Exchange Rate Policies in the Baltic States: From Extreme Inflation to Euro Membership

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Introduction

The three Baltic states – Estonia, Latvia and Lithuania – regained independence from the Soviet Union in August 1991 after the failed coup against Mikhail Gorbachev. The newly independent countries faced a host of challenges. The state-building process entailed border demarcation, democratisation, institution building and the establishment of the legal foundation for a market economy. At the same time, the countries faced grave economic problems, including plunging production, rising unemployment, shortages of goods and extreme levels of inflation.

The Baltic states faced daunting challenges in the early 1990s, but nevertheless managed to make reforms that altered their political and economic landscapes fundamentally. A key objective of the reforms was the countries' return to European political and economic structures, or, as it has occasionally been put, to create normal, dull European countries.

The economic reforms established functioning market economies, a substantial reduction in the income gap with Western Europe, and some degree of economic stability. An important part of this process – and arguably a vital precondition to its success – was the introduction of policies that would bring inflation down and establish a credible monetary policy. This paper provides a panoramic discussion of the exchange rate regimes and monetary policies in the Baltic states from the time when they regained independence until 2015, when all three countries had joined the euro area.

The rouble

The Baltic states were part of the Soviet Union until August 1991, with the Soviet rouble as the only legal tender. Exchange rate policies were determined in Moscow by Gosbank, the central bank, which also functioned as a commercial bank, and the policies were intended to underpin the planned economy. There was a subsidiary of Gosbank in each of the 15 republics of the Soviet Union, but their role was solely to implement policy.

The Soviet rouble was officially tied to the British pound at a constant exchange rate of 0.4 rouble per pound, but the currency was not convertible and the allotment of 'hard currency' was governed by complex rules that prioritised imports of technology and investment goods. Soviet citizens typically only had access to hard currency on the black market, where the exchange rate was several times the official rate.

A cornerstone of Soviet central planning was that prices were fixed for almost all products. This meant that relative prices could not adjust, so excess demand for goods would typically not show up in the form of open inflation, but rather as *repressed inflation*. This could take the form of people queuing for popular products or of *forced saving*, where households and firms accumulated liquid assets in the hope of goods being available in future.

Mikhail Gorbachev came to power in 1985 and after some vacillation he launched the *perestroika* reform programme in 1986. The reforms, which were meant to improve working morale and enhance productivity, decentralised decision-making and gave enterprises more influence over production and wage setting. An unintended effect of Gorbachev's reforms was that nominal wages started to rise quite rapidly. This led to economic problems for firms, and they consequently paid less in enterprise taxes and often requested economic support so that they could sustain production volumes. In the end, Gosbank ex-

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Table 1

Consumer price inflation in Estonia, Latvia and Lithuania, percent, 1989–1994

	1989	1990	1991	1992	1993	1994
Estonia	6.1	23.1	210	1076	90	47.7
Latvia	4.7	10.5	172	951	109	35.9
Lithuania	2.1	8.4	225	1021	410	72.1

Note*:* Annual percentage change in the average consumer price index.

Source*:* EBRD (1996).

tended credit directly and indirectly to firms and the government. A growing volume of cash was 'chasing' declining production volumes, resulting in queues and shortages of many goods (Gros and Steinherr 2004). When a measure of price liberalisation was introduced at the end of the 1980s, it resulted in a rapid increase in open inflation throughout the Soviet Union, including in the Baltic republics (Table 1).

The debauching of the currency and the resulting repressed and open inflation worried Soviet decision makers and a currency reform was carried out at the beginning of 1991. A new rouble was introduced, and the public could only exchange a part of their stock of old roubles, so the reform had a clear confiscatory element. The reduction in the money stock did not have lasting effects on the inflation rate, since the central bank returned to a rapid rate of money creation.

The Baltic states regained their independence in August 1991, but kept using the Soviet rouble, as did the other countries that emerged from the Soviet Union. The result of retaining the rouble was that inflationary pressure increased in 1991 and 1992. After the break-up of the Soviet Union, Gosbank lost its remaining authority over the central banks in the newly independent countries. The various central banks issued credit denominated in Soviet roubles to firms and public authorities, resulting in a rapidly increasing stock of roubles (Schoors 2003). This setup, with its inherent incentive for free riding, has been called the 'worst monetary constitution one can imagine', a phrase usually accredited to MIT professor Stanley Fischer (Gros and Steinherr 2004).

