27 October 2017

Public Finance

Republic of Estonia
Rating Report

A+ STABLE OUTLOOK

Credit strengths

- Robust economic growth
- Strong public finances
- Institutional strengths
- EU membership
- Sound banking system

Credit weaknesses

- Economic volatility
- Small size of economy
- Risks to competitiveness

Rating rationale and outlook: The rating upgrade to A+ is driven by improvements in the area of fiscal risk and reflects Scope's view that Estonia's fundamentals are strengthened by the sovereign's (1) robust economic growth performance, (2) continued fiscal consolidation as reflected in strong public finances with extremely low public debt, (3) increased economic and external resilience underpinned by its Euro area membership. However, the ratings are constrained by economic volatility and vulnerability to external shocks reflected in its small size and openness of its economy, and risks to competitiveness. The Stable Outlook reflects Scope's assessment that the risks are broadly balanced.

Figure 1: Sovereign rating categories summary

Scope's sovereign risk categories	Estonia	Peer comparison		
		Average	Finland	Belgium
Domestic economic risk				
Public finance risk				
External economic risk				
Financial risk				
Political and institutional risk				
Qualitative adjustment (notches)	-2		1	-
Final rating	A+		AA+	AA

AAA AA A BBB BB B CCC CC C

NB. The comparison is based on Scope's Core Variable Scorecard (CVS), which is determined by relative rankings of key sovereign credit fundamentals. The CVS peer group average is shown together with two selected countries chosen from the entire CVS peer group. The CVS rating can be adjusted by up to three notches depending on the size of relative credit strengths or weaknesses.

Positive rating-change drivers

- Strong growth without imbalances
- Closing of productivity gap

Negative rating-change drivers

- Shocks to economic activity
- Increases in productivity gap
- Spill-over effects from potential crisis in Sweden

Ratings and outlook

Foreign currency

Long-term issuer rating	A+/Stable
Senior unsecured debt	A+/Stable
Short-term issuer rating	S-1+/Stable

Local currency

Long-term issuer rating	A+/Stable
Senior unsecured debt	A+/Stable
Short-term issuer rating	S-1+/Stable

Lead analyst

John F. Opie
+49 69 6677389-13
jf.opie@scoperatings.com

Team leader

Dr Giacomo Barisone
+49 69 6677389-22
g.barisone@scoperatings.com

Scope Ratings AG

Neue Mainzer Straße 66-68
60311 Frankfurt am Main

Phone + 49 69 6677389 0

Headquarters

Lennéstraße 5
10785 Berlin

Phone +49 30 27891 0
Fax +49 30 27891 100

info@scoperatings.com
www.scoperatings.com

Bloomberg: SCOP

Domestic economic risk

Strong growth

The first driver of the rating upgrade is Estonia's robust economic fundamentals[1]. Scope estimates that the economy will grow by 2.1% in 2017 after 1.7% growth in 2016, and 2018 GDP growth is expected to be 4.0%. Growth is largely driven by new investments from the Multi-Annual Financial Frameworks (MFF) for EU funds, up from negative 0.9% in 2016 to 4.6% in 2017 and 5.3% in 2018. Healthy exports growth supported by strengthening demand among trading partners further support growth. Consumer demand is expected to remain strong, reflecting strong wage-growth expectations of 5.5% in 2017 and 5.0% in 2018, which are well above inflation rates. The current account balance is positive at 1.9% of GDP in 2016, but it is expected to fall to 1.8% in 2017 and 1.4% in 2018, reflecting increased trade deficits and lower services surpluses due to increased public consumption and investments. Development in Estonian living standards has been among the strongest in the region for the past two decades, but it is slowing now.

EU membership

The rating upgrade is also supported by the country's Euro area membership, giving access to a large common market, a strong reserve currency, an independent European Central Bank effectively acting as a lender of last resort, and an economic governance and macro prudential framework supporting credible macroeconomic policies. Scope believes that these are important elements which reflect a better protection of Estonia from external adverse shocks, underpinning the sovereign's resilience, effectiveness of policy-making and creditworthiness

Demographic recovery

While wage growth is strong, Scope expects real disposable-personal-income growth to slow due both to tax hikes and rising inflation, placing further pressure on wages and at the same time slowing consumption growth[2]. In stark contrast to its Baltic neighbours, Estonia's demographics have flattened out and now show a slight recovery after falling sharply during the last two decades, reflecting Estonians returning from the post-independence diaspora, bringing high skill levels and experience with them. The demographic structure has also stabilised. Fertility rates remain low at 1.6, but net immigration was positive in 2016 for the first time. Labour-force participation rates have increased strongly and reached 70.2% in Q1 2017[3].

Labour supply is also expected to grow due to a 'work-ability' programme, which aims to bring the relatively large number of persons with disabilities – some 10% of the Estonian workforce – back to the workplace[4]. This will, however, have a negative effect on unemployment rates, which are now expected to rise from 6.8% in 2016 to 8.6% in 2018 due to the expansion of the labour supply. On the upside, this is not expected to have a material effect on wage growth. To reduce pressures on the Estonian pension system as the population ages, the 'work-ability' reform aims at putting as many people as possible to work, including those with disabilities and low work skills[5].

Despite its small size, the economy is supported by a relatively broad industrial base and a strong energy sector, reflecting extensive oil-shale deposits that supply around 90% of fuel for electrical energy generation and have an estimated 30-40 years of reserves[6]. Manufacturing is dominated by wood and wood products, followed by ITC[7]-related

Table of Contents

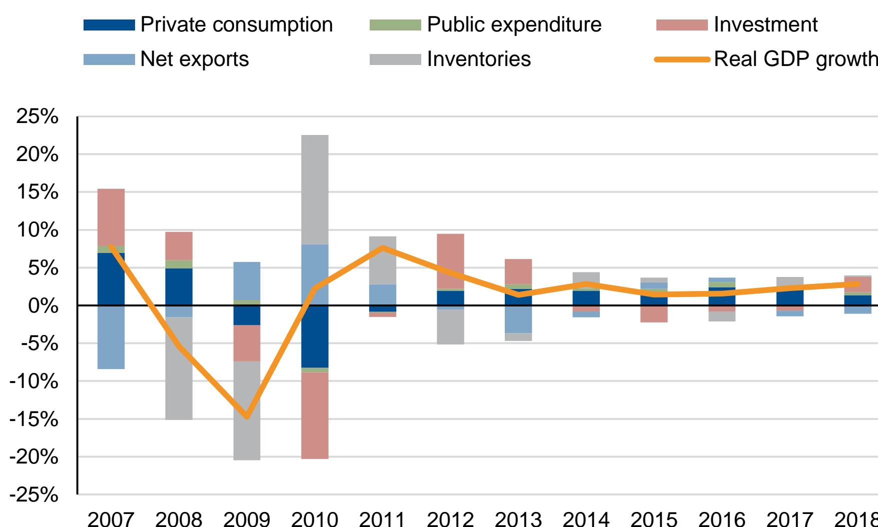
Domestic economic risk 2
Public finance risk 4
External economic risk 7
Financial stability risk 8
Institutional and political risk................9
I. Appendix: CVS and QS results ...11
II. Appendix: CVS and QS results ...12
III. Appendix: Peer comparison 13
IV. Appendix: Statistical tables 14
V. Regulatory disclosures................15

