Macroprudential Policy in the Nordic-Baltic Area

David Farelius[1]

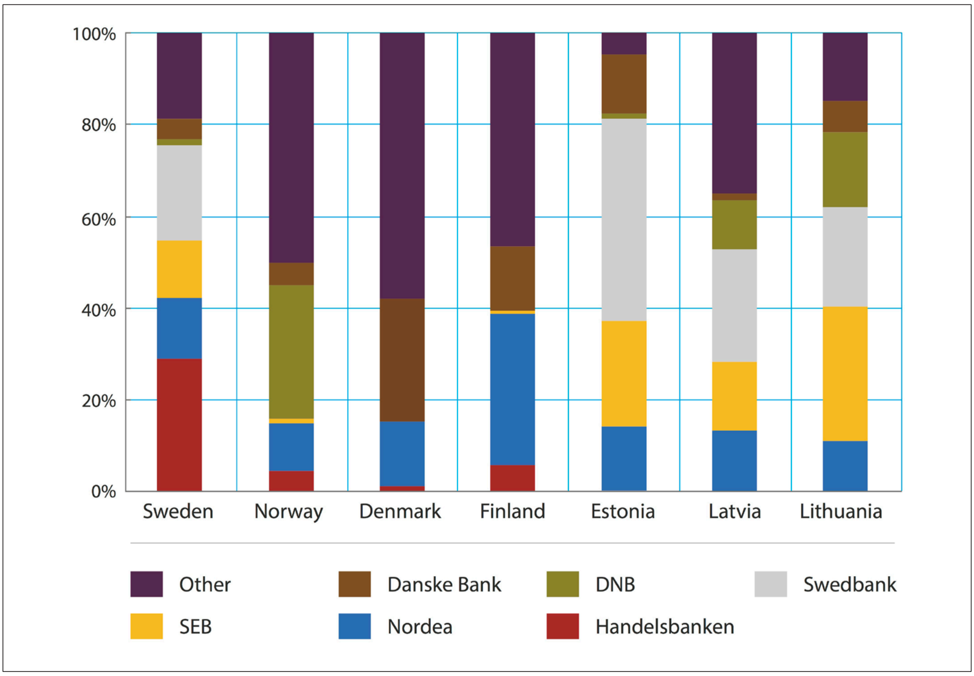
1. Introduction

The Nordic-Baltic region in the northern part of Europe is one of the most tightly integrated regions in the world, not least in terms of financial integration. Financial integration has also spurred the need to cooperate and tackle common risks and the region has a long history of cooperation in the financial stability area. Macroprudential policy, the new regime in economic policymaking, will be of particular importance for the region given the financial interlinkages and the need to tackle risks facing financial stability. The implementation of Basel III in Europe has brought about a number of new macroprudential instruments which are now starting to be implemented across the Nordic and Baltic States. The purpose of this paper is to provide an introduction and overview to macroprudential policy implementation in the Nordic-Baltic area.

2. Strong Financial Integration among Heterogeneous Countries

The Nordic-Baltic banking system is highly integrated, concentrated and dominated by a handful of large banks. Six regional banks make up 90% of total assets of the regions' publicly-listed banks.[2] The size of the banking systems is also large in relation to GDP. For example in Sweden, the size of the consolidated banking assets of the four largest banks is almost equivalent to four times the size of the Swedish GDP.[3] An important source of financing for the Nordic banking system comes from the domestic and international whole-sale markets. In Estonia and Lithuania especially, five of the six banks (Nordea, SEB, Swedbank, DNB and Danske Bank) dominate the banking activity (Chart 1). The cross-border linkages are mainly through subsidiaries. However, the largest bank, Nordea, has recently announced its intention to transform its subsidiaries into branches.[4]

