

# Weekly Report

## The Baltic States: No end to the crisis in sight

*The global financial crisis and the dramatic slump in private capital flows associated with it has particularly affected the economies of the Baltic countries. The real gross domestic product decreased in the first half of 2009 in Latvia by 18.8 percent, in Estonia by 15.7 percent and in Lithuania by 11 percent. In the run-up to the current crisis, these countries had a high percentage of bank-related capital inflows that was mostly used for the financing of very high current account deficits. Currently, due to their fixed currency exchange systems and due to the lack of a possibility to create fiscal momentum, the Baltic countries only have limited economic scope of action. The situation of the public budgets is particularly tense in Latvia. Early warning indicators point to an imminent currency crisis in Latvia. A devaluation would improve the competitiveness of the country, but due to the high amount of credits given in foreign currencies, it would lead to large-scale domestic credit failures. A strong devaluation could also have negative effects on the two other Baltic countries. The example of the Baltic States shows how problematic a development strategy that is based on a high degree of foreign capital inflows actually is.*

The global financial crisis quickly affected the Baltic countries. In 2008 there was already a considerable decrease in the gross domestic product in Latvia (-4.6 percent) and in Estonia (-3.6 percent) (Figure 1). In Lithuania the overall economic growth rate decreased to three percent after it was at nine percent during 2007.<sup>1</sup> The economic crash continued in an accelerated fashion in the first half of 2009 (Estonia -15.7 percent, Lithuania -11 percent and Latvia with even -18.8 percent). The outlooks remain dismal. The economic performance is expected to retreat by more than an average of twelve percent during 2009.<sup>2</sup> The entire economic production in the Baltic States will also decline in 2010.

The crisis not only led to strong decreases in production, but rather has managed to make its way to the employment market in the meantime. In July 2009, according to Eurostat, the statistical office of the EU, the unemployment rate in Estonia reached 13.3 percent, 16.7 percent in Lithuania and 17.4 percent in Latvia; compared to the previous year, these rates more than doubled.

**Patricia Alvarez-Plata**  
palvarez@diw.de

**Hella Engerer**  
hengerer@diw.de

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<sup>1</sup> International Monetary Fund: World Economic Outlook Database. April 2009.

<sup>2</sup> Cf. among others Eastern Europe Consensus Forecasts. June 2009.

### The Baltic States, particularly susceptible to the crisis

In the run-up to the international financial crisis, the Baltic countries exhibited a few characteristics:

- very high current account deficits and increasing foreign indebtedness,
- disproportionately high shares of bank-related capital inflows in the gross domestic product, both in the European and worldwide comparison. These capital investments can be deducted faster than other investments,
- high share of credits issued in foreign currency within the countries.

Shortly before the global financial crisis, the countries exhibited a high economic trend. The growth rate of the real gross domestic product for the Baltic countries from 2001 to 2007 was at an average of seven to eight percent. It was thus higher than most of the new members of the European Union.<sup>3</sup> The trend resulted from a strong increase in private domestic demand and this was accompanied by increasing current account deficits (Figure 2). Particularly pronounced was the deficit from 2007 with 23 percent of the gross domestic product in Latvia, followed by Estonia (18 percent) and Lithuania (15 percent). Compared to the Baltic States, the deficits are lower in most other Eastern European member states.<sup>4</sup>

### The enormous current account deficits were mainly financed by foreign banks.

Their subsidiaries took credits from their parent companies and then issued them to private households and companies. The great importance of foreign banks as creditors can be seen in the development of the cross-border claims from the (European) banks reporting to the Bank for International Settlements (BIS). At the end of 2008, the consolidated receivables compared to the Baltic countries amounted to 98 billion USD. Here 30 percent was allotted to Estonia, 36 percent to Latvia and 34 percent to Lithuania. Of the claims against the Baltic economies, European banks hold nearly 100 percent. The main creditors are Swedish banks with a proportion of more than two thirds, followed by German credit institutions with less than ten percent. Possible bad debt losses would mainly affect Swedish banks.

<sup>3</sup> The economic performance of the Baltic States was nowhere near reaching the average of the EU. Measured according to this average, Estonia with 72 percent has advanced the most among the Baltic countries, followed by Lithuania with 60 percent and Latvia with 58 percent.

