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Rating Action

Neuss, 13 August 2021

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 was one of the fastest-growing in Europe prior to the pandemic and has traversed the corona crisis relatively well so far; uncertainty remains unusually high, but we expect a strong recovery this year and next, mainly driven by robust domestic demand aided by released second pillar-pension savings and sizable EU funding, facilitating continued income convergence
2. While a declining working-age population and misaligned labor productivity and wage growth may weigh on the Estonian economy's underlying growth, these factors should be offset by its business-friendly economic environment, well-educated workforce, diversified, high value-added export base, and decisive reform efforts towards a greener and even more digitalized economy, boosted by financial support from the EU
3. Strong institutional conditions, benefiting from EU/EMU membership as well as from its deep involvement in supranational institutions; despite the resignation of the governing coalition at the beginning of the year, we view policy continuity and strong reform responsiveness as given; considerable strengths somewhat balanced by geopolitical and cyber risks
4. Extensive spending to address the pandemic resulted in a tremendous deterioration in the sovereign's public finances and should also result in a high headline deficit this year; that said, and irrespective of our expectation of an upward-sloping - albeit decelerating - debt trend over the medium term, we do not believe that fiscal sustainability is at risk, mainly due to the still very low debt level, highly prudent fiscal policy-making, and sound debt management, concomitant with very strong debt affordability
5. Limited external risks, as last year's current account deficit was mainly down to transitory factors and came on the heels of a run of sustained surpluses which had led to a persistent improvement in the negative NIIP, which remains dominated by net FDI inflows

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Reasons for the Rating Decision and Latest Developments¹

Macroeconomic Performance

The Republic of Estonia's macroeconomic performance profile reflects very strong economic growth. Prior to the pandemic, its economy was among the fastest-growing economies in the EU27, and we expect it to resume its robust growth trend. We believe that persistently strong output growth should result in continued income convergence towards the EU average. The Estonian economy is characterized by relatively flexible labor markets, ample risk-bearing capacities in the private sector, and a welcoming business environment. These strengths are balanced to some extent by a historical track record of elevated macroeconomic volatility. A receding working-age population, while somewhat cushioned by migrant inflows in recent years before the crisis, may weigh on potential growth and add to resurfacing labor shortages. This could further aggravate the divergence between productivity growth and vivid wage growth, thus weakening Estonian cost competitiveness going forward. On the other hand, we believe that the investment boost on the back of substantial EU financing (Recovery and Resilience Facility, React-EU, Just Transition Fund, Multiannual Financing Framework 2021-27) will play a key role in lifting Estonia's potential growth going forward.

The Estonian economy entered the corona crisis from a strong starting point, having displayed broadly-balanced real GDP growth of 4.0% p.a. in 2015-19, with all expenditure components contributing to output growth, in particular household spending. Average growth over this period was twice as high as in the euro area (EA, 2.0%), placing Estonia among the fastest-growing economies in Europe. In the same vein, the country has been able to come through the Covid-19 pandemic relatively well, and its economy has turned out to be fairly resilient so far. Total output ended up contracting by 2.9% in 2020, leaving Estonia among the least adversely affected economies in Europe.

Authorities managed to bring the first wave of the pandemic under control quite well, as illustrated by a relatively short-lived state of emergency, and as confinement measures were wound down as early as July 2020. The second wave took off in November, with infection rates equally low from a European perspective, and thus the stringency of the restrictive measures was modest in the second half of last year as suggested by Blavatnik School of Government's index. Accordingly, the slump in household spending (-2.3%) was much milder than in most parts of Europe. Still, declining private consumption was the main driver behind the fall in real GDP, subtracting 1.2 p.p. in 2020.

Economic growth was mainly supported by investment activity and public consumption. While the policy response to the pandemic lifted government consumption expenditure by 3.6%, gross fixed capital formation held up very well, although last year's final outturn was somewhat biased by a material one-off investment by Volkswagen in Q4 (+35.2% q-o-q), so that overall investment grew by an outstanding 18.4%. The decline in investment in machinery and equipment (-16.3%) was more than offset by the substantial rise in intellectual property investment (+203.7%), while construction investment was also solid (+3.5%).

The growth effect of fixed investment (+4.9 p.p.) was broadly netted out by net external trade (-4.8 p.p.), as the abovementioned single investment led to an equally large boost to imports (Q4:

¹ This rating update takes into account information available until 6 August 2021.

20.5%), resulting in positive import growth (0.7%). Meanwhile, exports proved fairly resilient thanks to brisk services exports - essentially ICT services - but nevertheless fell by 5.5%. Moreover, Estonia's key trading partners such as Finland, Sweden, Latvia, and Germany were by far less affected than the majority of EU member states, which also supported external demand for Estonian goods and services.

The Estonian economy had already recouped pandemic-related output losses by this year's first quarter. After exhibiting impressive real GDP growth of 4.8% q-o-q in Q1-21, its economy exceeded the pre-pandemic level (Q4-19) by 3.4% (EA: -4.9%). Since the second wave starting from November last year was substantially more severe than the first one, Estonia's strong Q1 outturn presented some surprise. While private and public consumption grew robustly, the main drivers were inventories and net exports, the latter partly on account of declining imports. Whilst the 14-day cumulative infection rate had been among the lowest in Europe since the onset of the pandemic, it rose significantly throughout Q1-21, hitting its peak at 1,521 in week 11, at that time the highest in Europe (ECDC data).