As comprehensive price liberalisation started in 1991, the increasing money stock led to open inflation. Liberalisation meant that queues and goods shortages became less common, but it also meant that prices could react immediately to any excess demand created by the rapidly increasing stocks of money held by the public. Moreover, all of the former Soviet countries, including the Baltic states, experienced large declines in production, and this may have added to inflationary pressure. Inflation reached extreme levels; the annual consumer price inflation was 200 percent in 1991 and it was following a steep upward trajectory.

Currency reforms

By the winter of 1991/92 it was clear to policymakers in the Baltic states that measures had to be taken to stabilise the inflation rate and ensure a degree of autonomy in monetary policy. Several interrelated issues had to be considered. Arguably the most fundamental issue was whether or not the Soviet rouble should be abandoned. If it were to be abandoned, the key questions would be what should replace the rouble and what kind of exchange rate regime should be introduced.

The introduction of a new currency and the choice of exchange rate regime are generally complex issues subject to intricate trade-offs (Staehr 2015a and 2015c). The overarching argument for replacing the rouble with new national currencies was the need to fight the extreme levels of inflation resulting from the 'worst monetary constitution one can imagine'. However, the Baltic states continued to trade almost exclusively with the countries of the former Soviet Union, which still used the rouble. A switch to a new currency thus threatened to disturb trade and payment flows, with potentially harmful effects for production that was already declining rapidly.

If a new currency were to be introduced, it was essential to ensure that it would not suffer from the same inflation as the rouble. This implied that the new currency could not be debased by excessive growth in the money stock, so central bank financing of industry and government would have to stop. Equally, the public would have to accept the new currency and be willing to hold it, so the credibility of the new exchange rate regime would be critical. The three Baltic states chose somewhat different policies, arguably reflecting different political preferences in the countries (Lainela 1993; Berengaut *et al.* 1998).

Estonia kept using the rouble until June 1992, when it was replaced by the new national currency, the *kroon*. Residents were only allowed to exchange a certain amount of roubles and had to spend the rest of their rouble holdings, a decision which implied an element of confiscation. The exchange rate was fixed at eight *kroons* per German *mark*, but the most notable feature was the introduction of a currency board. The central bank, *Eesti Pank*, was obliged to have full reserve coverage of the domestic monetary base so that there would always be sufficient reserves for it to meet its obligation to exchange kroons for German marks at the preset exchange rate. This also meant that Eesti Pank did not operate as an ordinary central bank by setting interest rates or functioning as a lender of last resort.

The only major economy using a currency board at the time was Hong Kong, where it had been adopted to facilitate trade and cross-border finance. The currency board in Estonia may be seen in the same light, as the country dismantled trade barriers, abolished tariffs and encouraged foreign direct investment in the early stages of the transition. A major advantage of the currency board was that it was easy to administer, as it did not require the central bank to engage in complex analysis and policy-making. It is notable that several other post-communist countries subsequently adopted a formal currency board; Lithuania in 1995, Bosnia and Herzegovina in 1997, and Bulgaria in 1999.

The process of currency reform was more involved in Latvia than in Estonia. In May 1992 Latvia introduced a temporary currency, the *rublis*, which circulated alongside the rouble. The temporary currency made it possible for the Latvian authorities to issue currency, but since it circulated alongside the rouble at a one-to-one conversion rate, the very high rates of inflation continued. The next step was therefore to introduce the *lats* in March 1993 at a rate of 200 rublis per lats, with a fluctuation band of ± 1 percent.[1]

Latvia opted for a traditional fixed exchange rate regime whereby the lats was tied to the Special Drawing Rights (SDR), an accounting unit devised by the IMF and which, at the time, consisted of a weighted average of the currencies of the United States, Germany, France, Japan and Britain. *Latvijas Banka* was set up to operate as an ordinary central bank, which meant that it set a steering rate and could function as a lender of last resort. The movements of the exchange rate against the SDR were very small, however, and the reserve coverage was substantial, and it has therefore been argued that the exchange rate regime in Latvia was a *de facto* or *quasi* currency board (Bakker and Gulde 2010; Wolf 2015).

