COMMENTS ON "EXTERNAL CONSTRAINTS ON MONETARY POLICY AND THE FINANCIAL ACCELERATOR" by Mark Gertler, Simon Gilchrist and Fabio Natalucci

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More than ever before financial factors are shaping the business cycle. This is true not only in those countries struggling to come to grips with recently liberalised financial systems, but also in those that have had a couple of decades to adapt. Around the globe, we have seen balance sheets expand more quickly than GDP and levels of debt rise more quickly than income. And as a result, today, economic fluctuations are more likely to have their roots in financial factors than in any other factor.

All this is forcing us to rethink how the world works. First, private-sector spending is becoming more sensitive to changes in asset prices and, possibly, interest rates. Second, the macroeconomy seems more susceptible to asset price misalignments and associated misperceptions of risk. And third, we have come to realise that changes in the structure of balance sheets can act as a powerful accelerator to the business cycle.

It is this third dimension of this changing world that the paper by Gertler et al addresses. Over the past decade the first two authors have been instrumental in giving us the tools to model and analyse the effects of debt and asset prices on the evolution of the business cycle. Their basic line of reasoning is well known but let me repeat it here. An adverse shock materialises and forces output and asset prices to fall. Lower asset prices mean borrowers have less collateral and, as a result, the cost of external finance increases. In turn, the higher cost of funding amplifies the initial shock.

The modelling of these effects has been important in shaping our views on how this new world works. And this paper helps us on this journey by extending some of their earlier work to an open economy. In so doing it helps explain the depth of the recession in Korea in the late 1990s.

I enjoyed the paper very much and have little to quibble about. The modelling is elegant and it is easy to see how the various pieces fit together. Whether of not one agrees with the exact assumptions made, and the calibrated value of the parameters, is not really that important here. What is important is the story. And the story is basically right.

It is right to conclude that financial factors played an important role in Korea. The cost of external finance, when finance was available, did increase dramatically, and this undoubtedly compounded the crisis.

It is right to conclude that output is more stable under a floating rate regime in response to a foreign interest rate shock. And this is doubly true when one takes the financial accelerator into account. As a small aside though, I am not so sure that inflation will be less stable under a floating regime. In practice, this must depend upon the extent of exchange rate pass through, and of late, this has been a lot less than many people thought.

And it is right to conclude that a fall in the exchange rate is more costly for output if companies borrow unhedged in foreign currency. What I am not so sure about here is whether companies would borrow in such a way, if the currency were floating. It is arguable that the amount of currency exposure that companies and financial institutions run is endogenous to the currency regime. And indeed I think this was the case in Korea.

So there is much that is right in this paper and I said I agree with its general thrust. In the remainder of my time, therefore, then let me touch on two questions.

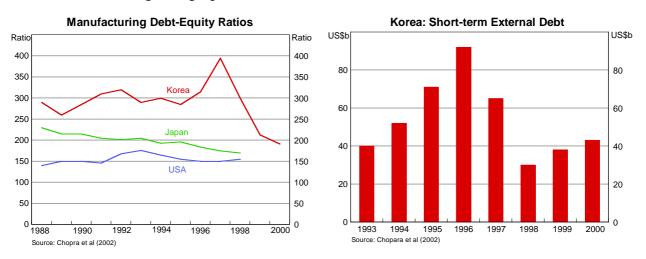
The first is whether the financial crisis in Korea is really best thought of, as we are invited to do in this paper, as an endogenous response to a large unanticipated increase in the risk premium?

And the second question is whether we can do anything to lessen the power of the financial accelerator?

Unanticipated increase in the risk premium?

The thought experiment that we are asked to do by the authors is to consider an unanticipated increase of 5 percentage points in the Korean risk premia. The authors argue that this is appropriate given that: "the evidence suggests that capital flight and subsequent collapse in bank lending occurred for reasons that were largely exogenous to Korea's economic situation at that time (p3)".

I am not so sure that I agree with this assessment. Certainly, the problems in Thailand and Indonesia were exogenous to Korea. But why did Korea get hit so badly? One reason is that it was in the wrong neighbourhood at the time that the fight broke out. But I think to conclude this would be to miss an important point. And that is that the financial structure in Korea had become very vulnerable. You can get an idea of this from the following two graphs.¹



The first shows debt-equity ratios in the manufacturing industry in Korea, Japan and the United States. Clearly, Korean firms were highly indebted and their level of debt was trending up before the crisis. The history of directed lending and government

¹ Both graphs have been taken from Chopra et al (2002).

support had encouraged excessive risk taking and banks were providing debt finance in situations where in other countries they would not have done so. The corporate sector was labouring under a mountain of debt that elsewhere would have been considered reckless.

The second graph shows Korea's short-term external liabilities. These liabilities increased dramatically in the mid 1990s in response to the lifting of controls. The result was a large maturity mismatch, as Korean financial institutions used these borrowed funds to provide long-term financing. Often too, there were large currency mismatches as well. With an exchange rate moving in a very narrow range and underdeveloped capital markets, there was limited ability and incentive to hedge.

To add to the list of vulnerabilities was a relatively weak banking system, with poor internal controls and a supervisory structure and that had not kept adequate pace with the changes in the financial landscape.

