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Baltics' External Balance: Still a Constraint?

Alessandro Turrini and
Stefan Zeugner*

Introduction

The Baltic countries, Estonia, Latvia and Lithuania, are regarded as the quintessential boom-busters, with their economies having witnessed an expansion followed by post-crisis contraction that defies any Eurozone comparison in terms of magnitude and abruptness. External finance played a role in driving Baltic growth during the 2000s. The major current account deterioration in the mid-2000s had its counterpart in buoyant cross-border credit flows that allowed the financing of higher rates of domestic investment and consumption. Heavy reliance on external financing was also at the root of the bust phase: the current account reversal coincided with double-digit recessions in all three Baltic economies.

Being the first among the EU countries to have undergone current account–driven recessions, the Baltic economies started rebalancing at an earlier stage. After years of subdued output and investment dynamics, they started to recover by 2010 and had largely regained their pre-crisis peak output by 2015. Their external positions are currently broadly balanced, but current account surpluses have recently reduced or turned into deficits, mostly in the light of resuming domestic demand. Is there a risk that, as the recovery gathers momentum, the Baltics will start accumulating large current account deficits again and be subject to sudden reversals down the road? Or is the opposite risk stronger, namely that external finance will remain less easily available in the foreseeable future, thereby acting as a constraint on the prospects for resumed credit supply, investment and growth?

This paper reviews the degree to which external balances may pose challenges to Baltic growth in the medium term. To that end, it first discusses the key role of the external sector in the Baltics during the boom-bust period and then assesses prospects and bottlenecks going forward. The remainder of the paper is structured as follows: the next section reviews the role of external financing during the boom-bust cycle. The third section assesses the extent to which the Baltics have completed their rebalancing and discusses to what extent the external balance could act as a constraint looking forward.

Boom-bust dynamics: the role of external financing

From boom to bust

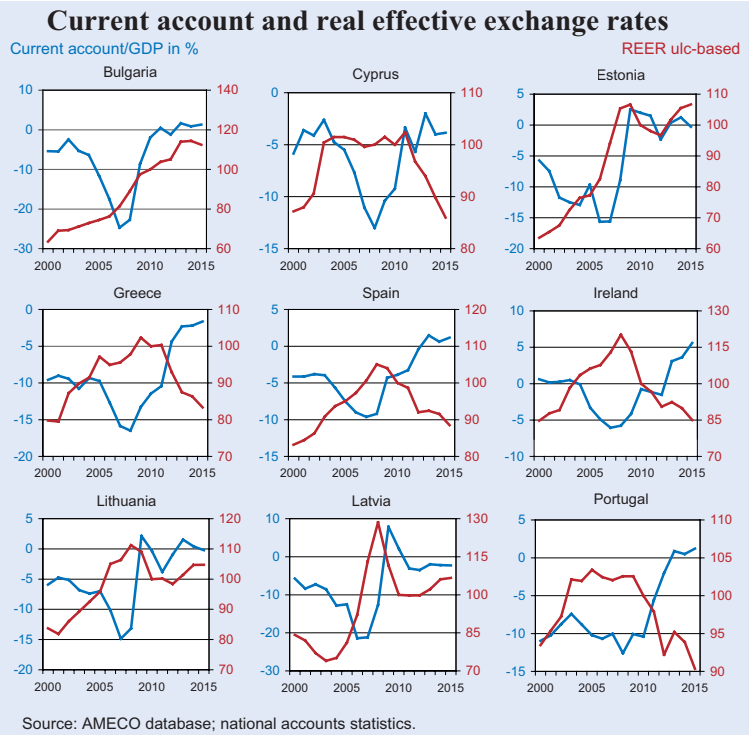
During the boom-bust period the Baltics were characterised by remarkably similar macroeconomic developments.[1] Strong co-movements in GDP and most macroeconomic variables were mainly the result of shared prospects as well as some basic characteristics: (i) similar history and institutions prior to the transition; (ii) common prospects of EU accession and euro adoption; (iii) small governments and low government debts; (iv) similar structural characteristics underpinning high growth prospects (high capital needs, relatively cheap and fairly educated labour force, trade links with growing Russia, the Nordic countries, Poland and Germany); and (v) concomitant financial development coinciding with financial integration, with FDI playing a key role.

Their successful catch-up after the transition was initially grounded on strong fundamentals. Economic restructuring after transition and a large scope for the sectoral reallocation of resources and technological upgrading were at the basis of strong gains in total

* European Commission, DG ECFIN. The opinions expressed in this paper do not necessarily reflect those of the European Commission. The authors would like to thank Jorge Duran Laguna, Aureliane Poissonnier, Tobias Ketterer, Janis Malzubris for their useful comments on a previous version.

[1] See European Commission (2010) and Deroose *et al.* (2010) for a review of developments taking place in the Baltics ahead of the 2008 current account crises. For recent developments, see European Commission (2015a, 2015b, and 2015c) as well as IMF (2014a, 2015a, and 2015b).

Figure 1

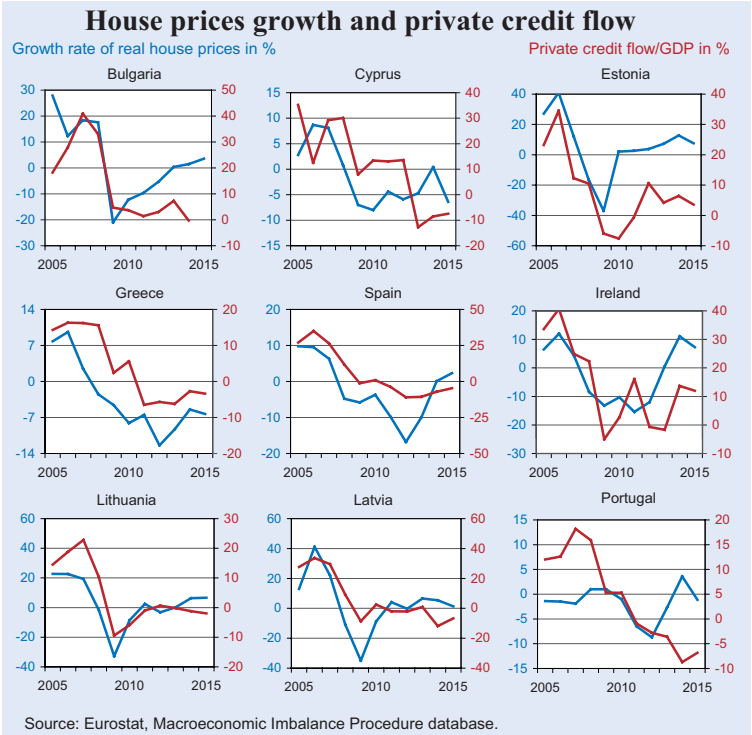


factor productivity and rapid trade integration. These prospects for productivity improvements laid the grounds for sustained capital accumulation.