In response, authorities swiftly implemented more stringent - albeit still comparatively moderate - confinement measures, essentially in March and April, thereby curbing the infection rate, which dwindled to as low as 29.3 by the beginning of July. Since the beginning of May, the government has considerably loosened its restrictive measures, reflecting epidemiological developments and the vaccination campaign, which has picked up some speed over the last months.

Although posting below the respective EU averages, with 58.4% of the Estonian population having received at least one dose and 52.5% being fully vaccinated as of 5 August (EU: 72.0% and 60.5%), progress in inoculations and the relaxation of confinement measures should increasingly facilitate household spending. We hold the authorities' plans to have 70% of the adult population vaccinated (1st dose) by 22 September and 80% of the elderly (60+) by end of November as achievable.

Looking forward, we expect a firm recovery in the current year and next, driven by household spending, investment, and robust export growth. We project real GDP growth to leap to 7.7% in 2021, before decelerating to still vivid economic expansion of 3.3% in 2022; however, we have to reiterate that any forecast remains subject to unusually high uncertainty, and is ultimately dependent on the health situation. This is all the more so as new virus variants appear to be more easily transmissible, as demonstrated by the Delta variant, which accounts for an increasing share in infection cases in Europe. As a case in point, the 14-day cumulative infection rate has risen at a strong pace, from 29.3 in week 26, to 142.1 in week 30.

While we thus see downside risks from possibly required renewed restrictions, we think that private consumption will be the main growth engine behind economic activity in 2021/22, likely fostered by the release of pent-up demand and aided by improving consumer confidence, which has increased markedly since Covid-19 restrictions have been eased. Improving monthly retail sales back this view. In addition, household spending should be propelled by changes to the pension system, as funds from the second pension pillar can be withdrawn before retirement age has been reached. According to Pensionikeskus, 159,985 applications had been submitted by the end of July, corresponding to approx. 20.9% of pension accounts and just over EUR 1.3bn of second-pillar assets. The Estonian central bank (EP) estimates that half of the withdrawn funds will be redirected towards consumption.

Private consumption should also benefit from flexibly adjusting labor market conditions, as we expect gradually resuming employment growth and vividly rising wages going forward. As elsewhere in Europe, labor market fallout was restricted by the wage support scheme and social safety nets. Since broad labor market support ceased as early as June 2020 and was only reinstated for a short period in the wake of the second wave (Mar-May-21), employment fell more sharply than in the euro area as a whole, by 2.7% in 2020 (EA: -1.5%) and 4.4% y-o-y in Q1-21 (EA: -1.9%). By the same token, monthly unemployment soared from 5.1% in Mar-20 to its peak of 8.1% in Sep-20, before diminishing equally rapidly, standing at 6.4% in May-21 (EA: 7.1%, 8.5%, 7.9%). Labor market participation has recovered quickly, as mirrored by the fact that in Q1-21 it posted at the same level as in 2020 (79.5%), representing one of the highest readings in Europe.

Latest available data indeed point to brightening employment prospects, as the number of vacancies jumped at the beginning of this year. After having plummeted by 22.1% between Q4-19 and Q2-20, vacancies began to recover gradually in the second half of 2020 before surging to an annual rate of 9.6% in Q1-21. At the same time, wages should grow briskly, among others due to administered wage increases in the public sector (e.g. health, education). Average monthly gross wages rose by 4.9% y-o-y in this year's first quarter (Q1-20: 4.7%), after exhibiting positive growth of 2.9% in 2020 (ICT: +9.9%). Survey data suggests that labor shortages are already beginning to build again. This applies particularly to the industry sector, where almost a quarter of surveyed employers cited labor shortages as a factor hampering production (Q2-21: 24.6%), but wage pressures are also likely to mount in the services sector (18.6%, EA: 12.7%).

While the assessment of the underlying investment strength is somewhat challenged by the one-off elaborated above, we expect investment growth to become more broad-based and to decrease, slowly normalizing as the base effect fades out, as suggested by Q1 data. Gross fixed capital formation pulled back by 4.7% in Q1-21, but was still up by 54.5% on an annual basis. Apart from technical considerations, we believe that investment will drive economic growth going forward, backed by an increasing need for expansion investment as indicated by capacity utilization in the industrial sector (76.5%, 1995-2020 average: 70.0%), and benefiting from favorable funding costs and well-filled order books. Industry sentiment has shot up to its highest level in more than a decade.

Public investment activity will play a key role in supporting economic activity, receiving a significant stimulus from EU financing. According to the government's Recovery and Resilience Plan (RRP), roughly 25% of the approx. EUR 1.0bn (current prices, EC) in grants available under the Recovery and Resilience Facility (RRF) will be deployed in 2021/22. Besides the new Multiannual Financing Framework (MFF) 2021-27 funding (see below), Estonia will be allowed to draw on the remaining MFF 2014-20 funds by 2023. According to European Commission's (EC) cohesion data, 62% of the ESIF funds were spent by the end of 2020.