<sup>4</sup> An exception is Bulgaria. The percentage here reached 25 percent.

Figure 1

### Real gross domestic product in the Baltic States

Change in percent compared to the previous period



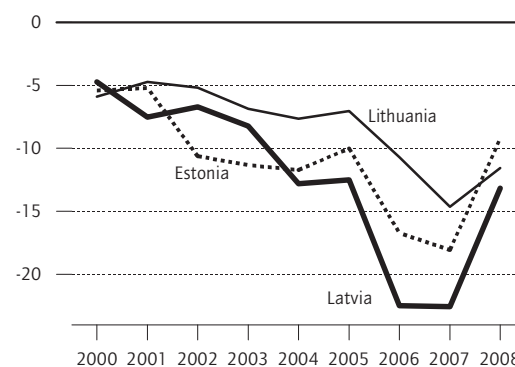
Sources: IWF; Global Insight.

DIW Berlin 2009

Figure 2

### Current account deficits in the Baltic States

In percent of the gross domestic product



Source: IWF.

DIW Berlin 2009

Foreign, particularly Scandinavian banks also purchased shares in Eastern European banks and established subsidiaries in the Baltic countries in the course of the transformation. Measured according to the assets, the share of foreign banks is particularly high in Estonia (98.7 percent), followed by Lithuania (91.7 percent) and Latvia (63.8 percent).<sup>5</sup>

<sup>5</sup> As of the end of 2007. Cf. EBRD: Structural Change Indicators. [www.ebrd.com/country/sector/econo/stats/index.htm](http://www.ebrd.com/country/sector/econo/stats/index.htm).

The credits to private households have increased even more quickly in the past few years compared to corporate credits (Figure 3).<sup>6</sup> In the period of time from 2004 to 2008, residential construction loans had a greater significance than consumer credits. Despite strongly increasing available income in private households, the rate of indebtedness of private households has increased.<sup>7</sup>

A majority of the credits are nominated in foreign currencies, even though the households and companies did not receive any income in foreign currency. Foreign currency credits are connected with a specific failure risk: in the case of a devaluation of the local currency, credit repayment in local currency becomes more expensive for domestic creditors. The share of credits in foreign currencies at the end of 2008 amounted to 88.4 percent in Latvia, 85.1 percent in Estonia and 60 percent in Lithuania. The most important foreign currency in this context is the Euro.

In the Baltic countries, the overall external debt has increased in the past few years (Figure 4). By the end of 2008, the debt level in Latvia had grown to 42 billion USD, to 32.5 billion USD in Lithuania and to 27.4 billion USD in Estonia. This corresponds to a debt ratio of 124 percent in Latvia, 118 percent in Estonia and 68 percent in Lithuania.

### Limited economic leeway

The Baltic countries have a fixed currency exchange rate regime tied to the Euro. A “currency board” exists in Estonia and Latvia. Latvia has a fixed exchange rate system with a degree of fluctuation from the Euro of merely one percent. The planned introduction of the Euro in Estonia for 2008 and Latvia for 2009 had to be delayed because the countries could not fulfill the inflation goal—one of the convergence criteria. Now, 2010 (Estonia) and 2012/2013 (Latvia) are planned. Lithuania had also initially intended to introduce the Euro on January 1, 2010.

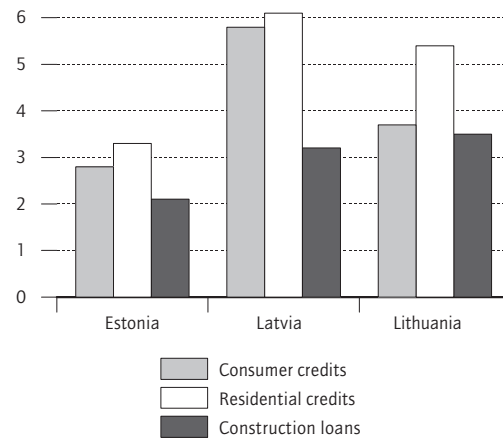
<sup>6</sup> The ratio of credits in the private sector to the gross domestic product, which amounted to less than 30 percent at the end of 2002 in the Baltic countries, increased until 2007 to just under 60 percent for Lithuania, 90 percent in Estonia and 94 percent in Latvia. An increasing percentage of credits in the gross domestic product during the transformation is a typical phenomenon. However, the ratio of credits in the private sector to the gross domestic product in the other Eastern European member states at the end of 2007 was much lower – with the exception of Slovenia (79 percent).