Excess demand over income was fuelled by foreign finance, which was made available mainly in terms of foreign direct investment and cross-border bank loans. Current account deficits widened and peaked above 15 percent of GDP in Estonia and Lithuania and above 20 percent of GDP in Latvia (Figure 1). Domestic demand outpacing output fed back to exceptionally high GDP growth rates, reaching values above 10 percent between 2006 and 2007.

By mid-2000s, fast-growing credit flows – mostly denominated in euro and largely provided by subsidiaries of Nordic banks (see also Figure 10 below) – were increasingly financing the housing sector *via* mortgage loans. As shown in Figure 2, credit growth across the Baltic economies co-moved closely at a comparable magnitude, and was paralleled only by Bulgaria and Ireland among the other EU countries. Growth rates in house prices were also of a similar magnitude across the Baltics, and were not matched by those recorded in any other EU country undergoing similar boom-bust episodes.

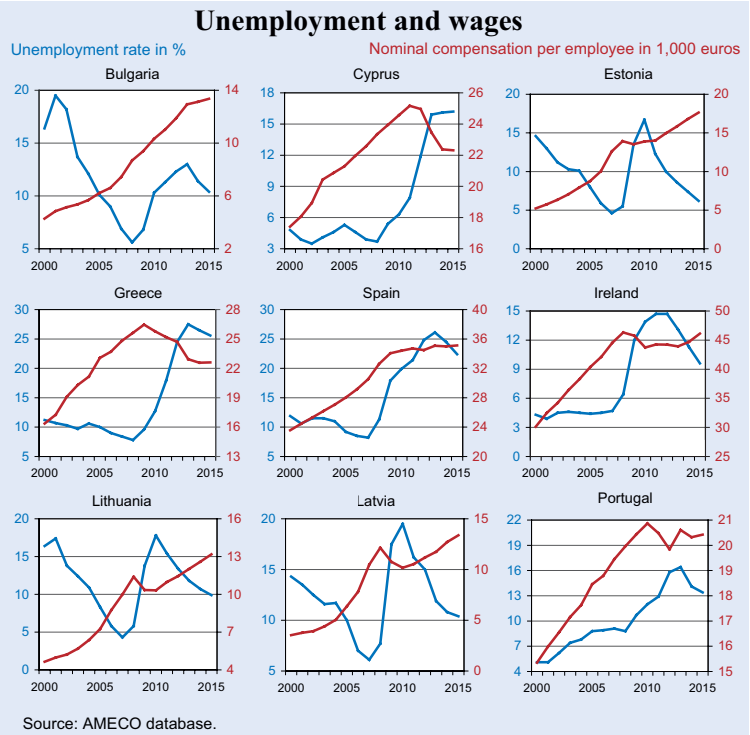
Figure 2



Overheating had inevitable implications in terms of wage and price growth (see Figure 3). Widening current account deficits also started being underpinned by competitiveness losses. By 2006–2007, the typical ingredients of 'boom-bust' cycles were present, to differing degrees, in the three Baltic economies. Awareness of growing credit risks amid unsustainable current account deficits and housing bubbles led foreign and domestic banks to raise lending standards. Revised lending standards and prudential measures put in place by the authorities contributed to a swift drop in house prices as of 2007.

Although signs of fatigue were already evident in 2006, the global financial crisis acted as a trigger

Figure 3



for a sudden stop in current account financing (see also Bems and Hartelius 2006; Blanchard *et al.* 2013). The process of financially-driven economic contractions was accelerated by tumbling house prices, widespread deleveraging, and flight to safety in financial markets following the global financial crisis. Compared to other EU economies that ran unsustainable current account deficits before the crisis, the crisis in the Baltics was characterised by a very abrupt correction of external balances. Current accounts moved from large deficits to surpluses in about two years, which coincided with major recessions, amounting to double-digit negative growth rates in all Baltic economies during 2009.

The adjustment phase

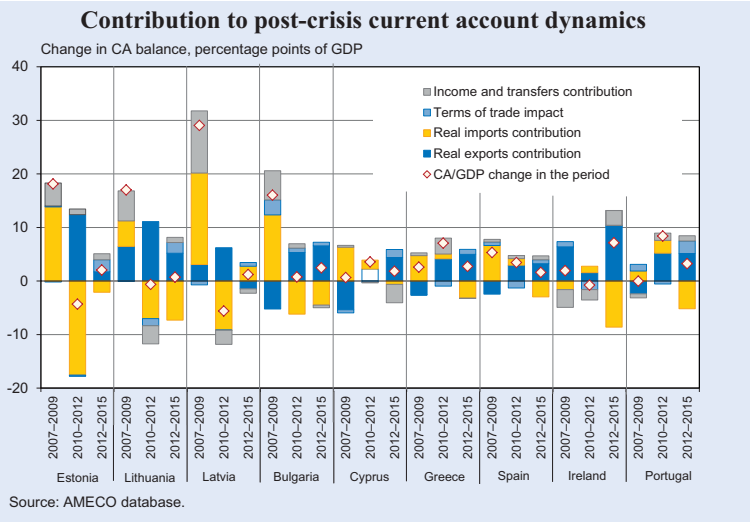
As opposed to Eurozone countries, the withdrawal of private external financing in the Baltics could not be offset by official TARGET2 liquidity transfers within the Eurosystem, and this contributed to the abruptness of the current account reversal. For Eurozone countries, TARGET2 transfers helped to smooth external balances, while in countries with euro-pegged currency boards like the Baltics and Bulgaria, the dynamics of the current account fully reflected the sudden withdrawal of private foreign finance (see also Figure 1). The halt in foreign funding led to external adjustment through a collapse of domestic demand (ranging from – 20 percent in Lithuania to – 33 percent in Latvia over the 2008–2010 period).