[1] Analysis for this report is based on research from the IMF 2016 Article IV Consultation January 2017 (IMF Country Report 17/9); IMF Selected Issues, Estonia, January 2017 (IMF Country Report 17/10); OECD Economic Survey, Estonia, September 2017, Quarterly Bulletin of Statistics Estonia, Finantsinspektsioon Annual Report 2016, Eesti Pank Financial Stability Review, EC Assessment of the 2017 Stability Programme for Estonia, 23 May 2017. Hereinafter IMF IV, IMF SI, OECD, QBSE, FI, EPFSR, EC 2017. Other sources referenced individually.
[2] OECD
[3] QBES 2/2017
[4] https://www.sm.ee/en/work-ability-reform
[5] OECD, p. 14
[6] OECD
[7] Information Technology and Communications

hardware, as well as food products[8]. ITC services are also very strong. Scope views the relatively broad economic base positively, but notes that the Estonian economy is very sensitive to developments in these key exports markets. There is a concerted effort to increase trade away from Russia to EU members.

Investments in Estonia will be largely driven by infrastructure developments and modernisation. As a legacy of the Soviet period, Estonia has a large rail overcapacity and deficits in road infrastructure. Bottlenecks to trade are being addressed to improve interoperability with the European Core Network rail system (Rail Baltica programme). Returns on infrastructure investments are strong, albeit from a relatively low base[9].

Figure 2: Components of real GDP growth



Source: National statistical accounts, calculations by Scope Ratings AG

Small size leads to volatility

Scope views Estonian economic volatility as a rating weakness. After real average annual compound growth of 8.2% from Q1 2000 to Q4 2007, growth fell markedly by 20.9% between Q4 2007 and Q3 2009, highlighting Estonia's vulnerability to boom-and-bust cycles. With only 1.3m people overall and a worker base of only around 630,000, the economy is very small and lacks depth. The economy is open and deeply integrated with the economies of both Sweden and Finland, as well as retaining legacy economic ties with Russia. The latter are being replaced with greater integration in the EU. As a result, any shifts in demand from these countries affect the Estonian economy disproportionately.

Productivity challenge

Productivity growth in Estonia has stagnated since 2013. Average productivity in Estonia, measured as value added per hour worked, is only 56% of the EU country average. Despite this, wages have grown rapidly, driven both by strong minimum-wage increases (10% per year for the last five years) and strong increases in government wages (8% per year over the last three years). This threatens Estonian competitiveness. Nominal unit labour costs (ULC) are up strongly across almost all sectors of the economy, increasing by 6.5% in 2016, and Scope expects these to increase by 4.8% in 2017 and 3.3% in 2018, further worsening competitiveness. Scope estimates that ULCs have doubled since 2002, driven primarily by increases in labour costs. Without measures strengthening the

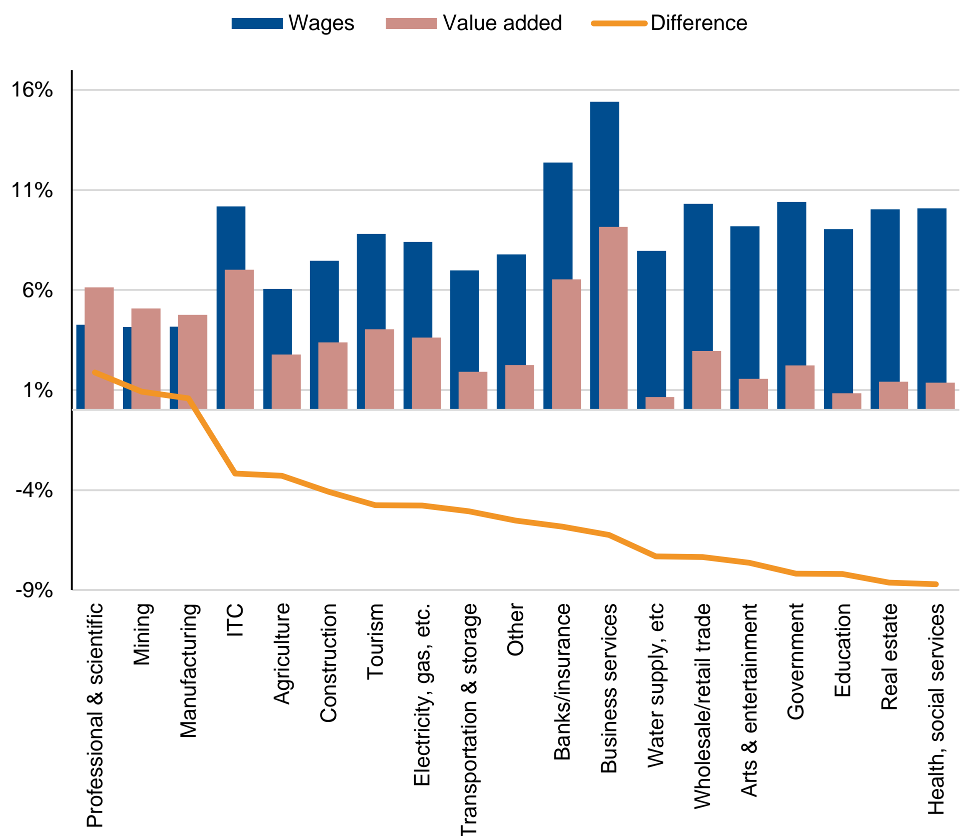
[8] QBES 2/2017
[9] OECD page 46ff

supply side of the economy to boost productivity, anticipated further government support of wage growth to increase domestic demand remains challenging[10].

