	315,690	11.7%
Other expenses	785,942	784,035	1,906	0.2%
Increase (-) or decrease (+) in stocks	8,584	-1,498	10,082	672.9%
Manufacture for own use	-148,852	-95,155	-53,696	-56.4%
Depreciation	1,259,335	1,282,030	-22,695	-1.8%
TOTAL	9,314,422	9,789,036	-474,614	-4.8%
DEFICIT I	-6,092,260	-6,395,642	303,382	4.7%
FINANCIAL INCOME AND EXPENSES				
Financial income	1,994,229	2,494,674	-500,445	-20.1%
Financial expenses	-1,970,277	-2,252,487	-282,210	-12.5%
TOTAL	23,952	242,187	-218,236	-90.1%
EXTRAORDINARY INCOME AND EXPENSES				
Extraordinary income	156,487	115,204	41,284	35.8%
Extraordinary expenses	-10,116	-15,908	-5,792	-36.4%
TOTAL	146,371	99,296	47,076	47.4%
DEFICIT II	-5,921,937	-6,054,159	132,221	2.2%

State overall revenue and expense statement EUR 1,000	1.1.- 31.12.2016	1.1.- 31.12.2015	Change	Change, %
INCOME AND EXPENSES FROM TRANSFER FINANCES				
Income from transfer finances				
From local administration	150,141	151,879	-1,738	-1.1%
From European Union agencies and other agencies	1,158,145	1,125,390	32,756	2.9%
Other income from transfer finances	134,353	111,815	22,538	20.2%
TOTAL	1,442,639	1,389,084	53,555	3.9%
Expenses from transfer finances*				
To local administration	11,970,524	11,515,201	455,323	4.0%
To social security funds	12,507,842	12,255,825	252,016	2.1%
To the business sector	3,308,379	3,297,564	10,815	0.3%
To non-profit organisations	2,447,128	2,478,188	-31,059	-1.3%
To households	5,011,837	5,010,535	1,302	0.0%
To European Union agencies and other agencies	1,882,210	1,767,432	114,778	6.5%
Foreign	610,747	884,085	-273,338	-30.9%
Other expenses from transfer finances (incl. universities)	3,145,846	3,307,767	-161,922	-4.9%
TOTAL	40,884,513	40,516,597	367,915	0.9%
DEFICIT III	-45,363,811	-45,181,672	-182,139	-0.4%
INCOME FROM TAXES AND STATUTORY PAYMENTS				
Taxes and charges comparable to tax	41,750,667	39,967,634	1,783,034	4.5%
Other statutory payments	210,154	154,524	55,630	36.0%
TOTAL	41,960,821	40,122,157	1,838,664	4.6%
SURPLUS/DEFICIT FOR THE FISCAL YEAR	-3,402,989	-5,059,515	1,656,526	32.7%

* In the overall revenue and expense statement, government funding to universities of applied sciences has been transferred to the local administration sector in keeping with the sector classification. The transfer reduces expenses from transfer finances to the business sector and increase expenses from transfer finances to local administration by EUR 833,864,000.00.

Comparison year data 2015: The overall calculations for 2015 have been adjusted from those presented in this report for 2016.

Appendix 2

Government overall balance sheet EUR 1,000	31.12.2016	31.12.2015	Change	Change, %
ASSETS				
NATIONAL ASSETS				
Land and water	989,404	1,201,084	-211,680	-17.6%
Building land and water	53,927	54,400	-473	-0.9%
Buildings	521,491	515,354	6,137	1.2%
Other national assets	48,874	46,722	2,152	4.6%
Prepayments and procurement in progress	85,620	45,346	40,273	88.8%
TOTAL	1,699,315	1,862,906	-163,591	-8.8%
FIXED ASSETS AND OTHER LONG-TERM INVESTMENTS				
INTANGIBLE ASSETS				
Immaterial rights	46,311	39,014	7,296	18.7%
Other long-term expenditure	481,294	419,323	61,972	14.8%
Prepayments and procurement in progress	237,562	188,895	48,667	25.8%
TOTAL	765,167	647,232	117,935	18.2%
TANGIBLE ASSETS				
Land and water	2,893,873	2,573,451	320,422	12.5%
Building land and water	1,578,044	1,596,522	-18,478	-1.2%
Buildings and constructions	3,250,000	3,290,350	-40,350	-1.2%
Structures	18,240,293	18,042,222	198,071	1.1%
Machinery, equipment and furniture	621,002	543,262	77,740	14.3%
Other tangible assets	121,824	121,544	280	0.2%
Prepayments and procurement in progress	913,648	1,133,829	-220,181	-19.4%
TOTAL	27,618,684	27,301,180	317,504	1.2%
SECURITIES HELD AS FIXED ASSETS AND OTHER LONG-TERM INVESTMENTS				
Securities held as fixed assets	16,097,076	15,662,572	434,504	2.8%
Investments in euro	17,347,640	18,148,631	-800,992	-4.4%
Investments in other currencies	3,513,728	3,432,702	81,025	2.4%
TOTAL	36,958,443	37,243,906	-285,463	-0.8%
TOTAL FIXED ASSETS AND OTHER LONG-TERM INVESTMENTS	65,342,294	65,192,318	149,976	0.2%