Lithuania introduced a temporary currency, the *talonas*, as early as August 1991, which took the form of coupons that had to be used together with the Soviet rouble when making purchases in Lithuania. The purpose of the talonas was to reduce goods shortages by making it harder for people from the other countries emerging from the former Soviet Union to purchase goods in Lithuania. A new version of the talonas was introduced in May 1992 and the new version circulated in parallel with the Soviet rouble until September 1992. The use of two parallel currencies made it possible for the country to issue its own currency while trade and financial flows could still take place in roubles.

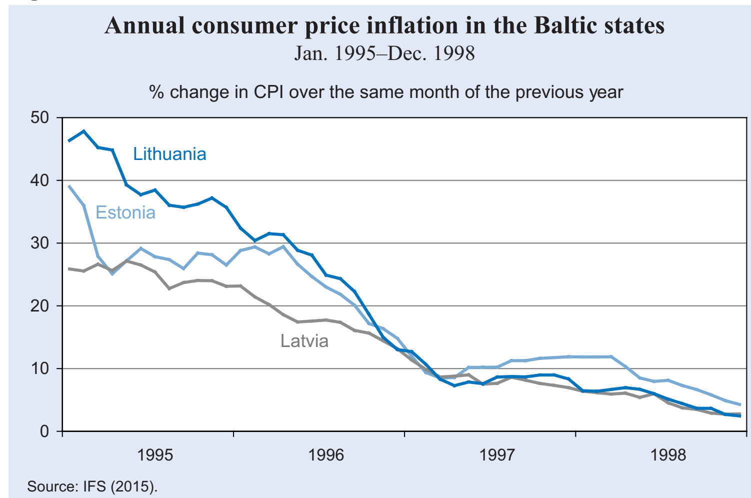
In October 1992 the talonas was made the only legal tender in Lithuania, and in June 1993 the authorities finally introduced the new permanent currency, the *litas*. The central bank, *Lietuvos Bankas,* initially maintained a floating exchange rate regime, but the exchange rate fluctuated substantially and inflation remained high, even although the currency appreciated in the second half of 1993 (see Table 1). The central bank was also under pressure to provide credit to industry and government institutions. To address these stability and credibility issues, it was decided to adopt a fixed exchange rate regime backed by a currency board. The litas was pegged to the US dollar at an exchange rate of four litas per dollar.

The introduction of new national currencies followed by different fixed exchange rate regimes was successful in many ways. While other countries emerging from the Soviet Union continued to be affected by extreme inflation and monetary instability, inflation came down rapidly in the Baltic states, which meant that the annual consumer inflation rates in all three countries were below five percent by the end of 1998 (see Figure 1).

The monetary straitjackets adopted by the Baltic states arguably contributed to the rebounding of these economies in the second half of the 1990s (OECD

[1] The rate of inflation declined rapidly, arguably faster than anticipated, and Latvia ended up with a highly valued currency as a result; in January 2014 when Latvia joined the euro area, one lats was equal to 1.42 euros.

Figure 1



Source: IFS (2015).

2000; Wolf 2015). Having collapsed in the early 1990s when the command economy was dismantled and the Soviet Union broke up, output started growing again and unemployment stabilised or declined as of the mid-1990s. Foreign trade became increasingly oriented towards trading partners in Western Europe, aided by the restructuring of their economies and large inflows of foreign direct investment. It is also noticeable that the Baltic states accrued substantial current account deficits from the mid-1990s onwards, an outcome which suggests that international investors considered the strict fixed exchange rate regimes as credible.

It has been argued that the Baltic states would have been better off if they had left the rouble zone shortly after regaining independence, since part of the extreme inflation in 1991–94 might thus have been avoided.[2] The IMF has been accused of encouraging countries to remain in the rouble zone, but it appears that the views of the organisation and its advice to the post-Soviet countries evolved over time (Odling-Smee and Pastor 2002).

Fixed exchange rates during booms and busts

The *de jure* and *de facto* currency boards of the Baltic states were soon tested by a number of economic events or shocks that demonstrated the disadvantages of fixed exchange rate regimes, but also the commitment of the Baltic states to retaining their pegs, despite adverse circumstances. This section focuses on the Russian crisis, the EU accession boom and the global financial crisis, although it has to omit a number of banking crises in the Baltic countries.[3]

The first major challenge occurred in 1998/99 when the Russian crisis created a number of negative shocks in the Baltic states. Exports to Russia more than halved from 1997 to 1999, as the rouble depreciated by over 50 percent and economic activity declined in Russia. Meanwhile, the default on Russian government debt spread to the financial sector in Russia and further on into the Baltic states. The shocks emanating from the Russian crisis affected GDP growth in the Baltic states negatively as eastbound exports declined, their financial sectors came under strain, and confidence waned (Sepp *et al.* 2002).