Despite the rapid current account adjustment, the withdrawal of private foreign finance from the Baltics took place in a less abrupt manner than in most Eurozone countries. As shown in recent analyses (e.g. Gros and Alcidi 2013), the behaviour of the financial account balance net of TARGET2 and official financial assistance in Eurozone countries was even more abrupt than that observed for the Baltics. Limited reliance on debt financing, and the strong role of external financing *via* foreign bank subsidiaries were important factors underlying the comparative resilience of foreign private finance for the Baltic economies. Moreover, the high degree of concentration of foreign credit among a few foreign banks helped internalise the implications of a disorderly liquidity crunch, including its impact on the Baltics' peg to the euro. Finally, the determination of the authorities to maintain their currency boards helped to dispel speculation quickly, despite the desirability of a devaluation being raised in the debate at the onset of the current account crisis (see e.g. Krugman 2008).

The adjustment phase proved sharp and short-lived in the three Baltics. The improvement in the current account was initially mainly linked to a major reduction in imports (Figure 4), which mainly resulted from the fall in absorption, but was also underpinned by expenditure switching towards domestic production (Bems and di Giovanni 2014). Importantly, the contraction in domestic demand following the bust was partly non-cyclical (European Commission 2014): before the crisis, imports soared because economic activity was extraordinarily and unsustainably high thanks to the foreign-financed housing bubble (see Blanchard *et al.* 2013).

As domestic demand recovered, imports once again began to contribute negatively to current account dynamics, but exports started to play a stronger role after the world recession of 2008/2009, helping to stabilise the current account. The growing contribution

Figure 4



made by exports was mostly linked to improving conditions in export markets, but competitiveness gains also played a role. Price competitiveness improvements materialised early in the process. As shown in previous analyses (Lane and Milesi-Ferretti 2012), the initial stage of the crisis saw a quite muted response of the Real Effective Exchange Rate (REER) in most of the countries concerned by sudden stops. The Baltics were an exception, as price competitiveness gains in these countries already became visible early on (see also Figure 1).

Such a timely reaction in price competitiveness was rooted in flexible labour and products markets, but also in the strong determination of policy authorities to keep the peg with the euro, while easing adjustment via 'internal devaluations' (see Purfield and Rosemberg 2013). Wages in particular adjusted in a more timely fashion compared to other EU countries, with possibly the exception of Ireland (Figure 3). The wage dynamics observed were partly the result of market-driven downward adjustment in private sector wages, which proved timely and sizable in the light of the sheer size of labour market slack and decentralised wage bargaining, although freezes and cuts in government wages also played a relevant role, notably in Latvia.

The prompt adjustment of wages was matched by a quicker reduction in unemployment rates as compared with other EU countries that experienced similar boom-bust episodes. However, the fall in unemployment in the case of the Baltics, and notably of Latvia and Lithuania, was also the result of a major contraction in the active labour force on the back of outward migration (see also Figures 6 and 7 below).

Baltics' external balance looking forward

Is adjustment complete?

At present, current account balances in the Baltics appear to be broadly in line with fundamentals. According to empirical estimations of current account benchmarks (see Table A1 in annex), the current accounts of Estonia and Lithuania are higher than would be expected in the long run on the basis of fundamental determinants, while that of Latvia is slightly lower than the expected level (Figure 5). It is also worth noting that, for the three economies, the estimated current account implied by fundamentals is negative, at around – 2 to – 3 percent of GDP. In particular, their catching-up status and the fact that they are net oil importers explain the negative benchmark. The regression-based decomposition of current account drivers presented in Figure 5 indicates that the reduction in the large deficits observed in the mid-2000s was due to non-fundamental factors, and mainly related to the exceptional credit expansion that ended in concomitance with the crisis.

Figure 5

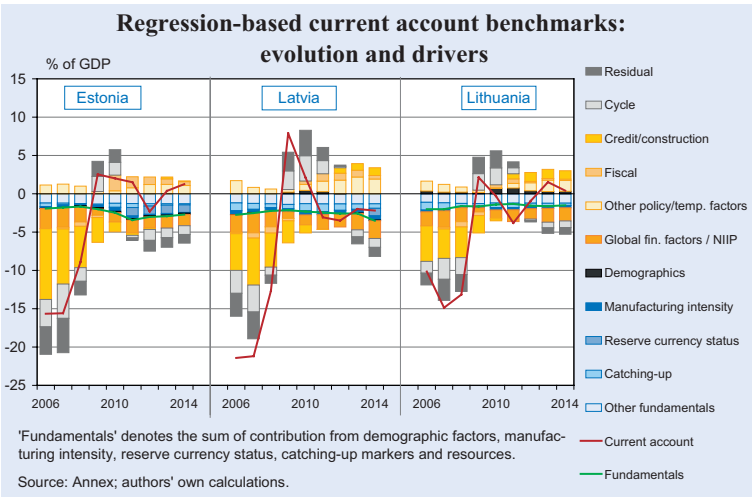
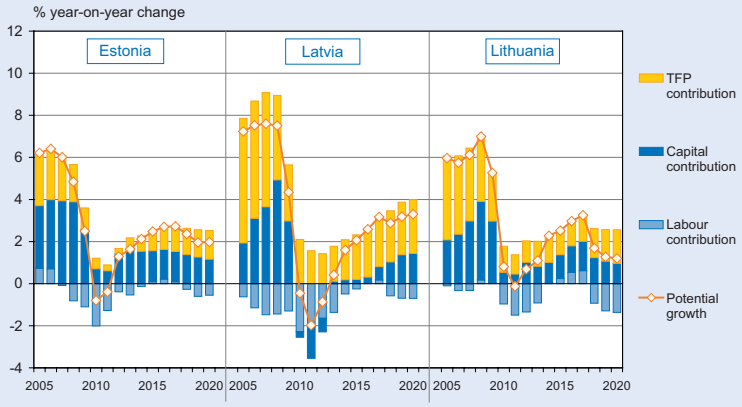


