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Reserves Can Help – the Case of Estonia

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1.Introduction

The Estonian economy has experienced a very rapid development after the country regained independence in 1991. However, a gradual decline in GDP growth rates started in 2007 and the Estonian economy entered into recession in 2008. The recession was amplified by the global economic crisis at the end of 2008 and beginning of 2009. Double-digit growth rates have remained, but the sign has turned negative. This paper analyses the following issues: What happened in Estonia, what were the reasons for overheating, why did the country enter recession, were there any policy options available to avoid or smoothen the current cycle, and what are the main policy challenges for the future?

The article starts with a short overview of the policy framework in Estonia, then discusses the main factors which have influenced development over the past years and concludes with an analysis of policy measures and options.

2. Economic Policy Framework in Estonia

Estonia has operated a currency board arrangement without deviations ever since the country introduced its own currency in 1992. The Estonian kroon has been tied to the German mark and later to the euro, which has ensured high stability of the Estonian kroon vis-à-vis euro area countries. It has also given a cornerstone to other economic policies.

The rule-based features of the currency board imply an important characteristic of the Estonian monetary policy framework – the absence of other active monetary policy tools. There is no central bank policy rate or any other operational monetary policy target in addition to the exchange rate in Estonia. The price stability objective is tied to the anchoring role of the exchange rate, and all the necessary adjustments are left to the market. This strategy also means that markets have to be flexible and market participants must understand the working mechanism of the

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currency board in order to cope well with different shocks. This has been the case in Estonia, where the currency board arrangement has been an important argument in shaping the policies of the product and labour markets to be more flexible. It also gives more importance to prudence in the financial sector and in fiscal policy, which have to cope with the negative shocks themselves, especially since the central bank's ability to support them is limited.

The main monetary policy instrument besides the forex window (through which the exchange rate parity is held) in Estonia is the reserve requirement. The task of the latter is to create sufficient liquidity buffers for commercial banks and to offset the limitations of the Lender-of-Last-Resort facility as well as the lack of other monetary policy instruments. The reserve requirement can also be viewed as a tool that implicitly affects broader monetary conditions through changes in the money multiplier or in the cost of resources for the banking sector. This possible effect is, however, questionable in the context of an open economy where there are no restrictions on capital movements, most of the financial sector is foreign-owned and no liquidity constraints are in place during "normal times". To sum up, this instrument is not an active monetary policy device, but rather aimed at supporting the efficient functioning of markets and creating sufficient liquidity buffers for the financial sector.

It is impossible to ensure financial system stability in a small and open economy without considering the developments in the international financial landscape. Therefore, the developments of both financial markets and the regulatory environment in Europe are particularly important for Estonia's open economy and financial intermediation and hence, our policy must be evaluated particularly in this light. Prudential ratios and other banking regulations are stricter in Estonia than prescribed by international standards, but this corresponds to higher macroeconomic and microeconomic risks, characteristic of an economy in a fast growth phase.

Eesti Pank's principles of safeguarding financial sector stability divide responsibility between the private and the public sector, increasing self-regulation and strengthening general management, improving good banking practices, as well as the transparency of activities and assumed risks. It is also necessary to improve market discipline through increasing the responsibility of owners and minimizing the possibility of moral hazard. The choice of monetary policy has been central to the development of the financial sector. Tight monetary policy with a fixed exchange rate regime has favoured the emergence of financial market discipline by reducing liquidity (from the central bank) available to the banking system, forcing banks to manage the liquidity available more efficiently and to build up their own liquidity buffers.

3. Developments before the Crisis Hit the World

In order to understand why the Estonian economy entered recession, and why it is discussed whether the convergence path in the past was unsustainable or not, one should identify the main drivers of growth since 2003. In Estonia's case, three main types of factors can be established when analysing growth dynamics: common cyclical, convergence related and structural factors.