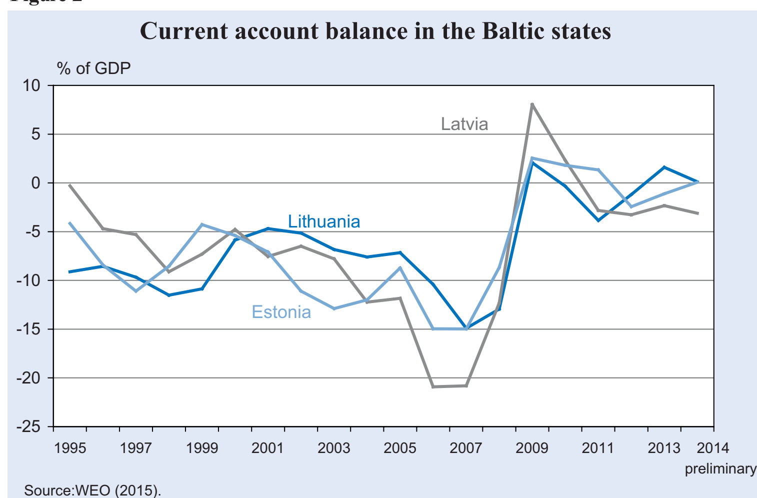
Economic distress like that experienced by the Baltic states in the wake of the Russian crisis is usually an incentive for devaluing a currency or switching to a floating exchange rate regime, but all three countries retained their exchange rate pegs and the fallout from the Russian crisis was relatively mild and short-lived in the end. Exporters switched to West European markets and capital inflows from Western Europe eased the financial crunch.

The next challenge was the positive shocks afforded by massive and increasing net capital inflows to the region in 2001–08, which manifested themselves as large and increasing current account deficits (see Figure 2). These capital inflows were driven by 'confidence shocks' resulting from a number of factors. Firstly, the formation of the euro area meant that financial markets became more integrated and this spread to the European periphery. Secondly, the start of negotiations for the Baltic states to join the European Union, and subsequently NATO, made investments in the region appear more secure. Thirdly, the overall success of market reforms and the resilience of the economies in the region led to an upwards revision of growth prospects.

[2] See also the contributions in *Comparative Economic Studies* 44/4, 2002, a special issue focusing on the pros and cons of leaving the rouble zone early.

[3] Korhonen (2000) discusses the performance of the Baltic currency boards and the many banking crises that afflicted the region.

Figure 2



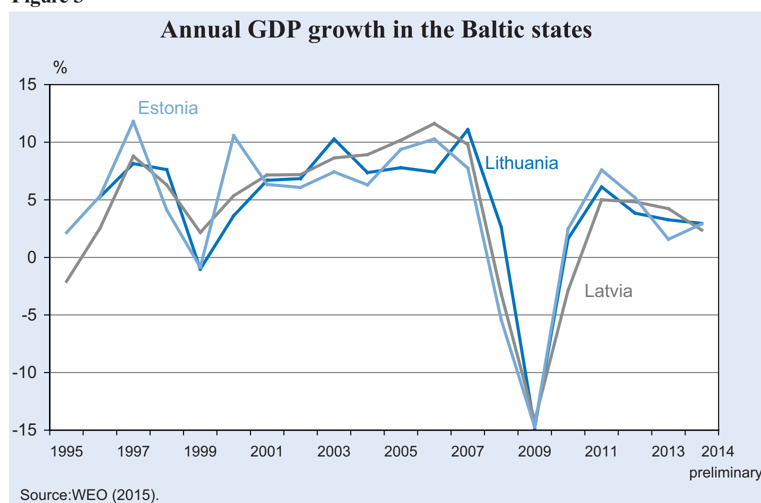
Substantial net capital inflows eased financing conditions and led to rapid credit growth, which, in turn, spurred consumption and investment in the Baltic states (Brixiova *et al.* 2010; Bakker and Gulde 2010; Staehr 2012). The result was high and arguably increasing rates of economic growth and rapidly declining unemployment (see Figure 3). The boom was, however, also accompanied by signs of overheating, which left the Baltic states vulnerable to adverse shocks. The private sector accumulated substantial and rapidly rising foreign liabilities and the structure of industry became skewed, as manufacturing and exports became less significant, while the importance of construction and finance continued to grow. Moreover, inflation started rising again, with annual consumer price inflation reaching 10.6 percent in Estonia, 15.2 percent in Latvia and 11.1 percent in Lithuania in 2008 (WEO 2015).