Figure 6

Potential growth breakdown: past values and projection 2005–2020

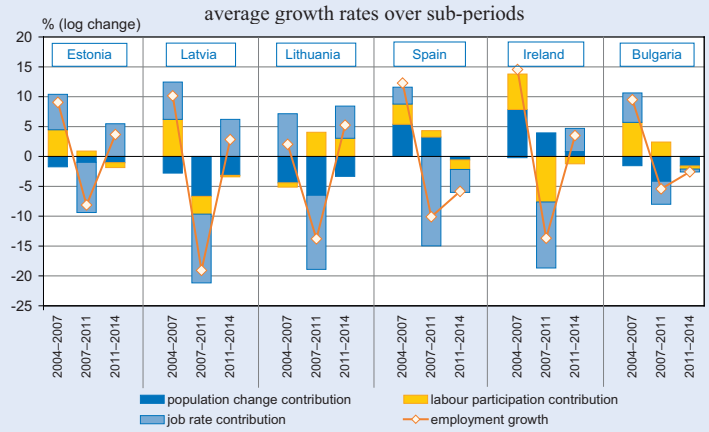


Source: European Commission estimate.

Figure 7

Contribution to employment growth in the Baltic and selected adjusting economies

average growth rates over sub-periods



Source: Eurostat.

Figure 5 also suggests that the cycle currently shows a trend towards a reduction in the current account balance. Standard measures of cyclically-adjusted current account balances appear above headline balances, which means that the Baltics' current accounts would improve if both they and their trade partner economies were to return to potential GDP (see Table 1).

REER fell in the three Baltic economies after its major surge during the first half of the 2000s (see also Figure 1). As discussed above, the adjustment was prompt and sharp, compared with other countries undergoing analogous current account reversals. The frontloaded adjustment in price competitiveness in the Baltics also implied that the process of 'internal devaluation' was less protracted. Wages started growing again in 2010, REER subsequently stabilised and has increased slightly since 2013. The unit-labour-cost-based REER correction since its peak is more marked for Latvia and Lithuania, and more moderate for Estonia. When compared with the average value of the available time series (1996–2015), the unit-labour-cost-based REER turns out to be overvalued by around 27 percent, 12 percent, 15 percent for Estonia, Latvia, Lithuania, respectively. It goes without saying that such figures need not be taken as a measure of misalignment and that they fully depend on the benchmark chosen to evaluate current REERs. In the present case, the long-term REER average is admittedly a rough yardstick that does not allow for disentangling the extent to which REER appreciation is linked to fundamentals or to overheating.[2]

An alternative approach to assessing relative prices is to rely on purchasing power parity (PPP) data. Relative price levels computed in terms of PPP are comparable across countries and tend to display a strong relation with relative per-capita income in cross-country regressions (see Froot and Rogoff 1996). Differences between actual PPP parities and those predicted on the basis of relative per-capita income can be used to assess relative prices. On the basis of the relation estimated in Salto and Turrini (2010) between PPPs and potential output per capita relative to the Eurozone average, the PPP of Estonia appears to be undervalued by 9 per-

[2] A well-known issue with the assessment of real exchange rates on the basis of REER indexes is the lack of an anchor in level terms. Ideally, one should compare the current REER index to a value representing a valuation in line with fundamentals. This is the aim of REER benchmarks estimated in time series or panels (also named Behavioural Equilibrium Exchange Rates, e.g. Ricci *et al.* 2008). Although they make it possible to go further than a simple comparison with long-term REER averages, results derived from this approach are strongly driven by the estimated constant coefficient, which crucially depends, in turn, on the length of the available sample and whether REERs display a stationary over the available sample. This is an important issue, especially for catching up economies like the Baltics that are concerned by Balassa-Samuelson-type equilibrium appreciation dynamics, and with relatively short available time series (see e.g. Maeso-Fernandez *et al.* 2006).

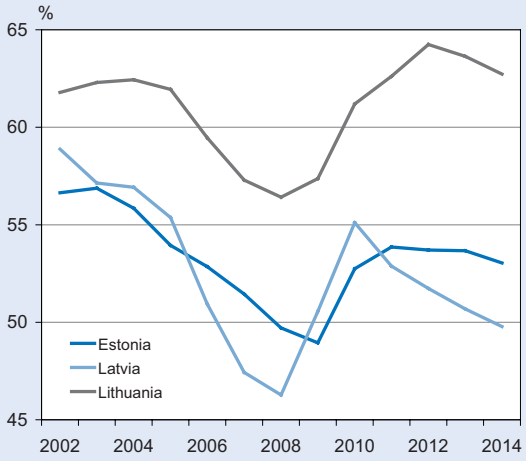
cent, that of Latvia by 11 percent, that of Lithuania by 24 percent.[3] Again, such figures need not be taken at face value as a measure of misalignment, as the PPP approach also has limitations.[4] The main message from such estimates is that, despite rapidly appreciating REERs since transition, price levels do not appear particularly high as compared with countries with a similar income per capita, possibly due to the relatively low initial levels.

As trade exposure reduces international price differences, relative price levels mainly reflect discrepancies in price levels for non-tradable goods with respect to partner countries. Appreciating REERs are often a manifestation of demand dynamics tilted towards the non-tradable sector. This was very much the case in the Baltics, notably Estonia and Latvia, during the boom phase, with growth in the construction sector outpacing that of the rest of the economy. Was the recovery in competitiveness after the crisis matched by a reverse process, with the tradable sector gaining ground with respect to the rest of the economy?

Figure 8 indicates that such a process did take place, but was relatively short-lived. It started around 2008/2009, but ground to a halt around 2011/2012 in Estonia and Lithuania, while in the case of Latvia, it reversed back in 2010.[5] In a nutshell, there is no clear evidence that the structural transformation of the Baltic economies went much further than a major contraction of the housing sector during the bust phase, with tradeable output not surpassing its pre-crisis peak in Estonia and Latvia. In the latter, the reduction in the share of tradable activities since 2010 finds its counterpart in more muted export dynamics as compared with the other Baltics (see Figure 4). By contrast, tradable value added expanded quite strongly in Lithuania on the back of manufacturing and tradable services, but since 2013 it has been outpaced by non-tradable output.

Figure 8

Tradable value added[a)] as a percentage of total value added



[a)] Tradable value added refers to the output of agriculture, mining, utilities and manufacturing (NACE rev 2 sectors A–E), as well as the trade, transport, restaurant and accommodation service sectors (NACE rev 2 sectors G–I).

