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Introduction

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The procyclicality of financial systems has received an increasing amount of attention from policy-makers, academics and international organizations in recent years. This heightened interest stems from a combination of the ongoing globalization of finance, the role of the financial sector in various emerging market crises in the late 1990s and the potential impact on financial sectors of the upcoming implementation of the Basel II Accord.

Clearly, some degree of financial sector procyclicality is a characteristic of any normally functioning economy. In the simplest of models, the expansionary phase of the business cycle exhibits rising investor and consumer confidence, leading at some point to a rise in the demand for credit that exceeds the rate of economic growth. This demand for credit, which might take the form of a "boom," is further bolstered by a rise in property prices and other asset values that can be used as collateral, further raising confidence and the capacity to borrow, and so on. In downturns, these forces reverse, leading to a contraction in credit and asset values that is usually more pronounced than the slowdown – or even reduction – in the growth of key macroeconomic aggregates.[2]

At issue is whether the observed procyclicality of the financial sector is excessive. If it is indeed judged to be so under some circumstances, then policy intervention can – if used wisely – improve economic outcomes and, thus, general well-being.

The policy-makers' tasks are therefore: (i) to assess whether financial sector procyclicality is excessive; (ii) if deemed so, to determine what are the causes; and (iii) to decide which policy instrument(s)

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to use to achieve the desired outcomes. Alas, this is easier said than done. On the first of these, there is no hard and fast rule. Policy-makers will likely need to rely on their judgement, particularly as regards the size and nature of any imbalances or weaknesses that may be emerging in the various sectors of the economy. The second is the subject of considerable ongoing theoretical and empirical investigation. Some researchers point to the pricing of risk over the cycle, others to the incentives facing economic agents and their impact on planning horizons, others to "institutional memory loss," while still others would point to regulatory structure itself as a possible culprit. Finally, once the policy-maker has made an assessment of the cause of any excessive procyclicality of the financial system, the choice of which policy instrument to use comes into play. Should it be supervisory policy? Monetary policy? Others? The choice of policy to combat excessive procyclicality has itself spawned an entire debate, with no clear answers.

To date, most studies and conferences on the procyclicality of financial systems have looked at the issue in a "Western" context. It was hoped that hosting a modest-sized seminar on this issue from an Asian perspective with experiences based on developments in Asian financial systems would help to begin a dialogue between the various parties that have been individually studying or grappling with this issue, yield additional policy insights based on Asian experiences and stimulate a research program.

With these aims in mind, on November 22, 2004, the Hong Kong Institute for Monetary Research (HKIMR) and the International Monetary Fund (IMF) co-hosted in Hong Kong a high-level, one-day seminar entitled "Managing Procyclicality of the Financial System: Experiences in Asia and Policy Options," which sought to bring together senior policy-makers from around the Asia region, academics and officials from international financial institutions. To our knowledge, the conference was the first – and remains, at least at the time of publication, the only – event on this important issue in the Asian context.

The seminar was organized into three sessions, each comprising a main paper for discussion and a number of prepared comments, which were followed by an open floor discussion. The first session was intended as a theoretical roadmap to help set the stage for the subsequent modules. Charles Goodhart of the London School of

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Economics (LSE) presented a paper he co-authored with Ashley Taylor, also of the LSE. The second session focused on the experiences of key Asian emerging market financial systems with procyclicality. The background paper was written by an IMF team headed by Sean Craig of the Fund's Monetary and Financial Systems Department. Stefan Ingves, then Director of the Department, presented the paper. The third and final module was devoted to policy options and the way forward, with Glenn Stevens, Deputy Governor of the Reserve Bank of Australia, presenting a paper he co-authored with his colleague Assistant Governor Philip Lowe.

The theoretical roadmap

In presenting the paper entitled "Procyclicality and Volatility in the Financial System: the Implementation of Basel II and IAS 39" (Chapter 2), Charles Goodhart focused on the effects of the revision of the Basel Accord on Banking Supervision (Basel II) and International Accounting Standards (IAS). He noted that the impact of Basel II on procyclicality depends on the time horizon over which banks assess risk. Specifically, banks that use point-in-time estimates of risk based on current default experiences are likely to be more procyclical than banks using through-the-cycle estimates of risk based on average default rates over the cycle. The latter will tend to slow credit growth by building up capital and provisions in upturns, which will be available to cushion losses and limit the contraction of credit in downturns. Supervisors should consider how to use the discretion provided by Pillar II capital to limit the procyclical impact of Basel II and to encourage banks to take a longer perspective.

Goodhart underscored that while IAS will increase transparency, it will also raise reported volatility as balance sheets are marked-to-market. What is often overlooked is the interaction between IAS and Basel II. IAS should improve market discipline under Pillar III but may be inconsistent with some prudential policies that could dampen procyclicality. IAS recognizes actual defaults but not expected losses for accounting purposes, which could shorten the horizon of banks' risk management. Specifically, banks only receive favorable tax treatment on provision made against defaults when they occur but not on ex-ante provisions made against defaults expected to occur in a future cyclical downturn.