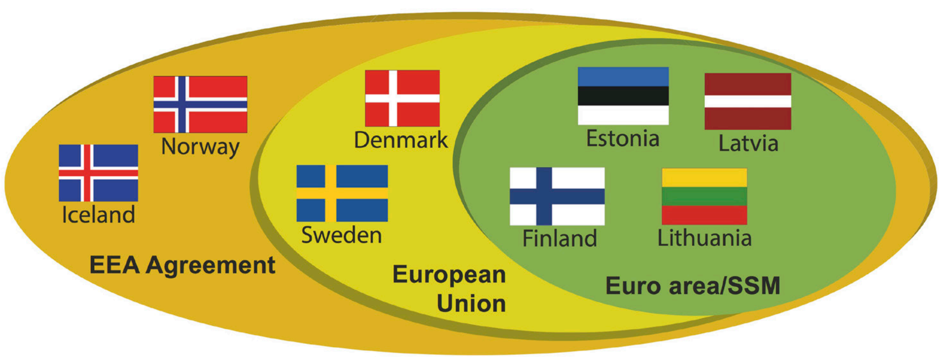
Chart 1
Bank Integration in the Nordic-Baltic Area: Share of Lending To The Public



Source: Statistics Sweden, Norges Bank, Statistics Norway, Statistics Finland, Association of Latvian Commercial Banks. Association of Lithuanian Banks, Estonian Financial Supervision Authority, Bank Reports, The Riksbank (2009).

At the same time, there are significant differences between the eight countries. Six countries participate in the European Union, while two countries are outside the EU. Four of the six EU countries are also euro area members and hence participate in the Single Supervisory Mechanism (SSM) (see Figure 1).

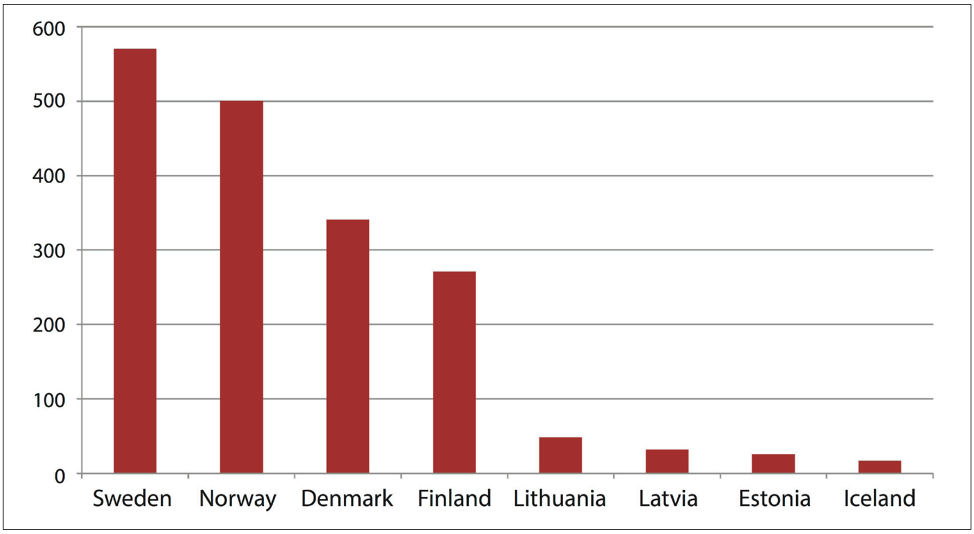
Figure 1
Classification of Type of Membership (EEA, EU, SSM)



Source: Nordic-Baltic Central Banks.

For those countries outside the euro area, three countries (Norway, Iceland and Sweden) are inflation-targeters with floating exchange rates while one country (Denmark) pursues a fixed exchange rate regime. GDP levels also differ significantly between especially the large Nordic countries and the three Baltic states, where levels in the latter are much lower (Chart 2).

Chart 2
GDP in 2014 for the Nordic and Baltic Countries (Billion USD)



