Economic Adjustment to the Crisis in the Baltic States in Comparative Perspective

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Prepared for 7th Pan-European International Relations Conference September 2010, Stockholm

Draft version – comments are welcome

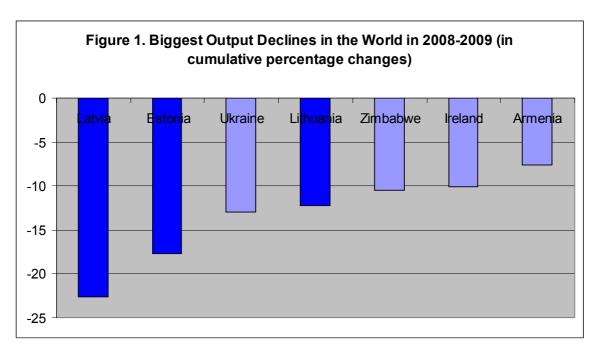
Introduction

In this paper, we analyze the economic adjustment policies of the Baltic States in the face of economic crisis. We address the puzzle of the choice of the 'internal adjustment' (internal devaluation) instead of external devaluation of national currencies despite the fact that the latter strategy has been recommended by many foreign analysts and would be prescribed on the basis of dominant economic theory. Even more surprising is the ability to keep the exchange rate pages in spite of the market's expectations and theoretical predictions to the contrary.

We argue, first, that the choice of adjustment policies was anchored in the domestic consensus of policy makers and expert communities on the most appropriate strategy of coping with the crisis rather than the pressure from outside by international institutions or domestic lobbying by interest groups. Of course, economic factors, such as structure of savings and loans, availability of international financial support, as well as institutional setting, in particular, prospective introduction of the euro as a key element of exit from the crisis, facilitated such a policy response. We also claim that societal reaction was a key ingredient for the implementation of such a strategy by either approving it (in Estonia), or choosing not to protest ('exiting' to black market or emigrating, as in Latvia and Lithuania). Finally, we argue that despite the fact that the three Baltic States usually are regarded as one homogenous group (and they indeed pursued fairly similar economic adjustment policies), there are important differences among them. The most important one is the success in fiscal consolidation and restoring investors' confidence, where Estonia has surpassed the two other Baltic countries. This divergence in turn could be

explained by better resources of informal institutions in Estonia, namely higher public trust in the government and stronger political consensus towards economic policy measures seen as necessary in reacting to the crisis in question.

There are several points that make the Baltic countries interesting objects of study. One of them, of course, is the share magnitude of both pre-crisis macroeconomic imbalances (vulnerabilities) and the subsequent economic contraction. Latvia experienced the biggest GDP contraction during the global crisis in the world, while Estonia came in the second place and Lithuania was only surpassed by the Ukraine. Actually, Latvia's GDP decline will be the biggest two-year decline on record. In absolute terms, the Great Depression in the US has brought a bigger contraction, but it was protracted over a four-year period¹.



Source: "World Economic Outlook 2010: Rebalancing Growth" (International Monetary Fund, April 2010), http://www.imf.org/external/pubs/ft/weo/2010/01/pdf/text.pdf.

The accumulation of these imbalances could serve as an interesting topic itself; however, in this paper we are primarily dealing with reaction to the economic crisis. Here, there are certain empirical and theoretical puzzles that need to be explained. To begin with, why did the Baltic countries choose the unorthodox strategy of "internal"

Mark Weisbrot, "A Baltic future for Greece?," April 28, 2010, http://www.guardian.co.uk/commentisfree/2010/apr/28/greece-financial-crisis.

devaluation" versus external devaluation, despite recommendations from many foreign analysts²? Furthermore, how were they able not to abandon currency pegs, despite the market's consensus and theoretical predictions to the contrary³? As early as the middle of 2009, influential pundits and market participants believed that devaluation of Latvian lat (and Estonian kroon and Lithuanian litas along with it) was inevitable, and labeled Baltic strategy (at least in the case of Latvia) "mission impossible".

The second puzzle is given by the diverging experience of the Baltic countries. It is common for international observers to lump the three Baltic countries into one whole. Nevertheless, their recent experience during the economic crisis was far from homogenous. While pre-crisis economic developments and accumulated macroeconomic vulnerabilities were similar, and so was the main pillar of anti-crisis strategy ("internal devaluation"), certain aspects of economic adjustment were different. One could look at such factors as timing of adjustment (Estonia being the quickest to react), borrowing choices as well as particular details of fiscal adjustment (which and to what extent revenue and spending were changed) as well as structural reforms implemented during the crisis. Arguably the most important difference – and one that we focus on in the last part of this paper – is success in terms of fiscal consolidation and restoring investors' confidence. While budget deficits – and consequently public debt – skyrocketed in Latvia and Lithuania, Estonia remarkably managed to keep public deficits under 3 percent of GDP and the state debt lowest among all the countries of EU27, which in turn allowed the country to satisfy Maastricht criteria and achieve invitation for the euro adoption starting from 2011, an achievement which many at the start of the crisis thought was rather unlikely. Thus, Estonia delivered yet one more empirical and theoretical surprise – its success in fiscal consolidation is exceptional by international standards.

To summarize, we seek to provide answers to these questions that stem from both empirical and theoretical puzzles:

1) Why did the Baltic countries choose the particular policy of "internal devaluation" and were able to keep the exchange rate regime, despite market's expectations and theoretical predictions?

³ Izabella Kaminska, "Waiting for Latvia to devalue," *FT Alphaville*, June 2, 2009, http://ftalphaville.ft.com/blog/2009/06/02/56497/waiting-for-latvia-to-devalue/.

² For example, Paul Krugman, Kenneth Rogoff, Nouriel Roubini.

⁴ Barry Wood, "Latvia: Digging out or digging deeper? Outside the Box," *Marketwatch*, April 1, 2010, http://www.marketwatch.com/story/latvia-digging-out-or-digging-deeper-2010-04-01.

2) How and why were economic adjustment paths different in the Baltic countries? Most importantly, why was Estonia most successful in dealing with the crisis in terms of fiscal consolidation and restoring investors' confidence?

A recurring leitmotif in this analysis is the emphasis on political and institutional factors. This does not mean neglecting economic and structural issues – on the contrary, *both* economic and political factors are crucial for explaining recent developments in the Baltic countries. Furthermore, economic-structural conditions and political-institutional factors could be said to operate on somewhat different levels: economics defines and limits the boundaries of the range of possible decisions and actions, but by no means predetermines the actual choices, which are mostly driven by politics – interests, ideas or institutions⁵.

Explaining the choice of monetary policy to deal with the crisis

In this section we seek to explain the strategic choice of economic adjustment, namely "internal" devaluation versus "external" one, as well as the ability to carry out this adjustment by not abandoning the exchange rate peg. Appendix provides an overview of economic development (adjustment) in the Baltics during the crisis. First, real GDP and current account data are given to illustrate the scale of economic adjustment. Furthermore, the amount and magnitude of fiscal adjustment is given – fiscal consolidation has been an essential part of the chosen "internal devaluation" strategy. Finally, data on deflation indicators, namely labor cost development and consumer prices, is provided. Debates about the potential and actual cost declines have been a major issue in discussions on the relative merits of external versus internal devaluation scenarios⁶.

