

Rating Object	Rating Information	
REPUBLIC OF ESTONIA	Assigned Ratings/Outlook: AA- /stable	Type: Follow-up Rating, unsolicited
Long-term sovereign rating Foreign currency senior unsecured long-term debt Local currency senior unsecured long-term debt	Initial Rating Publication Date: Rating Renewal:	23-12-2016 27-10-2017
	Rating Methodologies:	"Sovereign Ratings"

Rating Action

Neuss, 27 October 2017

Creditreform Rating has affirmed the unsolicited long-term sovereign rating of "AA-" for the Republic of Estonia. Creditreform Rating has also affirmed Estonia's unsolicited ratings for foreign and local currency senior unsecured long-term debt of "AA-". The outlook is stable.

Key Rating Drivers

1. Estonia's economy is characterized by predictable, proactive and prudent policy-making, very sound institutions and a very business-friendly environment
2. Growth in 2017-18 is set to accelerate markedly on the back of strengthening external demand and vivid investment; structural reforms are underway to mitigate adverse impact of muted productivity growth and rapidly rising wages, which are likely to dampen the growth outlook and income convergence in the medium term
3. As a small and very open economy, Estonia is subject to a very high degree of macroeconomic volatility
4. With a balanced budget and exceptionally low debt levels, public finances are very strong; highly credible and stability-oriented fiscal policies
5. External vulnerabilities have been waning as external debt has fallen and the NIIP has continued to improve

Reasons for the Rating Decision

Our assessment of the Republic of Estonia's very high creditworthiness continues to be supported by its very strong institutional conditions. According to the recently published World Governance Indicators (WGI) for 2016, Estonia compares very well to the euro area average and in particular to its peers from Central and Eastern Europe (CEE). While the World Bank ranks Estonia on par with the euro area as regards government effectiveness (rank 37 vs. EA-19 median 35), as well as the quality of contract enforcement and property rights (Rule of Law rank 29 vs. 32), Estonia fares better on control of corruption and voice & accountability – the latter improving from rank 31 to 24 out of 209 economies. It is noteworthy that the sovereign outperforms CEE peers such as Latvia, Lithuania, Hungary, Poland and the Czech Republic by a large margin on all WGIs we assess. In

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general, we believe that Estonia benefits from euro area membership which entails broader and deeper capital markets as well as advantages associated with the euro as a reserve currency.

In our view, the sovereign continues to be characterized as predictable, forward-looking and stability-oriented. The new government, in which the Centre Party replaced the Reform Party in a four-party coalition with the Social Democrats, Pro Patria, and Res Publica after a no-confidence vote, has been in place since 23 November 2016. Although the Estonian economy remains among the most business-friendly economies in Europe and can be regarded as best practice in the euro area as it leads the EA-19 at rank 12 out of a total of 190 economies (Doing Business 2016 rank 11), the authorities nevertheless continue to make efforts to further advance the reform process geared towards improving non-cost competitiveness. The local government reform, which aims to simplify bureaucratic processes and reap efficiency gains by reducing the number of municipalities, is ongoing. Tasks of state institutions and organizations established by the state are being revised, and the mergers initiated by the government implemented. Also, the government has launched a zero-bureaucracy program and intends to align the number of public sector employees with the declining working-age population (see below).

While the new governing coalition has broadly continued along the lines of the former government, its priorities, which have been stated in the Stability Program 2017, are to stimulate growth and raise productivity, mitigate the population decline, and make growth more inclusive. To this end, the authorities have envisaged a wide array of spending programs targeted towards education, healthcare, social welfare, and public investment which will enter into force in 2018-20 and prospectively increase government expenditure by around 0.9% of GDP. Among other measures, the government intends to increase the wages of teachers and in kindergartens and step up the quality of education, provide additional financing to healthcare (healthcare funding reform) and social services, revise the parental leave system, and improve access to child- and long-term care. According to latest COFOG data, Estonian expenditure on health and social protection rose to 5.5 and 12.9% of GDP (2015) respectively, but are still considerably below the euro area average. Moreover, policy-makers announced a strategic investment plan, according to which approx. EUR 315m (1.5% of 2016 GDP) will be deployed for the improvement of the business environment, namely for transportation (road, railway networks), the development of ICT networks, the reconstruction of Linnahall into a conference center, defense, and local housing.