Minimum wage increases and trickle-up effects

Between Q2 2013 and Q2 2016, average ULCs for the EU grew at 2%, while Estonian ULCs increased by 15% during the same period, well above the IMF's 9% threshold. The government's policy of increasing minimum wages to support domestic demand has trickle-up effects on overall wages, resulting in broad wage increases that are not based on productivity developments. Past emigration led to higher wage growth at the upper end due to a reduced labour supply, which, when coupled with strong growth, has also tended to generate wage increases in Estonia. Returning workers with high skill levels also contributes to wage growth. Scope believes the strong divergence between rapid wage growth and weak productivity is not sustainable at the current trajectory of development and has negatively impacted corporate profits, weakening potential GDP growth[11].

Figure 3: Productivity challenge (CAGR 2002-2016)



Source: National statistical accounts, calculations by Scope Ratings AG

Public finance risk

Strong public finances

The rating upgrade is also driven by Estonia's strong public finances and extremely low level of public debt. The Estonian government continues to operate under a strict fiscal framework that requires deficits to be offset by lower spending until balance is reached, resulting in strong fiscal discipline. In 2016, the general government generated a surplus of 0.2% of GDP, but this is expected to drop into zero in 2017 and negative 0.7% in 2018,

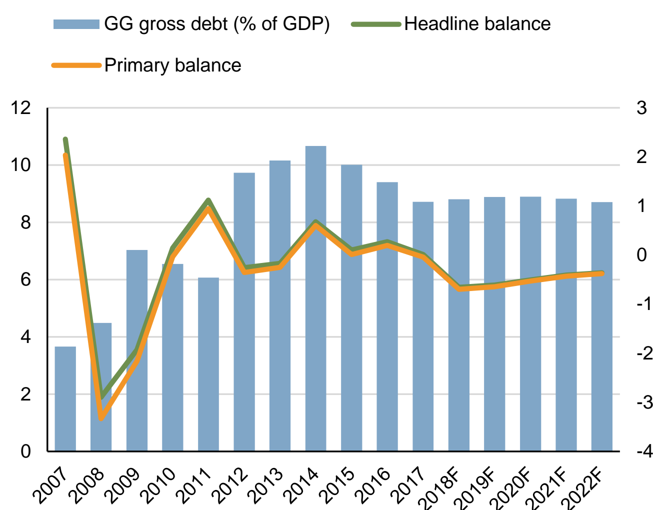
[10] IMF SI
[11] IMF SI

driven by increasing EU-related public investment. For 2018, the government aims at a looser fiscal stance because of an investment programme amounting to 0.5% of GDP and multi-year national investment programmes in infrastructure, education, social and local government funding amounting to approximately 1% of GDP, to be fully offset by several income tax cuts for low-income workers.

Extremely low public debt ratios

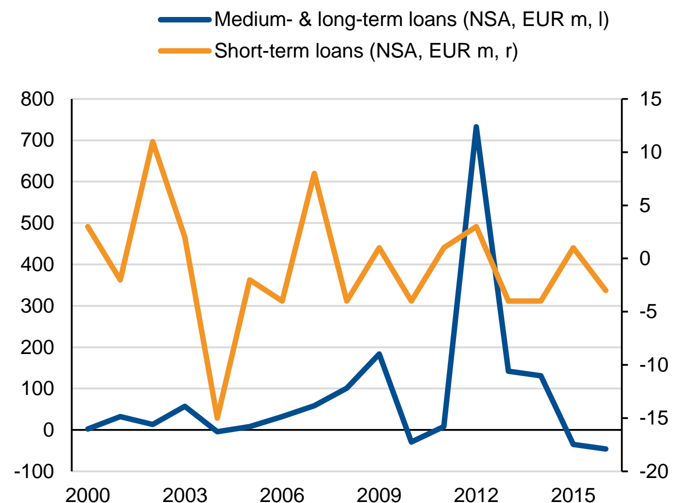
In Q2 2017, Estonia's gross government debt as a percentage of GDP was very low at 8.56%, the lowest of any country Scope rates. The Estonian government does not issue sovereign bonds, choosing instead to finance government activities not covered by revenues by using mostly long-term bank loans. Debt dynamics are favourable and Scope expects public debt to remain on a steady downwards trajectory from a peak of 10.46% in Q4 2014. In 2016, Estonia's net debt of 0.35% to GDP was even lower than its already-low gross debt. Estonia has accumulated sizeable liquid financial reserves (9.3% of GDP in 2015, the last year for which data is available). Scope views uncertainty surrounding estimates of the expected impact of new tax measures to be introduced in 2018 as the main downside to fiscal risk.

Figure 4: Fiscal developments (% of GDP)



Source: IMF

Figure 5: Structure of government loans, EUR m



Source: IMF

Strict fiscal rule and strong fiscal discipline

The Estonian government operates under a strict fiscal rule that requires deficits to be offset by lower spending until balance is reached, resulting in strong fiscal discipline. While the new government aims at a looser fiscal stance, Scope recognises that strong fiscal discipline remains, aided by extremely low debt levels and active measures being taken to reduce long-term pension costs via the 'work-ability' programme, which seeks to return the country's relatively high number of disabled persons to the workforce. Income tax cuts for low-income workers are also expected, with increased social benefits and direct support. The government will also produce a multi-year national investment programme, and is willing, if necessary, to consider using increased external capital for funding. Scope understands that the government has said it will abandon the strict requirement for the general government budget to be in structural balance every year to permit a structural deficit of up to 0.5% of GDP. Estonian institutions showed great resilience during the severe downturn after the Great Financial Crisis and the Russian downturn, which was due to sanctions.

Very conservative debt structure

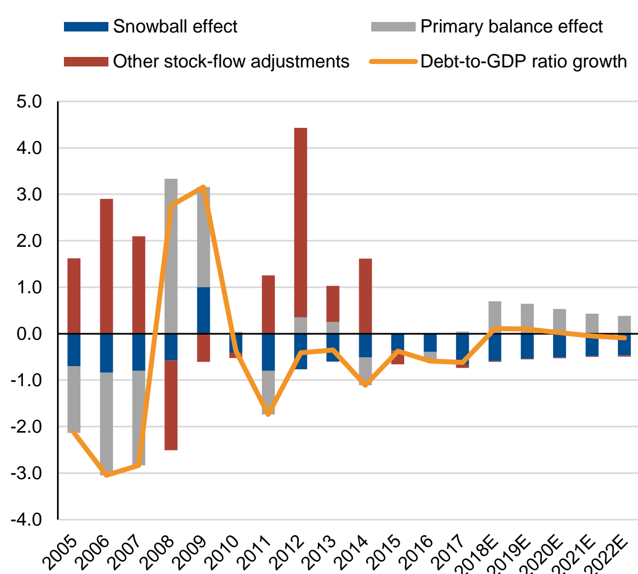
Estonia's key credit strength is the low level of government debt. The government has no bond debt, relying instead largely on long-term banking loans for short-term deficit spending as permitted under the fiscal rule. Outstanding debt is broadly matched by liquid

fiscal reserves[12]. The Estonian government sees loans as a better option than issuing bonds, as the small size of the Estonian economy and the small volume of any bond issue would have disproportionately high accompanying technical costs[13]. Large-scale government investments are supported by EU structural fund payments, and infrastructure projects face design, rather than financial, bottlenecks, further reducing government spending needs.