First we need to place the Baltic countries in a comparative perspective in terms of economic adjustment. The Baltic countries represent a classic case (although extreme in its severity) of adjustment necessary to restore country's competitiveness after a period of excessive leverage, asset booms, price and wage growth. There are essentially three

⁶ See, for example, Morten Hansen, "Latvia: No victory yet, no defeat either | afoe | A Fistful of Euros | European Opinion," *A Fistful of Euros*, March 4, 2010, http://fistfulofeuros.net/afoe/economics-country-briefings/latvia-no-victory-yet-no-defeat-either/.

⁵ Jonathan Kirshner, "The Inescapable Politics of Money," in *Monetary Orders: Ambiguous Economics, Ubiquitous Politics* (Ithaca: Cornell University Press, 2003).

options to adjust: i) devalue the exchange rate; ii) impose deflation on the economy ("internal devaluation"); iii) implement structural changes (reforms) to increase productivity. The third option can only bring results in the medium and especially long term and is advisable in any case, so in the short-run a country is essentially left with the first two options.

From the economic point of view, it is not immediately clear which course of action is (or would have been) better (or less "bad" in the case of the Baltics). On the one hand, external devaluation could be expected to give immediate boost to exports and import-competing sectors, thus hopefully kick-starting economic recovery. On the other hand, it would also immediately increase the debt burden of households and companies indebted in foreign currency and possibly reduce trust in state institutions, since stable monetary policy, especially under the currency board arrangement, was based on the promise of preserving a stable exchange rate. There are a number of different arguments that could be made – and have been made in the case of the Baltic countries – both in favor of and against devaluation. It is interesting to note that discussion on the topic has been highly asymmetrical: domestically, very few analysts supported devaluation and many did not even seriously consider this alternative; abroad, however, the proportion of supporters and opponents of devaluation has been much more equal, if anything swaying more towards the external devaluation side. To this puzzling difference we shall return later.

In any case, several things are clear. First, both external and internal devaluation would have meant severe economic contraction in the Baltic States. Secondly, it is not unequivocally and immediately clear which course of action should have been taken based on economic theory. This discussion immediately stands as a critique to one of the explanations for the choice of this strategy, namely that it was based on the fact that this alternative was economically clearly the optimal solution in the case of the Baltic

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⁷ For arguments supporting exchange rate peg, see Christoph Rosenberg, "Why the IMF Supports the Latvian Currency Peg," *Roubini Global Economics*, January 6, 2009, http://www.roubini.com/euromonitor/254975/why_the_imf_supports_the_latvian_currency_peg; Mary Stokes, "Devaluation in Latvia: Why Not?," *Roubini Global Economics*, December 31, 2008, http://www.roubini.com/euromonitor/254905/devaluation_in_latvia_why_not; Anders Aslund, "Latvia Defies the American Conventional Wisdom," 7, 2009, http://www.piie.com/realtime/?p=836; for proponents of external devaluation, see Edward Hugh, "Latvia - Devalue Now or Devalue Later?," *A Fistful of Euros*, June 8, 2009, http://fistfulofeuros.net/afoe/economics-country-briefings/latvia-devalue-now-or-devalue-later/; Torbjörn Becker, "Latvia's Options - Internal versus External Devaluation"; Mark Weisbrot and Rebecca Ray, "Latvia's Recession: The Cost of Adjustment With An "Internal Devaluation" (Center for Economic and Policy Research, February 2010), http://www.cepr.net/index.php/publications/reports/latvias-recession-cost-of-adjustment-internal-devaluation; for general overview of arguments with no particular stance, see Violeta Klyvienė and Lars Tranberg Rasmussen, "Causes of Financial Crisis: The Case of Latvia," *Ekonomika* 89, no. 2 (2010).

countries. Even if one did adopt such an assumption, there is yet one more problem with the interpretation – it is well known that politicians rarely behave in the way to maximize public welfare, or aggregate economic well-being. The assumption of benevolent policymakers has been discredited by much of the public choice literature. Therefore, we must turn to politics if we want to provide more detailed and more convincing explanations for the decision to pursue "internal devaluation". One could lay out a number of hypotheses for this choice: external pressure, domestic interest groups, public opinion.

To begin with the first possible factor, external pressure does not seem to provide a convincing explanation. First, the IMF was initially not enthusiastic about keeping the exchange rate peg and only agreed to the devaluation scenario by stressing the need for exceptional adjustment policies and also emphasizing that this was the decision taken by national authorities⁸. Actually, many foreign analysts, including Paul Krugman, Nouriel Roubini and others⁹, recommended devaluation. This can be explained by the fact that "the conventional wisdom argues that such large foreign imbalances can only be corrected through devaluation" as well as reliance on recent experience of failed pegged exchange rates in Southeast Asian countries in 1997-1998, Russia in 1998 and Argentina in 2001.

At the same time, of course, there were important international actors that opposed devaluation. One was the Swedish government, for whom devaluation would have meant big problems for the Swedish banks, as they would likely have to be supported using Swedish taxpayer's money. The EU commission, in turn, feared that devaluation would cause panic in the financial markets, and exchange rate regime collapse in any of the Baltic countries would have produced a "domino" effect, causing capital flight from the whole region of Eastern and Central Europe¹¹.

While international factors somewhat facilitated the choice of internal devaluation, they do not provide a satisfactory explanation for it. Talking about domestic factors, one standard way of explaining currency choices is to look at economic interests. In turn, this could be either economic interests of dominant interest groups or those of the general population ("median-voter"). Interest group explanations can go some way in explaining the strategy choice. For instance, Jeffry Frieden et al. based on the dominant interest

⁸ Kaminska, "Waiting for Latvia to devalue."

⁹ See opinions listed in reference no 6 above as well as Paul Krugman, "Latvia is the new Argentina (slightly wonkish)," *The Conscience of a Liberal*, December 23, 2008. ¹⁰ Aslund, "Latvia Defies the American Conventional Wisdom."

¹¹ Ibid.

group model predicts that exchange rate regime in all three Baltic countries (with a probability of 0.9 in Estonia, 0.9 in Latvia and 0.89 in Lithuania) should be a currency peg¹². One could also add here that the traditionally held proponents of devaluation, such as the exporting manufacturing sector, in the Baltics might have been relatively less interested in devaluation due to certain specific circumstances. First of all, devaluation would have increased the price of imports, which in turn would have added to producer price inflation via increase in the price of energy. Secondly, many domestic enterprises have taken out loans in euros – consequently, external devaluation would have an ambiguous effect on them.

There are a couple of problems regarding interest-group explanation as well. First of all, economic-interest group explanations are notorious for their lack of consensus as to how one should deduce economic interests ¹³. There are many ways that coalitions among different economic interests groups, for example, could be formed ¹⁴. After all, if currency regime choice on the aggregate is expected to have little effects, this means that approximately there should be as many economic interests winning as losing from certain policy action. The mentioned Frieden's estimation is limited by a small sample of countries (if one includes only a handful of countries and estimates the predicted dependent variable, one will usually get high prediction rates). Finally, we are then left with the conundrum of why did the opposing economic interests fail to at least voice their opinion? Most importantly, we are dealing with democratic regimes here, and it would be reasonable to assume that politicians respond at least as much to public pressure as to interest group pressure, especially if we are talking about such "national" and "visible" issues as the choice of currency regime.