The central and eastern European countries that had floating exchange rates typically experienced appreciating nominal exchange rates during the pre-crisis boom 2001–08; and this helped to trim capital inflows and curb growth in domestic and foreign demand (Staehr 2014a). The fixed exchange rates in the Baltic states meant that the exchange rate could not operate as a 'shock absorber', so capital inflows and overconfidence led to overheating, which eventually left the countries vulnerable to changes in the external environment.[4]

The most critical test of the commitment of the Baltic states to their fixed exchange rate regimes came after the outbreak of the global financial crisis in 2008. The countries were hit simultaneously by three severe disruptions. Firstly, the countries experienced *sudden stops* as net capital inflows ceased, leading to current account surpluses in 2009 in all three countries (Figure 2). Secondly, the export sector saw demand decline markedly, as economic activity slowed in most trading partners. Thirdly, consumer confidence nosedived as news about the downturn and the problems in the financial sector spread. The result was lower consumption and investment demand as well as dramatic declines in production; GDP started to fall in 2008 in Estonia and Latvia, and this was followed in 2009 by GDP contractions of over 14 percent in all three countries (see Figure 3).

The problems also spread to the banking sector in Latvia, where one of the biggest banks, Parex bank, went bankrupt after excessively risky lending and funding practices. As of November 2008 the Latvian authorities took over the bank and recapitalised it to prevent panic spreading throughout the financial system. The bailout, however, led to a government financing crisis as domestic and international finan-

Figure 3



[4] The overheating was arguably most severe in Latvia, which had the largest current account deficits and the highest rates of economic growth during the years 2004–07. The boom was somewhat less pronounced in Lithuania, where a switch in peg currency from the dollar to the euro was followed by a period of effective appreciation. The boom in Estonia may have been somewhat restrained by tighter fiscal policy than in the other two Baltic countries.

cial markets remained frozen. The Latvian government asked for emergency lending and in February 2009 loans totalling 7.5 billion euros were committed by the IMF, the European Union and neighbouring countries, with 100 million euros coming from Estonia.[5]

The dramatic output declines, increasing unemployment, along with the government debt crisis in Latvia would all have been arguments for devaluation or abandoning the fixed exchange rate. The Baltic states chose, however, to retain their commitment to their fixed exchange rate regimes and turned instead to austerity policies that sought to regain competitiveness by cutting domestic wages and other cost components in what is known as an internal devaluation (Purfield and Rosenberg 2010; Staehr 2013).[6] The choice was made easier by the very large foreign liabilities denominated in euros or other foreign currencies already accumulated by the private sectors in the three countries; a large depreciation would have impaired balance sheets and caused severe repayment problems.

There was a lot of debate both domestically and internationally about the merits of retaining the pegs; and these discussions occasionally reached feverish levels. As it happened, the focus eventually shifted from discussions over whether or not to use the exchange rate to counteract the crisis to discussions on how to eliminate the exchange rate altogether.

Joining the euro area

The three Baltic states joined the European Union on 1 May 2004. This marked the conclusion of a decade-long process of negotiations with the European Union on the implementation of the *Acquis Communautaire,* the rules of the Union. One of these rules was an obligation to participate in the final stage of the European Economic and Monetary Union (EMU) by joining the euro area and adopting the euro.

To become a member of the euro area a country must meet the Maastricht criteria, namely the legal and economic convergence criteria initially laid out in the Maastricht Treaty of 1992 (ECB 2006). The economic criteria cover price stability, government finances, exchange rate stability and interest rate convergence. They specify the following:

- The annual inflation rate cannot exceed a reference value defined as 1.5 percent plus the average inflation in the three EU countries with the best performance in terms of price stability. Price stability must be sustainable.
- The general government budget deficit cannot generally exceed 3 percent of GDP, while the government debt cannot exceed 60 percent of GDP or must be converging towards this level at ‘a satisfactory pace’.
- The exchange rate must have been linked to the euro through membership of the exchange rate mechanism ERM2 for at least two years.
- The long-term interest rate cannot exceed 2 percent plus the average interest rate for the three EU countries with the best performance in terms of price stability.