Growth will also be underpinned by external trade. Exports are likely to continue to grow vividly, in line with the broadening vaccination coverage and the concurrent improving economic prospects in the euro area. Exports of goods have recovered materially since Sep-20, expanding at double-digit annual growth rates over the last months. In the first five months of the year, goods exports to Germany and Latvia, two of Estonia's main trading partners, jumped by 20.1% and 23.8% y-o-y respectively. Export expectations in the industry sector leapt to a multi-year high in Q1.

Robust economic growth will support continued income convergence. Judging by latest IMF estimates, Estonia's GDP per capita inched down from USD 38,480 in 2019 to USD 37,745 in the

previous year (current prices, PPP terms). While Estonia is trailing the 'AA' median of our rating universe (USD 47,958), its per capita income surpasses that of most other CEE countries. Since GDP p.c. was less impacted by the pandemic than in the EU as a whole (-5.1%), income convergence progressed even in the wake of the pandemic, now accounting for 85% of the EU27 average, up from 83% in the year before and 77% in 2016.

Further out, we believe that the plethora of EU programs will bolster the Estonian economy's potential growth markedly if the investment plans are properly implemented and accompanied by enhanced administrative capacities, boding well for solid medium-term growth and converging income. Drawing on latest EC estimates, Estonia's potential growth will come in at a healthy 3.2% and 3.1% in 2021/22, well above the EU (1.3%, 1.6%) and euro area averages (1.0%, 1.4%).

Estonia will be eligible to receive a total of EUR 3.33bn or 12.2% of 2020 GDP under the new MFF for the years 2021 to 2027. Additionally, economic activity will be heavily influenced by the EU's NextGenerationEU project. The draft RRF submitted to the EC in June foresees the use of approx. EUR 982.49mn in RRF grants, of which 42% and 22% will be related to climate and digitalization respectively. The RRF and MFF funds will be broadly deployed along the lines of the government's long-term development needs and the strategic goals laid out in the 'Estonia 2035' strategy. What is more, Estonia will receive further financial support via React-EU, namely EUR 178mn to aid the recovery, and the Just Transition Fund (EUR 322mn) to cushion the adverse effects of the green transition on Estonia's important shale oil sector.

Hence, we think that substantial productive investments targeted towards a greener, more digitalized economy, as well as towards achieving inclusive growth, is likely to entail higher potential growth. The government assumes that the RRF investments alone will lift total output by 0.8 p.p. per year in 2021-26 and raise underlying growth by 0.58 p.p. in 2026. Moreover, EU financing may help in tackling long-standing challenges related to R&D spending, demographics, and health- and long-term care. Funding of research and development is to be ramped up to at least 1% of GDP per year starting from 2021, which appears welcome in view of the relatively low gross R&D spending (2019: 1.61% of GDP, EU27: 2.2% of GDP)

As illustrated by the latest Aging Report 2021, spending on healthcare has to be deemed as relatively low, at 4.9% of GDP (2019) as compared to 6.6% of GDP in the EU overall. As regards long-term care expenditure, Estonia displays one of the lowest readings in the EU27 (0.4% of GDP vs. 0.7% in the EU). We have to reiterate that the Estonian working-age population declined significantly over the last decade, dropping by 3.7 p.p. to 63.5% in 2011-20 (EU: -2.5 p.p. to 64.3%). Notably, the drag on labor input was somewhat contained by net immigration, which turned positive in 2015, although it was dented markedly last year (from 2,899 to 976 persons) as the pandemic-induced closure of borders constrained migrant flows. As projected by latest EUROPOP2019 simulations, net migration should remain supportive over the next decade.

Perhaps more importantly, risks to Estonia's cost competitiveness remain in place, as labor productivity growth will presumably be outpaced by strong wage growth going forward (see above). Largely driven by real compensation per employee, which surged by 14.0% in 2017-20, real unit labor costs rose by 6.9% as compared to 3.2% in the euro area as a whole (AMECO). Having said this, we have to highlight that Estonia's global export market share ticked up to 0.10% in 2020 (2017: 0.09%). Moreover, we continue to view Estonia's welcoming business environment as a rating strength, as illustrated by the World Bank's Doing Business report, which we still await to be updated for 2021. In its recent SME assessment, the EC also attests Estonia

to have an excellent business environment and to be among the best-performing EU member states when it comes to entrepreneurship, its key strengths being a highly dynamic start-up ecosystem, advanced digital public services, and a transparent tax system.

Institutional Structure

Our assessment continues to be buttressed by the sovereign's strong institutional set-up, which remains a cornerstone of its very high creditworthiness, comparing very favorably to Central and Eastern European peers and the euro area more generally. In our view, the government's policy-making is characterized by a high degree of credibility and responsiveness as well as by an advanced system of checks and balances. Key priorities of the new governing coalition, which was formed upon the resignation of the outgoing government, remain broadly unchanged, signaling policy consensus and continuity. Credit tail risks posed by the European Union's strained relationship with Russia, and possible fallout resulting from a cyber-attack, are balanced by the substantial benefits the sovereign draws from its membership in the EU/EMU, and deep integration into supranational frameworks such as NATO and the UN.