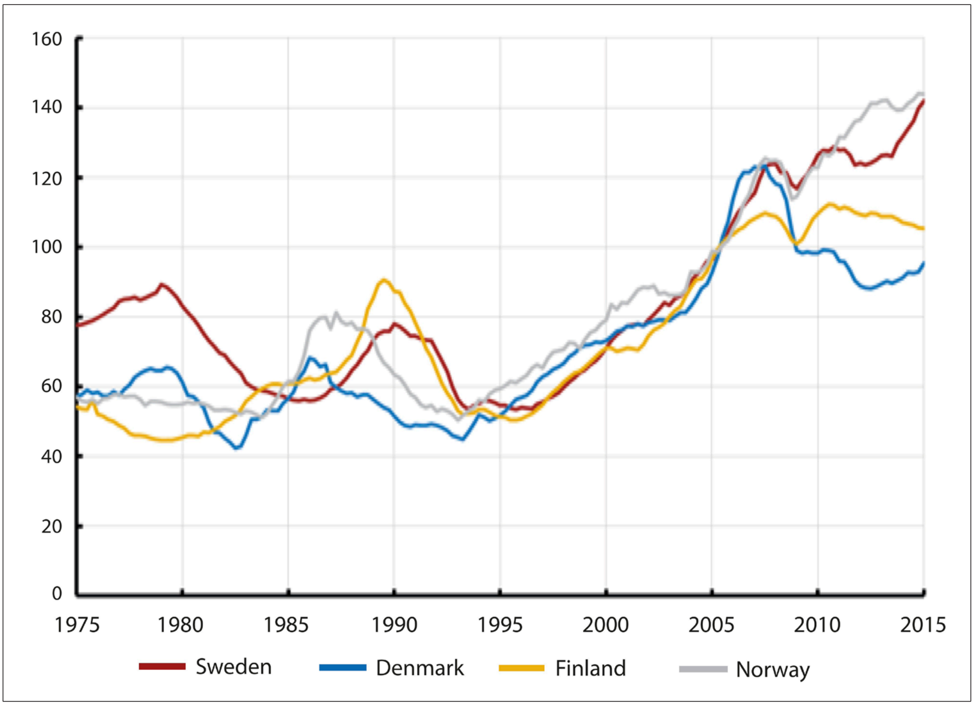
Source: IMF (World Economic Outlook).

3. Risks Facing Financial Stability in the Nordic-Baltic Countries

All eight countries have in recent history experienced financial crises in various forms. Norway, Finland and Sweden were severely hit by a domestic banking crisis in the late 1980s and early 1990's, all three ranked as part of the "big five" advanced economy crises according to Reinhart and Rogoff.[5] Iceland and the three Baltic States faced significant output losses during the 2008-2009 global financial crises. With these episodes in recent history, policy makers are aware of the need to curtail the build-up of imbalances that could lead to future crisis.

The Nordic and Baltic countries are faced with both domestic and regional risks to financial stability. Domestically, elevated house prices and household debt levels could make it more likely that house price or interest rate shock could be passed quickly into reduced aggregated demand.[6] Chart 3 shows that house prices have been on the rise in all Nordic countries during the last twenty years. In Norway and Sweden, the rise in house prices has been particularly prevalent. While Denmark experienced a fall in house prices during the financial crisis 2007-2008, recent data indicate that prices are on the rise again.

Chart 3
Real House Price Developments in the Nordic Countries



Source: Riksbank.

Following a period of high credit growth, the Baltic States were severely hit during the financial crisis in 2008 with subsequent large falls in house prices. This development has been reversed in the past few years but prices are still well below their peak prior to the crisis.

From a regional perspective, given the financial openness in the Nordic economies, spillovers from the pan-Nordic banking system are potentially large. From a structural perspective, the large size of the banking system relative to GDP could increase the potential severity of a crisis. Moreover, the relatively heavy dependence on whole-sale funding in some countries adds to risks. The introduction of macroprudential instruments via the capital requirements regulation and directive (CRR/CRD IV)[7] has paved the way for more diverse means of tackling both the cyclical and structural risks facing financial stability in the Nordic-Baltic region.

4. Macroprudential Policy Implementation

4.1 Choice and Design of Instruments

As is generally the case elsewhere, macroprudential policy is a fairly new concept in the Nordic-Baltic area. Prior to the financial crisis in 2008, macroprudential policy implementation was limited to a few cases involving instruments poised to dampen credit growth, for example the increase of risk weights for housing loans from 50% to 100% in the calculation of capital requirements in Estonia in 2006 or the LTV restriction implemented in Latvia in 2007.[8] As noted above, following the financial crisis and recently with the introduction of the CRR/CRD IV, both the number of available instruments and their actual use have increased. The implementation of macroprudential instruments in different countries should be seen in the light of different stages of financial cycles and different structural characteristics. Concerning the choice of instruments targeted towards imbalances in the housing market, the loan-to-value restriction is the most prevalent in the Nordic-Baltic region. As can be seen from Table 1, the LTV restriction is now in use or being phased-in in all Nordic-Baltic countries with levels ranging from 85 to 95%. Also in the European Union, the LTV is the most prevalent macroprudential tool.[9] Other instruments targeting the housing market are loan-to-income (LTI) restrictions or debt-service-to-income (DSTI) ratios. A few countries combine LTV with income-related restrictions. For example, in 2015 Estonia introduced a LTV of 85% combined with a DSTI limit of 50% as well as an amortization period of 30 years.[10]