Source: Ameco database.

Growing export potential is another margin along which one can evaluate structural adjustments in the wake of current account adjustment. One way to assess manufacturing export potential is the technological content of exports, as high-technology exports are less likely to be subject to pressures from low-wage emerging economies. Figure 9 provides a measure of the technological intensity of exports and shows that, since the crisis, the share of high-tech exports rose significantly only in Estonia, while gains were moderate in Latvia and virtually absent in Lithuania. Technological intensity is not the only way to ensure export dynamism looking forward. Difficult-to-imitate quality improvements are an alternative. In this respect, recent analyses of export quality based on firm level data suggest that improvements in export quality took place in the three Baltic economies (Vandenbussche 2014). Moreover, over the post-crisis period, a fair share of the exports from the Baltic economies (35–45 percent) comprised products categories whose markets expanded relatively strongly at a global level (IMF 2014). Hence, despite some signs of dynamism, especially in Estonia, the export specialisation of the Baltic economies in terms of growing technological content of merchandise export and knowledge-intensive services has not yet experienced a substantial re-orientation. Exports still depend strongly on fuels (Lithuania), labour-intensive industries and industries intensive in natural resources (wood, wood products, animals and vegetables) and tradable services (notably transport services).

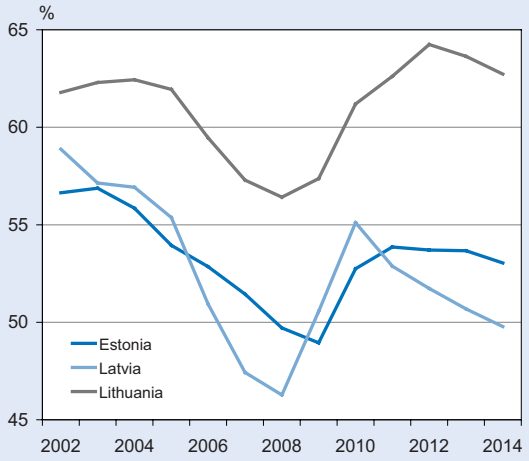
[3] The estimated relation is as follows: log{PPP) = 0.03+0.78*log{potential output per capita relative to Eurozone measured in PPP terms). The relation is estimated over a panel 26 EU countries + 9 non-EU OECD countries for the 1995–2010 period by means of a between estimator. R square = 0.89.

[4] PPP-based misalignment does not necessarily signal relevant information for price competitiveness, because price levels in the comparator country are not always highly representative of pressures from foreign competition. The relation between PPPs and relative income may not be robust with respect to sample and specification.

[5] The initial adjustment saw expenditure switching in demand from imported to domestic goods even within product categories (Bems and di Giovanni 2014), which supported domestic output in the crisis. However, the import-intensity of aggregate demand rebounded quickly (see also Blanchard *et al.* 2013). For instance, the import intensity of Estonian demand thus changed from 54 percent in 2008 to 42 percent in 2009, rebounding to 52 percent in 2011, according to OECD TiVA input output data.

Figure 9

Tradable value added[a] as a percentage of total value added



[a] Tradable value added refers to the output of agriculture, mining, utilities and manufacturing (NACE rev 2 sectors A–E), as well as the trade, transport, restaurant and accommodation service sectors (NACE rev 2 sectors G–I).

Source: Ameco database.

Overall, current accounts have adjusted to levels consistent with fundamentals, but there are no strong signs of a lasting output re-composition towards tradable activities. What are the bottlenecks hampering such structural change?

Structural bottlenecks

In view of their size and shallow domestic financing, the Baltic economies are likely to require further foreign financing to cover their catch-up investment needs. Their attractiveness to foreign funds depends, in turn, on their growth prospects. Overall, the Baltics have recovered faster than other EU countries deeply affected by the financial crisis; and have displayed robust growth above the EU average since 2010. Nonetheless, their growth potential is still below the pre-crisis period average, and prospects are not bright (see also Figure 7). The (moderate) net external indebtedness of their economies contains the scope for domestic demand-driven growth in the medium term. Moreover, excessively strong domestic demand increases would fan wages and trade deficits, rather than output growth.[6] Growth prospects thus mainly lie in further increasing tradable activity and export potential. Addressing structural bottlenecks going forward is a necessary condition for such outward-oriented growth in the Baltics region.

Unemployment has dropped significantly from the heights of 2009. Nonetheless, it is stabilising at rates far higher than the pre-crisis period, and there is evidence that joblessness has become more structural, in light of skill mismatches (IMF 2014b). Most importantly, much of the reduction in unemployment was linked to a considerable fall in the labour force (see Figure 7). Outward migration dented the labour force to an extent not seen in other EU countries, notably in Latvia and Lithuania. In Estonia and Latvia, activity rates, although at relatively high levels, stopped contributing to the labour potential in the past-crisis period. Ageing is one factor that is contributing to a progressive decline in the active population, notably in Lithuania and Latvia.

As far as investment is concerned, the contribution of capital accumulation to potential output has fallen substantially in the three Baltic countries since 2009, and particularly in Latvia. The capital contribution to growth began recovering as of 2012 in Estonia and Lithuania, but contribution rates remain well below those recorded before the crisis. Investment rates between 2007 and 2014 fell by about 11, 14, and 10 percentage points of GDP, in Estonia, Latvia, and Lithuania, respectively.[7] On the positive side, equipment investment has proven relatively resilient, notably in Estonia and Lithuania, as the decline in investment mainly concerned construction, where investment rates between 2007 and 2014 fell by 9, 8, and 6 percentage points of GDP in Estonia, Latvia, and Lithuania, respectively.[8] As a result, recent equipment investment rates compare favourably to most Southern Eurozone countries, but lag behind those of the Baltics' Central European peers.

