Nordic Council of Ministers

FINANCIAL REGULATION AND MACROECONOMIC STABILITY in the Nordics

Nordic Economic Policy Review 2020

Contents

Financial Regulation and Macroeconomic Stability in the Nordics

Lars Calmfors[1]

Peter Englund[2]

[1] Research Institute of Industrial Economics and Institute for International Economic Studies, Stockholm University. Email: lars.calmfors@iies.su.se.

[2] Stockholm School of Economics and Uppsala University. Email: peter.englund@hhs.se.

1. Introduction

The financial system channels resources from savers to investors. It helps firms to fund new investments and households to smooth consumption over time. It allows entrepreneurs to offload risk on outside investors, and households and firms to access liquidity that helps them carry out their consumption and investment plans. A well-functioning financial system is essential to the workings of the economy. But the financial system, if left on its own, tends to be fragile. Once in a while, the system gets disturbed and a financial crisis shatters the economy. The Nordic countries all saw deep financial crises in the years around 1990 (starting already in 1988 in Norway and somewhat later in the other countries). In 2008, instabilities in the U.S. housing finance market, following a period of excessive credit expansion there but also elsewhere (for example in Denmark), spread to create a global financial crisis with serious ramifications for the Nordic countries, too.

The costs of financial crises for the real economy are usually large. Output falls, unemployment rises and stays high, and government rescue operations raise government debt. The effects tend to be long-lasting.

The insight that the financial system is fragile has since long motivated regulations of banks and other financial institutions. The global financial crisis proved that previously existing regulations were inadequate and triggered an overhaul of the regulatory framework. This is still work in progress.

Broadly speaking, risks and costs of financial crises depend on three factors: (i) the robustness of the financial sector itself; (ii) the robustness of the non-financial economy, households and firms; and (iii) the ways of resolving a crisis, should it occur. The regulatory framework that has emerged following the financial crisis addresses all three factors.

Traditionally, most regulatory effort has focused on the first of these factors: to make banks and other financial institutions safe enough. Negotiations under the auspices of the Basel committee have aimed at making banks sufficiently robust to withstand even very large shocks to solvency and liquidity.[3] This has resulted in a detailed web of regulations regarding capital requirements to ensure that banks are solvent with a sufficient margin, and on so-called net-stable-funding ratios and liquidity-coverage ratios to guarantee continued liquidity even during periods of severe stress. The new Basel III framework, a set of regulations developed in response to the 2007–2009 global financial crisis, is currently in the process of being implemented at the national level. The details and pace of introduction vary considerably across countries, with the Nordic countries generally at the forefront.

Research has shown a close connection between financial crises and indebtedness of the private sector: a rapid increase of private-sector debt in Finland before 1991, highly-leveraged real-estate developers in Sweden in 1992, subprime borrowers and owners of mortgage-backed securities in the U.S. in 2008, and over-consuming Danish households in 2009 played major roles for subsequent crises. As a result, much attention has been given to the fragility of private-sector balance sheets. So-called macroprudential regulation has emerged as a policy field of its own with new tools under development. In practice, measures have so far primarily concerned monitoring and regulation of household debt, e.g. in the form of amortization requirements as well as loan-to-value and loan-to-income stipulations.

The third important factor is how a crisis is resolved. Historically, large sums of taxpayer money have been used to bail out bank owners, often with lasting effects on sovereign debt and sometimes to such an extent that risk premia on sovereign bonds have soared with further feedback effects on government finances, which have in turn had repercussions on banks etc. (the infamous *doom loop*). To reduce the risk of the state having to take over failed banks, bail-in of creditors has been launched as an alternative to bail-out. The idea is that by letting some debt instruments absorb losses and converting such instruments into equity, an otherwise healthy bank which suffers large temporary losses can be kept in business with-

[3] The Basel Committee on Banking Supervision, hosted by the Bank for International Settlements (BIS) in Basel, is comprised of central banks and bank supervisors from 28 jurisdictions. The committee's mandate is to strengthen the regulation, supervision and practices of banks worldwide with the objective of enhancing financial stability.

out costs to taxpayers. Bail-in is a key part of the new resolution procedure for troubled banks agreed upon in the EU.