Common Cyclical Factors

Estonia is a very small and open economy, which depends heavily on global developments. When Estonia joined the European Union (EU), its business cycle became even more synchronised with that of the euro area. Foreign demand was growing very rapidly between 2003 and 2007 and the monetary environment was extremely expansionary in the whole world, with very easy access to credit. Things started to change only in 2007, when first signs of a financial crisis emerged and food and energy price shocks started to impact economic activity in Estonia.

Convergence Related Factors

The Estonian economy started to function as a market economy at the beginning of the 1990s. It is much easier to grow faster from a low starting point, provided that one has good neighbours and the country's development is supported by good macro policies, as has been the case in Estonia. However, it has always been difficult to assess how fast the convergence process should be. At the same time, it has to be noted that the richer the converging country becomes, the slower the convergence process should be, indicating that the convergence factors that pushed growth differential ten years ago are much weaker now. There are different assessments indicating that on average, the Estonian economy should have grown some 3% to 4% faster than the EU average in the past and it should expand probably 2% to 3% quicker these days.

Structural Shocks

After joining the NATO and the EU in 2004, Estonia became part of the EU single market and more credible in the eyes of investors. This resulted in at least four positive shocks to the Estonian economy:

1. **Increase in productivity.** Estonia became member of the single market, thus our companies had better market access. Increased competition and investment in Estonia's companies also boosted the productivity of our enterprises.
2. **Enhanced labour mobility and increased wage expectations.** Free movement of labour meant better possibilities for the Estonian people to work abroad. It added pressure to wage increases and income expectations

escalated, since rapid convergence (at least to a certain level) was widely expected.

3. **Fast financial integration and longer maturities in lending.** This took place because Nordic banks started to look at Estonia as part of their domestic market. They acquired 100% of four bigger banks (approximately 95% of the market share) operating in Estonia and started to apply the same conditions on their loans here as in their home countries. Thus, credit conditions in Estonia were basically the same as in Scandinavia.
4. **Lower interest rates.** The risk premium on Estonia was declining very quickly and local interest rates converged with interest rates in older EU Member States

In reality, it is hard to distinguish between these factors. But even though the convergence related and common cyclical factors have played an important role in the developments of the past five years, the structural changes that occurred after joining the EU and the NATO are probably the most important. It could be argued that they were the main reason for the Estonian economic developments to differ from those in some other countries with more sustainable growth paths.

There were both positive demand and supply side shocks affecting the very fast credit growth which led to overheating in the real estate market and the construction sector and to large external and internal imbalances.

From the supply side, financial integration within Nordic Banking groups with its longer maturities in lending and lower interest rates meant that Estonia's households were able to borrow about twice as much as before at the same income level, even though other credit standards like down payments and the proportion of income allowed for debt servicing remained the same. The supply of credit was basically unlimited and totally demand driven in Estonia, since the Estonian market was very small compared to the balance sheets of the banks operating in Estonia. Because the banks were also competing quite heavily for their market share, and probably didn't have very adequate assessments of what is going to happen in the longer term, the limitations were clearly not there.

From the demand side, the main driver for growth consisted in expectations, because households became more optimistic about their future income level. On the one hand, this derived from the typical convergence hypothesis – becoming a member of the EU and joining the single market with free movement of labour, capital, goods and (to a lesser extent) services gave good reasons to expect that lower-income regions would converge to the same level as their richer neighbours. The convergence hypothesis was supported by strong export performance after joining the EU, with both services and goods exports growing very fast and productivity rising rapidly. On the other hand, free labour movement enabled people to work abroad if they were dissatisfied with their income in Estonia, adding to wage pressures at home (as average nominal wage in Estonia was approximately four times lower than in Finland). In Estonia's case the main influence came from its cultural, linguistic and geographical proximity to Finland. It meant that people did not have to emigrate in order to work abroad, because they were able to commute quite easily, if needed.

The demand for credit was also intensified by the lack of housing in Estonia. Estonian households' living conditions are worse than in the EU on average, since they have less square meters per capita compared to most other EU countries. On top of that, construction activity had been extremely low since Estonia regained independence, meaning that the quality of the existing housing stock was (and still is) very poor and there exist huge investment needs.