Robust debt sustainability

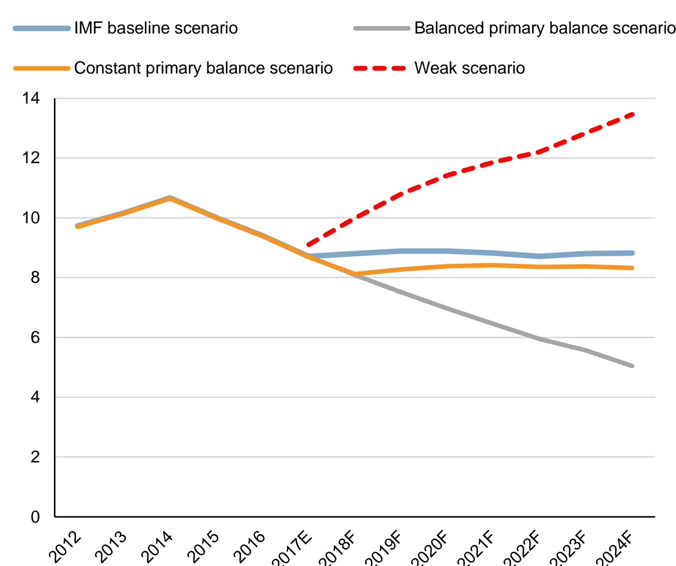
Under a number of stressed scenario's Estonia's debt sustainability is very robust. Scope's 'Weak scenario' – with lower growth and a worse primary balance, reflecting a potential economic slowdown and resulting anti-cyclical government actions – takes debt only up to 13.0% in 2024 from 9.4% in 2016. A 'Balanced primary balance scenario', where the primary balance is kept strictly at zero, takes debt to down to 5.0% in 2024. As such, Estonia's fiscal risk from government debt is minimal.

Figure 6: Debt growth (% of GDP)



Source: IMF

Figure 7: Long-term development of debt (% of GDP)



Source: Scope

2017-2024 average	Real GDP growth (% change)	Primary balance (% of GDP)	Real eff. interest rate (%)	Debt end period (% of GDP)
Historical values (2012-2016)	2.6	0.04	-3.0	9.4
IMF baseline	3.3	-0.46	-3.3	8.8
Constant primary scenario	3.3	0.00	-3.3	8.3
Weak scenario	2.4	-0.93	-3.3	13.0
Balanced primary balance scenario	0.7	-0.7	-3.3	5.0

Source: Scope

[12] IMF IV
[13] http://news.err.ee/119073/roivas-estonia-doesn-t-need-to-issue-bonds

External economic risk

Deep integration with neighbours

Despite these strengths, the Estonian economy faces a number of challenges. Scope views Estonian economic volatility and vulnerability to external shocks, as reflected in the small size and openness of its economy, as a rating constraint. After real average annual compound growth of 8.2% from Q1 2000 to Q4 2007, growth fell markedly by 20.9% between Q4 2007 and Q3 2009, highlighting Estonia's vulnerability to boom-and-bust cycles. With only 1.3m people overall and a worker base of only around 630,000, the economy is very small and lacks depth. The economy is open and deeply integrated with the economies of both Sweden and Finland, as well as retaining legacy economic ties with Russia. The latter are being replaced with greater integration in the EU. As a result, any shifts in demand from these countries affect the Estonian economy disproportionately.

Current account surplus set to narrow

The current-account balance is positive at 1.9% of GDP in 2016, but it is expected to fall to 1.8% in 2017 and 1.4% in 2018, reflecting increased trade deficits and lower services surpluses due to increased public consumption and investments. Further negative impetus for the current account comes from increasing investments and positive consumption development. Government policies aimed at increasing domestic demand and reducing reliance on exports – critical for Estonia's small, open economy – could lead to further deterioration of the current account. A deterioration in competitiveness of the ITC sector could reduce the current account surplus as well. Estonia operates a strong trade deficit that is compensated by strong services exports, especially ITC services. Primary income balances are also negative.

External debt risks low

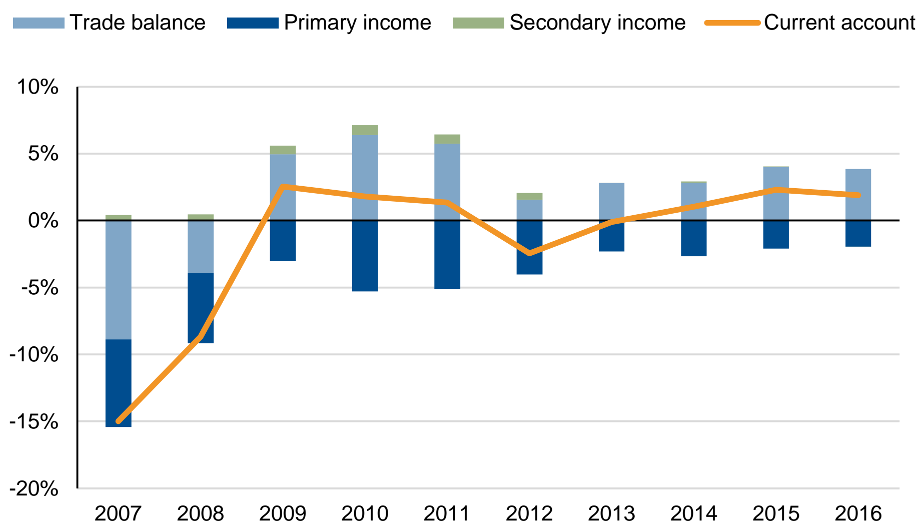
Total external debt as a percentage of GDP fell from 112% of GDP in 2010 to 94.8% in 2015, the last year for which data is available. The ratio of debt service to exports of goods and non-factor services (GNFS) has increased over the last several years and stood at 70.6% in 2015. These debt levels are relatively high, but Scope believes risks due to sudden repatriation are low, as much is owed to parent companies or parent banks. Net external debt has been negative since 2012 and was negative 12% of GDP at the end of September 2016, reflecting the large external debt claims from investments of the fiscal reserve and second-pillar pension fund investments outside of Estonia[14].