Table 1
Macroprudential Policy Implementation in Nordic and Baltic Countries

	Denmark	Estonia	Finland	Iceland	Latvia	Lithuania	Norway	Sweden
LTV restriction	X	X	X*	X	X	X	X	X
DSTI		X				X		
Countercyclical capital buffer	X	X	X		X	X	X	X
Sector specific risk weight, risk weight floor							X	X
Systemic Risk Buffer (SRB)	X	X					X	X
Capital Conversation Buffer	X*	X	X		X	X	X	X
Additional capital requirements for Systemically important institutions	X**						X	X
Liquidity Coverage Ratio	X	X		X	X	X		X
Net Stable Funding Ratio				X				
Amortization requirements/ maximum loan maturity		X				X	X	X*

Note: Announced measures as of September 2015. The Table shows both implemented measures as well as the implementation of the legal framework for each measure. For example, in some countries, the legal framework for the countercyclical capital buffer is in place but the buffer is not activated above 0%. The systemic risk buffer (SRB) is intended to increase the resilience of the financial sector to non-cyclical risks that could have a serious negative impact on the national financial system or the real economy.

*= planned measure. **=SRB used for additional capital requirements for systemically important institutions.

Source: Nordic and Baltic Central Bank and Supervisory Authorities.

A few countries have also implemented measures in the risk weight area to address risks related to household debt and housing markets. In view of the very low risk weights resulting from the banks' internal models, both Norway and Sweden have taken measures to raise the floor on risk weights for mortgages.[11, 12]

The countercyclical capital buffer is also in the process of being implemented. Norway and Sweden are the sole countries in the region to have activated and implemented the buffer above 0% while all countries will have introduced the legal framework for the buffer by 2016. The introduction of amortization requirements will be implemented in Sweden in 2016 in the face of rapidly increasing household indebtedness. These amortization requirements were originally to be implemented in 2015 but due to uncertainties with respect to the mandate of the Swedish FSA to implement these restrictions, implementation has been postponed.[13] Amortization requirements are already in place in Norway since July 2015.

Tax incentives for borrowing is also fairly common in the Nordic countries although in a few countries there are discussions on reducing this incentive (Sweden) while reductions of tax deductibility have been adopted in both Denmark and Finland.

The exact design of the macroprudential instruments varies across the Nordic and Baltic countries. In some cases, they are designed as a strong guideline from the supervisor. For example, this applies to the LTV restriction in Sweden.[14] On the other hand, in the three Baltic States, the LTV restriction is a legal requirement.

4.2 The Effectiveness of the Measures

Given the relatively limited experience with macroprudential instruments in the Nordic-Baltic region, it is too early to draw any conclusions as to how effective the measures have been. Some countries in Asia have much more empirical experience. This is especially the case in South Korea, where measures were already implemented (for example the LTV restriction) in 2002. As stated above, it is only after the introduction of Basel III in Europe (via the CRR/CRD IV) that a broad range of macroprudential instruments have become available. In South Korea, the LTV and DTI restrictions are considered to have contributed to a dampening of house prices and household indebtedness.[15] Latvia introduced an LTV restriction of 90% in 2007, just prior to the onset of the financial crisis, which affected the country severely with rapidly falling house prices. While it is difficult to draw any firm conclusions as to the effectiveness of the measure, there was anecdotal evidence that the measure helped to reduce the speculative features of the housing market.