With the objective of creating a more inclusive tax system and a more growth-friendly tax structure, the government has decided on a comprehensive package of measures that will change the taxation system – most of these having entered or entering into force in 2017-18. On the one hand, excise duties on alcohol, tobacco, fuel and natural gas will be raised and a tax on sugar-sweetened beverages will be applied, while the excise duty on packaging is to be reformed and a fringe benefit of expenses related to health introduced. Furthermore, the personal income tax allowance will increase to EUR 500 per month for income levels up to EUR 1.200, gradually decreasing for earnings above EUR 1.200. Thus, the average tax wedge for a single worker (at 67% of average earnings), which

stood at 38.9% in 2016, is expected to fall below the OECD average of 36.0%. At the same time, the corporate income tax rate on distributed dividends amounting to 20% is to be slashed to 14%. In addition, the tax exemption for interest paid on deposits will be abolished, and incentives to take up mortgage debt will be reduced as the upper limit for deductible mortgage interests will fall from EUR 1.200 to 300.

As regards long-term fiscal sustainability, the Estonian government has decided to reform the pension system. In January 2017 the authorities agreed to link the retirement age to life expectancy by 2027 and to amend the public pension system by changing the indexation and the formula for the pension calculation.

The major changes in Estonia's tax policy are designed to be budget neutral, as the reduction in labor taxation is envisaged to be offset by higher revenues from corporate income taxation and excise duties. In any case, there is ample fiscal leeway that can be exploited to implement structural reforms and address bottlenecks which may hamper the medium-term growth outlook. Thus, we assess the sovereign's exceptionally strong fiscal metrics as its key credit strength. Last year, the headline balance came in at -0.3% of GDP, down from 0.1% of GDP in 2015. Meanwhile, Estonian general government debt is the lowest in Europe, posting at 9.4% of GDP in 2016 as compared to 10.0% of GDP a year before (EA-19: 88.9% of GDP in 2016). In nominal terms, gross debt declined by 2.4% to EUR 2.0bn. Moreover, the sovereign's debt is highly affordable as its interest expenditure makes up for a mere 0.13% of its general government revenue (2016) – also the lowest level in Europe.

Going forward, we expect the more expansive fiscal policy to result in a slight deterioration in the headline balance which should come close to balance this year and edge down to -0.5% of GDP in 2018. We believe that general government debt is set to remain comfortably below 10% of GDP over the next years. Having said this, the looser fiscal stance may create some challenges in the medium term. To be sure, we view the fiscal measures' redistributive impact and the potential to facilitate productivity and investment growth as positive. However, against the backdrop of the expected deterioration of the budget in structural terms, its further development should be monitored closely as a return to a balanced budget could cause difficulties if tax revenues do not evolve as expected. Due to the multitude of tax changes, the development of government revenues over the medium term is subject to some uncertainty, as unexpected changes in consumer and corporate behavior may lead to differing outcomes. What is more, there are diverging views in evaluating the output gap so that the prospective deterioration in the structural balance may be more pronounced. As flagged by the Estonian Fiscal Council as well as Eesti Pank, the structural balance may be overestimated; thus fiscal policy may be too loose going forward.

In this regard, it has to be noted that the authorities have modified the State Budget Act. Hence, the general government balance is allowed to post a deficit of up to 0.5% in structural terms if structural surpluses have been achieved in the years before, thus implying that a balanced budget in structural terms has to be maintained on average as should be the case in 2018-20. Notwithstanding, we believe that the sovereign will continue to show a strong track record in meeting its fiscal targets, sustaining its strong fiscal performance,

and will take commensurate measures to modify its policies if metrics should diverge from the expected path.

