

# Boxes

## 1 Convergence and adjustment in the Baltic States

**The Baltic States have been able to maintain an impressive rate of convergence towards the average EU per capita income over the past 20 years.** Despite the severity of the crisis, strong convergence resumed quickly after the major adjustment of imbalances in 2008-09. This box reviews the long-term performance of and recent challenges faced by Estonia, Latvia and Lithuania.

**The Baltic States are very small. They jointly represent only 0.4% of euro area GDP and 1.8% of the euro area population.** The three countries joined the EU in 2004 with per capita income of, on average, 44% of that of the euro area. Since they joined the EU, these three countries have each pursued a strongly free-market and pro-business economic agenda, but they accumulated severe imbalances in the period leading up to the outbreak of the financial crisis in 2008. The economic adjustment which followed the 2008 financial crisis was sudden and very fast. Estonia had already adopted the single currency in 2011, meeting all the Maastricht criteria, benefiting from a very sound fiscal position in spite of the severe macroeconomic adjustment that was taking place. Latvia and Lithuania joined the euro in 2014 and 2015, respectively.

**The three countries are different in many ways, but share a number of key features:** very high levels of trade and financial openness and very high labour mobility; high economic flexibility with wage bargaining mainly at firm level; relatively good institutional framework conditions; and low levels of public debt (see the table). Most of these features are generally considered supportive of real convergence. At the same time, the great openness of these countries has also been a source of macroeconomic vulnerability and specific policy challenges. In particular, managing the business cycle against the backdrop of volatile capital flows has proved challenging.

### Table

Selected country features in 2015

	Trade openness (ratio of exports and imports to GDP)	Financial openness (percentage of foreign branches in the total assets of the banking system)	Coordination level in wage bargaining*	Framework conditions** (four main WGI indicators)	Public debt (percentage of GDP)
Baltic States	142%	78%	1.00	1.06	30%
Euro area	88%	13%	2.63	1.18	90%

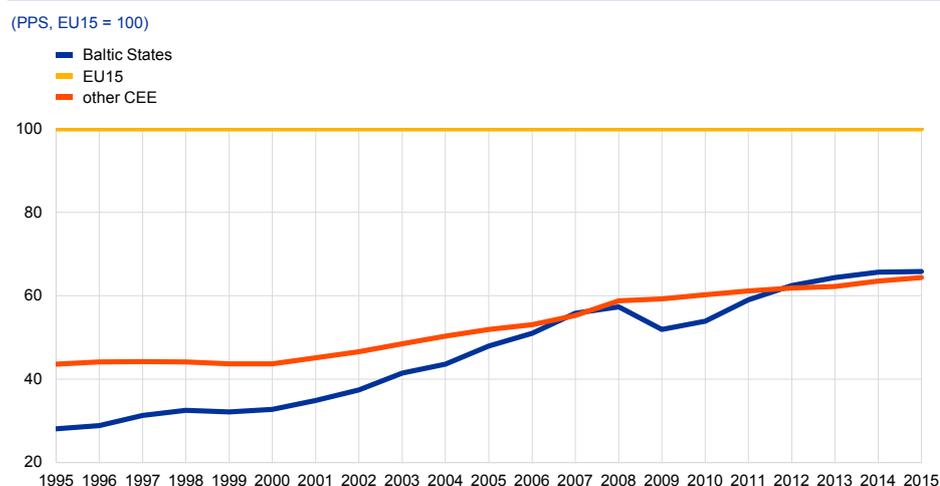
Sources: European Commission, World Bank, Database on Institutional Characteristics of Trade Unions, Wage Setting, State Interventions and Social Pacts.

Notes: \* Coordination level in wage bargaining includes five categories: 1 bargaining predominantly takes place at local or company level, 2 intermediate or alternating between sector and company bargaining, 3 bargaining predominantly takes place at sector or industry level, 4 intermediate or alternating between central and industry bargaining, 5 bargaining predominantly takes place at central or cross-industry level. \*\* "Framework conditions" refers to the sub-index of the Worldwide Governance Indicators (WGI) of the World Bank comprising the average of the following components: rule of law, regulatory quality, government effectiveness and control of corruption. The average for the Baltic States is unweighted.

