Assessment of the Riksbank's Work on Financial Stability Issues

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1. Introduction

The Riksbank has been an innovator among central banks with regard to financial stability issues. It was the first to publish a separate financial stability review in 1997. Many other central banks have now followed this lead. Its financial stability group pioneered much of the analysis that goes into such reports. In addition, the Riksbank has been at the forefront of conducting crisis management exercises and putting in place procedures to deal with a crisis in the event that one should occur. Now that these innovations are well established, it seems an opportune time to step back and ask how the Riksbank's financial stability work should develop going forward. The purpose of this report is to help with this process.

The committee has been asked to focus on the Financial Stability Reports (FSRs). The assessment is mainly based on FSR (2003:1 and 2003:2). We have also been asked to comment on the analytical framework for financial stability (which we do as part of our discussion of the FSR), and consider other aspects of the Riksbank's work on financial stability such as crisis management.

The report starts with a brief discussion about what a central bank and regulators should be doing about financial stability. We then go on to consider what the Riksbank is currently doing and make suggestions for changes. Our group consists of an academic, a banker and a representative from the IMF. We hope to bring all of our perspectives to bear in this report.

2. What Should the Public Authorities Do about Financial Stability?

Financial stability has become an important explicit goal for the public authorities such as the central bank, the Financial Supervisory Authority, and other regulatory bodies. The financial system is the central nervous system of the economy. Recent experiences in developed countries such as those in Scandinavia and Japan as well as in emerging economies such as those hit by the Asian crisis show that disruption of the financial system can impose heavy costs on an economy. This can be through direct effects in terms of lost wealth and indirect spillovers to the real economy. Many financial crises are associated with severe recessions.

There are numerous forms that a financial crisis can take. As a result there are many actions that the public authorities should take. The actions include the following.

1. ENSURE THE INTEGRITY OF THE PAYMENT SYSTEM

The Riksbank has a specific mandate to promote a safe and efficient payment system.[1] A significant part of this responsibility is to ensure that the technology of the payment system is as reliable and effective as possible. The protocols of the system should be such that problems similar to those that occurred when the Herstatt bank failed in 1974 are avoided. In that case many banks made payments in foreign exchange transactions expecting a return payment from Herstatt. The return payment did not come, however, because Herstatt went bankrupt. Problems from operational risk should be minimized. Guarantees within the payment system need to be such that there are no incentives for parties to game the system.

2. AVOID DISRUPTION OR COLLAPSE OF THE BANKING SYSTEM

In many crises the pace of developments is such that a number of banks go bankrupt together. This can happen as a result of asset price bubbles where stock and real estate prices rise above their "fundamentals". It can also happen when a problem in one financial institution spreads by contagion through the interbank or other markets to other financial institutions. The possibility of this kind of contagion often leads to a "too big to fail" problem. A large bank may feel that it will always be bailed out because a collapse would bring down the entire system. As a result it is often argued there is a moral hazard problem and the bank may be willing to take excessive risks.

[1] Our understanding is that this is a narrow translation of the Swedish term used in the relevant legislation. A fuller translation would involve not just the payment system but a more comprehensive coverage of the financial system as a whole.

3. ENSURE THE STABILITY OF OTHER FINANCIAL INTERMEDIARIES SUCH AS INSURANCE COMPANIES

Banks and other financial institutions are linked through a whole web of transactions. A disruption in one part of the financial system can quickly spread to other parts. As a result the central bank and regulators need to also monitor other intermediaries such as insurance companies, pension funds, mutual funds, and hedge funds.

4. MITIGATE THE EFFECTS OF INTERNATIONAL SPILLOVERS

In many instances a crisis spreads from overseas. For example in Asia, the crisis in 1997 started in Thailand and spread around the whole region. One important issue is how countries can prevent this type of contagion. In Sweden the main risk from international spillovers may come from the fact that Swedish banks are heavily involved in other Nordic countries, Germany and the Baltic nations.

5. MINIMIZE ASSET PRICE COLLAPSES IN ILLIQUID MARKETS

Financial systems can be fragile if markets are illiquid. One classic illustration is provided by the Long Term Capital Management (LTCM) episode in 1998. The Federal Reserve Bank of New York became concerned about LTCM posing a systemic risk. LTCM was a hedge fund that was large in absolute terms but small relative to the US economy. When it became overextended the Fed became worried about its positions, particularly those in illiquid markets. They felt that if these were liquidated quickly there might be a meltdown in asset prices which would cause more bankruptcies, further liquidations, and prices would fall even further. To avoid this scenario, the New York Fed helped coordinate a private takeover of LTCM.

6. MONITOR NEW RISKS

Innovations in the financial system and other new developments mean that the source of crises is constantly changing. When the structure of a financial system is relatively simple, central banks can potentially pump liquidity into an economy to mitigate the effects of an asset price collapse. The actions of the Fed after the 1987 stock market crash are one illustration. However, as the number of markets has increased and because the participation in each is limited, it is more difficult for a central bank to ensure that any liquidity it pumps in reaches the right market. With

LTCM, for example, this would probably not have been an effective way to intervene if it had gone bankrupt. This is just one illustration. Central banks and regulators must be constantly vigilant for new ways in which crises can arise. Currently, one potential threat would be the transfer of risks from one sector to another through the use of credit risk transfers. This may help to diversify risk but alternatively, it may concentrate risk through regulatory arbitrage and increase the probability of a crisis.