More importantly, however, higher growth and inflation may result in accelerating wage growth – a deeper divergence between wage and productivity growth trends posing significant risks to the cost competitiveness of the Estonian economy and medium-term growth. According to AMECO and Eurostat data, wages continued on their steep upward trajectory, with real compensation per employee increasing sharply by 3.9% in 2016, thereby outpacing productivity growth, which came in at only 1.8% after it had turned negative in 2015 (-1.2%). Thus, not only have real wages been rapidly rising since 2012 (+12.2%), but they have been accompanied by laggard labor productivity growth (+3.5%) – resulting in rising real unit labor costs which were up by 2.6% in 2016 (2012-16: +9.9%) as compared to stable real ULC in the euro area, where wage and productivity developments were more closely aligned (2016: 0.0%, 2012-16: -1.2%). Also, when measured as a percentage of the EU28-total, labor productivity per person declined from 73.6 to 71.3% in 2014-15 and remained flat in 2016.

Brisk wage growth is largely driven by a tightening labor market which continued to exhibit a strong performance. Unemployment stood at a low 6.8% (EA-19: 10.0%), slightly up from 6.2% in 2015 due to the Work Ability reform and the activation of older people who have to be trained before entering the labor market. The quarterly average unemployment rate amounted to 6.5% in Q2-17, the same rate as a year before. Concurrently, in Q1-17 participation and employment rates hit record highs with 78.4 and 74.1% respectively – making the Estonian labor market one of the best performing in Europe. Higher public sector compensation and rising minimum wages have also played a role. Average gross wages in the public sector have displayed strong growth in recent years, with quarterly y-o-y growth rates of around 5% or more since 2012 – in 2013 and 2014, public sector wages increased by 9.0 and 7.9%, respectively (total economy 7.0 and 5.9%). Monthly minimum wages have been raised by 9.3% in 2017, after 10.3% in 2016 (Eurostat data).

Maintaining cost competitiveness could turn out to be a demanding task. Despite net emigration having reversed in 2015/16 and the decline of the Estonian population stalling, population decreased by a cumulative 2.0% over the last ten years and will, according to the UN World Population Prospects 2017, drop by a further 4.7% by 2030. Importantly, as of Jan-17 working-age population fell by 0.8% as compared to last year and 7.0% in the last decade. So far the impact on Estonia's cost competitiveness has been limited, as reflected in a stable export market share which has hovered at around 0.15% of the OECD total since 2011. Potentially adverse effects of rapidly rising wages were somewhat cushioned by the economy's non-cost competitiveness and squeezed corporate profits. According to the most recent WEF Global Competitiveness report, Estonia ranked 29 out of 137 economies (2014: 29, 2012: 34). Quarterly data on corporate profits reveals that these have been falling by an average of approx. 5% y-o-y in 2014-16 – in manufacturing profit compression was even more pronounced (-16%). On the positive side, a strong rebound could be observed in the first half of the current year, as inflation returned and a higher demand pushed sales. Moreover, efforts to increase labor supply by closing the gender pay gap are underway and implementation of the Work Ability reform is ongoing.

ing and showing first signs of success – prospectively activating more people with work-incapacity pensions.

The very high volatility of macro-financial developments and the slowdown in income convergence remain key rating constraints. As a small and very open economy Estonia is subject to a high degree of macroeconomic volatility, with metrics such as GDP, inflation, credit, and the current account fluctuating heavily. More importantly, the convergence process with EU-28 per capita income levels came to a halt. GDP per capita fell back to 74% of the EU-28 average, the level the economy had already reached in 2012 (2015: 75%, 2014: 76%). In absolute terms, Estonian GDP p.c. totaled USD 29,685 in 2016 (in PPP terms, IMF data), thus comparing well to CEE peers such as the Slovak Republic (USD 31,331), Poland (USD 27,690), and Lithuania, which surpassed Estonia, now posting a per capita income of USD 29,972. At the same time, other AA peers such as Austria (USD 47,226) or France (USD 42,336) display significantly higher per capita GDP.

We expect income convergence to gain traction again as we assume that Estonian GDP growth will gather pace. Looking back at 2016, output grew somewhat faster than in 2015, when GDP growth dropped from 2.9% in 2014 to 1.7%, standing at 2.1%. The modest output expansion was mainly due to the decline in investment. Gross fixed capital formation fell for the third year in a row, decreasing by 1.2% in 2016 (2015: -2.9%), mainly constrained by postponed ESIF disbursements as well as uncertain prospects regarding main trading partners and squeezed corporate profits (see above). While private investment continued to fall to 17.3% of GDP in 2016 and was down from 22.3% in 2012, public investment declined to 4.7% of GDP (2012: 6.3%). Despite exports recovering from the slump in 2015 (-0.7%, 2016: 4.1%), faster import growth resulted in a negative growth contribution of external trade. As in the previous years, private consumption was the main growth driver, expanding by 4.4% on the back of strong employment growth and low inflation.