The Nordic countries have gone further in putting the evolving regulatory framework to work than many other countries. Capital requirements are generally set higher than required by the Basel rules, supervisory authorities are actively pursuing the macroprudential agenda with restrictions on household debt, and resolution planning is well advanced.

2. The articles in the volume

This year's volume of the Nordic Economic Policy Review is devoted to the question of how well the new financial regulations are likely to work and to what extent they will contribute to macroeconomic stability. Preliminary versions of the five papers in this volume were presented and discussed at a conference in Helsinki, hosted by the Finnish Ministry of Finance, on the 12th of December, 2019. The contributions address a number of pertinent questions:

- How stable is the financial sector in the Nordic countries today?
- Should monetary policy be used to stabilize household debt?
- What are the costs and benefits of amortization requirements and other elements of macroprudential regulation related to household debt?
- What are the prospects and problems of the new European bail-in rules?
- Which are the arguments pro and against non-euro countries joining the EU banking union?

The articles were all finished before the outbreak of the corona crisis, so they do not contain any assessments of the effects this might have on the interaction between the macro economy and the financial sector.

2.1 How stable is the financial sector in the Nordic countries?

Jesper Rangvid provides an overall assessment of financial stability in the Nordics. As a historical background, he gives a short recapitulation of the crises around 1990 and in 2008, and notes several common characteristics. Financial liberalizations helped trigger high growth in lending prior to the crises. Lending was often related to the real-estate sector. When the crises occurred, house prices dropped significantly, economic activity contracted, and unemployment rose. The paper extrapolates past growth trends to calculate losses from the crises in terms of foregone GDP. Losses accumulate to a staggering one or two years of economic output.

To analyse the current situation (before the corona crisis), Rangvid looks at a number of indicators with a potential to predict crises. Overall, the Nordic banking sectors are more robust today than before as a result of stronger regulation. Nordic banks are well capitalized compared with the period prior to the 2008 crisis and compared with banks in other European countries. Credit losses have been almost non-existent.

Lending has been growing at a steady pace but there are no signs of sudden bursts of lending, as has preceded earlier crises. In all Nordic countries, house prices and household debt levels are high by historical standards. In fact, growth in house prices and household leverage has been persistent during the last three decades (Denmark with faster growth before the global financial crisis, and a bust in house prices following it, being the only exception) and with no signs of a trend break in recent years. The overall conclusion is that traditional indicators of elevated risk of financial crises are not flashing red.

Low interest rates have contributed to raising asset prices, in particular house prices. Low interest rates make asset prices particularly sensitive to interest-rate movements. Recent asset prices reflect market expectations that interest rates will remain low for several years to come. Sudden unexpected increases in interest rates could, however, cause asset prices to fall. This would affect the wealth and solvency of households and could pose a threat to financial stability.

On the other hand, if interest rates remain negative for a long time, it could hurt bank profitability. If banks are unwilling or unable to pass on negative interest rates to depositors, bank profits will suffer.

In conclusion, Rangvid stresses that crises, almost by definition, emerge from unexpected directions, and mentions cyber risks as one such new source of a future crisis. That the next macroeconomic – and possibly financial – crisis would come from a virus was obviously not easy to predict. It was neither in Rangvid's nor in our list of potential economic shocks.

2.2 Monetary policy and household debt

Martin Gulbrandsen and *Gisle Natvik* address the interplay between household debt accumulation and monetary policy. Recent empirical evidence indicates that household borrowing may raise the risks of deep economic recessions. Hence, household debt accumulation seems a valid concern for a central bank aiming to stabilize economic activity. A common policy view is therefore that central banks should 'lean against the wind' and try to counter rises in household debt by keeping interest rates higher than what is motivated by concerns regarding only inflation and resource utilization. The authors challenge this conventional wisdom.