We can now turn to explanations based on the public opinion, or that of the "median-voter". On one level, this seems a plausible explanation. After all, the majority of populations in the Baltic States support the currency peg, and would likely turn against any government that would devalue. Upon closer scrutiny, there are problems with this explanation either. As has been argued, on the aggregate it is not evident which course of action would have implied smaller losses – why then should the general population prefer

¹² Jeffry Frieden, David A. Leblang, and Neven T. Valev, "The Political Economy of Exchange Rate Regimes in Transition Economies," *SSRN eLibrary* (April 2008): 35, http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1133567.

¹³ Peter Hall, "The Role of Interests, Institutions, and Ideas in the Comparative Political Economy of the Industrialized Nations," in *Comparative politics: rationality, culture, and structure*, ed. Mark Irving Lichbach and Alan S. Zuckerman (Cambridge University Press, 1997), 174-207.

¹⁴ Peter Alexis Gourevitch, *Politics in Hard Times: Comparative Responses to International Economic Crises* (Ithaca: Cornell University Press, 1986).

exchange rate pegs? There is reason to argue even that for the median-voter (a person who has not likely taken out loans in euros and is more likely to get unemployed, i.e. *ceteris paribus* suffer more from "internal devaluation") external devaluation could possibly have produced a more favorable outcome.

It is important to emphasize, however, that economic interests are not given *a priori*. They are prone to contestation, redefinition and re-formulation, and the assumption of "unbounded rationality" is clearly inappropriate in this case. We are left with "bounded rationality" which stresses the importance of limits on both information gathering and information analysis capacities¹⁵. Ideas and beliefs are important. For instance, Goldstein and Keohane advance the concept of ideas as "causal beliefs" – "beliefs about cause-effect relationships which derive authority from the shared consensus of recognized elites" In all the three Baltic countries, there is a very clear "causal belief" prevalent both among politicians and expert-community and among the general population, which supports the political consensus and commitment necessary for keeping the exchange rate peg. This causal belief says that keeping currency exchange rate pegs is the right economic strategy, and that in the case of the Baltic States an alternative course of action would have been clearly wrong and potentially disastrous¹⁷. This is what explains the remarkable opinion divergence when comparing domestic epistemic communities with those of the foreign ones.

Different causal beliefs were not only evident within experts' communities, but also among markets participants. As will be discussed later, at one point in time there was consensus in international financial circles that Latvia, and Estonia and Lithuania along with it, will devalue. At the same time, domestic market participants were much more trusting in the currency pegs¹⁸. Clearly, the population at large also generally trusted the currency peg, as indicated by relatively mild declines in domestic currency-denominated

John Odell, "Bounded Rationality and the World Political Economy," in *Governing the world's money*, ed. David M. Andrews, C. Randall Henning, and Louis W. Pauly (Cornell University Press, 2002), 168-193.
Judith Goldstein and Robert Owen Keohane, "Ideas and Foreign Policy: An Analytical Framework," in *Ideas and foreign policy: beliefs, institutions, and political change*, ed. Judith Goldstein and Robert Keohane (Cornell University Press, 1993), 10.

¹⁷ Even those economists and analysts (with some exceptions) who are not affiliated to either state/regulatory institutions or commercial banks, both of which could be argued to have an interest in keeping the exchange rate peg, share the assumption that abandonment of the peg would have been the wrong policy choice.

¹⁸ Interview with Finasta asset manager Petras Kudaras. At the peak of the crisis, Finasta was advising their clients to sell currency forwards, which would mean profiting in the case of sticking to the exchange rate peg and losses in the case of devaluation.

deposits in both Lithuania and Estonia; in Latvia, deposits declined more significantly, but the country still avoided any massive run on the currency.

The argument presented here does not mean that economic interests are not important. Actually, as has been argued, a particular constellation of economic interests in the three Baltic countries is arguably supportive for the exchange rate peg as well even though Baltic exporters have been hurt by devaluations of currencies in surrounding markets such as Poland, Russia, and Ukraine. At the same time, however, we argue that particular beliefs within the Baltic countries have been instrumental in both deciding to implement "internal devaluation" and the ability not to abandon the pegs. One could also add here that both politicians and the general public were arguably against devaluation because that would have brought more uncertainty with less clear outcomes, especially given lack of experience with alternative monetary regimes. Furthermore, the euro adoption served as a clear exit strategy, a focal point at which efforts could be directed and in the case of Estonia this strategy has already brought tangible results.

This time it worked: the politics of implementation

While many foreign analysts advised against pursuing the course of "internal devaluation", even larger proportion of them were very skeptical about the Baltic countries' ability to implement it successfully. Of course, the very disbelief in this ability was one of the chief reasons for recommendations against pursuing this course of action. As recently as the summer of 2009, many observers were open about the fact that the question of lat's devaluation is a question of time. Latvian lat forward rates shot up significantly. In the beginning of June, forward rates were indicating a devaluation of 53 percent. Essentially, market consensus was that Latvia will devalue¹⁹. In the words of Bengt Dennis, the former governor of the Swedish Central Bank and adviser to the Latvian government, "Nobody knows whether the devaluation will take place is exhausted, and in its place we should concentrate on how the devaluation will take

¹⁹ Ewa Krukowska, "Latvia Traders See 53% Devaluation, Forwards Show (Update1)," *Bloomberg*, June 4, 2009, http://www.bloomberg.com/apps/news?pid=newsarchive&sid=ahSknR7dFtFI.

place"²⁰. Financial Times added that "it seems, devaluation really is the only logical course of action"²¹. The Swedish Central Bank shored up its currency reserves at the end of May, and this move "was widely interpreted as national preparation for a potential Latvian devaluation"²².

Importantly, based on an established theory of political economy, devaluation should have taken place as well. An accepted theory in political economy essentially says that over a longer-run period it is very hard for a country to simultaneously have a) free capital movement; b) fixed exchange rate, and c) democratic regime²³. The logic is as follows: fixed exchange rate regimes mean that whenever countries experience economic shocks and are in need of restoring competitiveness, under free capital movement they are left with the only option – namely internal devaluation. In other words, they cannot devalue to increase their competitiveness and they cannot use macroeconomic stimulus to ease the pain of adjustment. Internal devaluation in turn means increase in interest rates (when pressure mounts on currency, interest rate hikes are necessary to keep capital in the country), reduction in wages, social spending, and increase in unemployment. Therefore, the theory says that under democratic regime the population segments suffering from internal devaluation would simply preclude the government from pursuing this course of action. In other words, deflation necessary to adjust would be politically too costly. This theory seems to convincingly explain the breakdown of the Gold standard that prevailed at the end of 19th – early 20th century in the industrialized countries²⁴. Eichengreen argues that countries under the gold standard were able to implement necessary economic adjustment due to the particular historical circumstances of the period, chief among them being the limited franchise and a particular climate of ideas (lack of knowledge about the relationship between interest rates and unemployment). Eichengreen notes that the gold standard was "a socially constructed institution whose viability hinged on the context in which it operated"²⁵. When franchise was expanded, and the working population gained voice in politics, it became impossible to keep the

²⁰ Nina Kolyako, "Ex-governor of Riksbanken: Latvia has no choice but to devalue currency," *The Baltic Course*, June 2, 2009, http://www.baltic-course.com/eng/finances/?doc=14427.

²¹ Kaminska, "Waiting for Latvia to devalue."

²² Ibid

²³ Barry Eichengreen, *Globalizing Capital: A History of the International Monetary System*, 2nd ed. (Princeton University Press, 2008), 4-5, 30-9, 190.