Lithuania introduced a number of measures in 2011 targeted towards the housing market.[16] The measures included a LTV restriction in combination with a DSTI restriction and an amortization requirement. These measures do not seem to have had a significant effect on credit growth, probably because the demand for housing credits was low after the financial crisis in 2008. Norway introduced a LTV restriction at 90% in March 2010 as a soft guideline from the FSA. This restriction was subsequently tightened to 85% in December 2011 and has recently been introduced in a regulation which also includes requirements for amortization.[17] While the increase in the rate of growth for mortgages in Norway has fallen since 2012 and there are some signs that the share of debt with very high LTV has been reduced somewhat, it is not possible to draw any firm conclusions as to the role of the LTV recommendation in this development, especially since it was only a soft guideline up until July 2015. Sweden introduced a LTV restriction at 85% in October 2010. The measure is deemed to have contributed in curbing the trend in recent years of rising loan-to-value ratios in Sweden. The mortgage cap has dampened household indebtedness and unsecured loans have become less common.[18]

4.3 What Does Research Say about the Effectiveness of Macroprudential Measures?

The limited research on the effectiveness of macroprudential measures so far shows that the measures with the most effect on credit growth and house prices are reserve requirements, increased risk weights and LTV-restrictions. Exactly how the instruments work differ from country to country. In some cases, the level of the instrument is important while in other cases, the change in level is more important. Kuttner and Shin (2012) examines the effectiveness of non-interest rate policies and macroprudential policy in a sample of 57 countries during 1980 – 2011. They find that housing credit responds in the expected way to changes in the maximum DSTI ratio, the maximum LTV ratio, exposure limits and housing-related taxes. Of the policies targeted at the demand side of the market, the evidence indicates that reductions in the maximum LTV ratio do less to slow credit growth than lowering the maximum DSTI ratio does. According to Kuttner and Shin, this may be because during housing booms, rising prices increase the amount that can be borrowed, partially or wholly offsetting any tightening of the LTV ratio.

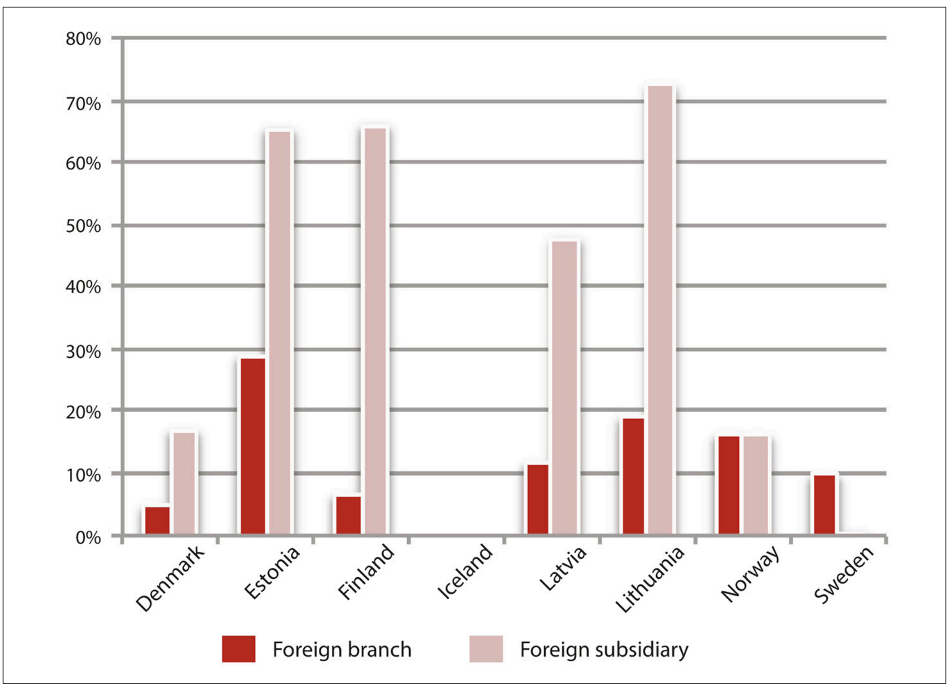
In the IMF (2015) studies of the use of macroprudential policies for 119 countries over the 2000-13 period, covering many instruments, it is concluded that emerging economies use macroprudential policies most frequently; especially foreign exchange related ones, while advanced countries use borrower-based policies more. Usage is generally associated with lower growth in credit, notably in household credit. Effects are less in financially more developed and open economies, however, and usage comes with greater cross-border borrowing, suggesting some avoidance. And while macroprudential policies can help manage financial cycles in booms, they work less well in busts.