This year, we expect GDP growth to leap to 4.1%, followed by a somewhat slower growth of 3.8% in 2018, mainly buttressed by vivid private and public investment and higher export growth. Recent data on significantly accelerating quarterly output growth supports our benign outlook, as yearly GDP growth was lifted to 4.3% in the first quarter and 5.2% in Q2. Output was mainly boosted by the substantial pick-up in investment activity, with gross fixed capital formation increasing sharply by 16.2 and 17.3% y-o-y in Q1 and Q2 respectively. Investment was facilitated by a faster implementation of ESI funds, which we expect to be sustained in 2017-18. EU Cohesion data indicates that financial resources allocated to selected projects increased from around EUR 1.8bn at the end of 2016 to EUR 2.83bn by Aug-17 (47.0% of planned investment) and the amount of funds spent climbed to approx. EUR 504m (8.4%). Business investment in H1-17 grew by 27.9% as compared to the first half of 2016 – investment in the manufacturing sector was particularly strong at +44.0%. Corporate investment benefited from the favorable development of the external environment and diminishing uncertainty concerning the recovery in external demand from Estonia's main trading partners, which is set to continue going forward. Exports of goods and services between January and August went up by 9.2% as compared to last year, with almost all of the main trading partners contributing to the im-

provement. Notably, export demand from the Russian Federation increased by 26.1%, after the share of Russian exports in total exports had fallen from 6.6 to 4.0% in 2014-16. Meanwhile, we believe that private consumption will remain resilient, having reached yearly growth rates of 1.9 and 2.4% in Q1 and Q2, respectively. That said, we expect private household spending to slow in 2017, as rising consumer prices (2017e: 3.6%) should curb real household incomes, but pick up again in 2018, mainly due the envisaged personal income tax cuts (see above).

Economic expansion should be supported by credit growth. Noteworthy is that lending to private households has been on an upward trajectory since 2013, driven by lending for house purchase, which has shown yearly growth rates of more than 5% throughout 2017. However, financial stability risks appear limited, as private sector debt is comparatively low (2016, NFCs: 92.5 % of GDP, households: 43.1 % of GDP) and EBA metrics indicate a sound banking sector. Estonia has one of the lowest NPL ratios in Europe (Q2-17: 1.3%), the highest Tier 1 capital ratio (37.0%) and credit is currently sufficiently covered by deposits (loan-deposit ratio 109.0%).

At the same time, Estonia's external position has continued to improve. Last year, its net international investment position (NIIP) stood at a still high -35.7% of GDP, down from -39.3% of GDP in 2015 (IMF data). Estonia's NIIP compares well to the external position of its CEE peers, among which only the Czech Republic exhibited a better NIIP in 2016 (-23.8% of GDP). In general, we currently view risks related to Estonia's net external liabilities as somewhat mitigated by the composition of the NIIP, as the largest part of it can be attributed to FDI capital flows, with net foreign direct investment amounting to approx. -55% of GDP at the end of 2016. Thanks to the strong and robust surplus of the trade in services balance, which stood at 7.6% of GDP in 2016 (2015: 8.2%), the current account has continued to record a surplus, posting at 1.9% of GDP in 2016, slightly down from 2.0% of GDP a year before. Looking forward, we expect the current account surplus to narrow as stronger investment activity should result in a deterioration in the trade balance.

Rating Outlook and Sensitivity

Our Rating outlook on the long-term sovereign rating of AA- is stable, as we assume that the risk situation underlying the key factors affecting sovereign credit risk – including macroeconomic performance, institutional structure, fiscal sustainability, and foreign exposure – will remain fundamentally unchanged over the next 12 months.

Downside risks, which could put pressure on Estonia's credit rating, include weaker-than-expected GDP growth which may further delay convergence with EU income levels as well as a re-emergence of macroeconomic imbalances, involving excessive, credit-fueled growth and a deterioration in the current account. We may also consider a downgrade if wages continue to diverge from productivity growth, thus resulting in a loss of cost competitiveness, or if – contrary to our belief – the authorities engage in a too expansive fiscal policy, leading to weaker fiscal metrics.