Estonia continues to receive comparatively high scores on World Bank's Worldwide Governance indicators (WGI). We note that the sovereign has steadily improved in terms of relative rankings along all WGI dimensions we assess, and has continued to close the gap towards the 'AA' median. To be sure, Estonia outstrips the WGI scorings of every other CEE sovereign, including its Baltic peers and those of the euro area, by a wide margin.

The sovereign is characterized by a relatively high quality of policy formulation and implementation, being listed 31th out of 209 economies concerning government effectiveness, up two places from the previous year's assessment and well above the euro area median ranking (41). We have to point out that Estonia has improved from relative rank 47 in 2012, reflecting its sound and predictable policy-making. A good 24th rank on the WGI voice and accountability signals that its citizens enjoy extensive participation rights (EA median rank: 37).

Concurrently, Estonia also exhibits the lowest level of perceived corruption and the highest perceived quality of its justice system among all CEE peers by far, namely rank 21 and 28 on the WGIs control of corruption and rule of law respectively (EA median ranks: 55 and 40). The high quality and efficiency of Estonia's judicial system was reaffirmed by the latest EU Justice Scoreboard, not least due to the very high degree of digitalization. Estonian courts and prosecution services make far-reaching use of digital tools, thus outperforming EU counterparts. On the other hand, Estonia remains among the EU member states with the lowest length of civil, commercial, and administrative cases (litigious and non-litigious) and features a persistently low number of pending cases.

We take note of Estonia's upgraded anti-corruption strategy, which was implemented through the adoption of a new National Action Plan for 2021-25 this February. Also, new guidelines to enhance transparency in the lobbying process and to eschew conflicts of interest in policy-making were enacted in March 2021. Against this backdrop, we view GRECO's recent conclusion (5th evaluation) that eight of their 15 recommendations have been satisfactorily put into practice while the remaining seven have been partially implemented, as illustrating the sovereign's reform responsiveness.

Despite the break-up of the three-party coalition (Center Party, People's Party, EKRE), which has been in place since March 2019, we continue to see policy predictability, credibility, and responsiveness as trademarks of Estonian policy-making. The change in government supports our view of high institutional standards and advanced checks and balances. In January 2021, former PM Ratas stepped down to enable swift investigation of corruption allegations over misappropriation of a state loan from corona aid funds, which had been launched against the Center Party.

The Reform Party formed a new coalition with the Center Party, combining for 59 of 101 seats in parliament, with Reform leader Kallas taking over as prime minister. The new coalition agreement in our view stands for broad policy continuity, with key priorities being the strengthening of the healthcare system, management of the corona crisis, education, inclusive growth, climate change, the business environment, and fiscal sustainability. Also, the Baltic state will retain its strong pro-European and pro-NATO stance.

Further to reform responsiveness, we would also want to stress that amendments to the Bankruptcy Act entered into force in February 2021, aiming to streamline and accelerate insolvency procedures. Major changes relate to the establishment of an insolvency service and a specialization of courts in insolvency cases to make procedures more cost-effective and generate higher recovery rates. In October last year, the controversial pension reform bill (see above) was endorsed by the Estonian president after the Supreme Court decided that the reform did not infringe on the country's constitution.

In the same vein, Estonia appears strongly committed to greening its economy and fostering eco-innovation, urging for reforms pertaining to climate change. The new government thus stated its objective of achieving climate neutrality by 2050 and establishing a support package to help local governments reach carbon neutrality by 2030. Due in part to the key role of shale oil extraction and oil production, Estonia displays one of the highest greenhouse gas emission levels per head, totaling 11.2 tons in 2019 (EU27: 8.4 tons p.c.).

According to the State Budget Strategy 2022-25, the government intends to shell out EUR 1.8bn to facilitate the green transition. In this vein, energy efficiency and sustainable transport are identified as cornerstones in the government's RRP. Indeed, there is some catching up potential for Estonia as regards its relatively low, albeit increasing share of renewable sources in transport, amounting to 5.1% in 2019 (EU: 8.9%). However, Estonia stands out in terms of its overall share of renewable energy, which at 31.9% makes the country a European frontrunner (EU: 19.7%).

In the EC's latest assessment, Estonia made the strongest year-on-year improvement concerning eco-innovation from a European perspective. Although still an average eco-performer, the Baltic state jumped by 11 index points to 97 in 2020-21 (rank 17/27). More generally, Estonia can be characterized as a strong innovator more recently, being one of five EU countries having shown the strongest headway in its performance on the EC's innovation scoreboard since 2018.

High governance standards remain a key competitive asset of the Estonian business environment (see also above), underscored by the World Economic Forum's (WEF) assessment. Whilst the latest Global Competitiveness Report dates back to 2019, with Estonia ahead of most CEE peers at a decent 31th rank out of 141 economies, the WEF analyzed which countries were better prepared for economic transformation following the corona crisis at the turn of the year. Standing out in particular, to our mind, are top ten rankings for Estonia regarding flexible work arrangements (4), digital skills (3), and the digital legal framework (6).