The point here is that Korea was vulnerable. Risk had been mis-assessed by domestic institutions and the international investment community alike. Balance sheets had moved into dangerous territory. When the problems developed in Thailand and Indonesia, investors got a glimpse of what could go wrong, and in the process, we went from a world in which risk was being underestimated, to one in which was it was being overestimated.

Given the vulnerabilities in Korea it is not surprising that, at least with hindsight, problems developed and the financial accelerator had such a strong effect. To a significant extent the crisis was not exogenous, but rather endogenous with respect to its financial structure.

The Korean experience points to two aspects of what can loosely be called the financial accelerator that are not captured in the model or the discussion in the paper. The first is the endogeinity of perceptions of risk. The second is the issue of liquidity.

Attitudes to risk do not seem to be exogenous. Rather they seem to be endogenous to developments in the economy and financial markets. They also appear to be unduly procyclical. When things were going well, investors pointed to the strong growth record of Korea and the strength that it derived from its large, vertically integrated, conglomerates. When things started to go astray, the same world looked quite different. The growth record was forgotten. What were previously seen as advantages, quickly came to be seen as disadvantages. And imbalances that had been there all along, waiting in the wings, moved rapidly to centre stage.

While these changes in risk perceptions took place in Korea on a dramatic scale, more generally they seem endemic to the world we live in. And they can act just as powerfully as an accelerant of business cycles as can the movement in balance sheets discussed in the paper by Mark, Simon, and Fabio. When things are going well perceptions of risk decline, adding fuel to the boom. And then when things are going poorly everything seems incredibly riskier.

Modelling such changes in risk perceptions is difficult. We are not fully sure why they occur, although recent behavioural work has given us some clues. Our intuition as economists is often that these changes probably are not rationale. So we often steer

away from them, particularly when writing down models. But I suspect they are an important part of the story and there is work to be done here.

As I said, the other aspect of Korea's experience with the financial accelerator that I would like to draw attention to is the role of liquidity. A common view, and one that I think has some merit, is that the Korean crisis, at least initially was one of liquidity, rather than concerns about solvency. While the two concepts are closely related, an important reason for the increase in Korean risk was the fear that the Korean banks would not be able to roll over their short-term debt. While this does not undermine the basic story of the paper, it does make it a little more complicated. While the value of net equity is an important driver of the external premium, so too can be the structure of the assets and liabilities.

Can we take some accelerant away?

The second issue that I would like to touch on is can we do things to take some of the power out of the financial accelerator?

Here the answer is yes.

Financial systems with large maturity mismatches, with unhedged currency positions, and that rely almost exclusively on the banking sector for financial intermediation seem more prone to have an unfortunate experience with the financial accelerator. So too are systems in which risk is not priced properly, either because of underdeveloped credit assessment skills or government interference.

So part of the answer is to get the basics of the financial structure financial regulation right. If this is not done, the potential for booms and busts in the financial sector is greatly increased. But I suspect that even if the financial structure meets all today's best practice standards, this is still not enough. Even under the best of today's systems, we still are likely to find ourselves thinking from time to time that developments in the financial sector are having a first-order undesirable effect on economic outcomes. While such situations might occur only rarely, we cannot rule out things going wrong even if we have good prudential supervision and low inflation.

If this is right, is there more that could be done?

Here the answer is a tentative yes.

The financial acceleration of business cycles is likely to be at its most powerful, at least in the upward direction, during periods of rapid increases in indebtedness and increases in asset prices. The experience of the past two decades is that such episodes can ultimately end in costly economic contractions, compounded by financial strains.

One response then is to contain the development of financial imbalances during the upswing of the business cycle. Another would be to increase the defences in the financial system against the endogenous swing in risk preference. The aim of such responses would be to take some of the financial accelerant out of the business cycle. In Australia, we are all too familiar with the need to back burn to destroy material that acts as an accelerant to the bushfires that occasionally do so much damage to the

landscape and people's homes. Some backburning to contain the financial accelerator might also be appropriate from time to time.

But how should this be done? One option is monetary policy. If we can identify financial imbalances that are likely to cause problems – which I think we have some chance of doing – then monetary policy can be used to help contain those imbalances. Usually, this would be by increasing interest rates by more than suggested by a strict inflation-targeting regime in a boom characterised by strong increases in credit and asset prices. It would be consistent with medium-term inflation stability and in avoiding unnecessarily large swings in output generated by the build up and unwinding of financial imbalances. It is also consistent with the long cherished central bank values of pre-emptiveness and long horizons.

Clearly, though, such a response is not without its risks. But so too is doing nothing. Good policy making is about balancing those risks. And as financial factors come increasingly to shape business cycles, we need to think more seriously about how the balance of risks has changed. Living in an open economy, like the stylised one in this paper, just makes this task more important!

So to finish, let me repeat two main points. The first is that while movements in balance sheets can act as an accelerator, so too can endogenous changes in perceptions of risk. And the second is that if we are to live happily in a world of liberalised and international financial markets and institutions we need to find ways of containing the amount of accelerant the financial sector can deliver. Monetary policy might have a role to play here.

Thank you.

Reference

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