²⁴ Other authors have extended this theory's application to the 'periphery' – see A. M Taylor, "Latin America and foreign capital in the twentieth century: economics, politics, and institutional change," *NBER Working Paper* (1999). Taylor finds a significant correlation between democratization and interventionist economic policy in the form of capital controls in Latin America

²⁵ Eichengreen, Globalizing Capital, 30.

gold standard. Under Bretton Woods system, of course, there were fixed exchange rates and democratic regimes in major industrial democracies – however, this was only possible due to restriction on capital movements. When capital again became increasingly mobile in the post-1971 world it was increasingly difficult to keep exchange rates fixed – and naturally many countries moved to floating exchange rate regimes. In Eichengreen's words, this essentially left countries with two viable and opposite alternatives – either to move to floating exchange rates or strengthen commitments to fixed exchange rates²⁶. European monetary union is the prime example of the latter strategy.

The Baltic countries, which operate under free capital movement regime, keep currency pegs *and* have democratic regimes, are therefore not explained by the standard theory well. This theory predicts that "rising democratic and pluralistic forces raised the likelihood of deviation from the gold standard"²⁷. Besides, in Rogoff's words, "clearly, sustained fixed exchange rate regimes are the exception rather than the rule"²⁸. However, unfortunately for both the theory and those who bet on devaluation (and incurred large costs in terms of interest rates in the process), it did not happen.

How can we explain this puzzle? First of all, as we argued above, it was domestic consensus among policy-makers, in particular, those responsible for monetary policy, and expert community which led to the maintenance of fixed exchange rates. Of course, this was facilitated by the perception of favorable mix of economic factors and the prospect of introducing euro as an exit from crisis strategy. First, the Baltic countries had significant foreign currency reserves – due to the currency board system in place in Lithuania and Estonia (and formally different but actually very similar arrangement in Latvia) all monetary base must be fully covered by foreign exchange reserves. Secondly, a frequent argument in the case of the Baltic States is that labor markets in these countries are very flexible, which in turn allows faster downward adjustment in wages and therefore less protracted and painful period of deflation²⁹. Thirdly, the Baltic States had one more advantage, which has not been often mentioned in literature – namely that their banking sectors are dominated by strong Swedish banks, in turn backed by the Swedish

²⁶ Ibid., 137.

²⁷ Kaminska, "Waiting for Latvia to devalue."

²⁸ K. Rogoff, "The Risks of Unilateral Exchange Rate Pegs," *The Implications of Globalization of World Financial Markets* (1998): 30.

²⁹ It must be noted that while World Bank Doing Business indicators describe the three Baltic States as having relatively rigid labour markets, according to other surveys, they in fact have very flexible labour markets with low collective agreement coverage and considerable flexible wage share. See Ramūnas Vilpišauskas, "Country Report Lithuania: Economic and Political Challenges of Acceding to the Euro area in the post-Lehman Brothers' World" (Open Society Institute, October 2009).

government. One has to remember that under currency board regime the central bank cannot act as the lender-of-last-resort, and therefore in the case of bank run and collapse of the financial system cannot provide liquidity for the banking sector, as this would undermine its backing of the currency. Therefore, international support in the case of bank run on Latvia's Parex was crucial. Last but not least, the Baltic States had the support of both the EU and, after certain hesitation, the IMF, with ample financing to back their exchange defense efforts.

While important, these arguments do not provide satisfactory explanation for the fact that the Baltic States were able to keep their pegs. Yet again, these economic structural factors might have been *necessary* conditions, but not *sufficient* ones. After all, as noted by Rogoff, it is known that most peggers that eventually abandoned fixed exchange rates had ample foreign exchange coverage³⁰. The key to understanding devaluation is the insight that often it is not the *inability* to defend the peg, but rather *unwillingness* to do it that matters³¹. In other words, starting from the 1930s and later the fixed exchange regime system under free capital movements became increasingly difficult to sustain because authorities' commitment to defend fixed exchange rate regimes weakened. This was a result of different priorities emerging on the agenda of national policy-makers. Therefore, the Baltic States stand out in their commitment, backed by national consensus and particular ideational climate mentioned in the previous section, to do whatever it takes to defend the peg. In the words of Morten Hansen, "in all three Baltic countries devaluation, rightly or wrongly, is seen as Pandora's Box size XXXL and rapid euro introduction is seen, again rightly or wrongly, as an entry ticket to monetary Nirvana".

Here, one also has to discuss the importance of expectations and the potential for self-fulfilling prophecies. One of the reasons why countries in late 19th-early 20th century were able to keep Gold standard regimes was the fact that investors never doubted authorities' resolve to defend the peg at any costs³³. In turn, this meant that markets rarely if ever tested this resolve by capital flight and increase in interest rates. In fact, capital flows moved in the opposite direction in the belief that governments will take the appropriate action to restore equilibrium. Therefore, the perception and expectation about governments' commitments made it easier for governments to implement this strategy.

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³³ Eichengreen, *Globalizing Capital*, 191.

³⁰ Rogoff, "The Risks of Unilateral Exchange Rate Pegs," 7-8.

Reserve Bank of San Fransisco Economic Letters, November 26, 1999, http://www.frbsf.org/econrsrch/wklyltr/wklyltr99/el99-36.html.

³² Morten Hansen, "Latvia: No victory yet, no defeat either," A Fistful of Euros, March 4, 2010.

Contrariwise, as often happened in the second part of the twentieth century, when investors started doubting the commitment behind fixed exchange rates, they moved out of the currency, thus forcing interest rate increases and economic contraction, which in turn made it much more difficult (although not impossible) for governments to keep fixed rates, which then in turn weakened investors' confidence in the currency even further, and led to the abandonment of fixed exchange rates. Such was the case, for example, in Great Britain in 1992, Sweden and Finland in early 1990s, and Argentina in 2001.

There was an additional crucial feature of the Baltic countries that enabled them to pursue the strategy of "internal devaluation". It should be noted that this strategy also meant macroeconomic stringency - essentially raising budget revenues and cutting expenditure. The amount of adjustments was very significant by international standards. A comparison to for example Argentina in 2001 or presently Greece immediately reveals a crucial difference - very low levels of open contestation towards fiscal austerity measures. Greskovits describing Eastern European experience as a whole during the transition referred to a specific culture of patience that enabled simultaneous democratization and market-building in the face of severe economic hardships³⁴. It seems that this stability culture has still prevailed in the Baltics and enabled austerity measures which were key to pursuing "internal devaluation" strategy. At the same time, there is reason to believe that the sources of "patience culture" in the three Baltic countries were different. As will be argued later, Estonian population largely trusted the government during the crisis (trust in national institutions actually increased during the crisis), while in Latvia and Lithuania populations were clearly dissatisfied with their political regimes. Nevertheless, using the famous Hirschman's typology 35, they expressed their dissatisfaction with "exit" rather than "voice" (see section on differences among the Baltic countries below).

Therefore, in order to explain why the Baltic countries were able to defend the exchange rate peg, we must understand again the crucial role of beliefs and perceptions, and specifically the commitment to defend the exchange rate peg at any costs. *Depoliticization* of economic policy is the key here as well. One could of course go further by analyzing were this commitment and depoliticization originated from. While this is a topic for further research, a robust explanation would probably have to include

³⁴ Béla Greskovits, *The political economy of protest and patience: East European and Latin American transformations compared* (Central European University Press, 1998).