7. CRISIS MANAGEMENT

Although crises are typically quite costly this does not mean that they should be avoided at all costs. Crises can be prevented by making sure that banks and other financial institutions take very little risk. This is effectively what happened in the period of heavy regulation after the Second World War. There was only one banking crisis in the world (Brazil 1962) between 1945 and 1971.[2] However, the regulation was so severe that it prevented the financial system from performing its proper function of allocating investment. This led to financial liberalization and deregulation and crises returned. If restrictions like those in the postwar period are regarded as undesirable and are removed, crises will sometimes occur. Once a crisis has occurred there is the short run issue of how to minimize its damage. This is the issue of crisis management. It is important that central banks and regulators have some understanding of how to react in crisis situations. This should involve crisis exercises and procedures that have been previously thought out so that the limited time available during a crisis can be focused on managing the crisis itself.

8. ENSURE THE ROBUSTNESS OF THE FINANCIAL SECTOR AND THE ECONOMY WHEN CRISES OCCUR

Given that crises are likely to occur at some time, another important objective is the more long-run one of trying to ensure that the financial and real sectors are robust enough to withstand such shocks with as little disruption and cost as possible. The policy framework must be structured to minimize damage. This includes the supervision of banks and other financial institutions. It also includes, for example, ensuring accounting standards provide sufficient transparency and bankruptcy procedures are structured to avoid large numbers of assets being liquidated at the same time and causing a sharp drop in prices. Ensuring firms have sufficient

[2] See Bordo, M. & Eichengreen, B., (2000), "Is the Crisis Problem Growing More Severe?" working paper, Rutgers University.

financial buffers is another example of a strategy that may improve robustness.

3. What the Riksbank is Doing and Recommendations for Changes

We should start by saying that we think the Riksbank is doing a very good job in terms of fulfilling its responsibilities regarding financial stability. Our suggestions below are to improve the Riksbank's contribution from what is already a high level.

The three pillars of financial oversight in Sweden are:

- Regulatory framework for supervising individual banks
- Day-to-day oversight of systematic stability
- Oversight of the financial structure and crisis management

The first question that naturally arises with respect to this system is the precise division of responsibility for these three pillars between the Riksbank and the Finansinspektion (the Swedish Financial Supervisory Authority or FSA). The first pillar would naturally seem to be the responsibility of the Finansinspektion while the third falls under the Riksbank. The second is not so clear.

The official position on the relationship between the Finansinspektion and the Riksbank on the division of labor and co-operation with regard to financial stability and efficiency is laid out in an agreement that can be found at
www.riksbank.com/upload/Dokument_riksbank/Kat_AFS/overenskommelse_eng.pdf

This document points out that the Finansinspektion's "main objectives are to contribute to the stability and efficiency of the financial system by setting standards, issuing licenses and supervision, and to actively promote satisfactory consumer protection". The Riksbank has the task "of promoting a safe and efficient payment system. To carry out this task the Riksbank conducts a general oversight of the financial system as a whole but with the main focus on the largest banks and clearing organizations because of their central significance for the functioning of the payment system". The document goes on to describe the Riksbank's main tasks and responsibilities as oversight and emergency liquidity assistance. The Finansinspektion's are supervision, licenses and sanctions, and issuing regulations. The mechanisms for interaction such as consultation groups and for the exchange and collection of information are described.

The task of the Riksbank to promote a safe and efficient payment system is laid out in the Sveriges Riksbank Act 1998. Relative to current views of financial stability as discussed in Section 2 above, this is rather narrow.[3] Other central banks have a wider remit with regard to financial stability. For example, the Norges Bank has as its remit to "contribute to a robust and efficient financial system" (see p. 3 of the Norges Bank's June 2004 Financial Stability Report). However, in practice, it is not clear that they are that different. Financial instability can be triggered by a wide range of events. Ultimately, this instability will have an impact on the payment system. Thus the Riksbank needs to consider the full range of factors relevant for financial stability. In what follows we shall interpret it broadly so that in order to have a safe and efficient payment system it is necessary to have a stable financial system.

3.1 THE FINANCIAL STABILITY REPORT

One of the most important contributions of the Riksbank to fulfill its task with regard to stability is to publish the Financial Stability Report. As mentioned above, this was the first separate financial stability report and has been widely imitated. Other countries publishing an FSR include Austria, Belgium, Canada, Denmark, France, Hungary, Norway, Spain, and the UK. We think the Riksbank's FSR is already a very good publication. However, we have the following suggestions for improvements.