4. Policy Reactions

When the pace of financial deepening started to pick up, it was obvious that the developments were unsustainable. However, it was not (and is still not) clear whether and to what extent these developments were step-like (i.e., structural changes enabling fast permanent changes in income and productivity levels) or bubble-like (i.e., fast growth is to be followed by fast decline). At the moment it seems that both of them have a part to play.

In both cases the developments were unsustainable and incorporated several growing risks. Policy-makers started to react to the situation from the very beginning in Estonia. The currency board arrangement can cope effectively with different shocks, but it requires a strong banking sector that is able to manage the shocks. In addition, markets have to work well, and the government has to be flexible in its behaviour. As mentioned above, the currency board arrangement leaves little room for manoeuvre with monetary policy operations other than exchange rate. At the same time its simple rule-based features should help economic agents in the decision-making process and to formulate their expectations in line with the functioning of the system.

Policy reactions tried to address these issues in order to mitigate the risks that could harm the performance of the system and to strengthen its weaker parts. At least four types of policy reactions can be specified:

1. Manage expectations

In order to signal the working mechanism of the currency board, Eesti Pank started to warn about the risks incorporated in high credit growth through its regular public statements. Eesti Pank also advised the government to abandon different schemes that were in place to help people take mortgages, but not all of them were taken on board by the government (like abandoning the deduction of mortgage interest rates payments from taxable income). Signals that could have changed borrowers' attitudes (e.g. a rise in interest rates, signs of stabilisation in the real estate market, the postponement of adopting the euro, signs pointing to possible economic overheating) did not diminish optimistic future expectations very quickly.

2. Ensure a strong banking sector.

In order to make its signals more credible, Eesti Pank took steps to warn the banking sector about the unsustainable developments and risks related to it. Eesti Pank's first step was to delay its previously announced plan to lower the reserve requirement ratio in 2003, which had been raised to 13% on all liabilities in 1997. As the imbalances and risks continued to grow further in 2005 and 2006, Eesti Pank decided to take further measures. Several moral suasion measures were taken - giving recommendations to the banks together with the Financial Supervisory Authority, about good lending practices, and how to avoid the risks, meetings with home country authorities in order to point to the risks incorporated in fast credit growth in Estonia. As of 1 March 2006, the new procedure for capital adequacy calculation entered into force. Pursuant to that, banks had to increase the risk weight on housing loans used for calculating capital adequacy to 100% instead of the earlier 50%. As a result, the capital buffers of banks increased. However, this did not entail a change in the behaviour of borrowers and lenders. In order to limit strong domestic demand driven by loan growth and send another signal to the banks, Eesti Pank decided to raise the reserve requirement from 13% to 15% as of 1 September 2006. Since risks remained the same during the two-year forecast period, Eesti Pank decided to preserve the 100% risk weight on housing loans and the 10% capital requirement for the three-year transition period within the framework of the new capital adequacy accord (Basel II) that entered into force as of 2007.

3. Create buffers in the government sector.

The Estonian government has run a balanced budget strategy since the beginning of the 1990s and it continued quite successfully its prudent fiscal policy after the deficit during the Russian crisis, by having budgets in growing surpluses since 2001. The fiscal surplus reached approximately 3% of GDP in 2006 and 2007 and the government sector piled up more than 10% of reserves at the end of 2007 with almost no debt at the central government level. However, ex post one could still indicate procyclicality in fiscal policy in some years.

4. Better coordination with foreign supervisors

Estonia's financial sector mainly consists of the subsidiaries and branches of the financial intermediaries of other EU countries, which means that for Estonia it is inevitable to have very good cooperation with different authorities in home countries. Estonian authorities have continuously improved cooperation with its main partners in Nordic and Baltic countries. For example, Eesti Pank has concluded a multilateral memorandum of understanding with institutions responsible for the financial stability in the EU countries and with the central banks of Sweden, Latvia and Lithuania. In autumn 2007, the Nordic-Baltic regional financial crisis simulation exercise was conducted. Cooperation with Riksbank led to the precautionary agreement between Eesti Pank and Riksbank to put in place mechanisms how to provide liquidity to Swedish banks' subsidiaries in Estonia in case of a liquidity crisis.