Low public external debt

Public sector external debt was low at 10.0% of GDP in 2015. Estonia benefits from substantial inward direct investment. External economic risks are primarily due to the economy's high degree of openness and its deep integration in the economies of its trading partners. External risks are largely on the downside, especially if external demand fails to pick up and the productivity gap continues to worsen competitiveness. Mitigating this is the positive contribution from substantial inflows of EU funds.

[14] IMF IV

Figure 8: Current-account balance (% of GDP)



Source: IMF, Eurostat, calculations by Scope Ratings AG

Financial stability risk

Sound banking sector

Estonia's banking sector is sound but subject to potential spill-over risks from Swedish parent banks[15]. The system is highly capitalised with a bank capital adequacy ratio of 34% and a regulatory equity tier 1 capital to risk-weighted assets ratio of 33.7% at the end of 2016. Liquidity coverage ratios were over 200% and returns on assets were approximately 2%. Estonia therefore meets and exceeds all regulatory minima and is above its peers. Cross-border crisis management is currently being enhanced by government plans to revitalise the Nordic Baltic Financial Stability Group with a new agreement on sharing of information and emergency liquidity assistance for cross-border banking groups, further improving financial stability in the region[16]. Prudent expansion of consumer loans and NFCs[17] is at around 6%, largely matching wage growth. Capital for investment is adequate, but NFCs often choose to retire external debt to improve their balance sheets rather than invest[18].

Banking dominated by Swedish groups

The two large systemically important Swedish bank groups (Swedbank, SEB) face relatively little competition in Estonia, resulting in high profitability due to high mark-ups in Estonia. Due to the high costs, SME[19] financing is constrained, reflecting high costs rather than availability, which Scope views as good. Entry into the market is hindered by the lack of comprehensive credit-information-sharing services, making it difficult for newcomers to assess risks. The large banks are generally less inclined to provide venture capital or seed capital for start-ups. As a result, Estonia is a front runner for alternative financing, such as peer-to-peer lending and equity-based crowdfunding, but scale here is limited[20].

Strong capital buffers with good liquidity

External financing risks are mitigated by sizeable capital buffers. Housing debt is moderate and mortgage lending growth is moderate. In 2016, Estonia's monetary policy

[15] EPFSR, p. 19ff: While only an indirect risk for Estonia, liquidity for the parent Swedish banking groups may be threatened by mismatches between short-term assets and various currency liabilities. Swaps are used to manage these non-euro and non-dollar liabilities, but markets may not function well during market shocks, resulting in challenges to liquidity management.
[16] IMF IV, statement by Thomas Ostris and Eve Anni, 9 Jan 2017
[17] Non-financial corporations
[18] IMF IV
[19] Small and medium-sized enterprises
[20] OECD p. 43ff

counterparts did not use lending facilities of the standard monetary policy framework, including marginal lending facilities. Bank groups in Estonia instead use centralised liquidity management, and local banks have sufficient liquidity buffers. Local banks are therefore not dependent on central bank liquidity. Scope considers the liquidity of the banking groups to be largely good, with liquidity coverage over 100%, both in overall terms and for the euro and dollar separately. Other currencies, however, have liquidity coverage of under 100%. Scope considers this to be of importance due to the Swedish krona's role for Estonian banking.

Strong domestic savings

Domestic household savings increased by 7% in 2016 as the purchasing power of households continued to expand in the wake of robust income increases and relatively low inflation, with lower income cohorts profiting the most. The increase was also aided by an increase in the number of households with savings, but most growth came from dividend income. Household borrowing increased in 2016, but at a slower pace. Both housing and consumption loans increased in volume. Overall, loan growth continues to be in line with both consumption and investment growth, underscoring the long-term soundness of the banking system.

High private-sector debt faces macroprudential restrictions going forward

Private-sector debt is relatively high compared to neighbouring countries, but this too reflects strong wage growth and a resulting increase in debt. Macro-financial measures are in place to avoid a boom-and-bust development cycle[21]. Lending conditions were not eased in 2016 and will be restricted going forward. The concern here is that the enhanced ability of consumers to take on loans may face wage constraints going forward. This also reflects Scope's view that wage increases are not sustainable. Scope expects bank lending capacity to remain good, aided by high levels of capitalisation, good profitability and generally favourable financing conditions.

Institutional and political risk

Strong and predictable institutions

Estonia's A+ ratings are also supported by political and institutional strengths underpinned by its EU membership, with Estonia benefitting as a net recipient of EU investment funds, as well as free trade in goods and services within the EU. Estonian institutions showed great resilience during the downturns that followed the Great Financial Crisis and the imposition of Russian sanctions.

Estonia is a parliamentary representative democratic republic, with six major parties as well as many smaller ones. Due to a high degree of fragmentation, all governments since the regaining of independence in 1991 have been coalition governments.

In November 2016, the centre-right Reform Party (Eesti Reformierakond), which was in power since 1999, was replaced by a three party coalition led by the centre-left Social Democratic Party (Sotsiaaldemokraatlik Erakond), and Res Publica Union (Isamaa ja Res Publica Liit) and the Estonian Centre Party (Eesti Kickarounds), choosing Jüri Ratas as Prime Minister. While partly due to the forced departure of the long-time and Russia-friendly chair of the Reform Party, Edgar Savisaar, the switch was largely driven by a desire to loosen the strict fiscal rules to provide greater support for domestic development of the economy, and to reduce both poverty and inequality within the country. The next general election is not due until 2019, while the next local elections are scheduled for Q4 2017.

[21] OECD

Methodology

The methodology applicable for this rating and/or rating outlook, 'Public Finance Sovereign Ratings', is available at www.scoperatings.com.

Historical default rates from Scope Ratings can be viewed in Scope's rating performance report at https://www.scoperatings.com/#governance-and-policies/regulatory-ESMA. Please also refer to the central platform (CEREP) of the European Securities and Markets Authority (ESMA) at http://cerep.esma.europa.eu/cerep-web/statistics/defaults.xhtml. A comprehensive clarification of Scope's definition of default and definitions of rating notations can be found in Scope's public credit rating methodologies at www.scoperatings.com.