**From a long-term perspective, the convergence performance of the Baltic States has been remarkable.**

The Baltic States are among the few euro area countries (along with Slovakia) in which real GDP per capita in purchasing power standard (PPS) terms has shown substantial convergence towards the EU average over the last 20 years. While in 1995 their average per capita income (in PPS) stood at only around 28% of the EU15 average, in 2015 it reached 66.5% (see Chart A). It is also noteworthy that all three Baltic States experienced deep declines in real GDP in 2008 and 2009, but enjoyed strong recoveries afterwards.

**Chart A**  
GDP per capita relative to the EU15



Source: European Commission.

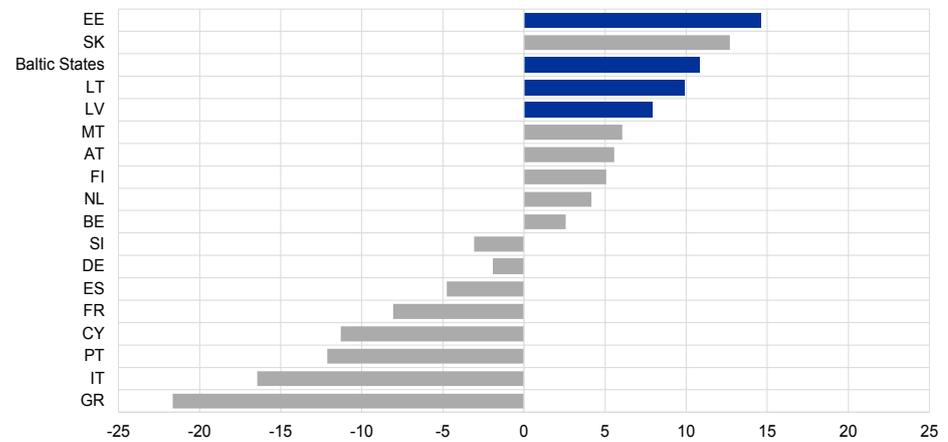
Note: "Other CEE" is an average of the per capita income levels of seven other central and eastern European countries that joined the EU in 2004 and 2007, i.e. Bulgaria, the Czech Republic, Hungary, Poland, Romania, Slovakia and Slovenia. The term EU15 refers to the 15 Member States of the European Union as at 31 December 2003, before the new Member States joined the EU, i.e. Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, Sweden, and the United Kingdom.

**The long-term convergence performance of the Baltic States has exceeded what would have been expected based on their initial income level.**

The strong convergence performance of the Baltic States should be assessed against the background of their very low initial income level at the beginning of their transition to market economies in the mid-1990s. However, their performance has exceeded what could have been expected from an equation linking initial per capita income levels with growth over the period from 1999 to 2015. This is shown in Chart B, which suggests that the Baltic States, along with Slovakia, significantly overperformed when compared to the prediction of the simple catching-up model.

### Chart B

Per capita GDP growth 1999-2015 (in PPS, market prices) – difference between actual and expected growth based on initial income level



Sources: Eurostat and ECB staff calculations.

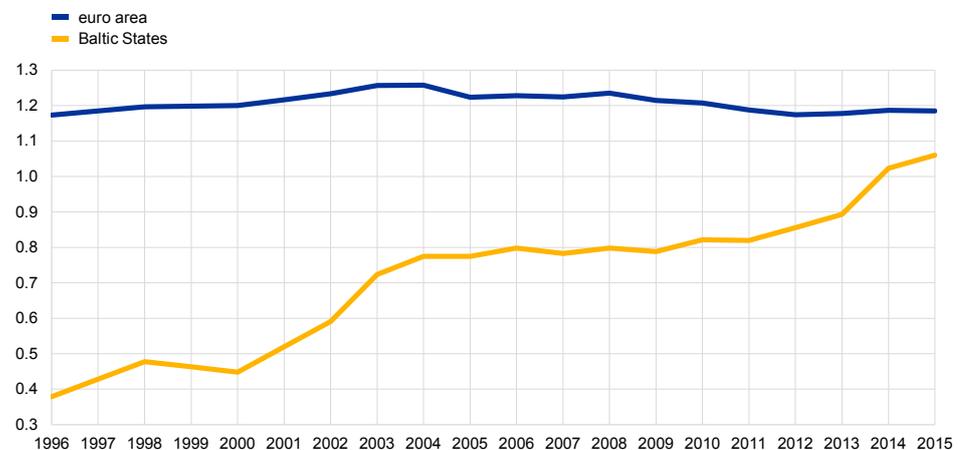
Notes: Based on a cross-country linear equation on EU countries in which cumulative growth in GDP per capita as percentage of EU GDP per capita (in PPS) between 1999 and 2015 is regressed on initial GDP per capita as a percentage of EU GDP per capita (in PPS) in 1999. More formally:  $\Delta y_i, 1999-2015 = \alpha + \beta y_i, 1999 + \varepsilon_i$  ( $R^2=0.62$ ); where  $\Delta y_i, 1999-2015$  refers to the cumulative growth of GDP per capita between 1999 and 2015;  $y_i, 1999$  refers to initial per capita income level (in PPS), and  $\varepsilon_i$  is an error term. Ireland is left out of the sample as an outlier owing to the level shift in GDP that happened in 2015, largely as a result of the statistical impact of balance sheet restructuring by multinational enterprises. Luxembourg is also excluded, as GDP per capita computations are distorted by the large number of cross-border workers.