Objectives

Although it might be set out elsewhere, it is notable that the FSR does not explicitly lay out its own objectives. The Foreword to the FSR sets out and motivates the general structure of the publication, but otherwise refers only to the Riksbank's statutory responsibility to promote a safe and efficient payment system. This is appropriate for the starting point, but in the absence of more specific and explicit objectives for the publication itself, seems to imply that the FSR should be seen only as an instrument for the accountability process. By way of example, we note that in their equivalent FSR, the Bank of England highlights a concise summary of the publication's objectives on the inside front cover. They record the aims as:

- To encourage informed debate on financial stability issues
- To survey potential risks to financial stability

[3] Part of this apparent narrowness may result from a poor English translation of the Swedish terminology used – see footnote 1 above.

- To analyze ways of promoting and maintaining a stable financial system

Our suggestion for the objectives of the Riksbank's FSRs are:

1. To inform stakeholders of the Riksbank's analysis of potential financial stability risks and ways to mitigate them.

2. To encourage informed debate on financial stability issues.

3. To serve as an accountability instrument.

4. To help provide information that major participants in the Swedish financial industry and elsewhere may use as part of the input into their own risk assessment procedures.

The first objective combines the second and third statement in the Bank of England's list. We have put "informed debate" next. In our view, the key objective for a body with a general financial stability responsibility should be to identify possible risks and the ways to mitigate them. The publication aspect, promoting informed debate, goes more to the important but logically second order consideration of how to bring about a consensus on the need to take the identified mitigation measures, most of which will not be under the direct or sole control of the central bank.

The third objective reflects the belief there should be an explicit acknowledgement that the FSR also serves as an accountability instrument. More specifically, we think that the FSR could serve as a vehicle to allow stakeholders (in a broad sense, including the industry and the general public) to form a view about how effectively the Riksbank is undertaking its broader financial stability responsibilities, which are anchored in the statutory, payment-related responsibility.

Finally, we have also added the fourth objective. We think it is inevitable that what the Riksbank includes in the FSRs will have an impact on how the banks and other financial institutions look at things. This seems to us a positive benefit and the FSRs might benefit from the editor's awareness of such an impact.

Recommendation 1: The FSR should make explicit its objectives, either in the Foreword or in a similar high-visibility location. These should be broader than to simply promote a safe and efficient payment system.

The Analytical Framework

Beginning with the 2003 issues, the FSR includes a standard text box at the end of the Summary and Conclusions overview, essentially laying out the Riksbank's broad analytical framework for "financial system oversight".[4] This is an excellent idea that, together with the Foreword, helps readers understand the context and the nature of the FSR series.

However, in linking the oversight of system stability back to the Riksbank's statutory payment system responsibility, we do feel this standard box tends to understate and even implicitly dismiss the potential for systemically important problems originating outside the main banks and the payment system. Comments such as "Systemic risk exists primarily in the payment system", "The first pillar is the supervision of *individual banks*" and "the Riksbank focuses on the four major banks … partly because a default by one of these is the primary threat to system stability," may not be incorrect in themselves. But they risk unduly focusing attention only on what might be the last step in a chain of consequences from a risk or vulnerability elsewhere in the system, rather than on the vulnerability itself. Furthermore the short paragraph on life insurance in the 2003:2 Issue comes over as quite dismissive, especially given the referenced "increasingly lively debate".[5] We would not question the bottom line, but given that the detailed analysis was a year previously, in 2002:2, it would have been helpful to at least reiterate (if not update) some more of the main points of the analysis.

As also noted in Martin Andersson's s internal memorandum of September 24, 2003 on the strategy for future financial stability work this apparent focus may also make it hard for the Riksbank to get "a seat at the table," or even to be taken very seriously, with respect to potentially important issues that appear to fall outside the ambit of the major banks and payment system.

This is not quite the same as saying that the definition of "financial system" or "financial system stability" should be necessarily broader and taken to include other sectors like smaller banks, life insurance firms, securities firms, pension funds, or collective investment vehicles, and the like. Nor, more specifically, is it to say that the FSR should automatically cover these sectors in each and every issue, alongside the major banks. Rather, it is more a matter of what could be thought of as an appropriate level of due diligence, given that the ultimate concern is still the main banks and what can happen through the payment system.

4 Or financial system "surveillance", as the IMF would call it.

5 The fact that the paragraph also seems rather oddly placed in the Macroeconomic Developments Section adds to this impression. Possibly there was an intended link with the previous paragraph on equity prices, but that is unstated.

The operative question is: in order to properly assess stability of the core institutions, how much attention needs to be paid to other players, and how regularly? It is interesting to note that in many other countries' FSRs the insurance sector and other parts of the financial system are reviewed in every issue. There is also, of course, the issue of increased resource usage if coverage is increased. A minimal strategy is to include intermittently analyses of problems and topics in other sectors as they arise, e.g. in boxes supplementing the main text or in a special topic article, which both analyze the primary issue and discuss the ultimate linkages and implications for the main banks. This appears to be essentially the Riksbank's current approach. For example, the 2003:1 FSR includes a box discussing company pension fund issues. Also, the 2002:2 Issue (though not reviewed in detail for this exercise) includes boxes on WorldCom as a supplier to the financial system, as well as the one already noted on the relationships between insurance companies and banks.