The rating outlook indicates the most likely direction of the rating if the rating were to change within the next 12 to 18 months. A rating change is not automatically ensured, however.

I. Appendix: CVS and QS results

Sovereign rating scorecards

Scope's Core Variable Scorecard (CVS), which is based on relative rankings of key sovereign credit fundamentals, signals an indicative A (a) rating range for the Republic of Estonia. This indicative rating range can be adjusted by up to three notches on the Qualitative Scorecard (QS) depending on the size of relative credit strengths or weaknesses versus peers based on analysts' qualitative analysis.

For the Republic of Estonia, the following relative credit strengths have been identified: i) debt sustainability. The following relative credit weaknesses have been identified for the Republic of Estonia: i) macroeconomic stability and imbalances; ii) current account vulnerabilities; iii) vulnerability to short-term shocks; iv) geo-political risks; and v) macro-financial vulnerabilities and fragility. The combined relative credit strengths and weaknesses indicate a sovereign rating of A+ for Estonia. A rating committee has discussed and confirmed these results.

Rating overview	
CVS category rating range	a
QS adjustment	AA-
Final rating	A+

To calculate the rating score within the CVS, Scope uses a minimum-maximum algorithm to determine a rating score for each of the 22 indicators. Scope calculates the minimum and maximum of each rating indicator and places each sovereign within this range. Sovereigns with the strongest results for each rating indicator receive the highest rating score; sovereigns with the weakest results receive the lowest rating score. The score result translates to an indicative rating range that is always presented in lower-case letters.

Within the QS assessment, analysts conduct a comprehensive review of the qualitative factors. This includes but is not limited to economic scenario analysis, the review of debt sustainability, fiscal and financial performance and policy implementation assessments.

There are three assessments per category for a total of 15. For each assessment, the analyst examines the relative position of a given sovereign within its peer group. For this purpose, additional comparative analysis beyond the variables included in the CVS is conducted. These assessments are then aggregated using the same weighting system as in the CVS.

The result is the implied QS notch adjustment, which is the basis for the analysts' recommendation to the rating committee.

II. Appendix: CVS and QS results

CVS

Rating indicator	Category weight
Domestic economic risk	**35%**
Economic growth	
Real GDP growth	
Real GDP volatility	
GDP per capita	
Inflation rate	
Labour & population	
Unemployment rate	
Population growth	
Public finance risk	**30%**
Fiscal balance	
GG public balance	
GG primary balance	
GG gross financing needs	
Public debt	
GG net debt	
Interest payments	
External economic risk	**15%**
International position	
International investment position	
Importance of currency	
Current-account financing	
Current-account balance	
T-W effective exchange rate	
Total external debt	
Institutional and political risk	**10%**
Control of corruption	
Voice & accountability	
Rule of law	
Financial risk	**10%**
Non-performing loans	
Liquid assets	
Credit-to-GDP gap	
Indicative rating range	**aa**
QS adjustment	**AA-**
Final rating	**A+**

QS

Maximum adjustment = 3 notches

Selected option marked with (●).

	+2 notch	+1 notch	0 notch	-1 notch	-2 notch
Growth potential of the economy	Excellent outlook, strong growth potential	Strong outlook, good growth potential	(●) Neutral	Weak outlook, growth potential under trend	Very weak outlook, growth potential well under trend or negativ
Economic policy framework	Excellent	Good	(●) Neutral	Poor	Inadequate
Macroeconomic stability and imbalances	Excellent	Good	Neutral	(●) Poor	Inadequate
Fiscal performance	Exceptionally strong performance	Strong performance	(●) Neutral	Weak performance	Problematic performa
Debt sustainability	Exceptionally strong sustainability	(●) Strong sustainability	Neutral	Weak sustainability	Not sustainable
Market access and funding sources	Excellent access	Very good access	(●) Neutral	Poor access	Very weak access
Current-account vulnerabilities	Excellent	Good	Neutral	(●) Poor	Inadequate
External debt sustainability	Excellent	Good	(●) Neutral	Poor	Inadequate
Vulnerability to short-term shocks	Excellent resilience	Good resilience	Neutral	(●) Vulnerable to shock	Strongly vulnerable to shocks
Perceived willingness to pay	Excellent	Good	(●) Neutral	Poor	Inadequate
Recent events and policy decisions	Excellent	Good	(●) Neutral	Poor	Inadequate
Geo-political risk	Excellent	Good	Neutral	(●) Poor	Inadequate
Financial sector performance	Excellent	Good	(●) Neutral	Poor	Inadequate
Financial sector oversight and governance	Excellent	Good	(●) Neutral	Poor	Inadequate
Macro-financial vulnerabilities and fragility	Excellent	Good	Neutral	(●) Poor	Inadequate

*** Implied QS notch adjustment = (QS notch adjustment for domestic economic risk)*0.35 + (QS notch adjustment for public finance risk)*0.30 + (QS notch adjustment for external economic risk)*0.15 + (QS notch adjustment for institutional and political risk)*0.10 + (QS notch adjustment for financial stability risk)*0.10**

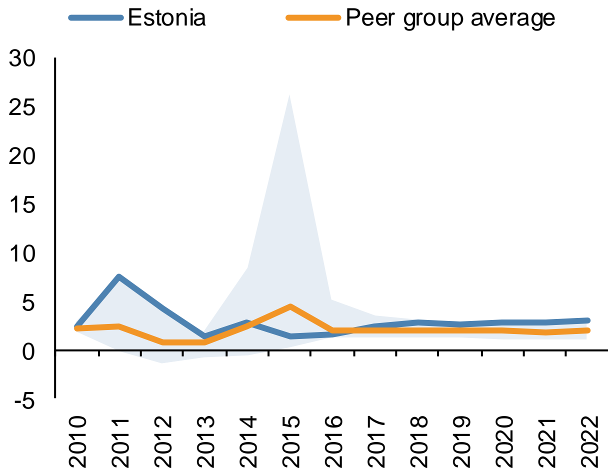
Source: Scope Ratings AG

Foreign- versus local-currency ratings

Estonia's debt is predominantly denominated in euro. Because of its history of openness to trade and capital flows and the euro's reserve-currency status, Scope sees no evidence that Estonia would differentiate among any of its contractual debt obligations based on currency denomination.