<sup>7</sup> From 2002 to 2008, the available incomes grew in the Baltic States by an average of 12 percent per year. The increase in 2007 in Latvia with over 20 percent was particularly remarkable. In fall 2008, the percentage of debts from the available income of private households in Estonia reached 84.3 percent and thus increased considerably in the past few years (end of 2002: 25.7 percent). See OECD: Estonia, OECD Economic Surveys. April 2009.

Figure 3

### Corporate credits, residential construction loans and consumer credits in the Baltic States

Increase in percent<sup>1</sup>



<sup>1</sup> Average from 2004 to 2008. Source: ECB.

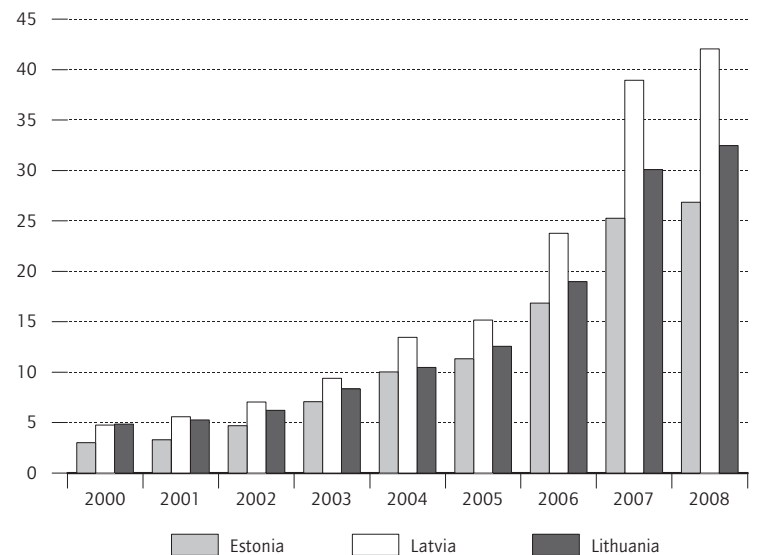
Source: EZB.

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Figure 4

### External debt<sup>1</sup> of the Baltic States

In billion USD



<sup>1</sup> Gross at the end of the year.

Source: EBRD.

DIW Berlin 2009

Due to their fixed exchange rates, the Baltic countries can barely implement their own monetary policies. The domestic money supply must be covered by foreign currency. Thus, the economic control is constricted to fiscal policies. The Baltic countries, however, also have their hands tied here. Their planned entrance into the Euro Zone requires the

## Box

**Early warning indicators of currency crisis**

Indicators	Critical region
<b>Overborrowing circles</b>	
M2 to money basis	14
Domestic credit/GDP	10
<b>Bank runs</b>	
Bank deposits	10
<b>Problems Current Account</b>	
Exports	10
Imports	10
Real exchange rate	10
<b>Problems Capital Account</b>	
International reserves	15
M2 to reserves	13
Real interest differential	11
Real interest rate USA	17
Foreign debt	10
<b>Growth Slowdown</b>	
Industrial production	11
Domestic real interest rate	12
Spread credit and deposit interest rate	20
Stock prices	11

Source: Portrayal from DIW Berlin. **DIW** Berlin 2009

The early warning indicators used by Kaminsky et al. were developed within the course of the Asian crisis in 1997 and have been applied to a variety of other currency crises. The studied indicators – this deals with change rates, with the exception of interest rates – can be roughly classified into five groups. For every indicator, a critical region is determined. This is based on the experiences with currency crises in a variety of countries. The critical region corresponds to the upper or lower percentile in which the value of the observed indicator deviates considerably from its normal value (table).

The threshold tells in the first step whether a signal is being sent. In a further step, the strength of the individual signals and the point in time of their transmission are determined. The signals are stronger if they are higher or lower in the critical region. The weight of a signal is stronger the more recent the transmission was sent.

fulfillment of the Maastricht criteria. This requires that new indebtedness does not exceed three percent of the gross domestic product and that the federal indebtedness may not be more than 60 percent of the gross domestic product.