³⁵ Albert O. Hirschman, *Exit, voice, and loyalty: responses to decline in firms, organizations, and states* (Harvard University Press, 1970).

the fact that fixed exchange rate regimes were created along with independence, and became powerful national symbols that were then institutionalized within certain power relations. Furthermore, fixed exchange rates did achieve many positive results in the form of macroeconomic stability, first of all by contributing to a quick reduction in massive inflation at the start of economic reforms in 1990s. They were also kept during the Russian crisis, when speculation was going on that the Baltic States will devalue as well. Finally, one also should take into account euro adoption as the exit strategy for these countries. If there was a deep commitment to any issue in the Baltics, it was the return to Europe and the West.

Having said this, we could briefly return to the normative question of the choice of anti-crisis strategy. One thing that is usually missing in discussions over the costs and benefits of external vs. internal devaluation is that of credibility and confidence. More specifically, if the Baltic countries manage to keep their exchange rates under these most extreme of conditions, they will increase their reputation and confidence on international financial markets in the future. This in turn should allow them to *ceteris paribus* attract more financing and pursue adjustment in the future easier (as has been argued, if financial markets do not doubt authorities' resolve to pursue certain policy, they will make these efforts more likely to be implemented). For instance, part of Argentina's problem in 2001 was that this country had a bad record and reputation in financial markets, thus making its policy less credible during the crisis. Moreover, after the country abandoned its peg in 2001, the country up to this day has been incurring costs in terms of higher attributed risk and higher cost of capital. This will be of crucial importance within the eurozone, where external devaluation will not be a viable alternative.

Perhaps even more importantly, one would also have to take into account the possible effects on the whole domestic institutional structure – exchange rate peg, as mentioned above, has been at the core of Baltic political-economic models' economic, but also broader social strategy. It has served as an anchor, a focal point for decisions made by numerous economic actors. From game-theoretic perspective, it is known that many repeated games have multiple equilibrium, and cannot be easily solved (predicted) based solely on objective interest and incentives – "It is not only the set of objective constraints and opportunities that guides action; individuals rely on beliefs and expectations when they select from a range of possible outcomes. On this pathway, the key role played by ideas is to alleviate coordination problems arising from the absence of unique equilibrium

solutions"³⁶. Economic actors in the Baltics, unlike those in e.g. in Western European states, have no experience with a regime of floating exchange rates. Therefore, devaluation in the case of the Baltic States would likely have been interpreted domestically as a sign of total failure, in turn possibly causing panic and serious blows to the financial stability within those countries. A similar point has also been made elsewhere³⁷.

Not that alike: "cooperating" Estonians, "exiting" Latvians and Lithuanians

In the second part of the analysis, we are turning from the discussion which treated the Baltic States as essentially one homogenous group to analyzing the differences among the Baltic countries. The key difference between the Baltic States is the divergence in their success of economic adjustment. While one could label all the three Baltic States as unexpected cases of success in terms of keeping the fixed exchange rate peg, but their success was clearly and importantly different in terms of fiscal consolidation, restoration of investors' confidence, and entrance into the eurozone ("exit strategy").

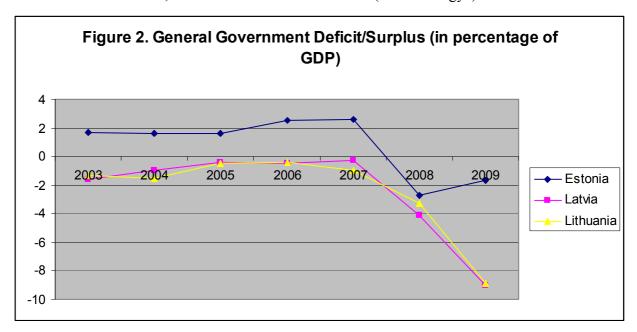
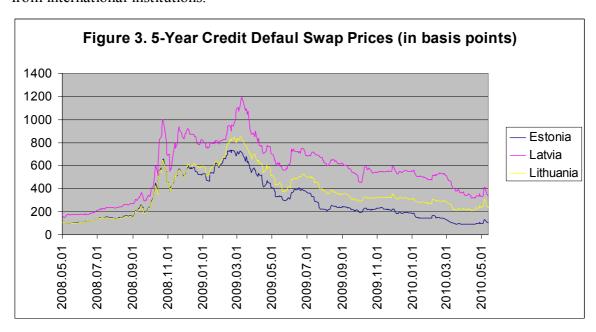


Figure 2. Source: Eurostat, 2010.

Goldstein and Keohane, "Ideas and Foreign Policy: An Analytical Framework," 17.
Hansen, "Latvia: No victory yet, no defeat either."

Budget deficits – and consequently public debt – skyrocketed in Latvia and Lithuania, whereas Estonia remarkably managed to keep public deficits under 3 percent of GDP, which in turn allowed the country to satisfy Maastricht criteria and achieve invitation for euro adoption starting from 2011, an achievement which many, including the IMF, at the start of the crisis thought was rather unlikely. In this sense, Estonia delivered yet one more practical and theoretical surprise – its success in fiscal consolidation is exceptional by international standards, in particular at the time of deep economic contraction. Consolidation of fiscal situation in turn allowed Estonia to fulfill Maastricht criteria and receive the invitation to join the eurozone in 2011. Correspondingly, Estonia was also the most successful one in restoring investors' confidence in the country, as revealed by CDS prices shown below. Lithuania was less trusted, while Latvia found itself in the worst situation, and as a result of a loss of investors' confidence was forced to turn to financing from international institutions.



Source: Bloomberg Finance, 2010.

What can explain these differences? Economic conditions can go some way. For instance, Latvia's pre-crisis economic situation was clearly the worst of the three countries. The country was most heavily "overheated" and it had no fiscal reserves. Therefore, it is not surprising that Latvia was least successful in terms of restoring investors' confidence – actually, at one point it completely lost the market's confidence,

³⁸ Servaas Deroose et al., "The Tale of the Baltics: Experiences, Challenges Ahead and Main Lessons" (European Commission, Directorate-General for Economic and Financial Affairs, July 2010), 3.

after the collapse of one of the main banks in the country – Parex bank, it turned for external financing from the IMF and the EU. At the same time, it is not clear that Estonia was better placed to weather the crisis than Lithuania from an economic point of view. Note that the market's evaluation of the two countries' positions was similar, as evidenced by essentially no difference between CDS prices prior to the end of 2008. Economically, Estonia's advantage was the substantial fiscal reserve fund. However, Lithuania had two advantages vis-à-vis the other two Baltic States. First, the economic cycle slowdown started later in Lithuania, and therefore it had potentially more time to prepare. Secondly, Lithuania's external debt was significantly smaller than in the two other countries, which meant a lower need for deleveraging and potentially lower economic contraction.

What could explain these differences then? Based on current literature, we could distinguish several possible political-institutional explanations. The factors that could potentially influence investors' risk assessments either via actual policy choices or via expectations about those choices or by increased uncertainty are the following: electoral processes; government instability; non-electoral challenges to government (protests)³⁹.

Looking at these factors, Estonia's leadership stands out. First of all, Estonia was better placed than either Latvia or Lithuania in terms of electoral cycles. In Lithuania parliamentary elections took place in 2008, and this was a major factor in precluding timely reaction to the crisis, as pre-election overspending kicked in. Latvia had an election only in 2006 and there the electoral cycle should not have been an obstacle to a timely reaction to the coming crisis. However, it will have another one this year (2010), and many analysts are already worried about the likely results of these elections. Estonia in this regard was the "luckiest" – elections took place in 2007, i.e. before the crisis, and the next ones are set to take place only in 2011, when the major economic adjustment is expected to have already occurred.