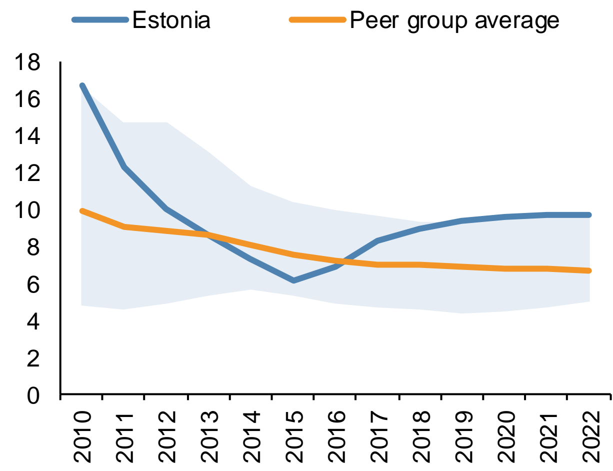
III. Appendix: Peer comparison

Figure 9: Real GDP growth



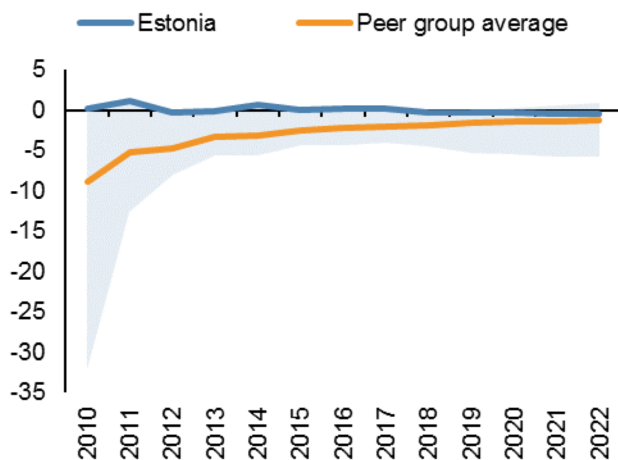
Source: IMF, Calculations Scope Ratings AG

Figure 10: Unemployment rate, % of total labour force



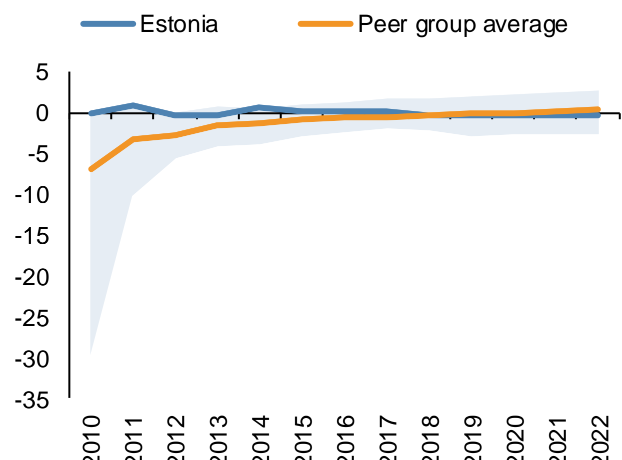
Source: IMF, Calculations Scope Ratings AG

Figure 11: General government balance, % of GDP



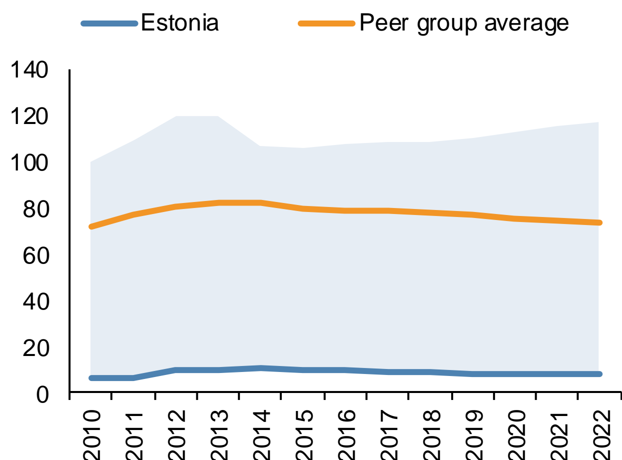
Source: IMF, Calculations Scope Ratings AG

Figure 12: General government primary balance, % of GDP



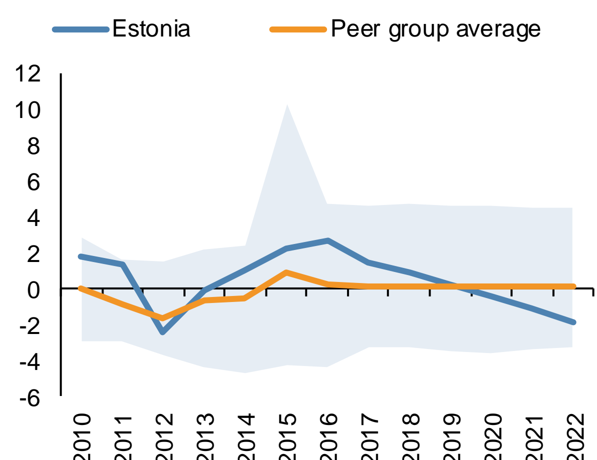
Source: IMF, Calculations Scope Ratings AG