A growing research literature emphasizes the role of household balance sheets and cash flows in the transmission of monetary policy. An important feature of these contributions is that many households are assumed to be liquidity-constrained. Based on the logic of these models, a likely key channel through which real interest changes affect household behaviour is households' interest expenses: if a higher interest rate reduces the cash flows of indebted households, they may borrow more or repay less debt in order to smooth their consumption. In addition, interest hikes may raise the real value of household debt by pushing inflation down (the Fisher effect). The two effects both work in the direction of real-debt increases when real interest rates increase. This is in contrast to the traditional intertemporal substitution effect of interest hikes, according to which households are induced to re-allocate consumption from today to tomorrow as the relative price of future consumption falls.

One would expect high debt levels not only to pose risks to aggregate demand, but also to shape how monetary policy affects debt accumulation itself. The paper provides micro-level snapshots based on Norwegian data on how household cash flows and debt accumulation co-move with interest rates and inflation. Unlike the naive logic of stylized models, which stress intertemporal substitution, hikes in realized real interest rates are found to be associated with *higher* growth in real household debt. This pattern is driven by a strong association between inflation and real debt growth: the growth of real debt falls when inflation goes up and increases when it goes down.

The authors show that the positive association between the real interest rate and real-debt growth is driven by 'stayers', i.e. households that do not change address (the intensive margin). This is consistent with these households following nominal amortization plans under existing mortgage agreements. In contrast, 'movers' (the extensive margin) enter into new mortgage agreements when buying a new home, which gives more scope for intertemporal substitution to play out.

This descriptive evidence illustrates why careful microeconomic studies are needed to inform discussions of how monetary policy should best respond to household debt movements. The authors caution policymakers against pursuing contractionary policies that reduce inflation in the belief that this will curb real debt. By lowering inflation, such policies might backfire by leading to higher, not lower, household real-debt burdens. Rather than to explicitly target stabilization of debt per se, it might be better if central banks simply target inflation at not too low levels, yielding stable real-debt growth as a by-product.

2.3 Macroprudential policy and household debt

In the last decade, macroprudential policy has evolved as a new policy area. Analysing the Swedish experience, *Lars E. O. Svensson* discusses if and when household debt poses a financial-stability problem that should be addressed by macroprudential measures. He argues that the measures undertaken by the Swedish Financial Supervisory Authority, *Finansinspektionen* (FI), such as amortization requirements and loan-to-value caps, have led to a substantial credit tightening with no demonstrable benefits but substantial individual and social costs.

Svensson scrutinizes the analysis behind these measures. They are largely based on the view that there is a risk that highly indebted households may sharply reduce their consumption after a macroeconomic shock, which could deepen an economic downturn, such as happened in other countries during the 2008–2009 financial crisis. Credit tightening is supposed to reduce this risk by reducing household indebtedness.

According to existing empirical research, quoted by Svensson, the consumption fall in those other countries was not caused by indebtedness in itself but by households' having used mortgages to finance an unsustainable consumption boom before the crisis, which turned to a bust and thus contributed to the crisis. But Svensson sees no signs of such over-consumption recently in Sweden, where the saving rate, on the contrary, has risen to a historic high. Furthermore, Svensson argues that households' ability to maintain consumption when income falls does not depend on indebtedness per se but on cash-flow margins and access to liquidity. In this sense, amortization requirements are counterproductive, since they tend to reduce both cash-flow margins and access to liquidity, thereby increasing the income sensitivity of consumption and reducing macroeconomic stability.

The credit tightening also distorts household decisions by increasing housing expenditures and hampering consumption smoothing for those affected. In particular, the tightening limits the access to the housing market for young persons and other market entrants (outsiders). Overall, the macroprudential regulations that have been introduced in Sweden have a regressive profile by reducing welfare for households without sufficiently high income or wealth.

The article includes suggestions for a better-functioning mortgage market as well as proposals to reform the governance of macroprudential policy through a separate decision-making body (a Macroprudential Policy Committee) comprising both internal members from the FI and outside experts. The committee's work should according to the proposal be evaluated by a new Macroprudential Policy Council working along the lines of the fiscal councils that have been established in most EU countries, including in Sweden.