Even under this minimal strategy, however, we would recommend reformulating parts of the box on the analytical framework so that it sounds less dismissive of broader stability related issues and risks. It should make it clear that the Riksbank also needs to analyze vulnerabilities in sectors outside the core banks, at least intermittently, in order to ascertain the potential risks to the system as a whole (or to confirm the lack thereof).

This minimal strategy carries some risks, even with the above clarification of the analytical framework. Namely, with this approach, the Riksbank risks being, or being seen to be, too reactive, i.e., it will analyze problems outside the banks when they are already obvious, but may not be good at picking potential problems or risks before they fully develop.

An option that would still fall short of more intensive and regular published analysis of nonbank financial sectors would be to buttress the above approach by devoting some resources to regular *internal* analysis and review of (the more important) nonbank sectors, and possibly also including some more ongoing analysis in the FSR but on a less frequent basis than for the core institutions (e.g. annually). We are inclined to the view that something along these lines would be a preferable strategy, provided the needed resources can be made available without compromising the analysis of core sectors. Just how much additional resources would be needed to implement it would depend in part on what other analyses and information can be readily drawn on, as opposed to what would need to be built up from scratch. For instance, if the Finansinspektion already undertakes a similar analysis for insurance companies, or intends to, the Riksbank analysis could draw on that and only supplement it in areas particularly needed for the systemic stability assessment.

Conversely, if the additional resources needed for this approach could not be provided, then decision makers should explicitly recognize the concomitant risk that Riksbank staff may not have the capacity to recognize potential risks as early as might otherwise be the case.

The discussion of the role of the Finansinspektion in providing information to the Riksbank raises another issue alluded to at the start of this section. This is where the boundaries between the Finansinspektion and the Riksbank with regard to day-to-day systemic stability lie. As far practitioners in Sweden are concerned, our understanding is that the perception would be that the Finansinspektion is quite proactive when it comes to day-to-day surveillance of stability issues in the banking and insurance industries. On the other side, the practitioner perception would be that the Riksbank's day-to-day activities are focused on macroeconomic analysis as part of their price stability role and their interest rate management. We think that it would be an important achievement if (i) a close cooperation between the Riksbank and Finansinspektion could develop so that the Finansinspektion – within the limits that confidentiality sets – would provide information and conclusions to be integrated into FSR articles and (ii) the border between the Riksbank and Finansinspektion responsibilities could be made much clearer to all stakeholders, in which process the FSR could play a material role.

Recommendation 2: The Riksbank's FSR should contain regular coverage of the insurance industry and other important sectors of the financial system. It would be preferable if this was done in conjunction with the Finansinspektion.

Recommendation 3: The precise boundary between the Finansinspektion and the Riksbank should be made clearer to all stakeholders.

Structure and Overall Coverage of the Analysis

In addition to the more basic question of the breadth of the analytical framework considered above, there is a second area where the analyses presented in the FSRs need to be rounded out in our view. This concerns the coverage of the financial stability policy framework. We turn to this next.

As a refinement and clarification on preceding issues, the FSRs for 2003 have adopted an apparently standard structure for the main text consisting of the following aspects:

- Macroeconomic Developments
- Swedish Banks' Borrowers
- Developments in the Banks
- The Financial Infrastructure
- Special Topics (two, more thematic, articles in recent FSRs)

This is a common structure for FSRs – most other countries' FSRs have a similar structure.[6] More importantly, it appears to us to be a useful way of reflecting the broad analytical framework for financial stability analysis – except perhaps in two respects elaborated further below. Essentially, the FSR structure represents the analytical distinction between the risks in the broader environment that may have an impact on the banking system (first two chapters), and the vulnerability of the system to those risks (alternatively, their impact) should they eventuate (third and fourth chapters).

There are three main aspects relating to the structure of the FSRs which we would recommend receive some further attention in subsequent editions.

- First, there is an issue about how broad the coverage of macroeconomic conditions should be. The main criterion for inclusion should be relevance to the Swedish economy. A comparison with other countries' FSRs is instructive. The larger countries such as the UK, France, Spain and Canada are obviously able to devote more resources to their FSRs. They can therefore provide greater international coverage of macroeconomic conditions. For example, The Bank of England's financial stability report is able to provide a macroeconomic roundup of the UK, the Eurozone, the US, Japan, non-Asia Japan and the emerging markets. This would clearly not be feasible for the Riksbank given the relatively limited number of staff available. The FSRs of the smaller countries such as Austria, Belgium, Denmark, and Norway are more comparable. In the case of the Austrian FSR, for example, an analysis of Central and Eastern Europe is regularly included in the macroeconomic analysis. In the case of the Swedish FSR it may be desirable to have a broader discussion of regional economic conditions in the Nordic countries, and the Baltic nations. The key point in choosing what should be included in the coverage of macroeconomic conditions is to maintain focus on relevant events. For example, although regular coverage of China would be inappro-

[6] It is outlined, e.g., in Bowen, O'Brien & Steigum's 2003 review of the Norges Bank's FSR. See the Norges Bank's Financial Stability Report 2003:1, pp. 35–44.

priate, in recent months many have argued that whether China has a "soft" or "hard" landing will be crucial for determining whether the global recovery continues. Some brief discussion of this might be appropriate even though there are no direct links between China and Swedish banks. It might be useful in the context of briefly describing the current global situation to include a link, or at least a reference, to one of the many other published global analyses such as the IMF's Global Financial Stability Report.