**Precarious situation in Latvia**

Particularly in Latvia, the situation of the public budget is very tense due to the decreased incomes and increasing expenditures. At the beginning of 2009, a memorandum of understanding (MoU) was concluded between Latvia and the EU, which designated financial assistance of 3.1 billion EUR with a term of seven years.<sup>8</sup> Due to the intensifying situation, the MoU was modified on July 13 and the deficit limits for the next three years were raised.<sup>9</sup> Accordingly, the budget deficit in 2009 should not exceed ten percent of the gross domestic product (previously 5.3 percent) and should be reduced to three percent of the gross domestic product by 2012 (previously 2011).

<sup>8</sup> The financial assistance was provided in connection with the credit from the IWF amounting to 1.5 billion special drawing rights (around 1.7 billion EUR).

<sup>9</sup> In June 2009, federal bonds could no longer be placed onto the market.

The agreement made in July 2009 with the IWF about a tranche of 278 million USD provides for further decreases in expenditures from the public sector and tax increases in Latvia. The financial support does give Latvia a break with regard to the devaluation pressure, however, it does not solve the complex overall economic problems.

In addition to this, not only the balance of current accounts was in deficit in Latvia, but also the balance of direct and portfolio investments and the financial derivatives in the fourth quarter of 2008. Against this background, the international reserves decreased considerably. The pressure on local currency thus continued to increase.<sup>10</sup>

**Risk of a currency crisis in Latvia ...**

An approach used multiple times in the literature for the early recognition of currency crises is the “Early Warning Signals Approach” developed by Kaminsky et al.<sup>11</sup> Based on a variety of macroeco-

<sup>10</sup> The Latvian currency reserves decreased by more than 35 percent during the period of time from September 2008 to the end of June 2009. Cf. Bank of Latvia [www.bank.lv/eng/main/all/statistics/imf/sdds/arrs/index.php?93776](http://www.bank.lv/eng/main/all/statistics/imf/sdds/arrs/index.php?93776).

<sup>11</sup> Kaminsky, G., Lizondo, S., Reinhart, C. M.: Leading Indicators of Currency Crises. The World Bank, Policy Research Working Paper No. 1852, No-

conomic and financial indicators, warning signals prior to currency crises are determined. It is assumed that these indicators act differently before a currency crisis than they would if no crisis were imminent. Thus, it is assumed that the warning signals are transmitted as soon as the indicators deviate considerably from their “normal value” and exceed the pre-defined thresholds (Box).

The early warning signals were calculated for Latvia using the introduced indicators and the specific threshold values for the period of time from 1994 to May 2009.<sup>12</sup> This roughly results in the following image:

The various indicators do not send any or only relatively weak alarm signals for the interest rates. Presently there is no alarm signal being transmitted from the indicators of imports, domestic credits to gross domestic product and foreign indebtedness. This is due to the fact that Latvia’s indebtedness has not increased any more. The average signal strength is being transmitted from the indicator “bank deposits”. The decrease in bank deposits points to a loss in trust; however, the signal is weaker than it was during the Latvian bank crisis of 1995.

Strong alarm signals are being transmitted from the indicators for exports, industrial production, the M2 multiplier, M2/reserves, international reserves, the real exchange rate and stock prices. This has been the case for the real currency rates and exports since fall 2008 and for reserves since winter 2008. The variety of strong, partially long-lasting signals suggests an imminent currency crisis in Latvia.

The “composite” indicator, which is made up of the individual indicators and clearly shows an intensification in the summer of 2009 (Figure 5).

**... but infection effects are rather minimal**

A currency crisis in Latvia could have negative effects on the other two Baltic countries. There are basically three channels of contagion for currency crises:<sup>13</sup>