When trying to assess the policy measures taken, one has to take into account that in case of a small and very open economy with a highly integrated financial system (within the Nordic banking sector), different measures on the financial sector might not have a very strong effect during the cycle. Fiscal policy also tends to have less effect in the case of a small and open economy, since the private sector can find unlimited resources from abroad and fiscal policy has therefore less power than in more closed economies. At the end of 2006 and beginning of 2007 clear signs that the credit and real estate cycle started to turn, emerged. It is unclear, whether it was a natural development amplified by the nature of the currency board arrangement, which helps anchor price expectations quite effectively, or whether the measures taken before also had a role to play.

It is hard to assess now, if some other policy measures could have helped to alleviate the cycle and avoid the overheating. For example, Eesti Pank suggested the government to abandon the deduction of mortgage interest rates payments from taxable income. It could have helped to somewhat lower the incentives to take a mortgage loan, though it was clearly not the primary incentive for borrowing. The main reason were very optimistic expectations and lack of housing. It is very hard even in retrospect to make a proper policy suggestion regarding how these problems should have been coped with, but an overall better policy mix probably could have helped.

Despite hikes in reserve and capital requirements, the behaviour of banks did not change very quickly. Credit growth continued to be high and banks were still very aggressive in the market. Expectations started to change only when comparable price levels started to converge and households and real estate developers started to doubt in further price rises (i.e., some comparisons showed that house prices in Estonia started to reach the levels of Germany, although they were still about twice lower than in the neighbouring Finland and Sweden).

The Estonian economy started to cool down more notably in the first half of 2007, when credit growth decelerated and real estate prices started to decline. The drop was amplified by the events abroad, where sharp increases in food and oil prices exerted a significant price shock on Estonia, making consumers less confident. Estonia's economy started to contract in the first half of 2008, mainly driven by domestic demand – both consumption and investment started to react to the changes in expectations.

However, labour market developments were still lagging behind, wage growth peaked and unemployment reached the bottom in 2008. Still, inflation expectations were very low at the beginning of 2008, indicating that market participants understood well how the currency board arrangement should work and that one-off price hikes were not the reason for another round of wage and price rises.

Unfortunately, the government was unable to quickly react to the turn of the cycle, since its behaviour was clearly procyclical in 2007, and its plans for 2008 were too optimistic, with expenditures continuing to rise some 20% in 2008. There are probably several reasons for that. One of them is that with no debt and having accumulated a significant amount of reserves (approximately 10% of GDP), it was hard for the government to justify a continuous build-up of reserves during good times (in 2007). In addition, Estonian exporters were performing quite well until the fourth quarter of 2008, when the financial crisis started to hit the world trade figures, indicating that there would be an orderly adjustment from the real estate boom. It also showed that there was no significant loss in exporters' market share and thus also no loss in competitiveness during the boom years, even despite very sharp wage cost increases in 2007 and 2008.

5. Current and Future Policy Challenges

The situation in the world changed dramatically after the collapse of Lehman Brothers in September 2008. After that event it became very difficult for a small country like Estonia or the banks from such a small country to get any financing from the markets. Another blow came from the trade channel, as exporters all over the world were hit very hard. The trade volumes of Estonia's main trading partners declined by about 30% or more.

Shocks of such magnitude have a significant impact on the small and open economy of Estonia. The timing of the shock was also very unfortunate, because domestic adjustment caused by the overheated real estate market and fast credit growth was already in progress: house prices were dropping, the current account deficit was narrowing very rapidly, and wage growth and inflation were moderating.

The additional shock led to a very fast contraction of the Estonian economy, reaching close to a 10% year-on-year GDP decline in the fourth quarter of 2008 and about a 15% decline in the first quarter of 2009.