**One of the possible reasons for the fairly strong convergence performance of the Baltic States is the strong improvement in institutional quality in these countries (Chart C).** The Worldwide Governance Indicators of the World Bank, which is a composite indicator of institutional quality, suggests that institutional quality has improved markedly in the Baltic States – especially in Estonia – over the recent decades. The improvement in institutional quality was particularly fast in the years prior to EU accession. The harmonisation of regulations with the EU prior to EU accession (the adoption of the *acquis communautaire*) was probably an important factor in this.

### Chart C

Worldwide Governance Indicator (delivery index)

(synthetic index based on average ranking across four sub-indicators)



Source: World Bank.

Notes: The delivery index is an average of the sub-indicators regulatory quality, government effectiveness, control of corruption and rule of law. A higher index refers to better relative performance in institutional quality.

**The Baltic States were very vulnerable at the start of the global crisis in 2008.**

All three countries had very high current account deficits, close to or above 10% of GDP in 2007, reflecting an unsustainable domestic demand boom financed by capital inflows. These large external financing gaps made the Baltic States vulnerable to the sudden stop in capital flows at the end of 2008 and in 2009. These large external imbalances in part reflected a marked deterioration in cost competitiveness against the backdrop of very fast unit labour cost growth, reflecting fast wage growth (with real compensation per employee growing annually at an average rate of 15.8%, 25.2% and 15%, respectively, in Estonia, Latvia and Lithuania between 2004 and 2007). Vulnerabilities had also built up in the financial system. Financial deepening increased rapidly in the pre-crisis years in the Baltic States, albeit from a very low level. A number of macroprudential and monetary policy measures introduced before the crisis (in particular increases in the required reserve ratio) were insufficient to prevent imbalances from emerging. Moreover, the measures were partially circumvented by the foreign-owned banks operating in the country.

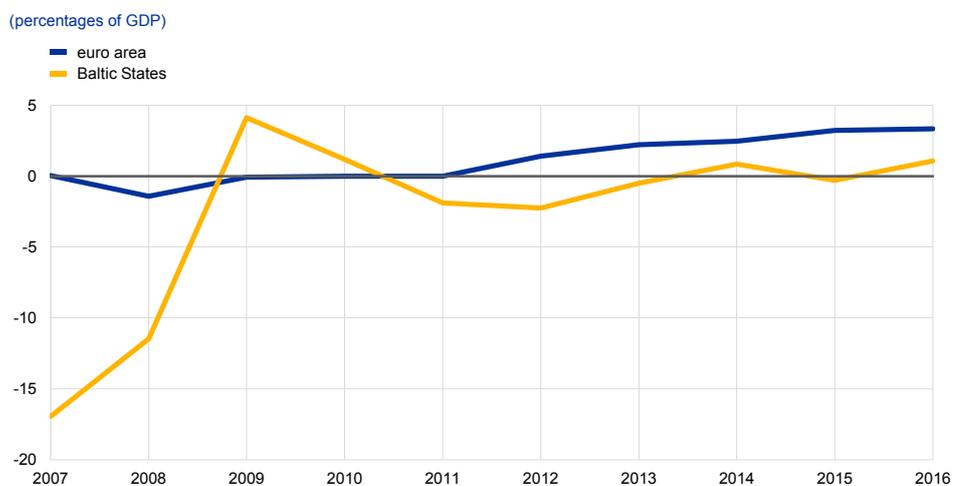
**While the crisis hit the Baltic States hard, the adjustment of imbalances was very fast.**

The rapid adjustment in fiscal balances and private sector balance sheets implied that the Baltic States could avoid the accumulation of a large debt overhang. In addition, the fast reduction in unemployment helped to decrease the risk of hysteresis, thus avoiding lasting consequences for potential growth.