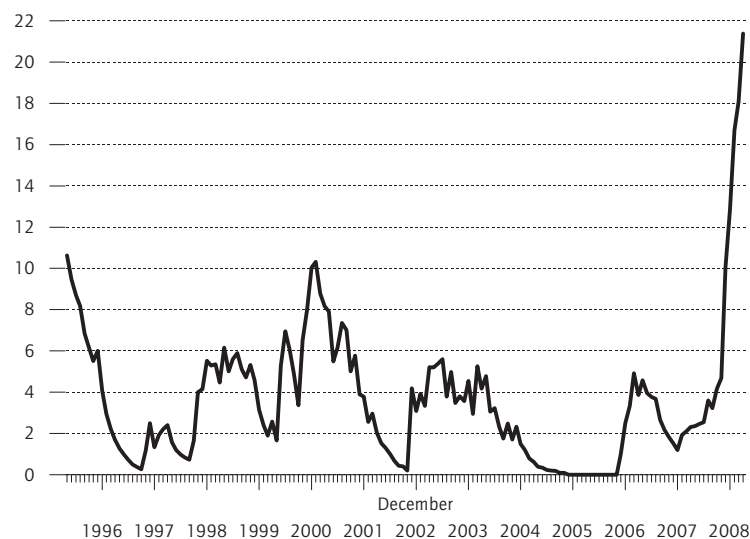
ember 1997 and Kaminsky, G.: Currency and Banking Crisis: The Early Warnings of Distress. Board of Governors of the Federal Reserve System, International Finance Discussion Paper No. 629, October 1998.

<sup>12</sup> Not all indicators were available for the entire period of time. Data about foreign indebtedness were only available for December 2008. There has only been information on the stock prices since September 2003.

<sup>13</sup> Cf. Roubini, N., Setser, B.: Bailouts or Bail-Ins? Responding to Financial Crisis in Emerging Economies. Washington DC 2004.

Figure 5

**“Composite” indicator**



Source: Calculations from DIW Berlin.

DIW Berlin 2009

- Financial interlinkages
- Trade linkages
- “Wake up calls”

The financial interlinkages of Latvia can be seen in the observation of the consolidated net claims from foreign banks against Latvia.<sup>14</sup> Of these claims, about 53 percent was allotted to Swedish banks in 2008, followed by Germany with just under eleven percent. Claims from banks in other countries play an unimportant role. The Swedish banks active in Latvia are also active in the other two Baltic countries. Problems with Latvian banks could thus be transferred to Estonia and Lithuania through the Swedish parent banks. According to the Swedish National Bank (The Riksbank), the credit failures of the three large Swedish banks with business in the Baltic States amounted to 40 percent of the entire credit failures in the first quarter.<sup>15</sup>

In a scenario until the end of 2010, the largest bad debts are to be expected in the Baltic States. Nevertheless, due to their good capitalization, it is assumed that the banks will be able to cope with the burden. However, the large uncertainty of the scenario is emphasized in the stress test.

Another channel of contagion includes trade linkages. Latvia’s most important trade partners are

<sup>14</sup> This deals with foreign banks that report to the Bank for International Settlements. Cf. for a list of the countries of origin Bank of International Settlement: Quarterly Review. June 2009.

<sup>15</sup> Sveriges Riksbank: Financial Stability Report 2009:1, www.riksbank.com/templates/Page.aspx?id=31698.

Lithuania, Germany, Russia and Estonia. Trade with Latvia has little importance for the large economies of Germany and Russia. In contrast, Estonia and Lithuania's trade with Latvia has a respectable portion of the entire trade volume so that devaluation of the Latvian currency could have a negative impact on Estonia and Lithuania. This applies even more as it could lead to a "wake up call" in the Baltic countries because of their similar problems (including high current account deficits). Signals of a currency crisis in one country would then cause investors to not only withdraw their investments from the affected country, but also from countries with similar characteristics.

## **Conclusion**

In the years from 2000 to 2007, Latvia achieved the highest gross domestic product growth rate in the European Union. The growth of Estonia and Lithuania was also far above the European average during this period of time. The decline of international capital inflows in light of the global financial crisis had an extremely strong impact on the Baltic countries, particularly Latvia. Compared to other European countries, the outlook for the Baltic countries is dismal for the next few years. Should there actually be a currency crisis in Latvia, the chances of an upswing taking place in the Baltic States anytime soon would worsen. The example of the Baltic States shows that a development strategy that relies on high capital inflows depends greatly on the worldwide investment climate and is thus very fragile. This strategy is particularly problematic because the Baltic countries do not have much political leeway in order to counter the crisis.

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DIW Berlin  
Mohrenstraße 58  
10117 Berlin

Tel. +49-30-897 89-0  
Fax +49-30-897 89-200

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