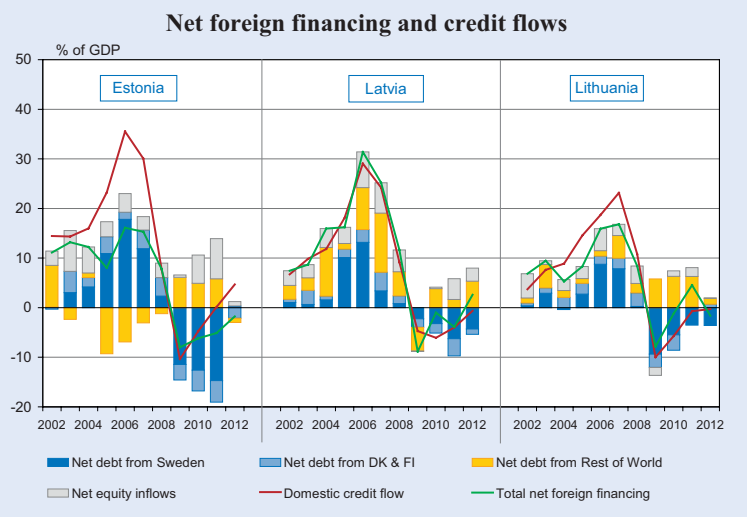
Akin to the Eurozone periphery, much of Baltic adjustment was linked to subdued investment rates stemming from faltering capital demand in the light of revised economic expectations. However, in the case of the Baltics, supply factors also played a key role. The current account reversal coincided with foreign-owned banks tightening their conditions for renewing existing credit lines or opening new credit (Figure 10). At the height of the crisis, the revision of lending standards was compounded by a general reappraisal of risk, which resulted in far higher borrowing costs. However, after the re-normalization of risk attitude by markets,

[6] Detailed input-output figures for Estonia (OECD TiVA database) show that over 50 percent of Estonian final demand is satisfied by foreign value added, and that this ratio tends to increase with demand upswings. In other words, a 10 percent increase in Estonian demand would result in less than 5 percent GDP growth, and would decrease the trade balance by over 5 percentage points of GDP. In the short term, the resulting demand-supply dynamics would probably intensify factor cost growth, which would further foster import attractiveness.

[7] Source: European Commission, AMECO database.

[8] Source: European Commission, AMECO database.

Figure 10



Note: This figure displays net foreign financing (green line), equivalent to the balance of payments financial account balance as a percentage of GDP. It details net foreign debt (portfolio debt and other investment) inflows to the respective country by region, as well as net foreign equity inflows (FDI and portfolio equity). Data on bilateral financial flows stem from Hobza and Zeugner (2014) and are consistent with BPM5 data. GDP and credit flow stem from Eurostat according to the SNA93/ESA95 standard. Credit flow (red line) describes new debt liability flows to the private sector (households and non-financial corporations).

Source: Ameco database.

lending standards by foreign banks have also remained tighter, in the light of enhanced monitoring requirements, which are considered costly especially in case of credit granted to SMEs (IMF 2014b), a lack of collateral and administrative costs for obtaining finance (European Commission 2015c). Domestic credit supply has partly compensated for foreign supply, but not sufficiently to prevent a persistent contraction in credit. Credit growth has remained negative for most of the post-crisis period, with the exception of Estonia, where credit growth has recently been evolving broadly in line with the growth rate of the overall economy (European Commission 2015a). Baltic banks retain tight lending standards, despite readily available short-term financing and ECB liquidity, as well as strong deposit increases in Latvia. Alternative sources of debt financing to compensate for tight bank credit, notably corporate debt, are unlikely to develop on a large scale over the next few years, especially given the prevalence of small-scale firms. At the same time, foreign equity inflows have remained relatively contained in the post crisis period, notably for Latvia and Lithuania.[9]

Baltics' external balance: still a constraint looking forward?

Will foreign finance help to release bottlenecks to export-oriented growth or will the external balance remain a constraint to growth? Could the Baltic boom-bust story repeat itself, with current account deficits widening to finance construction booms, and once again followed by sudden stops?

As discussed above, current account balances are expected to remain for some time in a range broadly in line with fundamentals. The net foreign liabilities of the Baltics, however, have increased substantially since the early 2000s, and the correction since the height of the crisis may not be sufficient to isolate the Baltic economies from disruptive effects should market attitudes towards risk change suddenly. It appears, however, that from this viewpoint, the current account balances presently recorded in the Baltic states would also be sufficient to ensure the convergence of net foreign liabilities to prudent levels. Going forward, Eurozone membership provides a refinancing backstop in case of a funding reversal, thus alleviating motives for a sudden stop of private financial flows.[10] While Eurozone membership thus eases potential future external liquidity constraints, it does not alter the external sustainability constraint: as the euro crisis has shown, private financing may withdraw should doubts about the debt sustainability of entire sectors prevail, with consequences for the long-term funding of real investment.

Table 1 reports the current account balances required to stabilise the NIIP/GDP ratio at the current level over a 2-year period, as well as those required to stabilise NIIP at the prudent value of – 35 percent of GDP over a 10-year period.[11] It is shown that stable NIIP ratios would be achieved under current nominal GDP forecast corresponding to current account deficits between 7 and 3 percent of GDP. Part of this result is linked to the fact that the Baltics, notably Latvia and Lithuania, exhibit strongly positive balances for the capital ac-

[9] Please note that the statistically strong FDI inflows during 2010/11 mainly related to reinvested earnings rather than green-field FDI, presumably reflecting the loss transfer of foreign-owned banks to headquarters.

[10] Note that Eurozone membership also dispenses with the need for precautionary massing foreign currency reserves, which implies a lower 'fundamental' current account benchmark according to estimates (see Figure 5).

[11] No strong priors exist on which values should be chosen for a prudent NIIP ratio. In the present case, the -35-percent benchmark used for each Baltic country is the threshold applied in the Alert Mechanism scoreboard of the EU Macroeconomic Imbalances Procedure.