The Estonian economy has shown its flexibility under the stress. Both domestic and foreign demand have collapsed and turnovers of companies are down at least 20%, indicating it is time for the enterprises to start making changes. The need has been more pronounced since the beginning of 2009. It is reflected by labour market indicators, which have reacted very quickly - average wages declined 1.5% and employment decreased 6.8 % in the first quarter of 2009. The current account deficit came close to balance at the beginning of 2009. Consumer prices have dropped and in May 2009 they were lower than a year before.

The shock put all the policy measures taken in the past and also the challenges ahead into a new perspective. In the short run it no longer mattered how good the other policies and plans for the future had been. The only thing that was important for a small country like Estonia was whether it had money in its pocket or not. That is when the past policy measures came in very handy for Estonia.

Since Estonia does not have any big domestic financial institutions (about 98% of the banking sector is foreign-owned), there has been no need for a government bailout of domestic banks. With the help of the measures taken by the governments and central banks in the home countries, the financing environment of the parent banks has stabilised and therefore the Estonian financial system has been quite resilient. Higher reserves in the banking sector are also helping a lot at the current juncture, especially because these reinforce confidence. With the required reserve ratio being 15% of all liabilities and around a half of the liabilities being borrowing from the parent banks, approximately 30% of the deposits are covered by the mandatory liquidity reserves that serve as buffers should a severe setback take place.

Higher capital buffers are also very valuable, since the banks operating in Estonia are facing quite significant loan losses. The average capital adequacy ratio is over 20%, which leaves enough free capital for the banks to cover their losses.

The government is facing the toughest challenges. The government had substantial reserves, which have allowed them to run a budget deficit without a need for financing from the markets. That has given the Estonian government some room for manoeuvre in the current situation, but it is not going to last forever. Government revenues have started to fall (in nominal terms) due to the very severe recession. The depth and length of the recession will remain unclear until the start of a new growth cycle.

Global uncertainties have also caused considerable mistrust towards the Estonian economy and the region as a whole. With sustainable fiscal policy being the most crucial element in building confidence, the government has started to make substantial improvements to the fiscal position. In the first half of 2009, the government has taken measures to cut the deficit by about 6% of GDP. The steps have been a mix of measures from both the expenditure and the revenue side. But still, it is an enormous challenge to achieve a sustainable fiscal position, since the cuts only helped to prevent the deficit from exceeding 10% of GDP and cut it to tolerable levels for 2009. Several medium and long term challenges are still ahead of us. For example, one option under consideration is to lower pensions, as expenditures on pensions to GDP have increased substantially because GDP has fallen. Some of the measures taken have also postponed payments to the second pillar of the pension system. These should be re-established, because problems related to ageing population have not disappeared.

Curtailing the fiscal deficit serves also another goal. Namely, the government intends to join the euro area as quickly as possible, in 2011 at the latest. It is clear that euro area membership should contribute a lot to restoring confidence among investors and economic agents. However, the task is not easy in the current environment.

7. Conclusions

The Estonian economy developed very rapidly after the country regained independence in 1991. After joining the EU and NATO, the pace of growth accelerated further, leading to overheating of the real estate and the construction sector. Despite several policy measures, such as raising reserve and capital requirements in the banking sector, budget surpluses, tighter cooperation in the supervisory field, and different measures to manage expectations, the developments did not change their course in the short run.

However, changes took place after expectations started to alter at the end of 2006 and beginning of 2007. It is unclear what exactly caused the changes (since the rapid developments in the credit and real estate market have not lasted for a very long time, only 3 to 4 years). One of the main factors seems to come from the monetary policy arrangement, namely from the fact that due to the fixed exchange rate, the price comparability is very easily understandable and real estate prices in Estonia started to converge to levels where further increases were not expected in the medium term. However, this could not avoid the overheating as the same problems emerged in other countries as well.

Even if the policy measures taken during the boom years did not contribute to turning the cycle in the short run, they were very helpful when the financial crisis hit the global economy after the collapse of Lehman Brothers. The reserves that had been accumulated in the good times gave the government the necessary space for manoeuvring and reserves in the financial system help stabilise it during the current turbulent times.