Secondly, protest was non-existent in Estonia. In Lithuania and especially Latvia, there were some protests with sparks of violence in the early 2009, something that has not been seen over the course of twenty years of independence. Protests in Latvia were the biggest, and this immediately caught the attention of international financial press. However, compared to the public protests in Greece and other Southern European countries when their government announced much "softer" austerity measures, one could

³⁹ Stephan Haggard, *The Political Economy of the Asian Financial Crisis* (Washington, D.C: Institute for International Economics, 2000), 49.

conclude that the general public in Latvia and Lithuania was relatively passive in reacting to the policy measures adopted in these countries and expressed its disapproval in different forms, as we discuss below.

Finally, although all three countries had coalition governments, with regard to government instability, Latvia was in the worst situation. It was the only country to witness a change in government. Estonia and Lithuania had weak coalition governments with both potential and actual defections from coalition partners, but they both managed to preserve the stability of their governments (though in Lithuania Presidential elections in 2009 provided a possibility of a government change, the newly elected President opted for changing only one minister). At the same time, there is evidence to suggest that the sources of disagreements among coalition partners in Estonia were of different nature than in the two other Baltic States. In Estonia, the Social Democratic party was kicked out of the governing coalition, when it opposed reduction of unemployment benefits and suggested raising taxes on business instead. In Lithuania and Latvia, disagreements were largely linked to personality issues or essentially populist remarks about economic policy. Therefore, while deeper analysis is necessary, we could see here signs of higher level of party-system consolidation in Estonia, something that scholars have noted before⁴⁰.

There is one more political-institutional difference between the three countries, however, and is arguably the most important one. Estonia has been noted to have better informal institutions, defined as "the rules of the game in a society or, more formally, the humanly devised constraints that structure human interaction" For example, Estonia along with Slovenia are among the least corrupt of the new member states, while Latvia and Lithuania are somewhere in the middle. Other indicators of institutional quality, such as World Bank governance indicators, also place Estonia above its Baltic neighbors. Striking differences between the Baltic States emerge upon considering the trust that society places in national political institutions. Around half of population trusts the national government in Estonia, putting it higher than the EU average. Only 17 percent trust political parties, although this is still higher than on average in the EU. In Latvia and Lithuania, however, one would not exaggerate too much in concluding that there is no trust in political institutions whatsoever. Finally, during the height of the crisis in 2009 despite similar economic adjustment strategies pursued in the three countries trust in the

⁴⁰ Tõnis Saarts, "Political Parties and Party Systems in the Baltic States" (Tallinn, 2009), http://www.tlu.ee/opmat/ri/rit6006/partysystem/4exe/.

⁴¹ C. Mantzavinos, D. C North, and S. Shariq, "Learning, institutions, and economic performance," *Perspectives on Politics* 2, no. 01 (2004): 7.

government and parliament in Latvia and Lithuania declined, while trust in Estonia increased or remained stable.

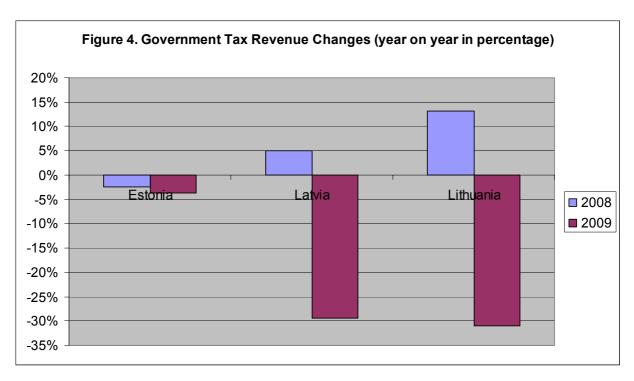
Table 1. Trust in National Institutions in the Baltic Countries.

Do you trust national Parliament?				
	Spring 2008	Autumn 2008	Spring 2009	Autumn 2009
EU average	34	36	32	30
Estonia	37	34	31	38
Latvia	9	4	6	6
Lithuania	11	9	10	7
Do you trust national Government?				
EU average	32	38	32	29
Estonia	48	44	38	47
Latvia	16	7	10	9
Do you trust political parties?				
EU average		20	19	16
Estonia		19	16	17
Latvia		5	5	2
Lithuania		10	8	5

Source: Eurobarometer, 2008, 2009, 2010.

There are at least two significant advantages that better informal institutions gave Estonia. One was quicker reaction to the crisis. While serious action was taken in Latvia and Lithuania only in the second half of 2008, steps were being taken in the first half of 2008 in Estonia. This could be explained by stronger political consensus within Estonia with regard to national political-economic objectives, as also evidenced by its prior record of fiscal frugality, compared to clear overspending in the two other Baltic States.

Another advantage, which specifically helped to achieve fiscal consolidation, came from the tax revenue side. While tax revenue in 2009 collapsed in both Lithuania and Latvia, in Estonia it did not change significantly. This in turn enabled the country to consolidate the budget, keep the deficit under 3 percent limit, restore investors' confidence and finally get acceptance to the eurozone.



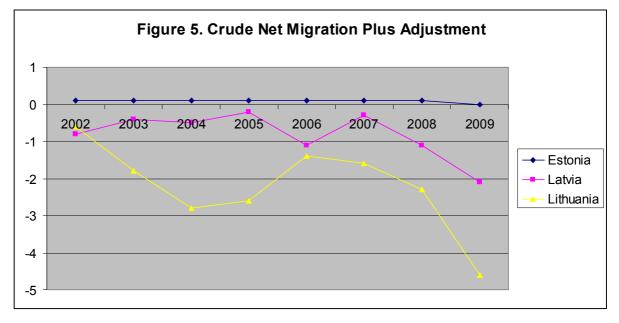
Source: Eurostat, 2010.

One also has to note interaction effects between different political-institutional variables that have been mentioned here. One could say that the three above-mentioned variables (electoral cycles, protest and government instability) operate on a rather different level than the posited informal institutions variable. The latter could be described as meta-institution, within which the formal political and economic processes take place. Inter alia this means that if a given country has better informal institutions, formal processes are expected to be implemented better, and the negative possible effect of different factors might be mitigated. Thus, it is plausible to suggest that better institutional environment in Estonia also resulted in less protest, quicker reaction to the crisis, and potentially less uncertainty within the investors' community about the continuation and determination of economic policy agenda. In other words, while the three posited political-institutional factors probably have certain independence, their values themselves and their effects are strongly dependent on informal meta-institutions.

Furthermore, the trust resources in Estonia also enabled a virtuous cycle as opposed to a somewhat vicious cycle in the two other Baltic States. The fact that economic actors did not revert to shadow economy in Estonia to the extent they did in Latvia and Lithuania meant that the government could consolidate finances easier, thus precluding some of the cuts that might have been necessary. Thus, while pensions were cut in Latvia and Lithuania, pensions were raised in 2009 in Estonia (although the rate of increase was

changed from the planned 14 percent to 5 percent). In the other two countries, however, collapsing tax revenues caused higher spending cuts and some more tax increases, which in turn added to the contraction of economic activity and tensions within the society.