Given the limited empirical experience of macroprudential policy implementation across the Nordic and Baltic countries, it is difficult to draw any conclusions as to how effective these policies have been. More time is needed for any conclusions to be drawn.

4.4 Reciprocation of Macroprudential Policy

Reciprocity of prudential requirements is widely regarded as a mechanism aimed at addressing the negative consequences due to the differences in prudential requirements in various countries for the same exposure in one of these countries. The term reciprocity refers to an arrangement whereby the authority in the home country recognizes the prudential requirement set by the authority in the host country, for exposures through a foreign branch or directly from the home market. This means that for countries with important branches from abroad, reciprocity agreements with the home supervisors of these banks will be important for the effectiveness of macroprudential policy. For example, consider a supervisor in a country with a banking system dominated by foreign branches that decides to activate a specific buffer (e.g. the countercyclical capital buffer) for domestic exposures. In order for the measure to be effective, a decision to reciprocate that measure from the home supervisor of the foreign branches would be needed. In the absence of such reciprocity decision, the buffer will only apply to domestic exposures within the supervisors' own jurisdiction and, hence, cover fewer exposures and become less effective. Chart 4 shows the relative importance of foreign branches and subsidiaries in the Nordic-Baltic countries. As can be seen, reciprocity for macroprudential policy will be important in for example Estonia, with around 30% of assets in the hands of foreign branches.

Chart 4
Relative Importance of Foreign Branches and Subsidiaries in the Nordic-Baltic Countries (Percent of Total Assets, 2013)



Source: Nordic-Baltic Central Banks.

Reciprocity is mandatory for some instruments in the CRR/CRDIV such as the countercyclical capital buffer (up to 2.5%) and some measures aimed at increasing risk weights and loss-given-default rates. For other measures, such as the systemic risk buffer, reciprocity is voluntary. There are already examples of voluntary reciprocity arrangements in the Nordic area. For example, both Denmark and Sweden have reciprocated a measure to make the calibration of Norwegian IRB-banks' risk weight models for mortgage loans stricter.[19]

Given the importance of reciprocity in some of the Nordic-Baltic countries, work on reciprocity issues started in the NBMF (see below) in 2013. This work was later fed into work at the EU-level and currently efforts are underway to design a voluntary framework for reciprocity within the EU. An underlying principle will be that measures targeting exposures (such as mortgages) should be reciprocated while there would be less of a presumption to reciprocate measures targeting institutions (such as buffers for systemically important institutions). The European Systemic Risk Board (ESRB)[20] will be given an essential role in the framework. In the context of this framework, which will be implemented as a recommendation of the ESRB, the EU member state activating a measure will have to notify the ESRB and ask for the measure to be reciprocated. The countries with banks having exposures in the activating country will have to reciprocate or explain the reason for not reciprocating.

One future development that could potentially have important consequences for reciprocity of macroprudential policy is an announced change of the legal structure of Nordea, the largest bank in the region. The bank has initiated preparatory work to simplify the legal structure by changing the Norwegian, Danish and Finnish subsidiary banks to branches.[21] According to Nordea, such a process could take around two years to implement. Should this change be implemented, it will imply that reciprocity issues will become even more important for the Nordic-Baltic area, not least for Finland as its largest domestic bank now would be in the form of a foreign branch.

4.5 Institutional Responsibility for Macroprudential Policy In The Nordic-Baltic Area

All eight countries have taken decisions to formally designate a domestic authority or body in charge of macroprudential policy. Iceland was the last country to do so in 2014 subsequent to the creation of its Financial Stability Council. As can be seen in Table 2, there are differences between how the countries have chosen to implement the institutional set-up. In some countries (Estonia and Lithuania), the central bank is in charge of macroprudential policy. In Finland and Sweden, the Financial Supervisory Authority has this role while for Norway; the Ministry of Finance is the designated macroprudential authority. In Denmark, the Minister for Business and Growth has the role as designated authority. Domestic cooperative bodies (councils) have been formed in Denmark, Iceland, Latvia and Sweden, bringing together relevant authorities in the macroprudential area. In the Icelandic and Swedish councils, the Ministry of Finance is the chair, while in Denmark; the Central Bank Governor chairs the Systemic Risk Council.