As a very open economy (trade-to-GDP: 155.8%), structurally weaker growth in key trading partners would affect Estonia's macroeconomic performance. In this vein, a deterioration of the geopolitical situation with regard to the relationship between Estonia and the Russian Federation represents a significant downside, as it could dampen investment activity, export growth and lead to a general rise in political and economic uncertainty. An unorderedly exit of the UK from the European Union should have limited effects due to a relatively small export share (2016: 2.4% of total exports), but may hit Estonia via second-round effects through its main trading partners.

By contrast, an easing in domestic and foreign political tensions with Russia could trigger an upgrade. Upward pressure could also arise if the volatility of macro-financial variables was much reduced, if the expected strong growth momentum could be maintained beyond 2018 accompanied by a significant acceleration in the catching-up process with European per capita income levels, or if we observe faster progress in implementing structural reforms and concurrently a sustained stabilization of the wage development as well as a moderation in the decline of the Estonian working-age population.

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Ratings*

Long-term sovereign rating	AA- /stable
Foreign currency senior unsecured long-term debt	AA- /stable
Local currency senior unsecured long-term debt	AA- /stable

*) Unsolicited

Economic Data

[in %, otherwise indicated]	2012	2013	2014	2015	2016	2017e	2018e
Real GDP growth	4.3	1.9	2.9	1.7	2.1	4.1	3.8
GDP per capita (PPP, USD)	25,494	26,508	27,856	28,685	29,685	31,473	33,375
Inflation rate, y-o-y change	4.2	3.2	0.5	0.1	0.8	3.6	3.2
Default history (years since default)	n.a.						
Life expectancy at birth (years)	76.3	77.1	77.0	77.1	n.a.	n.a.	n.a.
Fiscal balance/GDP	-0.3	-0.2	0.7	0.1	0.3	0.0	-0.5
Current account balance/GDP	-1.9	0.5	0.3	2.0	1.9	n.a.	n.a.
External debt/GDP	102.8	96.1	87.4	92.6	86.0	n.a.	n.a.

Source: International Monetary Fund, World Bank, Eurostat, own estimates

Appendix

Regulatory Requirements

This sovereign rating is an unsolicited credit rating. Neither the rated sovereign nor a related third party participated in the credit rating process. Creditreform Rating AG had no access to the accounts, representatives or other relevant internal documents for the rated entity or a related third party.

The rating was conducted on the basis of CRAG's "Sovereign Ratings" methodology. CRAG ensures that methodologies, models and key rating assumptions for determining sovereign credit ratings are properly maintained, up-to-date, and subject to a comprehensive review on a periodic basis. A complete description of CRAG's rating methodologies is published on the following internet page: www.creditreform-rating.de.

To prepare this credit rating, CRAG has used following substantially material sources: International Monetary Fund, World Bank, Organization for Economic Co-operation and Development, Eurostat, European Commission, European Banking Authority, European Central Bank, Estonian Ministry of Finance, Eesti Pank, Statistics Estonia, Estonian Fiscal Council (Eelarvenoukogu).

A Rating Committee was called consisting of highly qualified analysts of CRAG. The quality and extent of information available on the rated entity was considered satisfactory. The analysts and committee members declared that the rules of the Code of Conduct were complied with and that the rating action was and is free of any existing or potential conflicts of interest. The analysts presented the results of the quantitative and qualitative analyses and provided the Committee with a recommendation for the rating decision. After the discussion of the relevant quantitative and qualitative risk factors, the Rating Committee arrived at a unanimous rating decision. The weighting of all risk factors is described in CRAG's "Sovereign Ratings" methodology. The main arguments that were raised in the discussion are summarized in the "Reasons for the Rating Decision".

In the case of a rating outlook, the time horizon is provided during which a change in the credit rating is expected. This information is available within the credit rating report.

There are no other attributes and limitations of the credit rating or rating outlook other than displayed on the CRAG website. In regard to the rated entity CRAG regarded available historical data as sufficient.

In case of providing ancillary services to the rated entity, CRAG will disclose all ancillary services in the credit rating report.

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