The adherence of a candidate country to the Maastricht criteria is assessed in convergence reports produced by the European Commission and the European Central Bank. The Council of Finance Ministers uses these reports to make its final decision over whether to admit a candidate country to the euro area.

Each government in the Baltic states declared during the negotiations that they would seek membership of the euro area as soon as possible.[7] There was not much public or political debate about the decision, in contrast to experiences in the Czech Republic and Poland. The stated objective of rapid accession to the euro area, however, proved more difficult to realise than had been anticipated.

The first step the three countries had to take was to join the ERM2, the waiting club for euro-area membership, where the exchange rate is tied relatively closely to the euro. Estonia and Lithuania joined the ERM2 in June 2004 with Latvia following in May 2005. Membership of the ERM2 was straightforward for Estonia, which had already pegged the kroon to the euro following the introduction of the euro in 1999. Latvia switched its peg from the SDR to the euro in January 2005 in anticipation of ERM2 membership later that year, while Lithuania had already re-

[5] The loan commitment from Estonia, which was already in a deep recession, was possible because of the country’s very low government debt level and substantial budget reserves.

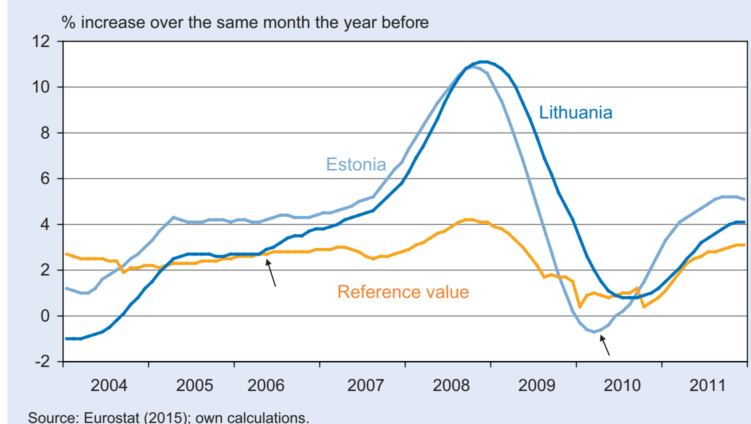
[6] The differences between the adjustment policies in the Baltic states and those in those southern European countries adversely affected by the global financial crisis are striking – see Lindner (2011).

[7] Darvas and Szapary (2008) provide a general discussion of various euro adoption strategies. Staehr (2014b) discusses the challenges emerging from upward inflationary pressure in rapidly converging economies.

Figure 4

Inflation reference value and HICP inflation in Estonia and Lithuania

Jan. 2004–Dec. 2011



Source: Eurostat (2015); own calculations.

placed the dollar with the euro as its anchor currency in February 2002.

The price stability criterion turned out to be the main stumbling block for membership of the euro area. The Baltic states saw rapid economic growth from 2000 onwards and the income gap with Western Europe narrowed rapidly during this period (see Figure 3). Income convergence typically coincides with real appreciation, as domestic prices increase faster than foreign prices measured in common currency units, a *stylised fact* known as the 'Dynamic Penn' effect (Ravallion 2010). The presence of the Dynamic Penn effect for central and eastern European countries has been established in numerous studies (Frensch and Schmillen 2013; Staehr 2015b). As the Baltic states had pegged their currencies to the euro, the real appreciation showed up in the form of high domestic inflation.[8]

Inflationary pressures were weakest in Lithuania, which switched its anchor currency from the dollar to the euro in February 2002, and subsequently saw the euro appreciate against the dollar. The Lithuanian government therefore sought to gain admission to the euro area in 2007, but its hopes were disappointed when the convergence reports from the European Commission and the ECB were published in May 2006.

The reports revealed that the monthly HICP inflation rate for Lithuania, measured as the growth in the HICP index from the same month the year previously, was 2.7 percent in March 2006, while the reference value was 2.6 percent (see Figure 4). The reports stated that this small difference did not breach the price stability criterion, but they emphasised that forecasts suggested that the relatively low levels of inflation would not be sustained (ECB 2006; EC 2006). Lithuania was not admitted to the euro area.