- Second, although the more-or-less standard foreword to the FSR does a generally good job motivating the above structure, we felt that it could do more to explain to readers the motivation for the financial infrastructure chapter specifically. It currently gives the impression that the chapter is simply something of an add-on, reflecting the Riksbank's statutory responsibility in this area, rather than something that is in fact an integral part of any overall financial stability analysis. Thus, an additional sentence or two could explicitly convey that the infrastructure may be critical in determining the system wide impact / vulnerability of any particular risk that crystallizes (a potential transmission channel for contagion), as well as being a potential source of risk in its own right (business continuity aspects).

- Third, and more fundamentally, the FSR should explicitly recognize, through the structure of its analysis and the forward motivating it, that the vulnerability of the system also depends critically on the public policy framework for financial stability. System stability in our view is not only a matter of the strength or otherwise of the financial intermediaries themselves, but also how the policy framework affects institutions' behavior over time and how policymakers are placed to deal with a threat to system stability if it develops. Supervision / regulation, systemic "surveillance" and risk monitoring, liquidity support and other safety net aspects, failure / crisis management, and aspects of the underlying legal, governance and accounting / auditing framework, are all aspects of what we would think of as the financial stability policy framework. The Box on the Riksbank's view of financial stability recognizes this at a general level, but the implications for the FSR analysis do not come through clearly. What is needed to complete the stability analysis in our view, is a chapter that pulls together significant issues in the policy framework – things that are either happening, or in the Riksbank's view should happen with respect to any of the aspects of the policy framework. Such a chapter would be somewhat analogous to the Infrastructure chapter and could, e.g., extract, summarize and integrate the main messages from applicable special topics papers the Riksbank has been working on, or from relevant publications of other bodies. The Foreword to the FSR could explicitly motivate such a chapter in a fashion similar to what we have described above.[7]

With regard to the third point, it is of course true that the policy framework generally moves rather slowly compared to the more conjunctural aspects of risks and vulnerabilities, so that there could in principle be periods when there is very little new to say on policy framework issues. In practice, however, we would not see this as likely to be a major problem for a six-monthly FSR. Our guess is that there would be very few periods in the foreseeable future when there was not a sufficient number of interesting and important policy issues under consideration or implementation, and on which the Riksbank could desirably report or express an opinion, from the perspective of how the evolution of the policy framework is likely to affect the overall resilience of the system over time. But even if there were such periods in the foreseeable future, it would in a sense be fine to say that there is little new to report, because what really matters here is to convey clearly and repeatedly the perspective that overall system stability depends on the policy framework as well as on the positions and risk management abilities of the financial institutions.

While this broader perspective on analyzing system stability that includes policy is lacking (in explicit form at least) from the Riksbank's FSR analysis, we would hasten to add that the Riksbank FSR does not compare poorly with most other FSRs in this regard. We are not aware of an example of an FSR elsewhere that explicitly integrates the policy framework into the framework for stability analysis in exactly the way we are suggesting.[8] Policy issues tend to be treated instead as, e.g., ad hoc special topic articles, and the possibility of presenting them in a more integrated and synthesized fashion is foregone. Perhaps this is an opportunity for the Riksbank to innovate a little further, in the same way that it was the innovator for the much larger challenge of developing FSRs in the first place.

[7] We appreciate that there could be some inter-institutional issues to be kept in mind in designing such a policy framework chapter – not least in respect of commentaries on the supervision framework. However, we feel that an appropriate formulation should be able to find a reasonable balance between the differing roles and responsibilities of respective institutions and the underlying need (in our view) for an integrated analysis that fully reflects all the key aspects of the financial stability environment.

[8] An example which comes close, however, is the chapter on "Strengthening financial infrastructure" in the December 2003 Bank of England *Financial Stability Review*. Despite the title and opening summary box, this article discusses a range of policy framework issues in addition to those related to the payments and settlements infrastructure.

Recommendation 4: A more comprehensive regional analysis of macroeconomic conditions in the Nordic countries, and the Baltic nations could be given. Discussion of global macroeconomic conditions should focus on relevant events.

Recommendation 5: The financial infrastructure chapter could be better motivated for readers.

Recommendation 6: A chapter on policy developments could be added since public policy is so critical to financial stability.

Tools and Indicators used in the Analysis

The FSRs contain a wealth of data on indicators relevant to financial sector stability, generally presented in an easily accessible and understandable graphical fashion. Although some further thought could be given to facilitating clearer interpretation of charts when the FSR is downloaded and printed in black and white, color versions are generally very clear. Only one chart is, we feel, too "busy" for many readers and a bit difficult to interpret – the chart dealing with the interbank contagion simulations (figure 3.20 in the 2003: 2 Issue). Some simplification of this chart would be helpful for readers.