Table 1

Current accounts required to stabilise the NIIP/GDP ratio

	2014 actual figures					Required current account		
	NIIP	Current account balance	Cyclically adjusted current account balance	Trade balance	Capital account	Stabilisation of NIIP over 2015–16	Stabilisation at – 35% NIIP in 2024, with stable capital account	Stabilisation at – 35% NIIP in 2024, zero capital account
EE	– 43	1.3	3.2	*3.4*	1.1	– 2.8	– 1.7	– 1.0
LV	– 61	2.2	– 0.8	*– 2.9*	5.2	– 7.4	– 4.3	0.4
LT	– 46	0.4	2.2	*0.1*	2.9	– 4.3	– 2.5	– 0.5

Figures (apart from the NIIP) relate to the national account concept. 'Required current account' denotes the average current account balance required to reach a certain NIIP target. For 'Stabilisation of NIIP over 2015–16', it shows the required average over 2015–16 in order to stabilise the NIIP until the end of 2016, according to the capital account balance and nominal GDP growth forecasts of the European Commission, and expecting zero IIP valuation effects. For 'Stabilisation at – 35% NIIP in 2024, with stable capital account', the required current account balance is also based on zero valuation effects. The underlying nominal GDP projections stem from the Commission Spring Forecast (up to 2016), and the European Commission's 'T+10 methodology' beyond that (for the latter, see Havik *et al.* 2014). Furthermore, the projection draws on the assumption that the capital account balance will remain at the median forecast value for 2014–16, throughout the period until 2024. In contrast, 'Stabilization at -35% NIIP in 2024, zero capital account' provides the same figure, but under the assumption that the capital account balance averages 0 over 2015–24.

Source: Own calculation.

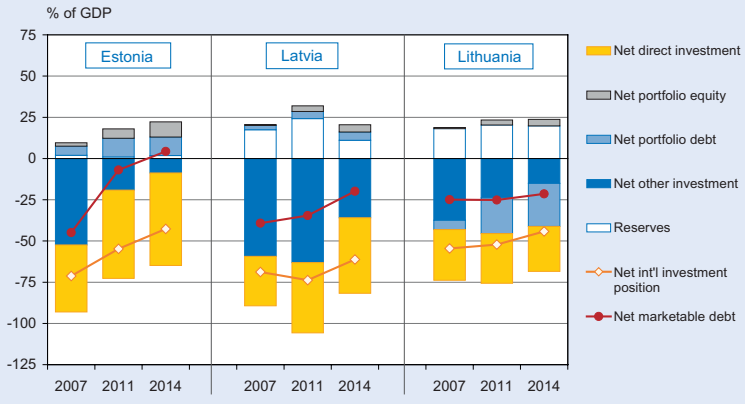
count, which also contribute, in addition to current account balances, to the dynamics of NIIP. Capital account balances are largely determined by official transfers earmarked for capital expenditure, notably EU structural funds. Assuming that such balances remain broadly constant over the medium term implies that constant NIIP/GDP ratios could also be achieved with moderate current account deficits. The stabilisation of the NIIP at a prudent level of – 35 percent over a 10-year period is also consistent with current account deficits, albeit of a smaller magnitude compared with a stabilisation at current levels. Needless to say, such estimates depend not only on assumptions regarding expected nominal growth, but also on an assumption regarding the capital account balance.[12] However, even assuming a balanced capital account (rather than expecting a surplus in view of EU structural funds) implies that with a broadly balanced current account/GDP ratio, the Baltics could ensure a prudent NIIP position over the medium-to-long term.

It must be added that the riskiness of Baltic NIIPs, in terms of composition by instrument, has been declining considerably. As shown in Figure 11, the stock of net foreign liabilities in the Baltics before 2008 consisted mostly of 'other investment', i.e. in the specific case, intra-bank cross-border loans. This component over time was reduced markedly and the composition of the NIIP is currently tilted towards FDI, especially in Estonia. Portfolio debt, the most volatile component of the NIIP together with loans, has a comparatively low incidence on the NIIP of the Baltics, although significant growth in portfolio debt took place in Lithuania, in the light of an increase in the foreign indebtedness of the government sector in the wake of the crisis (Figure 12). More generally, current account risks linked to tensions in bond markets are unlikely in the near future, due to relatively low debt levels in the Baltics.

Despite having fallen substantially, the dependence of the Baltic economies on foreign banks is still relevant,

Figure 11

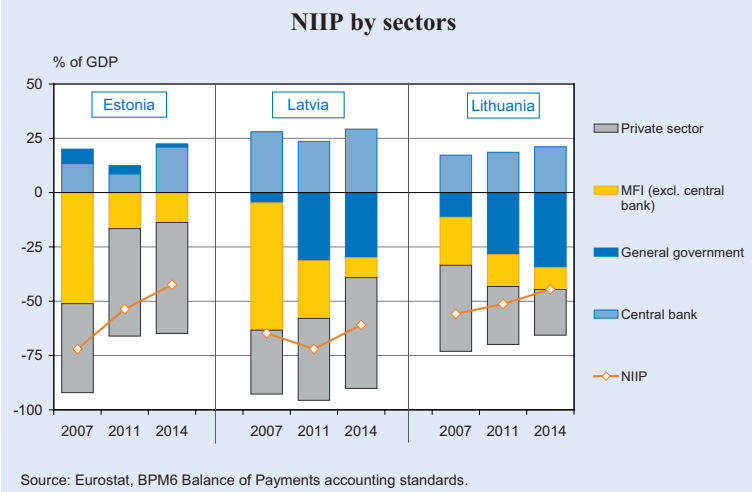
Composition of NIIP by instruments



Source: Eurostat, BPM6 Balance of Payments accounting standards.

[12] The relatively robust growth of the Baltics could lead them to lose the label of 'less developed regions' by 2020, which would imply a decrease in EU regional and cohesion funding, and thus a narrowing of the capital account balance. The characteristics of the Baltic economies, however, imply that even in this case, the capital account balance would be closer to zero, but remain negative.

Figure 12



Source: Eurostat, BPM6 Balance of Payments accounting standards.

and may somehow remain a source of vulnerability looking forward. Dependence on Nordic banks is still high in gross terms, although their role has declined considerably, while foreign banking groups from other regions have not expanded to scale in the Baltics to date. Looking ahead, the risk of lending by Nordic banks tightening suddenly could, *inter-alia*, depend on deleveraging needs in parent banks against the backdrop of a possible downward correction in housing prices, notably in Sweden. Irrespective of the specific triggering event, the implications of foreign liquidity drying up for the Baltic economies would less severe than those of the sudden stop in 2008, in light of the availability of TARGET2 transfers within the Eurosystem. More generally, euro membership rules out sharp reversals in external finance linked to perceptions of exchange rate risk.