Figure 13: General government gross debt, % of GDP



Source: IMF, Calculations Scope Ratings AG

Figure 14: Current-account balance, % of GDP



Source: IMF, Calculations Scope Ratings AG

IV. Appendix: Statistical tables

	2012	2013	2014	2015	2016	2017E	2018F
Economic performance							
Nominal GDP (EUR bn)	17,9	18,9	19,8	20,3	21,1	22,8	24,4
Population ('000s)	1.325,0	1.320,0	1.316,0	1.313,0	1.312,0	1.309,0	1.305,0
GDP-per-capita PPP (USD)	26.022,5	27.434,5	28.543,3	28.946,8	29.364,7	-	-
GDP per capita (EUR)	13.533,6	14.340,7	15.022,1	15.493,9	16.084,0	17.401,1	18.670,9
Real GDP growth, % change	4,3	1,9	2,9	1,7	2,1	4,0	3,7
GDP growth volatility (10-year rolling SD)	7,8	7,7	7,6	7,3	6,6	6,3	6,0
CPI, % change	4,2	3,2	0,5	0,1	0,8	3,8	3,4
Unemployment rate (%)	10,0	8,6	7,4	6,2	6,8	8,4	9,0
Investment (% of GDP)	29,1	26,9	27,1	24,9	24,2	25,3	27,2
Gross national savings (% of GDP)	27,2	27,4	27,1	26,0	24,6	26,3	27,8
Public finances							
Net lending/borrowing (% of GDP)	-0,3	-0,2	0,7	0,1	0,3	0,0	-0,7
Primary net lending/borrowing (% of GDP)	-0,4	-0,3	0,6	0,0	0,2	0,0	-0,7
Revenue (% of GDP)	39,0	38,3	39,1	40,3	40,3	40,7	41,0
Expenditure (% of GDP)	39,3	38,4	38,4	40,2	40,1	40,7	41,7
Net interest payments (% of GDP)	-0,1	-0,1	-0,1	-0,1	-0,1	-0,1	0,0
Net interest payments (% of revenue)	-0,2	-0,2	-0,2	-0,2	-0,2	-0,1	-0,1
Gross debt (% of GDP)	9,7	10,2	10,7	10,0	9,4	8,7	8,8
Net debt (% of GDP)	-4,9	-4,4	-3,9	-2,2	-2,7	-0,8	-0,1
Gross debt (% of revenue)	24,9	26,5	27,3	24,8	23,3	21,4	21,4
External vulnerability							
Gross external debt (% of GDP)	100,1	93,3	96,5	94,7	91,2	-	-
Net external debt (% of GDP)	-1,1	-4,9	-10,6	-10,5	-11,7	-	-
Current-account balance (% of GDP)	-2,4	-0,1	1,0	2,3	1,9	1,8	1,4
Trade balance [FOB] (% of GDP)	-	-5,2	-5,1	-4,3	-4,3	-5,6	-5,3
Net direct investment (% of GDP)	-2,2	-1,0	-2,3	0,6	-2,4	-	-
Official forex reserves (EOP, Mil.USD)	287,4	304,8	427,2	406,3	343,0	-	-
REER, % change	-0,8	2,9	2,6	0,8	1,6	-	-
Nominal exchange rate (EOP, USD/EUR)	1,3	1,4	1,2	1,1	1,1	-	-
Financial stability							
Non-performing loans (% of total loans)	3,0	1,9	2,6	1,9	1,5	-	-
Tier 1 ratio (%)	22,8	22,7	41,3	34,9	33,9	-	-
Consolidated private debt (% of GDP)	117,8	115,9	118,0	115,2	115,4	-	-
Domestic credit-to-GDP gap (%)	-33,6	-28,5	-16,4	-9,6	-8,2	-	-

Sources: IMF, European Commission, European Central Bank, World Bank, United Nations, Scope Ratings AG

V. Regulatory disclosures

This credit rating and/or rating outlook is issued by Scope Ratings AG.

Rating prepared by John F. Opie, Lead Analyst

Person responsible for approval of the rating Dr Stefan Bund, Chief Analytical Officer

The ratings/outlook were first assigned by Scope as subscription rating in January 2003. The subscription ratings/outlooks were last updated on 05.05.2017.

The senior unsecured debt ratings as well as the short-term issuer ratings were assigned by Scope for the first time.

As a 'sovereign rating' (as defined in EU CRA Regulation 1060/2009, hereafter referred to as 'EU CRA Regulation'), the ratings on Republic of Estonia are subject to certain publication restrictions set out in Article 8a of the EU CRA Regulation, including publication in accordance with a pre-established calendar (see 'Sovereign Ratings Calendar of 2017' published on 21.07.2017 on www.scoperatings.com). Under the EU CRA Regulation, deviations from the announced calendar are allowed only in limited circumstances and must be accompanied by a detailed explanation of the reasons for the deviation. In this case, the deviation was due to the recent revision of Scope's Sovereign Rating Methodology and the subsequent placement of ratings under review, in order to conclude the review and disclose ratings in a timely manner, as required by Article 10(1) of the CRA Regulation.

The main points discussed during the rating committee were: (1) Economic growth potential and outlook, (2) demographics and productivity growth, (3) public finance performance and debt sustainability analysis, (4) external position and resilience, (5) the financial sector performance, (6) recent political and geopolitical developments, (7) peer considerations.

Solicitation, key sources and quality of information

The rating was initiated by Scope and was not requested by the rated entity or its agents. The rated entity and/or its agents did not participate in the ratings process. Scope had no access to accounts, management and/or other relevant internal documents for the rated entity or related third party.

The following material sources of information were used to prepare the credit rating: the IMF, the OECD, the EC, the ESRB, Statistics Estonia, Finantsinspektsioon, Eesti Pank and Haver Analytics.

Scope considers the quality of the information available to Scope on the rated entity or instrument to be satisfactory. The information and data supporting Scope's ratings originate from sources Scope considers to be reliable and accurate. Scope does not, however, independently verify the reliability and accuracy of the information and data.

Prior to publication, the rated entity was given the opportunity to review the rating and/or outlook and the principal grounds upon which the credit rating and/or outlook is based. Following that review, the rating was not amended before being issued.

Conditions of use / exclusion of liability

© 2017 Scope SE & Co. KGaA and all its subsidiaries including Scope Ratings AG, Scope Analysis, Scope Investor Services GmbH (collectively, Scope). All rights reserved. The information and data supporting Scope's ratings, rating reports, rating opinions and related research and credit opinions originate from sources Scope considers to be reliable and accurate. Scope cannot, however, independently verify the reliability and accuracy of the information and data. Scope's ratings, rating reports, rating opinions, or related research and credit opinions are provided "as is" without any representation or warranty of any kind. In no circumstance shall Scope or its directors, officers, employees and other representatives be liable to any party for any direct, indirect, incidental or otherwise damages, expenses of any kind, or losses arising from any use of Scope's ratings, rating reports, rating opinions, related research or credit opinions. Ratings and other related credit opinions issued by Scope are, and have to be viewed by any party, as opinions on relative credit risk and not as a statement of fact or recommendation to purchase, hold or sell securities. Past performance does not necessarily predict future results. Any report issued by Scope is not a prospectus or similar document related to a debt security or issuing entity. Scope issues credit ratings and related research and opinions with the understanding and expectation that parties using them will assess independently the suitability of each security for investment or transaction purposes. Scope's credit ratings address relative credit risk, they do not address other risks such as market, liquidity, legal, or volatility. The information and data included herein is protected by copyright and other laws. To reproduce, transmit, transfer, disseminate, translate, resell, or store for subsequent use for any such purpose the information and data contained herein, contact Scope Ratings AG at Lennéstraße 5 D-10785 Berlin.

Scope Ratings AG, Lennéstrasse 5, 10785 Berlin, District Court for Berlin (Charlottenburg) HRB 161306, Executive Board: Torsten Hinrichs (CEO), Dr. Stefan Bund; Chair of the supervisory board: Dr. Martha Boeckenfeld.