Fiscal Sustainability

We maintain our opinion that public finances are a key credit strength of the sovereign, albeit having weakened significantly, as the indispensable response to the corona crisis caused Estonia's headline deficit and public debt ratio to swell to record highs. Despite the incipient economic recovery, we expect that the deficit will widen further in 2021, mainly due to the worsening health situation in the first half of the year, before narrowing gradually over the medium term. While debt-to-GDP will thus continue to increase, with the upward sloping debt trend decelerating going forward, we believe that medium-term risks are very low. The sovereign's debt level will very likely remain one of the lowest among EU peers, implying ample fiscal headroom, and debt affordability remains very strong. Moreover, Estonian authorities' very sound fiscal policy-making is guided by stringent fiscal rules, and we deem debt management as very sound. There are no foreign currency risks, and we do not see any imminent risks entailed by contingent liabilities or age-related costs.

The sovereign can look back on a track record of fiscal prudence. Its headline deficit peaked at a mere 0.7% of GDP (2017) in the somewhat more expansionary years 2016 to 2018, before posting a slight surplus of 0.1% of GDP in 2019. On average, the government achieved a balanced budget between 2010 and 2019 (0.0% of GDP), one of the best performances from a European fiscal perspective (EA: -2.5% of GDP).

Persistently sound public finances meant that the sovereign entered the Covid-19 pandemic with plenty of fiscal headroom, enabling the government to significantly ramp up spending without raising fiscal sustainability concerns. To mitigate economic fallout and protect the safety of its citizens, authorities implemented a myriad of aid measures, most notably increased health expenditure, a wage subsidy scheme, targeted support to several industries and local governments, as well as business support via loans and strategic capital injections. On the revenue side, exemptions for excise duties and the suspension of second-pillar contributions are to be mentioned.

Including guarantee measures, the 2020 support envelope totaled approx. 8.6% of GDP. While the take-up of the instruments varied significantly, with the wage subsidy scheme and capital injections being the biggest items (~0.9% of GDP respectively), the budgetary impact amounted to roughly 3% of GDP. The headline balance thus dropped from a surplus of 0.1% of GDP to a deficit of 4.9% of GDP in 2019-20. Though this could be perceived as high, the deficit in fact came in as relatively tame from a European perspective (EA: -7.2% of GDP), and lower than originally budgeted (-6.6% of GDP), which can be explained by the milder economic contraction and concurrent robust tax revenues, as well as by the short-lived wage compensation (Mar-Jun-20).

Total revenues thus proved comparatively resilient, edging down by only 0.3%, leading to an increase by 1.2 p.p. in GDP terms. Whilst production and import tax receipts fell by 7.4%, income and wealth tax revenues increased by 3.0%, largely driven by personal income taxes and social security contributions which benefited from wage subsidies and from the economic rebound in the second half of the year. Hence, the deterioration in public finances was mainly due to the expenditure side, as total expenditure rose from 38.9% to 45.1% of GDP.

We expect Estonia's headline deficit to edge up further to 5.1% of GDP this year, before prospectively falling to 2.9% of GDP in 2022, and continue to narrow in the outer years. That said, fiscal prospects continue to be subject to an abnormally high degree of uncertainty as the pandemic keeps evolving. Our forecast is built on the assumption that the robust economic recovery will lead to strong revenue growth and that EU transfers will provide for considerable fiscal relief

over the medium term. The headline deficit is nevertheless likely to tick up this year, mainly due to the second wave of infection cases, which required substantial state support to cushion the economic and social fallout and safeguard public health.

Our expectations are corroborated by monthly state budget data. Six months into the year, evidence is thus accumulating that tax receipts will rebound enormously in 2021. Statistics Estonia data shows that the income tax intake skyrocketed by 20.6% y-o-y in the first six months of 2021, driven by rallying PIT and CIT receipts alike (+10.4% and 11.6% respectively), owing to last year's low base level and the economic recovery in the first half of the year. Also, VAT receipts recovered spectacularly (+16.6%) and social security contributions rose by 6.4% on the year. What is more, the abovementioned pension system changes and the drawdown on second-pillar funds will also boost tax revenue. The MOF estimates that an additional EUR 350mn (1.3% of GDP) in personal income taxes will be generated in the current budget period, whereas social taxes may be relieved by around EUR 100-130mn. This being said, we recall that the recent changes to the pension system may lead to some fiscal pressure in the longer term in an unfavorable demographic scenario if voluntary contributions cannot keep pace.

At the same time, the government significantly ramped up its pandemic-related expenditure in response to the deteriorating health situation. Against the backdrop of the severe second coronavirus wave that accelerated markedly in February this year, authorities swiftly implemented a supplementary budget in spring 2021, totaling around EUR 641mn or 2.4% of GDP, seeking to cater for higher healthcare needs, additional support for corporates in heavily-hit sectors, and the temporary relaunch of the wage subsidy scheme (March-May). These will come on top of the envelope carried over from last year (~EUR 1.2bn). Furthermore, expenditure will be increased by more permanent measures, inter alia a rise in pensions, R&D investments, and defense spending.