For an FSR, we believe it is important that there be a core of key financial sector indicators that are presented continuously and more or less consistently in successive FSR editions. This is so that readers can more easily track for themselves the evolution of financial risks and vulnerabilities over time, and compare it against the evolution of the Riksbank's own stability analysis. The Riksbank FSR does a good job in this respect, judging at least from the two 2003 issues under review. Especially for the chapter on Developments in the Banks, most of the financial indicators are presented in both issues, even if in some cases there may be variations in the form in which they are presented. Between the FSR issues, there is somewhat more variation in the indicators used (and their presentation) in the first two chapters of the main text. But this is not unreasonable given that, as the economic environment affecting banks evolves, some of the indicators that are most useful to look at will also change. Without of course discouraging further development and innovation in this area, we would encourage the Riksbank to continue to ensure a strong thread of consistency over time in the key financial indicators presented, especially in the critical chapter concerning banking sector developments.

In terms of additional indicators, one thing that occurs to us is that the discussion of strategic risks for banks would benefit from a wider international comparison of key bank profitability, income and cost ratios. Currently the comparison is limited to other Nordic area banks. A wider international coverage would help give a further, longer-term gloss to the analysis for Swedish banks, given continuing globalization and consolidation trends.

It is important for FSRs to analyze financial stability indicators at a disaggregated level as well as at the aggregate or average level, using appropriate peer groups where applicable. Indeed, in general, an aggregate level analysis alone risks being quite misleading in the absence of information about the distribution of strengths or vulnerabilities across the system. How far the analysis can go in any particular case will depend importantly on national circumstances – the structure of the financial system, what individual institution information is already published or publishable, and so on. Leaving aside the broader question of what types of institutions to focus on in the stability analysis (see above), the Riksbank's FSR achieves a good balance here, with a number of the key bank soundness indicators being analyzed at the level of the individual large banking groups.

One of the important indicators of the likelihood of a crisis is the extent to which asset prices are experiencing a "bubble". The recent experience of the technology bubble in the late 1990's suggests that valuations done by investment banks and other private sector analysts are not very reliable in such circumstances. A number of FSRs include simple measures of whether stock markets are overvalued by looking at Price/Earnings ratios. The relationship between real estate prices and rents is also sometimes given. Although these are useful in assessing the extent to which there is a bubble, more sophisticated indicators based on better valuation techniques could be developed. For example, each firm on the stock exchange could be valued using standard discounted cash flow techniques. It would not be desirable to release individual valuations for firms but an index comparable to the standard stock market index based on these valuations could be developed. Similarly, real estate can be valued using discounted rents. These calculated indexes can then be compared with actual prices to give people a sense of whether there is an over- or undervaluation of assets.

Use of explicit "what-if" analysis in the FSRs is currently quite limited. Only the analysis of large corporate and interbank exposures (which is certainly useful analysis) falls into this category, along with the simulations undertaken in the context of the analysis of payments and settlement infrastructure (in the 2003:02 Issue). According to the internal memo of September 23, 2003 on "Strategy for the Riksbank's financial stability work over the coming years," the intention is to devote more effort to developing the tools for sensitivity analyses of banks' credit risks in particular.

Such work can shed more light on the quantitative relevance of macroeconomic, sectoral and macro-financial linkages; and can likewise provide useful information on the distribution of vulnerabilities as well as the simple aggregate or average picture (akin to the usefulness of disaggregated financial indicators noted above). By specifying and applying the same basic parameters defining a shock, this type of work can also facilitate the leveraging of individual banks' own specific stress testing models as part of a broader financial stability analysis (rather than simply bank-specific analyses) – assuming of course that the banks are willing to contribute to such an exercise.

Nevertheless, there will remain a range of different caveats on the interpretation of such work. Obtaining comparable results from individual bank models, for example, often may not be straightforward, even with the specification of identical shocks. Thus, "over-analysis" of such work, or over-reliance on specific numerical outcomes (to the extent of spurious accuracy), would need to be avoided.

Recommendation 7:
(i) Ensure a strong thread of consistency over time in the key financial indicators presented, especially in the critical chapter concerning banking sector developments.

(ii) The discussion of strategic risks for banks would benefit from a wider international comparison of key bank profitability, income and cost ratios.

(iii) Consider developing more sophisticated valuation indicators based on discounted cash flow techniques for stocks and real estate.

(iv) Expand the use of "what-if" analysis by, for example, developing tools for sensitivity analyses of banks' credit risks.