2.4 Bail-in and the new resolution framework in the EU

Esa Jokivuolle, Vesa Vihriälä, Kimmo Virolainen and Hanna Westman analyze the new bail-in rules that have been introduced in the EU as a part of the regulatory reforms after the global financial crisis. Instead of bailing out bank creditors by public authorities, creditors are now expected to share the burden of bank failures along with owners.

The European resolution framework is based on the EU Bank Recovery and Resolution Directive, which sets clear rules for the planning and execution of bank resolution, including the bail-in of creditors. The institutions for the implementation of bank resolution are largely in place. Nevertheless, not all banks in Europe have yet modified their liability structures to meet the requirements set by the authorities, nor have decisions been taken on all details of the supporting legislation. So far, there is very little evidence on how the new rules work in practice. In the Nordic countries, the only examples of bail-in come from a couple of rather small Danish banks.

The new resolution approach based on bail-in serves two related purposes. First, it is intended to reduce risk-taking incentives for banks. Second, it will limit (ideally eliminate) taxpayers' costs should a crisis occur. However, bail-in also involves risks and practical difficulties. A key challenge is to prevent contagion to other financial institutions if a major – systemically important – institution should be subject to bail-in. The risk of contagion may be particularly important in a situation of widespread economic weakness when many institutions may have to be resolved at the same time.

The systemic challenge of contagion is particularly important in the Nordic countries with a concentrated and highly interconnected banking system. Fortunately, Nordic authorities and banks are well advanced in their resolution planning. This gives some confidence that the resolution of even a large Nordic bank should be manageable without devastating financial-stability consequences, at least when the failure has idiosyncratic roots and is not part of a systemic crisis.

2.5 Pros and cons for non-eurozone countries of taking part in the banking union

The European banking union is a project aimed at unifying banking supervision and resolution across the EU. It consists today of two components: the Single Supervisory Mechanism and the Single Resolution Mechanism. A third proposed component, but one which has not yet been agreed upon, is a European Deposit Insurance Scheme.

Karolina Ekholm discusses the pros and cons of taking part in the banking union from the perspective of EU member countries remaining outside the euro area in the foreseeable future, i.e. Denmark and Sweden in particular. The starting point is the banking union as it has evolved until today, with centralized mechanisms for supervision and resolution and some risk-sharing elements in the form of a resolution fund and an agreed backstop to that fund.

Ekholm stresses that the potential benefits as well as costs are highly uncertain. Expanding the banking union is likely to lead to more efficient resolution of cross-border banks, with less ring-fencing and therefore smaller overall losses. It may also be conducive to a more efficient organisation of bank activities in Europe and thereby to a more efficient market for banking services. Part of the benefits from an additional country joining will accrue to the other countries of the union. A potential gain from joining is that the ECB, which is responsible for the supervision of systemically important banks in the banking union, might build up more expertise in carrying out this task than national supervisory authorities and be subject to smaller risks of regulatory capture. But against this, one must set the risk of a more heavy-handed and stylized approach that may fail to take specific national circumstances properly into account.

The benefits of participating seem smaller for non-euro countries than for countries in the euro area. Only the latter benefit from a weakening of the existential threat to the common currency itself.

At the same time, the potential costs of participating in the banking union seem low for non-euro countries. Unlike the euro area members, non-euro countries have the right to leave the banking union after three years or after disagreeing with a decision made by the single supervisor. The legacy problems associated with a larger share of non-performing loans in some southern European countries could, however, imply a risk. Ultimately, the assessment of net benefits depends on the broader value put on closer cooperation with euro-area members in matters related to financial integration and financial stability.

3. Lessons learned

Many observers, including international organizations like the IMF and the EU Commission, have repeatedly focused on high and growing household debt as a major threat to macroeconomic stability in the Nordic countries. The articles in this volume offer important insights into various aspects of the relation between debt and stability. Rangvid notes the strong statistical relation between past *growth* of debt and the occurrence of financial crises, but stresses the absence of a relation between the *level* of debt and crises. The recent Nordic situation has been characterized by a high debt level, but modest debt growth. Hence, according to this reasoning, there is no prima facie cause for concern.