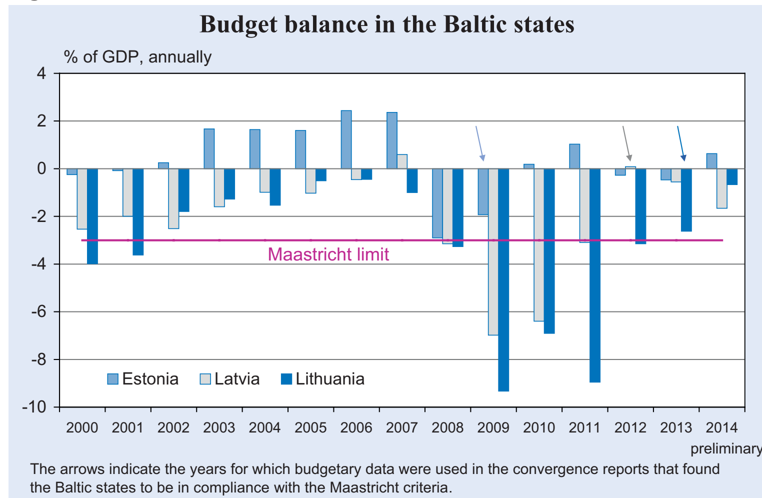
Inflation in the Baltic states remained high in the years after the Lithuanian application was rejected, and the aspiration to membership was put on hold in all three countries as a result. The situation changed, however, when the global financial crisis erupted in autumn 2008. As discussed in the third section, the crisis led to deep recessions with declining production and rising unemployment. By the end of 2008 the Estonian government decided to embark on a programme meant to bring Estonia into the euro area.

The idea was that the decline in inflation, which the deep recession was expected to cause, would make it possible to satisfy the otherwise elusive price stability criterion. The expectation was that HICP inflation would be much lower in the spring of 2010 when the next round of Convergence Reports were to be written. The complication was, however, that the very large output decline, which started in 2008 and was expected to continue in 2009, would make it very difficult to satisfy the criterion that the government budget deficit should not exceed 3 percent of GDP. As a result, the government enacted a range of austerity measures, with spending cuts, tax increases and other revenue enhancing measures. Given that GDP contracted by 5.4 percent in 2008 and 14.7 percent in 2009, it is remarkable that the budget deficit was kept down to 2 percent of GDP in 2009 (Figure 5).

In their 2010 convergence reports the ECB and the European Commission concluded that Estonia had satisfied all of the Maastricht criteria, including the price stability criterion. In fact, the Estonian HICP inflation rate was negative in March 2009, the last month for which data for the assessment were available (see Figure 4). The finance ministers invited Estonia to join the euro area at a meeting in June 2010 and Estonia adopted the euro as of January 2011.

[8] As an additional complication, the expected inflation reference value declined after the enlargement of the EU by 10 new EU members in 2004. The computation of the reference value includes the average inflation in the three EU countries with the best performance in terms of price stability. Lewis and Staehr (2010) show that the enlargement of the EU by 10 new countries in 2004 lowered the expected inflation reference value by 0.15–0.2 percentage point.

Figure 5



The arrows indicate the years for which budgetary data were used in the convergence reports that found the Baltic states to be in compliance with the Maastricht criteria.

Latvia and Lithuania mimicked the Estonian 'recipe' for euro area membership to a large extent. They embarked on fiscal consolidations that brought the budget deficit to, or below, the limit of 3 percent of GDP, while inflation remained low as long as economic growth was subdued and excess capacity remained in the economy. The 2013 convergence reports found Latvia to be in compliance with the Maastricht criteria and the country joined the euro area in January 2014. The 2014 reports found that Lithuania also satisfied the criteria and Lithuania joined in January 2015.

The switch to the euro was uneventful and passed off without any major setbacks in all three Baltic states. The euro was introduced in all cases at the exchange rate that had been fixed for years, and this eased the conversion process. All contracts, including bank deposits and loans, were converted to the euro on 1 January of the year of euro membership, while cash in the form of euros and the old domestic currency were used in parallel for a short period. Payment with credit or debit cards is popular in the Baltic states, and this also facilitated the transition. Surveys suggested that people in all three countries were concerned that the introduction of the euro would lead to price increases, but detailed studies suggest that the euro had no, or at most a very small, effect on prices (Meriküll and Rõõm 2015).