Focus and Transparency of the Analysis

Aside from the broader points noted above about the analytical framework and coverage, the focus and transparency of the Riksbank's FSR are amongst its strong points. The macroeconomic and sectoral (bank counterparty) analyses are well focused on what seems most important for financial stability, and the links to local financial stability are generally well captured. It is notable for example that discussion of the international macro and financial market conjuncture is concise, well targeted and generally well integrated into the stability analysis. It is also explicitly linked to the macro appraisal in the Riksbank's previously published Inflation Report, which is an important signal of Bank-wide consistency. A couple of exceptions we noted, and possible areas for further elaboration:

- There are a few examples where a phrase such as "In Sweden, as in the US" or similar comparison is used (e.g. in respect of consumption and investment, near the bottom of p.15 of the 2003:2 Issue). While such formulation may be a convenient way to keep the discussion concise while still bringing in the international macro aspect, it may also be read to imply a direct causal link from the US or international variable to the Swedish one, which may not be intended. It is not clear in these cases what the information content is from the US or international reference.

- In the same edition, the section on the management of Resona sits awkwardly where it is in the Macroeconomic Developments chapter. This impression is not reduced by the text clearly acknowledging that the issue is of no consequence for the Swedish banking sector. It would have been better in a box elsewhere in the report (perhaps the LoLR chapter). Indeed, if the FSR incorporated a chapter relating to the financial stability policy framework (as suggested above), that would have been a perfect place for it.

- In the discussion of international interest rate trends in the 2003:2 Issue, one risk element that might have been mentioned additionally was the potential link between the sustainability or otherwise of the current pattern of global capital flows, and bond or other rates in the US and globally.

Communication Style and Target Audience

Overall, the reports seem to strike a reasonable balance between depth of analysis for more professional readers and accessibility for less professional readers. For the latter group in particular, the FSRs are easy to read, and the style generally crisp. The use of internal section summaries (especially those in bullet point form in the 2003:02 Issue) is a helpful device to ensure the conclusions of different stages of the analysis are clear.

Together with the use of ample charts and boxes, the use of half-page columns (except in boxes) even when there are no accompanying charts, gives an uncluttered feel to the document. The length overall is not particularly short, but is kept relatively moderate by limiting the additional thematic articles to two, in each of the 2003 issues. It will be helpful, if the recommendations above are accepted, to try not to increase the overall length by too much – always a challenge that is easier said than done.

One of our committee members surveyed 26 of his senior colleagues at Svenska Handelsbanken to obtain their reactions to the Riksbank's FSR. These are presumably an important part of the target audience for the reports. About one third of them were regular readers. Some of the others said it was the first time they had seen it. Most of them said it was ("surprisingly") rewarding to read it.

Regular readers feel the content in the reports is relevant and interesting to them. Said one: "It is easy to grasp for people who are involved in financial markets." And another regular reader: "It's good but it could be even better if headlining were better thought through and if particularly important paragraphs were extracted and concluded separately." This reader made a specific reference to the SNS Reports (well-known yearly reports on Swedish economy) which he perceives as very well laid out. He also judges the business cycle comments in the Riksbank's reports as especially interesting just because they come from the Riksbank. A first-time reader said: "It is well written and interesting; before reading the report I actually thought it would be more difficult to understand." Another first-time reader especially appreciates the many short briefings, which make it easier for time-pressed executives to consume.

Senior executives were also asked in what situations they would typically make use of the stability reports. One of the regular readers said he uses information in the reports for competition intelligence purposes and to help him understand what's on the central bank's mind for the time being. It is also obvious that from time to time information from the stability reports is used in investor and analyst presentations, mostly as a background for what is happening in the bank in terms of business volume growth and operating profit development. The head of one of the regional banking units pointed out that an analysis of the drivers behind price increases in the Swedish real estate market caught his interest while he was struggling to get a feel for whether the present higher price level would be sustainable. Another regional unit head said more generally that he can make good use of practically all the information in a Riksbank report since all of the subjects that are covered there have connections to banking operations. In addition to that, he said the macro analysis in the report saves him from going through the flood of such information from many other sources. Several of the respondents mention the special articles on various subjects as an important source of valuable knowledge. Said one of the EVPs at central head-quarters: "What interests me most are the parts that deal with risks in current infrastructure routines hinting on what kind of changes as to ruling we have to expect." One of the business area heads said he takes a particular interest in the Riksbank's macro forecasts on investment, private consumption, credit market volume growth and households' capacity to withstand financial strain.

Finally, colleagues were asked in what areas the Riksbank's FSRs could be further improved. One thing that was mentioned was the possibility of getting access to graphs and tables easily, preferably over the internet and then not only the graphs as such but also the numerical foundation for diagrams. The head of the bank's UK operations pointed out that the Bank of England stability report takes its readers one step further by inviting external observers to present their views on particular issues, which he sometimes finds rewarding. He also gives a concrete example of an article in a UK report that he thought was especially interesting to read, covering the issue of how at a very early stage to recognize a corporate borrower that is on its way into serious financial problems. Another colleague would wish to see more on Scandinavian banks' current funding situation. Other suggestions: The present situation in the life and pension industry; how do solvency and consolidation problem impact insurance companies? And how do downward revised expectations as to return on capital investments impact future consumption and financial stability? What will be the impact on stability of the change in banking laws that will allow other companies than banks to accept current deposits that will or will not be covered by the deposit guarantee system? What are the experiences from "bank runs" in various countries? Will the new IAS accounting rules have an impact on corporate borrowers' ability to withstand financial strain?