Table 2
Institutional Responsibility for Macroprudential Policy

	Denmark	Estonia	Finland	Iceland	Latvia	Lithuania	Norway	Sweden
Central Bank		X				X		
Supervisory Authority			X		X			X
Government	X						X	
Council	X			X				X

Source: Central Bank and Supervisory Authorities of the Nordic and Baltic Countries.

Some countries also make a distinction between the designated authority and the competent authority for macroprudential policy. For example, in Denmark, the Minister for Business and Growth is the designated authority for e.g. countercyclical capital buffer, while the supervisory authority is the competent authority for e.g. risk weights.

5. Nordic-Baltic Macroprudential Forum (NBMF)

Prior to 2011, there was no natural high-level platform for central banks and supervisory authorities in the Nordic-Baltic region to meet regularly. Nordic central banks have, for a number of years, been meeting in various forms and levels of seniority; for example the Nordic central bank governors meet regularly. The Heads of the Nordic supervisory authorities also meet regularly. However, there was no high-level forum for both central bank governors and heads of supervisory authorities in Nordic and Baltic countries. As the European Systemic Risk Board (ESRB) was created in 2010, involving both central banks as well as supervisory authorities, the Nordic-Baltic Macroprudential Forum (NBMF) started its operations in 2011 under the chairmanship of Stefan Ingves, Governor of the Riksbank.

5.1 The Mandate of the NBMF

While the NBMF is an informal body with no decision-making authority, the mandate of the Forum has been to discuss risks facing financial stability in the Nordic-Baltic countries and the implementation of macroprudential measures. The NBMF has also discussed a number of separate topics such as the application of risk weights in the Nordic-Baltic area, and reference rates. Separate work streams have been established for more in-depth examination of various topics. For example, the introduction and analytical frameworks of the countercyclical capital buffer has been monitored in the region. Reciprocation of macroprudential policy is also a topic that has been given special attention in the Forum. The NBMF has also discussed issues related to the ESRB, for example on FX-lending and coordinated a response from the Nordic and Baltic countries to the ESRB recommendation on FX lending.

5.2 Working Methods of the NBMF

When the NBMF was created in 2011, there was no formal body to prepare its meetings, nor a large secretariat to take on this role. Staff of Riksbank initially took on the role as secretariat as the Chair of the Forum is with the Governor of the Riksbank. Gradually it became clear that in order for the meetings of the Forum to be prepared in an efficient way, a technical group would need to take on such role. In 2012, a sub group to the NBMF had its first meeting under the chairmanship of the Swedish FSA. It also became clear that it would be useful at the meetings of the Forum to make a presentation on the current perception of risks facing financial stability in the Nordic-Baltic area as well closely follow the implementation of macroprudential policy in the region. Inspired by the ESRB, the NBMF sub group has since 2013 been collecting information by means of a regular questionnaire. This way, a consistent presentation on the current risk outlook as well as on macroprudential policy implementation can be presented at the meetings of the Forum, which are held twice a year.

6. Conclusions

Macroprudential policy implementation in the Nordic and Baltic countries is a fairly new concept with limited empirical experience. The introduction of the CRR/CRD IV in national legislation has both increased the availability of macroprudential instruments as well as their use. In addition, the institutional responsibility for macroprudential policy has now been clarified and decided in all of the eight countries. Concerning macroprudential instruments, the LTV restriction is the most prevalent instrument, followed by the increased use of the countercyclical buffer. It is too early to draw any conclusions as to the effectiveness of the macroprudential policy measures given the limited empirical experience. Reciprocity of macroprudential policy is important in the Nordic-Baltic context due to strong financial integration. Reciprocity arrangements will become even more important should Nordea conclude plans to transform their subsidiaries in Denmark, Norway and Finland into branches.

In a financially integrated region such as the Nordic-Baltic, cooperation in the macroprudential area has been promoted, not least with the creation of the Nordic-Baltic Macroprudential Forum (NBMF). The informal nature of the Forum has been promoting good discussions. The fact that the group is relatively small, with less than 20 persons around the table, has also likely helped. Work in the NBMF has been effective, for example, the work on reciprocity issues was initiated in the NBMF before work at the European level. As the work in the ESRB on reciprocity issues has started, the EU could benefit from the work that was already done in the NBMF.