As a corollary, we assume that Estonia's general government debt will continue to follow a rising debt trend over the medium term, although the increases in its public debt ratio will likely become smaller going forward. The collapse of economic growth, coupled with the soaring headline deficit and sizable stock-flow adjustment, translated into a material increase in debt-to-GDP, from a very low 8.4% in 2019 to 18.2% in 2020. Looking forward, we project the sovereign's public debt ratio to increase to 20.3% of GDP in 2021, and further to 23.3% of GDP next year, largely driven by persistently high, though receding, headline deficits and stock-flow adjustments.

We do not, however, view the sovereign's fiscal sustainability as being at risk over the foreseeable future. First and foremost, Estonia has large fiscal buffers and will continue to display the lowest debt-to-GDP level in Europe, according to our current baseline forecasts. As a point of reference, average euro area debt stood at 98.0% of GDP in 2020. Also, Estonia features very low net debt levels, at 5.4% of GDP (Q1-21) the lowest reading behind Luxembourg. We believe that Estonia will make prudent use of accumulated debt and keep fiscal discipline as a well-anchored policy target, mirrored by the long-standing track record of sound fiscal policy-making demonstrated over several economic cycles, and as recently mirrored in the course of the government change (see above).

In any case, government debt is mainly comprised of long-term instruments, so that the sovereign is subject to modest short-term refinancing risks. Refinancing risks appear generally well-managed, as the MOF's financial risks management policy foresees that repayments of long-term debt obligations per year are sufficiently spread out, and short-term debt does not exceed

25% of the state's expenditures. The MOF's debt obligations mainly consist of a single 10y government bond (EUR 1.5bn) maturing in 2030, and a 15y loan from the Nordic Investment Bank signed in Mar-20 (EUR 0.75bn). Estonia's average weighted maturity rose from 4.1y at the end of 2019 to 7.4y in December 2020.

Moreover, we deem debt affordability and Estonia's debt profile as key rating strengths, limiting potentially arising fiscal risks to a considerable extent. The sovereign's strong performance is possibly best reflected in the persistently very low debt servicing costs. Estonia's interest costs only accounted for 0.1% of general government revenue in 2020 (2016-20 average: 0.1%), the lowest level in the EU27 by far. We expect interest outlays to remain very low over the medium term.

Public guarantees announced since the onset of the pandemic seem moderate by European standards (1.5% of GDP), and we see rather negligible fiscal risks stemming from the banking sector. The highly concentrated Estonian banking sector, in which three banks (Luminor, Swedbank, LHV Pank) account for approx. 76% of total assets (end-2020), continues to display very sound financial stability metrics, although the various support measures by the government and European authorities have certainly played a vital role in keeping credit quality in check. Latest EBA data underscores sustained and robust capitalization, high asset quality, and above-average profitability. In fact, the average CET 1 ratio of Estonian banks is the highest in the EU (Q1-21: 30.0%), whilst the already low NPL ratio remained on a downward trajectory throughout the corona crisis (Q1-21: 1.1%).

Although EP's stress tests pay testament to the resilience of the Estonian banking sector, there appear to be pockets of vulnerability which we will monitor going forward, namely the residential property market and cyber security. As regards the latter, we note that EP and the Estonian Financial Supervision and Resolution Authority have flagged an increased incidence of hostile (DDoS) cyber-attacks against banks.

Meanwhile, the outstanding mortgage volume was dented by the corona crisis, but has recovered since August 2020 and accelerated throughout 2021 (May-21: +7.8% y-o-y). Accordingly, housing loans account for an increasing share of banks' total assets. This coincides with relatively dynamic house price growth, which fell temporarily in Q2 and Q3 last year but has picked up since then (Q1-21: +6.6 y-o-y). Affordability indicators such as the price-to-income ratio have risen sharply since Q3-20. Risks on the housing market could be exacerbated by the withdrawn second-pillar funds which may further fuel price dynamics. We note that EP sees a risk of an increasing overvaluation of house prices and kept its macroprudential measures in place.

AML risks have continued to subside, in particular due to the government's forceful policy response to rein in risks in this respect, e.g. by adopting amendments to the Estonian Money Laundering and Terrorist Financing Prevention Act, thereby transposing the EU's AMLD V in July 2020. In addition, the Estonian Financial Intelligence Unit took up operations as an independent institution under the jurisdiction of the Ministry of Finance at the beginning of this year, thus enhancing its effectiveness in combating money laundering. While awaiting the next evaluation by Moneyval envisaged to take place next spring, the government published its national risk assessment report in April, hinting at AML/CFT risks emanating from crypto-currencies, and at weaknesses related to capacities for strategic analysis regarding AML/CFT.

Foreign Exposure

Although the small, open Estonian economy remains highly susceptible to external perils, we think that these are contained at this stage. Thanks to a run of sustained current account surpluses, the net international investment position (NIIP) significantly improved prior to the pandemic, and its composition gives no major reasons for concern. Last year's shift into a mild current account deficit was largely driven by transitory effects from substantial one-off services imports by a single corporate. We expect only moderate current account surpluses beyond this year, mainly due to significant EU financing inflows.

The abovementioned substantial one-off investment also has significant repercussions on the country's balance of payments. While Estonia posted a current account surplus of 2.0% of GDP in 2019, and an annual average of 1.6% of GDP over 2015-19, it thus shifted into a slight deficit of -0.6% of GDP last year. VW's investment went hand in hand with a boost in (computer) services imports, alongside plunging services exports (-19.3%) reducing the services balance materially from 7.6% of GDP to 0.7% in 2019-20.