Recommendation 8: Make the charts in the FSR easily downloadable over the internet and make the data underlying them available.

Recommendation 9: Consider inviting outside experts to contribute to the review. If this is done it should be made clear that such articles contain the views of an outside expert and these are not necessarily the views of the Riksbank.

3.2 CRISIS MANAGEMENT

One area where the Riksbank has particular expertise is in crisis management. It has been among the pioneers in developing crisis management. In an excellent article, Göran Lind outlines how live exercises provide hands-on experience to the Riksbank staff on how to deal with crises.[9] The weaknesses identified in such exercises have led to the development of protocols for communications and checklists on what to do. Crisis routines permit the swift initiation of analyses of the unfolding crises. Crisis binders allow key information to be quickly located. A joint exercise with the Finansinspektion in the summer of 2002 and one with an ECB working group in September 2003 were particularly valuable.

Recommendation 10: Continue to conduct exercises on crisis management. Exercises with other EU countries may be particularly helpful in eliminating any ambiguities in the Eurozone and EU's structure for dealing with crises.

3.3 THE EFFICIENCY OF THE FINANCIAL SYSTEM

As discussed in Section 2, the mandate of the Riksbank is to promote a safe and efficient payment system. We have so far focused mainly on the stability aspect of the Riksbank's activities and not discussed the efficiency aspects. The financial stability group at the Riksbank has conducted studies on the efficiency of the Swedish payment system.[10] These are very useful and should definitely be continued. In most countries the pricing of payment services to customers is very different from the private costs the banks bear. The Riksbank's work in this area and the development of policy based on it again has the potential to be path breaking.

The more difficult question is how much farther work on the efficiency objective should be pursued. One aspect of this is whether anything other than the payment system should be considered. As we have argued above, there is some argument for taking a broader view than just the payment system. The Riksbank's stability group could undertake occasional studies on more general efficiency aspects of the financial system. For example, a study on how efficient is the bankruptcy system and its implications for stability might be useful. Similarly the accounting requirements for financial institutions and firms could be reviewed. Obviously resources are limited and this task is potentially large. We would therefore suggest that such studies, if undertaken at all, should be very occasional.

[9] See Lind, G., (2003), "Crisis Exercises Make for Crisis Readiness," *Sveriges Riksbank Economic Review*, no. 4.

[10] See, e.g., Guiborg, G. & Segendorff, B., (2004), "Do Prices Reflect Costs? A study of the price- and cost structure in the Swedish Retail Payment System 2002," working paper, Sveriges Riksbank.

3.4 INTERACTIONS BETWEEN MONETARY POLICY AND FINANCIAL STABILITY

The Riksbank, like many central banks, has a separate monetary policy group and financial stability group. An important issue is how much interaction there should be between the groups. Underlying this, and more fundamentally, there is the extent to which financial stability issues should impact monetary policy. One current example is the debate about whether central banks should focus solely on consumer price inflation when conducting monetary policy or whether they should also target asset prices. We do not have any particular recommendations on this. However, we think it is important that the issue of the degree of interaction between the monetary policy and financial stability groups be considered within the Riksbank on an ongoing basis.

4. Concluding Remarks

In conclusion, we think that the Riksbank is doing a very good job in fulfilling its financial stability responsibilities. As the analysis in the Financial Stability Reports indicates, it is constantly monitoring the payment system and the banking system. We have suggested that in conjunction with the Finansinspektion it also monitor other parts of the financial system. It also considers overseas developments to try to minimize the risk of contagion from other countries. The Riksbank's activities with regard to crisis management are exemplary. The discussion in the Financial Stability report analyzes the robustness of the financial system and real economy to shocks. This covers items 1–4 and 7–8 in Section 2 concerning what the public authorities should be doing with regard to financial stability.

The remaining items 5 and 6 are to minimize asset price collapses in illiquid markets and to monitor new risks. The LTCM episode illustrates concerns about the possible financial fragility of markets due to illiquidity. Any potential problem was avoided by the New York Fed arranging the private bailout of the company. Another way in which the problem could have been mitigated would have been to try to alter the clearing arrangements or market microstructure so that liquidity is improved and such problems are likely to be avoided. Yet another would have been to allow LTCM to go bankrupt and then if any collapse of prices occurred to manage the crisis by injecting liquidity into the appropriate markets. We believe that this would have been difficult, however. The LTCM example also illustrates how important it is to constantly monitor new risks. As the financial system changes through financial innovation, new systemic risks are constantly arising. The analysis in the first few chapters of the

Financial Stability Reports does discuss new potential threats to stability and it is important that this be maintained.

We have made a number of recommendations in this report for improvements. Perhaps the most important of these is the inclusion of a chapter on policy developments in the Financial Stability Report. We hope that this and the other changes we have recommended will help to maintain the Riksbank's financial stability activities as an example for other countries to follow.