While Estonians trusted the government and chose to cooperate, in Hirchman's terminology, Latvians and Lithuanians opted for "exit" rather than "loyalty" or "voice". "Voice" here would have implied, for example, protest or open contestation to government's policy. Instead, Latvians and Lithuanians 'exited' in two ways. First, they turned to the black market ("exit" from legal economy), which to a large extent explains the collapse in tax revenues. Secondly, they again started to emigrate on a grand scale. As can be seen in the diagram below, while net migration barely changed in Estonia (from positive figure of 0.1 to 0.0 in 2009), it shot up significantly in Latvia and especially in Lithuania, which has long been the leader among new EU member states of emigration flows relative to population.



The indicator is defined as the ratio of net migration plus adjustment during the year to the average population in that year, expressed per 1 000 inhabitants. The net migration plus adjustment is the difference between the total change and the natural change of the population. Source: Eurostat, 2010.

Conclusions

The Baltic countries, as is often the case, have pursued both similar and different adjustment paths during the crisis. All of them were similar in terms of nature and magnitude of crisis they faced and the way they tried to solve it. Regarding this similarity,

the Baltic countries delivered a surprise to the financial markets and many foreign observers by choosing internal devaluation and not abandoning the exchange rate peg. As has been argued in this paper, certain structural-economic reasons facilitated this response. Without ample foreign assistance or foreign exchange reserves, keeping the pegs would have been impossible. Nevertheless, economic reasons are not sufficient to explain both the choice of "internal devaluation" and ability to implement it. Here, there were two main aspects: extremely strong domestic political consensus and commitment supporting exchange rate peg as well as society's reaction enabling implementation of drastic fiscal consolidation measures.

At the same time, the experience of the Baltic countries was far from uniform during the crisis. Although all of them pursued essentially similar economic policy strategies, in Estonia its results were more successful. In turn, this could be explained by the fact that the general public in Estonia supported the government and consequently did not revert to black economy – this in turn resulted in much better tax revenue results as compared to Latvia and Lithuania.

Finally, what implications could we suggest for future developments in the Baltic States? Although this paper did not investigate the choice of external vs. internal devaluation deeply, one aspect that has often been neglected in other analyses could be mentioned. If the Baltic countries manage to keep exchange rates under these dire circumstances, one could expect that financial markets will be more trusting of them in the future, in turn rewarding with cheaper financing and possibly facilitating responses to crises in the future. Furthermore, sooner or later (Estonia sooner, Lithuania and Latvia later) these countries will enter the eurozone, and from then on external devaluation will not even be a real alternative. Therefore, this served as a test and – hopefully – painful but valuable learning experience for policy-makers in economic adjustment under fixed exchange rate pegs.

Another aspect concerns the divergence of development paths among the Baltic countries. One possibility is that this crisis will result in a divergence between Estonia on the one hand and Lithuania and Latvia on the other. One measure is immediately evident – skyrocketing public debt levels in Lithuania and Latvia and barely increasing ones in Estonia. A related issue, of course, is that Estonia will enter the euro zone in 2011, while the earliest possible date for the two other Baltic countries is 2014. From a broader perspective, the response to the crisis might strengthen existing virtuous cycle in Estonia (public trust in the government, which in turns enables the pursuit of sounder and more

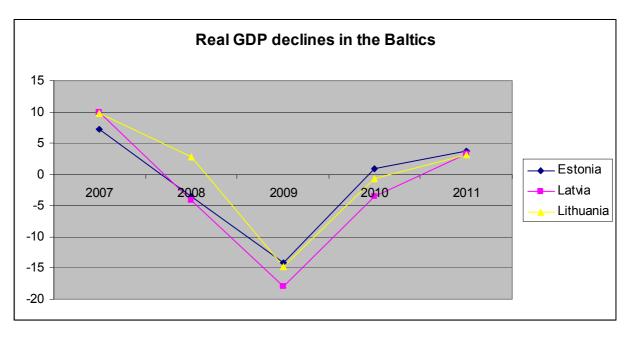
effective policies, in turn adding to this trust) and somewhat vicious cycle in Latvia and Lithuania (lack of trust and poor economic policy results). There is also another possibility, however. As has often happened before (most notably, in the case of the European Union application), Estonia's leadership and success has been important in fostering the two other Baltic States to speed up their action and reforms.

Works cited

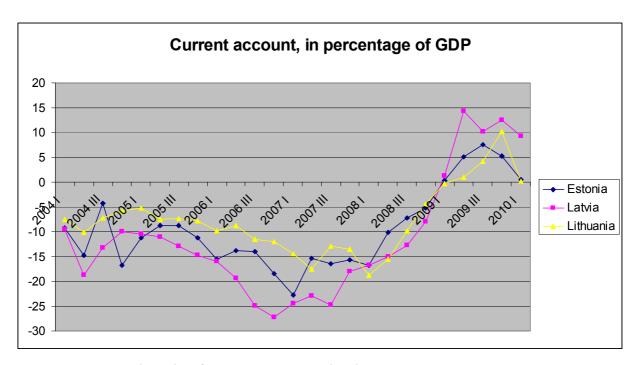
- Aslund, Anders. "Latvia Defies the American Conventional Wisdom," 7, 2009. http://www.piie.com/realtime/?p=836.
- Becker, Torbjörn. "Latvia's Options Internal versus External Devaluation."
- Deroose, Servaas, Elena Flores, Gabriele Giudice, and Alessandro Turrini. "The Tale of the Baltics: Experiences, Challenges Ahead and Main Lessons." European Commission, Directorate-General for Economic and Financial Affairs, July 2010.
- Eichengreen, Barry. *Globalizing Capital: A History of the International Monetary System*. 2nd ed. Princeton University Press, 2008.
- Frieden, Jeffry, David A. Leblang, and Neven T. Valev. "The Political Economy of Exchange Rate Regimes in Transition Economies." *SSRN eLibrary* (April 2008). http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1133567.
- Goldstein, Judith, and Robert Owen Keohane. "Ideas and Foreign Policy: An Analytical Framework." In *Ideas and foreign policy: beliefs, institutions, and political change*, edited by Judith Goldstein and Robert Keohane, 3-30. Cornell University Press, 1993.
- Gourevitch, Peter Alexis. *Politics in Hard Times: Comparative Responses to International Economic Crises*. Ithaca: Cornell University Press, 1986.
- Greskovits, Béla. *The political economy of protest and patience: East European and Latin American transformations compared*. Central European University Press, 1998.
- Haggard, Stephan. *The Political Economy of the Asian Financial Crisis*. Washington, D.C: Institute for International Economics, 2000.
- Hall, Peter. "The Role of Interests, Institutions, and Ideas in the Comparative Political Economy of the Industrialized Nations." In *Comparative politics: rationality, culture, and structure*, edited by Mark Irving Lichbach and Alan S. Zuckerman, 174-207. Cambridge University Press, 1997.
- Hansen, Morten. "Latvia: No victory yet, no defeat either." *A Fistful of Euros*, March 4, 2010.
- ——. "Latvia: No victory yet, no defeat either | afoe | A Fistful of Euros | European Opinion." A Fistful of Euros, March 4, 2010. http://fistfulofeuros.net/afoe/economics-country-briefings/latvia-no-victory-yet-no-defeat-either/.
- Hirschman, Albert O. Exit, voice, and loyalty: responses to decline in firms, organizations, and states. Harvard University Press, 1970.
- Hugh, Edward. "Latvia Devalue Now or Devalue Later?." *A Fistful of Euros*, June 8, 2009. http://fistfulofeuros.net/afoe/economics-country-briefings/latvia-devalue-now-or-devalue-later/.
- Kaminska, Izabella. "Waiting for Latvia to devalue." *FT Alphaville*, June 2, 2009. http://ftalphaville.ft.com/blog/2009/06/02/56497/waiting-for-latvia-to-devalue/.
- Kasa, Kenneth. "FRBSF: Economic Letter Why Attack a Currency Board? (11/26/1999)." Federal Reserve Bank of San Fransisco Economic Letters, November 26, 1999. http://www.frbsf.org/econrsrch/wklyltr/wklyltr99/el99-36 html
- Kirshner, Jonathan. "The Inescapable Politics of Money." In *Monetary Orders: Ambiguous Economics, Ubiquitous Politics*. Ithaca: Cornell University Press, 2003.
- Klyvienė, Violeta, and Lars Tranberg Rasmussen. "Causes of Financial Crisis: The Case