In this year's first quarter, the current account deficit stood at 4.7% of GDP (Q4-20: -9.6% of GDP), as imports of computer services by the car manufacturer continued to foster services imports, causing the moving 4-quarter-sum to widen to -2.8% of GDP in Q1-21. Whilst future investments as witnessed more recently cannot be ruled out, reflecting the attraction of a well-educated ICT workforce and excellent digital infrastructure in Estonia, we would assume a normalization of the services balance, allowing the current account balance to swing back into a moderate surplus this year.

Despite the large direct investment, the NIIP improved in 2020, from -21.4% of GDP to -20.8%, continuing on its longer-term upward trajectory (2011: -54.0%). The still negative investment position is mainly due to less crisis-prone negative net foreign direct investments which amounted to -70.2% of GDP in 2020, down from -56.8% of GDP a year before.

Rating Outlook and Sensitivity

Our rating outlook on Estonia's long-term credit ratings is stable, reflecting our expectation of a strong pick-up in economic growth, while fiscal risks are largely mitigated by the abovementioned factors, with the public debt ratio presumably stabilizing over the medium term. In addition, strong institutions and sound policy-making should help contain economic and fiscal risks stemming from the Covid-19 pandemic. We have to reiterate that in light of the highly dynamic epidemiological situation any assessment and interpretation of economic and fiscal developments and prospects remains more challenging than under normal circumstances.

We could consider lowering the sovereign's ratings or outlook if medium-term growth is significantly and sustainably lower than expected, possibly halting the economy's convergence process, which could be the case if the pandemic drags on over a prolonged period of time alongside significant delays in the vaccination campaign, triggering a renewed tightening of confinement measures. In such a scenario, further fiscal pressure may build up, possibly derailing the sovereign's public finances. Downward pressure on the rating or the outlook could thus result if the public debt ratio failed to stabilize over the medium term. Tail risks relate to an escalation of geopolitical risks, originating from the already tense EU-Russia relationship.

We could raise the ratings or the outlook if medium-term growth turns out to be consistently higher than expected over a longer period, with the economy showing no signs of overheating, leading to a faster convergence process towards the EU's income levels. Other factors that could be conducive to an upgrade are a stronger medium-term fiscal outturn than implied by our baseline forecast, translating into a swifter reversal of the sovereign's debt trend, and a sustained reduction in geopolitical risks.

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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

ESG Factors

While there is no universal and commonly agreed typology or definition of environment, social, and governance (ESG) criteria, Creditreform Rating views ESG factors as an essential yardstick for assessing the sustainability of a state. Creditreform Rating thus takes account of ESG factors in its decision-making process before arriving at a sovereign credit rating. In what follows, we explain how and to which degree any of the key drivers behind the credit rating or the related outlook is associated with what we understand to be an ESG factor and outline why these ESG factors were material to the credit rating or rating outlook.

For further information on the conceptual approach pertaining to ESG factors in public finance and the relevance of ESG factors to sovereign credit ratings and Creditreform Rating credit ratings more generally, we refer to the basic documentation, which lays down [key principles of the impact of ESG factors on credit ratings](#).

The governance dimension plays a pivotal role in forming our opinion on the creditworthiness of the sovereign. As the World Bank’s Worldwide Governance Indicators Rule of Law, Government Effectiveness, Voice and Accountability, and Control of corruption have a material impact on Creditreform Rating’s assessment of the sovereign’s institutional set-up, which we regard as a key rating driver, we consider the ESG factors ‘Judicial System and Property Rights’, ‘Quality of Public Services and Policies’, ‘Civil Liberties and Political Participation’, and ‘Integrity of Public Officials’ as highly significant to the credit rating.

Since indicators relating to the competitive stance of the sovereign such as the World Bank’s Ease of Doing Business index and the World Economic Forum’s Global Competitiveness Indicator add further input to our rating or adjustments thereof, we judge the ESG factor ‘Business Environment’ as significant.

While Covid-19 may have significant adverse effects on several components in our ESG factor framework in the medium to long term, it has not been visible in the relevant metrics we consider in the context of ESG factors – though it has a significant bearing concerning economic prospects and public finances. To be sure, we will follow ESG dynamics closely in this regard.

ESG Factor Box

Environmental Quality	Ecological Risks	Ressource Management	Education	Health	Demo-graphics	
Labor	Equality	Technology & Infrastructure	Safety & Security	Judicial System	Quality of Public Services	
Integrity of Public Officials	Quality and Efficacy of Regulations	Civil Liberties/ Political Participation	Market Access	Business Environment	Data Transparency	
Environment	Social	Governance	Highly significant	Significant	Less significant	Hardly significant