OVERVIEW OF CENTRAL GOVERNMENT RISKS AND LIABILITIES, SPRING 2017

Government overall balance sheet EUR 1,000	31.12.2016	31.12.2015	Change	Change, %
CURRENT AND FINANCIAL ASSETS				
CURRENT ASSETS				
Materials and consumables	440,089	424,856	15,233	3.6%
Work in progress	5,104	13,643	-8,539	-62.6%
Finished products/Goods	1,346,604	1,051,578	295,026	28.1%
TOTAL	1,791,797	1,490,077	301,720	20.2%
NON-CURRENT RECEIVABLES				
Non-current receivables	5,336,006	5,718,237	-382,230	-6.7%
CURRENT RECEIVABLES				
Accounts receivable	133,816	180,900	-47,084	-26.0%
Loans receivable	2,548,390	2,587,838	-39,448	-1.5%
Accrued income	278,700	308,752	-30,052	-9.7%
Other current receivables	361,904	398,518	-36,615	-9.2%
Prepayments	653,672	874,908	-221,236	-25.3%
TOTAL	3,976,481	4,350,916	-374,434	-8.6%
MARKETABLE SECURITIES AND OTHER				
CURRENT INVESTMENTS				
Purchases of euro-denominated bonds	570,369	752,727	-182,358	-24.2%
Other euro-denominated investments	1,250,000	2,660,000	-1,410,000	-53.0%
Purchases of bonds denominated in other currencies	400,207	99,965	300,242	300.3%
TOTAL	2,220,576	3,512,692	-1,292,116	-36.8%
CASH AT HAND AND IN BANK, AND OTHER FINANCIAL ASSETS	2,722,051	2,243,815	478,236	21.3%
TOTAL CURRENT AND FINANCIAL ASSETS	16,046,912	17,315,737	-1,268,825	-7.3%
TOTAL ASSETS	83,088,522	84,370,961	-1,282,439	-1.5%
EQUITY AND LIABILITIES				
EQUITY				
Government equity at 1 Jan 1998	-30,048 198	-30,048,198		
Equities of off-budget central government funds	-14,870,283	-13,098,069	-1,772,214	-13.5%
Change in previous fiscal years' equity	17,106,250	20,476,590	-3,370,340	-16.5%
Surplus/Deficit for the fiscal year	-3,402,989	-5,059,515	1,656,526	32.7%
TOTAL	-31,215,220	-27,729,193	-3,486,028	-12.6%

Government overall balance sheet EUR 1,000	31.12.2016	31.12.2015	Change	Change, %
FUND EQUITIES				
Other government funds and donations	8,727	7,929	798	10.1%
PROVISIONS				
Provisions	3,930	5,739	-1,809	-31.5%
LIABILITIES NON-CURRENT				
Euro-denominated loans	86,404,257	86,506,204	-101,947	-0.1%
Loans denominated in other currencies	1,250,965	1,480,980	-230,015	-15.5%
Non-current accrued expenses	57,592	67,110	-9,518	-14.2%
Other non-current liabilities	407,302	488,120	-80,818	-16.6%
TOTAL	88,120,115	88,542,413	-422,298	-0.5%
CURRENT				
Repayments to be made in the following fiscal year	14,163,857	9,767,528	4,396,329	45.0%
Current loans	3,693,058	5,426,082	-1,733,024	-31.9%
Funds placed under government management	432,937	393,731	39,206	10.0%
Advances received	638,611	424,106	214,505	50.6%
Accounts payable	721,621	622,194	99,427	16.0%
Accrued expenses	1,715,204	1,814,523	-99,319	-5.5%
Other current liabilities	4,156,573	5,095,909	-939,336	-18.4%
TOTAL	25,521,861	23,544,072	1,977,789	8.4%
TOTAL LIABILITIES	114,290,807	112,086,485	2,204,322	2.0%
TOTAL EQUITY AND LIABILITIES	83,088,522	84,370,961	-1,282,439	-1.5%

The overall calculations for 2015 have been adjusted from those presented in this report for 2016.