**The current account adjustment in the Baltic States triggered by the sudden stop in capital flows was frontloaded.**

As shown in Chart D, by 2009 the current account balance had already turned positive in the Baltic States. The main driver of the adjustment of the external financing gap was a collapse in import absorption and an acceleration in exports in 2010 owing to the internal adjustment and trade links with fast-growing regions. During the crisis, while euro area countries with large current account deficits had access to ample central bank liquidity to replace private capital flows, the Baltic States had to go through a full-blown current account adjustment in the absence of financing sources over a short time interval. Only Latvia received balance of payments (BoP) assistance from the EU and the International Monetary Fund (IMF) to cover part of the external gap with public funds.

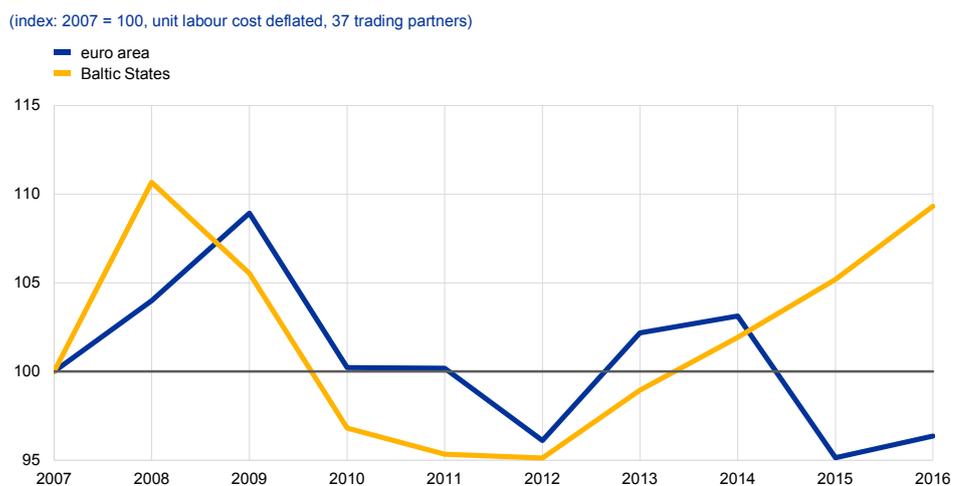
**Chart D**  
Current account



Source: European Commission.

**The external adjustment of the Baltic States was facilitated by painful but effective internal devaluation (Chart E).** At the time of the sudden stop in capital inflows in 2008-09, all three countries needed a significant adjustment in their overvalued real exchange rate. For various reasons, they each opted for an internal devaluation strategy. The adjustment in unemployment was also relatively fast (Chart F). At its peak in 2010, unemployment reached 16.7%, 19.5% and 17.8%, respectively, in Estonia, Latvia and Lithuania, but it subsequently decreased significantly, and by 2015 it stood at 6.2% in Estonia, 9.9% in Latvia and 9.1% in Lithuania.