Although risks linked to external balance appear contained in the near term, the longer-term assessment calls for prudence on the part of small, open economies like the Baltics. Current account balances are likely to deteriorate further for a number of reasons. Firstly, as domestic demand recovers, imports will grow in the light of high import elasticities to income. Secondly, recovering demand coupled with persistent labour supply bottlenecks linked to outward migration, demography, and skill mismatches would result in deteriorating cost conditions. Thirdly, growth rates in those markets with strong links with the Baltics, notably Russia and the Baltic Sea region, are set to fall on steadily compared with the recent past. Fourthly, recovering Baltic asset prices could lure excess liquidity from the rest of the euro area to finance Baltic real estate.[13]

[13] This could hold true as long as the Nordic banks as the main financial intermediaries retain their stable capital structure, i.e. if they remain sufficiently resilient to Nordic asset price swings.

To what extent those trends will pose a challenge in terms of fresh risks of current account reversals will crucially depend on the extent to which the Baltics will manage to further strengthen their capacity to grow based on tradable activities and enhance export potential. Ultimately, the sustainability of current account deficits depends on what activities they help to finance. While there is a broad consensus that credit conditions in line with the capital needs of catching up economies need to be restored and that foreign finance can provide a key contribution to this process, the extent to which a persistent increase in foreign financing is sustainable depends on its contribution to export potential.

In contrast to the recent boom-bust cycle that hit the three Baltic economies simultaneously and resulted in strongly co-moving growth patterns, there is no reason to expect that the future fates of the Baltic countries will also be tied together, should current account crises materialise again. During the years from transition to euro adoption the Baltics shared a common starting point, common goals and largely common policy shocks. Going forward, market sentiment and associated economic outcomes will increasingly be driven by country-specific developments and policy choices.

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Annex: Estimating current account benchmarks

Current account regressions permit to assess main drivers of current accounts and to compare actual current account levels to benchmarks. The estimation is specified as a reduced-form regression capturing the main determinants of the saving-investment balance. The approach used in this paper is a variant of the IMF External Balance Assessment methodology (see Phillips *et al.* 2013). It employs annual data and uses all explanatory variables expressed as deviations from world average. OLS regressions are run on an unbalanced panel over the period 1987–2015 and including 65 countries. In the spirit of Chinn and Prasad (2003), country fixed effects are not included. Table A1 provides a description of the explanatory variables include and reports their coefficient, which in all cases show the expected sign.

Empirical current account benchmarks: explanatory variables.

	Variable group	Variable	Coefficient		Data source
	Catching up	Relative output per worker (lagged)	– 0.003		Ameco, IMF IFS, Worldbank WDI
		Relative output per worker *capital controls (lagged)	0.056	***	above, and Chinn and Ito (2008) for capital controls
	Resources	Mining & fuel share of goods & service exports (lagged)	0.007		Worldbank WDI
		Oil & gas balance over last 5Y (if positive)	0.515	***	UN Comtrade
	Demographics	Old-age dependency ratio	– 0.034		Ameco, Worldbank WDI, UN
		Population growth	– 0.450	**	Ameco, Worldbank WDI, UN
		Aging speed	0.045	**	UN ESA population projections
	Manufacturing intensity	Manufacturing / GDP, instrumented	0.371	***	Ameco, UN, Worldbank WDI
	Reserve currency status	Own currency's share in world reserves	– 0.044	***	IMF COFER
	Financial centre	Financial center dummy	0.030	***	
Global financial factors / NIIP	Net foreign assets	NFA/GDP (lagged)	0.030	***	Eurostat, IMF BoP, Lane and Milesi-Ferretti
		(NFA/GDP)*(dummy NFA/GDP<-60%) (lagged)	– 0.017	**	as above
		(Changes in Reserves)/GDP * capital controls, lagged	– 0.246		IMF IFS, and Chinn and Ito (2008)
	Global financial conditions	VIX*(1- capital controls) (lagged)	0.081	***	CBOE (for VIX/VXO) and Chinn and Ito (2008) for capital controls
		Above*(currency's share in world reserves) (lagged)	– 0.269	**	above, plus IMF COFER
Policy / temporary factors	Expected growth	Expected GDP growth of 5 years ahead (rel. to world avg.)	– 0.016		IMF WEO, EIU
	Social expenditure	Public health spending/GDP (rel. to world avg., lagged)	– 0.709	***	Worldbank WDI
	Fiscal	Cyclically adjusted fiscal bal. (rel. to world avg., instrumented.)	0.285	***	Ameco, IMF WEO, OECD, and Phillips *et al.* (2013)
	Credit/construction	Private indebtedness/GDP (rel. to world avg., demeaned)	– 0.025	***	IMF IFS, Worldbank WDI, and Phillips *et al.* (2013)
		Construction investment rel. to world avg.	– 0.140	***	Ameco, OECD, UN, and own calculations following Inklaar and Yang (2012)
		Priv. credit real growth (3 years)	– 0.022	***	see private indebtedness
	REER	REER change (over previous 3 years)	– 0.112	***	Darvas (2013)
Cycle	Cycle	Output Gap (relative to world average)	– 0.362	***	Ameco, IMF WEO, OECD, and own calculations

Significant p-values:*10%, **5%, ***1%. Estimation method: ordinary least squares with robust standard errors.
Dependent variable: Current account balance as % of GDP. Intercept: – 0.863**.Adjusted R-squared: 0.63.
Sample: 1987–2015, 65 countries. Number of observations: with 1,408 observations Covered countries accounted for 93% of world GDP in 2013, and for more than 75% of world GDP in each year since 1987: Argentina, Australia, Austria, Belgium, Brazil, Bulgaria, Canada, Chile, PR China, Colombia, Costa Rica, Croatia, Cyprus, Czech Republic, Denmark, Egypt, Estonia, Finland, France, Germany, Greece, Guatemala, Hong Kong, Hungary, Iceland, India, Indonesia, Ireland, Israel, Italy, Japan, South Korea, Latvia, Lithuania, Luxembourg, Malaysia, Malta, Mexico, Morocco, Netherlands, New Zealand, Norway, Pakistan, Peru, Philippines, Poland, Portugal, Romania, Russia, Serbia, Singapore, Slovakia, Slovenia, South Africa, Spain, Sri Lanka, Sweden, Switzerland, Thailand, Tunisia, Turkey, Ukraine, United Kingdom, United States, Uruguay.

Source: Own calculation.