For the future, a number of challenges will have to be tackled. One such challenge is that not all designated authorities of macroprudential policy are part of the Forum. As can be noted in Table 2, both Denmark and Norway have decided that the Government is the designated authority. While this challenge should not be overemphasized, this fact will most likely mean that the Forum will remain informal in the future as any strengthening of the mandate of the group would require changes to its composition. Another challenge is the fact that some countries of the Forum are members of the euro area and hence in the recently introduced single supervisory mechanism (SSM) among the euro area countries. The SSM assigns some macroprudential responsibilities to the European Central Bank (ECB) for countries in the euro area. The ECB is currently not taking part of the discussions in the Forum and given that it is an informal group, participation will most likely remain unchanged in the future as well. At the same time, as the implementation of macroprudential policy evolves, and given the role of the ECB in the implementation of macroprudential policy in the euro area countries, the question is whether there will be a future need to somehow involve the ECB in the Forum. Finally, should Nordea pursue its plans to restructure its operations from subsidiaries to branches, the role for reciprocity issues will likely become more important. This, in turn, could strengthen the role for the NBMF.

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David Farelius is Adviser in the Financial Stability Department of Sveriges Riksbank since September 2009. He has been concentrating his work on both financial stability risk assessments as well as the financial crisis resolution area, the latter for which he has prepared a few crisis simulation games. He has also worked on methods for systemic impact assessments. He has been involved in the work of the Nordic-Baltic Macroprudential Forum (NBMF) since it was created in 2011. He is currently Chairman of the work stream on reciprocity under the NBMF and also Chair of the Monitoring Working Group under the Nordic-Baltic Stability Group (NBSG). He has participated in the work of the European Systemic Risk Board (ESRB) as member of various working groups/teams: ESRB Assessment Team (assessing macroprudential measures notified to the ESRB), Analysis Working Group and Expert Group on cross-border effects of macroprudential policy and reciprocity. Prior to joining the Financial Stability Department, he has held positions at the General Secretariat in the Riksbank, the IMF and the Ministry of Finance in Sweden.

Endnotes

1. Disclaimer: The views and opinions expressed in this article are those of the author and do not necessarily reflect the official policy or position of the Riksbank or any other authority in the Nordic-Baltic area.

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2. IMF (2013.)
3. Riksbank (2015).
4. Nordea (2015).
5. Reinhart and Rogoff (2008).
6. Nordic regional report, IMF (2013).
7. European implementation of Basel III.
8. European Central Bank (2014).
9. ESRB (2015).
10. Eesti Pank (2014).
11. Finanstilsynet (2014).
12. Finansinspektionen (2014).
13. The original proposal introduced in the spring of 2015 included a requirement to amortize down to a LTV of 50% and would be applicable to new loans only (Finansinspektionen, 2015).
14. Prior to July 2015, the LTV in Norway was part of a soft guideline for prudent mortgage lending.
15. Tae Soo Kang (2014).
16. Bank of Lithuania (2011).
17. The regulation includes amortization requirement of 2,5% per year for loans with a LTV higher than 70%, a LTV restriction of 85% and a stress test for borrowers (borrowers must be able to manage a 5 percentage point interest rate hike) (see Finanstilsynet, 2015).

18. Finansinspektionen (2015).

19. The letter from Finanstilsynet (in Norwegian), the note describing the proposed calibration (in English) and the answers from the Danish FSA (in Danish) and the Swedish FSA (in Swedish) are available at Finanstilsynet's website: http://www.finanstilsynet.no/no/Artikkelarkiv/Aktuelt/2014/2_kvartal/Okte-risikovekter-for-boliglan--nordisk-samarbeid/

20. Created in 2010, in response to the ongoing financial crisis, the ESRB is mandated with the macroprudential oversight of the financial system within the European Union in order to contribute to the prevention or mitigation of systemic risks to financial stability in the EU. The ESRB is part of the European System of Financial Supervision (ESFS).

21. Nordea (2015).

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