**Chart E**  
Real effective exchange rate

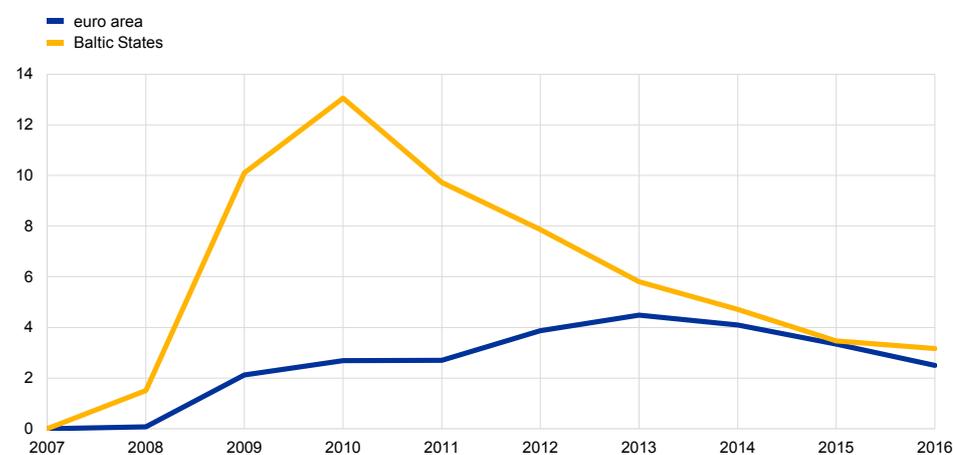


Source: ECB.

## Chart F

### Unemployment rate

(percentage point changes vs 2007)



Source: ECB.

**This relatively fast adjustment in the Baltic States was facilitated in part by a strong initial rebound in employment growth, supported by an adjustment in labour costs.** In addition, significant emigration to Scandinavia and Western Europe played a key role. The impact of these migration flows is complex. While they helped to ease labour market pressures and contributed to the balance of payments via sizeable worker remittances, they also contributed to a drop in labour supply and adverse demographic changes. Since joining the EU in 2004, the populations of Estonia, Latvia and Lithuania have fallen by 3%, 12% and 14%, respectively, reflecting in particular the emigration of younger workers.

**Looking forward, the Baltic States are faced with a number of economic challenges.** These include the following: (1) preserving competitiveness against the backdrop of a strong increase in wages and slowing productivity growth; (2) avoiding the “middle income trap”; and (3) managing a volatile business cycle inside EMU.

**(1) Over the past three years, unit labour costs have increased significantly in the Baltic States, signalling a gradual erosion of competitiveness.** The key reasons are a significant deceleration in productivity growth, along with an acceleration in real compensation per employee growth. Tightening labour markets played a key role in the recent acceleration of wage growth in the Baltic States, with the unemployment rate in 2016 already at 6.8% in Estonia, 9.6% in Latvia and 7.9% in Lithuania. In the context of a relatively flexible labour market, the emergence of wage pressures under such circumstances is a sign that a large share of that unemployment is structural and there are skills mismatches in the economy. While migration was a useful adjustment channel during the recession years, continued net emigration in spite of the recovery has contributed to the labour market tightness. Overall, it appears, however, that the pace of wage growth is beyond what can be explained by labour market tightness alone. The wage dynamics in these countries were also influenced by sharp increases in minimum wages. Policies to address skills mismatches and foster productivity growth, along with efforts to ensure that

wage growth is in line with productivity growth, would therefore appear very important.

**(2) International experience suggests that countries that reach a middle income level, like the Baltic States, tend to find it difficult to converge further and achieve a high income level.** A World Bank study suggests that out of 101 middle-income economies in 1960, only 13 had become high-income economies by 2008.<sup>3</sup> In the middle income stage of development, typically the scope for a productivity boost from the inter-sectoral transfer of labour from agriculture to more productive sectors, such as manufacturing, is limited and productivity growth should increasingly stem from innovation-based activities. There are a number of factors that can decrease the chance of a country falling into the “middle income trap”, including strong institutions, a low old age dependency ratio, high investment share and diversified trade and output.<sup>4</sup>

**(3) It remains a key medium-term challenge for the Baltic States to manage business cycle fluctuations.** One of the key lessons to be learned from the crisis is that a small open economy in the euro area subject to volatile capital flows needs to put even stronger emphasis on counter-cyclical policies than other euro area countries. Such considerations highlight the importance of the active use of counter-cyclical macroprudential policy tools to limit the accumulation of financial vulnerabilities over the cycle. At the same time, counter-cyclical fiscal policy is also important. This means that, during upswings, the Baltic States should build up appropriate fiscal reserves to account for potential higher volatility in economic growth. Policy-makers could then let automatic stabilisers work during downturns and avoid the need to pursue pro-cyclical fiscal tightening.

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<sup>3</sup> See *China 2030: Building a Modern, Harmonious, and Creative High-Income Society*, World Bank, 2012.

<sup>4</sup> See Aiyar, S., Duval, R., Puy, D., Wu, Y. and Zhang, L., “Growth Slowdowns and the Middle-Income Trap”, *IMF Working Paper*, No 13/71, International Monetary Fund, March 2013.