Two contributions look at the association between economic policy and debt. Guldbrandsen and Natvik study the ability of monetary policy to affect real debt. They take issue with the common idea that raising interest rates will lead households to save more and borrow less. The authors show that this ignores two counteracting effects. First, increasing interest payments leave less income to amortize existing loans. Second, a higher interest rate tends to lower inflation and thus to raise real debt. This suggests that the net effect of monetary policy on real debt is ambiguous and that central banks are better advised to focus solely on inflation.

If monetary policy has little effect on real debt, it is natural to turn to macroprudential policy. Before employing instruments such as amortization requirements, loan-to-value caps or loan-to-income stipulations, one should, however, as argued by Svensson, examine how debt is being used. Judging from recent experiences, high and growing debt only poses a threat to macroeconomic stability in situations when it is used to finance a consumption boom. Otherwise, there are strong disadvantages of making households more credit-constrained.

Financial crises tend to become international by nature. Even if they originate nationally, they usually have large international repercussions. Systemically important banks invariably operate across national borders. This suggests the need for international co-operation in supervision and regulation. Resolution of banks with operations in many markets and funding from the world market is complex to handle for domestic authorities in purely bilateral co-operation with their counterparties in other countries. From this perspective, there are good arguments for Denmark and Sweden to join the European banking union. This would also, in principle, allow risk sharing across borders. The main counterargument is the legacy of weak banking structures in several south European member countries which implies a risk that new entrants into the banking union may have to share the burden of bank failures there. Even if the long-run objective is to join the banking union, there may thus be an option value of waiting and finding out if the legacy problems can be sorted out. The downside of such a strategy is that Denmark and Sweden will have much less impact on the banking union's continued development, not least regarding a deposit insurance system.

All papers in this volume were written before the corona outbreak. This represents a different type of shock than those that have triggered earlier financial and macroeconomic crises. It is a shock originating in the real economy that simultaneously affects supply, as people are locked out from many workplaces, and demand, as people are confined to their homes with limited possibilities of purchasing goods and consuming services. Even under the most favourable assumptions, the short-run macroeconomic effects will be huge. At the time of writing, the adverse effects are dramatic for some sectors of the economy, including restaurants, transportation and tourism, where many actors have lost almost all revenues because of the falls in demand. But also the manufacturing sector is hard hit. This reflects both broken international supply chains and reductions in demand when both consumption and investment fall worldwide.

Although the economic repercussions of the corona outbreak started in the real economy, they will likely impose enormous pressure on the financial system. At first, many firms and households will encounter liquidity problems, and later many firms will face bankruptcy. The amount of non-performing loans will rise, and lenders are bound to face large credit losses. Banks will have to identify which firms may be solvent in the long run. Problems will be aggravated by the huge uncertainty about the dynamics of the epidemic.

The banking systems in both the Nordics and elsewhere were stronger at the start of the corona crisis than they were at the outset of the global financial crisis in 2008. As the current crisis unfolds, the financial system and the new regulatory framework will be put to a much harder test than anyone could have expected. In particular, the resilience of the new bail-in rules in Europe may undergo a worse stress test than any regulator would have been able to design. It remains an open question whether government bailouts can be avoided if a systemic bank crisis follows. We suspect not. But at the time this volume is published we will know more than at the time of writing.

Crises – not least financial ones – arrive unexpectedly: if they had been widely foreseen, they would probably have been avoided. We are not aware of any pre-crisis analyses or stress tests of the financial sector's resilience that have featured a scenario – or even type of shock – such as the one now occurring. This underscores the importance of building regulation and supervision systems that are so robust that they can withstand also the unthinkable. Almost by definition, this will be impossible, but the better we succeed, the less will be the need for hasty improvisations and the smaller will be the adverse consequences.