The future

The exchange rate regimes of the Baltic states have changed several times since these countries regained independence in 1991. The Baltic states experienced extreme inflation during the swansong of the Soviet rouble. They embarked on stabilisation policies, which meant the introduction of national currencies and fixed exchange rate regimes, backed by *de jure* currency boards in Estonia and Latvia. The fixed exchange rate regimes proved surprisingly robust and survived very high inflation, the Russian crisis, a period of overheating and, eventually, deep recessions during the global financial crisis.

That the fixed exchange rate regimes remained largely unchanged for almost 20 years suggests that they served the Baltic states well (Wolf 2015). The Baltic economies are small, open and subject to various shocks, and the fixed exchange rate regimes contributed to nominal stability and predictability. The overall growth performance of the Baltic countries has been in line with that of other EU countries from central and eastern Europe, despite their unfavourable starting points. A fixed exchange rate, however, is unable to function as a shock absorber; and the Baltic states have seen large output volatility, partly driven by abrupt changes in capital flows and external demand.

Estonia introduced the euro in 2011, Latvia did so in 2014 and Lithuania in 2015; and the choice of exchange rate regime has thus been settled for the foreseeable future. The introduction of the euro changed very little in these countries in many ways, as they had already been operating with fixed exchange rates against the euro for longer or shorter periods of time. The costs of currency exchange and cash transactions were somewhat reduced and companies and households may gain easier access to the highly developed financial markets in the euro area, which may lower their borrowing costs. Membership of the euro area also means that the earlier risk of a speculative attack on the domestic currency has been eliminated.

Beside the economic implications, membership of the euro area has also had important political implications for the Baltic states. Firstly, membership of the euro area was an important step for the Baltic states in their decade-long process of integration into Europe, a process with economic, political and security implications. Secondly, the three countries are

now fully involved in the ECB's decision-making process and thus have a say in monetary policy decisions affecting the euro area. Finally, the issues of euro membership and satisfying the Maastricht criteria overshadowed domestic policymaking after the Baltic countries joined the EU, and with the adoption of the euro, the focus of domestic policymaking shifted to other issues.

It is worth noting that, despite financial crises in Europe and tensions within the euro area, the euro is still popular among the public in the Baltic states. The Eurobarometer survey from October 2015 showed that 67 percent of the Estonians interviewed thought the euro was a good thing for the country, while the corresponding tally was 55 percent among Lithuanians and 54 percent among Latvians (European Commission 2015). Support for the euro in Estonia has increased since the currency was introduced, suggesting that support may also strengthen in Latvia and Lithuania over time. In all three countries over 70 percent of those interviewed thought that the euro was a good thing for the EU. This relatively strong support for the euro suggests that there will not be any public pressure or demands for changes in the exchange rate regime in the immediate future in the Baltic states.

Looking to the future, membership of the euro area may enhance the standing of the three countries in European economic policymaking. The Baltic states have, over time, shown willingness to push through reforms, even in the face of high initial costs. Given their experience of extreme inflation and monetary instability, it is likely that the Baltic states will favour prudent and stability-oriented policies, and this may also be reflected in their voting behaviour when it comes to decisions made by the ECB.

It is important to note that many of the challenges created by the fixed exchange regimes operated in the Baltic states have remained even after the countries joined the euro area. When the exchange rate cannot function as a shock absorber, shocks to capital flows, domestic demand or exports may directly affect production and employment. This is particularly a problem if the shocks are asymmetric, meaning that the ECB cannot offset the consequences through its interest rate setting and other monetary policy measures.

The Baltic states share the challenges created by asymmetric shocks in a currency union with other countries in the euro area, but these challenges are amplified by the small size of the Baltic economies, their relatively low income levels and illiquid financial markets. Shifts in preferences or sentiments abroad may have disproportionate impacts on the Baltic states. One main challenge in the future is to avoid excessive volatility in capital flows leading to a repetition of the overheating in 2000–2007 and the ensuing bust in 2008–2009. Another challenge could emerge if the growth rate in the Baltic countries returns to earlier elevated levels, as inflationary pressures could re-emerge in this case.

The Baltic states have changed in fundamental ways since they regained independence in 1991. This also applies to their exchange rate regime and monetary policies. By 2015 all three countries had introduced the euro, the currency of the EU, and were participating on an equal footing in the monetary policymaking of the ECB. The Baltic states have become fully integrated in the institutions and economy of Europe and, in many respects, share their future prospects with the rest of the euro area. The Baltic states have also become normal, dull countries in this respect.

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