Economic Data

[in %, otherwise noted]	2015	2016	2017	2018	2019	2020	2021e
Macroeconomic Performance							
Real GDP growth	1.8	3.2	5.5	4.4	5.0	-2.9	7.7
GDP per capita (PPP, USD)	29,397	31,574	33,937	36,140	38,480	37,745	39,729
Credit to the private sector/GDP	75.0	77.9	72.8	70.6	67.9	73.2	n/a
Unemployment rate	6.2	6.8	5.8	5.4	4.4	6.8	n/a
Real unit labor costs (index 2015=100)	100.0	97.1	101.3	102.8	105.0	108.3	n/a
Ease of doing business (score)	80.5	80.7	80.8	80.8	80.6	n/a	n/a
Life expectancy at birth (years)	78.0	78.0	78.4	78.5	79.0	78.6	n/a
Institutional Structure							
WGI Rule of Law (score)	1.3	1.2	1.3	1.2	1.3	n/a	n/a
WGI Control of Corruption (score)	1.3	1.3	1.2	1.5	1.5	n/a	n/a
WGI Voice and Accountability (score)	1.2	1.2	1.2	1.2	1.2	n/a	n/a
WGI Government Effectiveness (score)	1.1	1.1	1.1	1.2	1.2	n/a	n/a
HICP inflation rate, y-o-y change	0.1	0.8	3.7	3.4	2.3	-0.6	2.4
GHG emissions (tons of CO2 equivalent p.c.)	13.9	15.2	16.1	15.4	11.2	n/a	n/a
Default history (years since default)	n/a						
Fiscal Sustainability							
Fiscal balance/GDP	0.1	-0.4	-0.7	-0.6	0.1	-4.9	-5.1
General government gross debt/GDP	10.0	9.9	9.1	8.2	8.4	18.2	20.3
Interest/revenue	0.1	0.1	0.1	0.1	0.1	0.1	n/a
Debt/revenue	25.4	25.6	23.7	21.2	21.6	45.3	n/a
Weighted average maturity of debt (years)	n/a	n/a	n/a	n/a	4.1	7.4	n/a
Foreign exposure							
Current account balance/GDP	1.8	1.2	2.3	0.9	2.0	-0.6	n/a
International reserves/imports	0.0	0.0	0.0	0.0	0.1	0.1	n/a
NIIP/GDP	-39.9	-39.1	-33.1	-29.6	-21.4	-20.8	n/a
External debt/GDP	92.2	88.0	83.4	77.4	73.8	89.8	n/a

Sources: IMF, World Bank, Eurostat, AMECO, ECB, Statistics Estonia, own estimates

Appendix

Rating History

Event	Publication Date	Rating /Outlook
Initial Rating	23.12.2016	AA- /stable
Monitoring	27.10.2017	AA- /stable
Monitoring	31.08.2018	AA- /stable
Monitoring	30.08.2019	AA- /stable
Monitoring	21.08.2020	AA- /stable
Monitoring	13.08.2021	AA- /stable

Regulatory Requirements

In 2011 Creditreform Rating AG (CRAG) was registered within the European Union according to EU Regulation 1060/2009 (CRA-Regulation). Based on the registration Creditreform Rating AG is allowed to issue credit ratings within the EU and is bound to comply with the provisions of the CRA-Regulation. The rating was not endorsed by Creditreform Rating AG from a third country as defined in Article 4 (3) of the CRA-Regulation.

This sovereign rating is an unsolicited credit rating. The Ministry of Finance of the Republic of Estonia participated in the credit rating process as it commented on a draft version of the report. However, the rating outcome as well as the related outlook remained unchanged. Between the disclosure of the credit rating to the rated entity and the public disclosure no amendments were made to the credit rating.

Unsolicited Credit Rating	
With Rated Entity or Related Third Party Participation	YES
With Access to Internal Documents	NO
With Access to Management	NO

The rating was conducted on the basis of CRAG's ["Sovereign Ratings" methodology](#) (v1.2, July 2016) in conjunction with its basic document ["Rating Criteria and Definitions"](#) (v1.3, January 2018). 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 and basic document "Rating Criteria and Definitions" is published on our [website](#).

To prepare this credit rating, CRAG has used the 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, World Economic Forum, European Center for Disease Prevention and Control (ECDC), Blavatnik School of Government, Estonian Ministry of Finance, Eesti Pank, Statistics Estonia, Estonian Fiscal Council (Eelarvenoukogu), Estonian Financial Supervision and Resolution Authority (Finantsinspektsioon), Pensionikeskus.

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. No conflicts of interest were identified during the rating process that might influence the analyses and judgements of the rating analysts involved or any other natural person whose services are placed at the disposal or under the control of Creditreform Rating AG and who are directly involved in credit rating activities or approving credit ratings and rating outlooks. 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".

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

The date at which the credit rating was released for distribution for the first time and when it was last updated including any rating outlooks is indicated clearly and prominently in the rating report; the first release is indicated as “initial rating”; other updates are indicated as an “update”, “upgrade or downgrade”, “not rated”, “affirmed”, “selective default” or “default”.

In accordance with Article 11 (2) EU-Regulation (EC) No 1060/2009 registered or certified credit rating agency shall make available in a central repository established by ESMA information on its historical performance data, including the ratings transition frequency, and information about credit ratings issued in the past and on their changes. Requested data are available on the ESMA website: <https://cerep.esma.europa.eu/cerep-web/statistics/defaults.xhtml>.

An explanatory statement of the meaning of each rating category and the definition of default are available in the credit rating methodologies disclosed on the website.

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