- of Latvia." Ekonomika 89, no. 2 (2010).
- Kolyako, Nina. "Ex-governor of Riksbanken: Latvia has no choice but to devalue currency." *The Baltic Course*, June 2, 2009. http://www.baltic-course.com/eng/finances/?doc=14427.
- Krugman, Paul. "Latvia is the new Argentina (slightly wonkish)." *The Conscience of a Liberal*, December 23, 2008.
- Krukowska, Ewa. "Latvia Traders See 53% Devaluation, Forwards Show (Update1)." *Bloomberg*, June 4, 2009.
 - http://www.bloomberg.com/apps/news?pid=newsarchive&sid=ahSknR7dFtFI.
- Mantzavinos, C., D. C North, and S. Shariq. "Learning, institutions, and economic performance." *Perspectives on Politics* 2, no. 01 (2004): 75–84.
- Odell, John. "Bounded Rationality and the World Political Economy." In *Governing the world's money*, edited by David M. Andrews, C. Randall Henning, and Louis W. Pauly, 168-193. Cornell University Press, 2002.
- "Republic of Lithuania: 2010 Article Consultation." International Monetary Fund, July 2010. http://www.imf.org/external/pubs/ft/scr/2010/cr10201.pdf.
- Rogoff, K. "The Risks of Unilateral Exchange Rate Pegs." *The Implications of Globalization of World Financial Markets* (1998): 153–70.
- Rosenberg, Christoph. "Why the IMF Supports the Latvian Currency Peg." *Roubini Global Economics*, January 6, 2009. http://www.roubini.com/euromonitor/254975/why_the_imf_supports_the_latvian_currency_peg.
- Saarts, Tõnis. "Political Parties and Party Systems in the Baltic States," Tallinn, 2009. http://www.tlu.ee/opmat/ri/rit6006/partysystem/4exe/.
- Stokes, Mary. "Devaluation in Latvia: Why Not?." *Roubini Global Economics*, December 31, 2008. http://www.roubini.com/euro-monitor/254905/devaluation_in_latvia_why_not.
- Taylor, A. M. "Latin America and foreign capital in the twentieth century: economics, politics, and institutional change." *NBER Working Paper* (1999).
- Vilpišauskas, Ramūnas. "Country Report Lithuania: Economic and Political Challenges of Acceding to the Euro area in the post-Lehman Brothers' World." Open Society Institute, October 2009.
- Vilpišauskas, Ramūnas, "Crisis as an opportunity for reform: only some windows open", in *Pinigu Studijos*, 2009, no. 2, p. 37-53.
- Weisbrot, Mark. "A Baltic future for Greece?," April 28, 2010. http://www.guardian.co.uk/commentisfree/2010/apr/28/greece-financial-crisis.
- Weisbrot, Mark, and Rebecca Ray. "Latvia's Recession: The Cost of Adjustment With An "Internal Devaluation"." Center for Economic and Policy Research, February 2010. http://www.cepr.net/index.php/publications/reports/latvias-recession-cost-of-adjustment-internal-devaluation.
- Wood, Barry. "Latvia: Digging out or digging deeper? Outside the Box." *Marketwatch*, April 1, 2010. http://www.marketwatch.com/story/latvia-digging-out-or-digging-deeper-2010-04-01.
- "World Economic Outlook 2010: Rebalancing Growth." International Monetary Fund, April 2010. http://www.imf.org/external/pubs/ft/weo/2010/01/pdf/text.pdf.

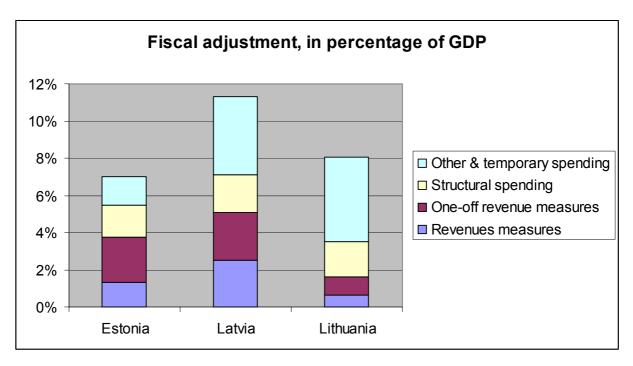
Appendix



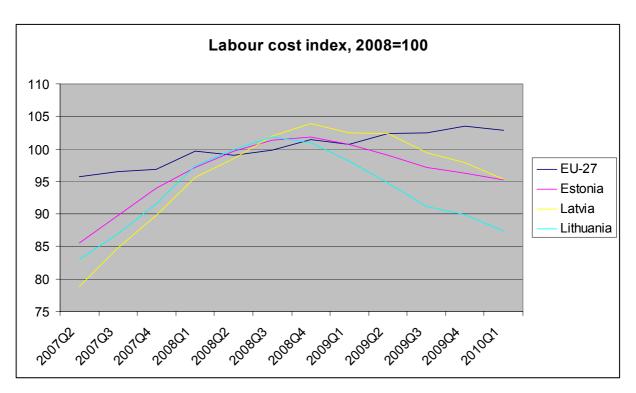
Source: Eurostat, 2010.



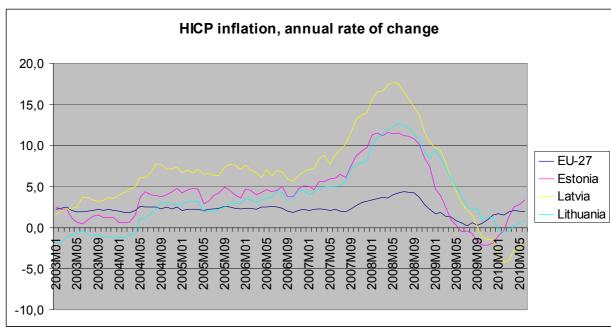
Source: Central Banks of Estonia, Latvia and Lithuania.



Based on "Republic of Lithuania: 2010 Article Consultation" (International Monetary Fund, July 2010), 8, http://www.imf.org/external/pubs/ft/scr/2010/cr10201.pdf. Source: IMF staff estimates.



Labour cost index shows the short-term development of the total cost, on an hourly basis, for employers of employing the labour force. The index covers all market economic activities except agriculture, forestry, fisheries, education, health, community, social and personal service activities. Labour costs include gross wages and salaries, employers social contributions and taxes net of subsidies connected to employment. Source: Eurostat, 2010.



Source: Eurostat, 2010.