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Goodhart emphasized that the impact of Basel II is hard to predict and may have a limited effect in many countries. Many banks hold excess capital so the regulatory capital constraint is not binding. For sophisticated banks, Basel II only brings capital regulation into line with current capital allocation practices. One concern is that in emerging markets, Basel II could transfer riskier credits from large international banks to domestic banks who are less able to manage them. The former will use the IRB approach and thus will assign higher risk weights to risky credits than will domestic banks using the standardized approach.

The discussion of the paper touched on the challenge of determining whether procyclicality is excessive, and when to take preventative actions. In some sense, measuring procyclicality presents the policy-maker with a moving target given the evolving nature of business cycles and financial systems. That said, excessive procyclicality can be identified as those fluctuations that cause some combination of unnecessary amplification of the real economy and damage to the soundness of the financial system. In combating excessive procyclicality, it was thought that actions are much more effective and credible when taken during an economic upturn, when risks are being built up, rather than in a downturn, when the risks are materializing. More generally, in taking policy decisions across a range of areas (monetary, prudential, exchange rate), policymakers would need to be mindful of the sources of procyclicality in their financial systems.

Asian experiences with procyclicality

In his presentation of the IMF paper entitled “Procyclicality in Asian Financial Systems” (Chapter 3), Stefan Ingves focused on features of Asian financial systems that exacerbate procyclicality. He noted that procyclicality in Asia has two revealing characteristics: (i) property prices are strongly correlated with both credit and real GDP growth; and (ii) it is highly asymmetric. The latter shows that downturns are much sharper, reflecting the role of financial crises in driving excessive procyclicality. Empirical evidence showing that large deviations of asset prices and credit from trend do help predict crises supports this interpretation.

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Ingves also discussed how an analysis of the sources of procyclicality is needed to develop policy responses. Since some degree of procyclicality is a normal feature of financial systems, the challenge is to identify the weaknesses that could exacerbate it and empirically assess their importance. Fundamental weaknesses in risk management, supervision, and in the structure of bank ownership and funding in the financial system have contributed to procyclicality in many emerging markets. Specifically, econometric evidence on sources of procyclicality in Asia using data for 300 banks in eleven Asian countries shows that:

- Property price changes play an important role in procyclicality, reflecting their effect on the value of property that serves as collateral for loans;
- Lending margins narrow as credit and GDP growth increase and with the length of the expansion as risks are being built up, suggesting an underpricing of risk in upturns;
- Banks that are less profitable or have lower capital ratios provision less in emerging markets' (but not advanced countries') financial systems, pointing to the role of forbearance;
- Provisioning is highly procyclical, suggesting banks have relatively short time horizons; and
- While lending by foreign banks is less procyclical than domestic banks, interbank funding from abroad is procyclical, which highlights the effect of volatile cross-border capital flows.

The IMF paper also showed how empirical analysis can be used to help target prudential policies at the sources of procyclicality. In particular, requiring banks to base lending decisions more on capacity to repay and less on collateral should reduce the sensitivity of lending to property price changes. Also, the excessive procyclicality of provisioning can be reduced by provisioning ex-ante rather than when risks materialize.

Finally, Ingves emphasized the dangers of using forbearance to manage procyclicality. The failure to promptly recognize impaired assets leads to a build-up of unrecognized risks. This progressively weakens the financial sector, reduces incentives to manage risk properly and tempts some banks to make high-risk loans and "gamble for

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a resurrection" to avoid insolvency. An alternative approach to managing procyclicality involves countercyclical adjustments of capital ratios, but this requires a relatively high capital ratio as a starting point. Supervisors that use forbearance often do so because their banking system is already weak and the alternatives are worse. In this case, forbearance must be combined with fundamental reforms to minimize the risks.

The discussion in this module understandably focused on the Asian financial crisis. There was agreement that banks took on excessive risk in the run-up to the crisis, and that weak supervision contributed to the build-up of imbalances. Countries have, to varying degrees, tried to address these issues with a view to dampening the procyclicality of their financial systems. There was less agreement on the issue of forbearance. Some participants noted that forbearance was a "necessary evil" in order to avoid worsening economic outcomes and to buy time to liquidate and recapitalize banks. Others argued that up-front action was needed to recapitalize salvagable banks and to close non-viable ones. Given the divergent sources of excessive procyclicality, it was noted that coordination between supervisors and monetary authorities is often required.

Policy options: the way forward

Glenn Stevens presented a paper entitled "Procyclical Financial Behavior: What Can Be Done?" (Chapter 4) which considered to what extent policies to strengthen the financial system may need to be complemented with proactive policies to limit excessive procyclicality. Such procyclicality arising from mispricing of risk due, for example, to capital inflows driven by shifts in global liquidity, or from policy itself, may often need to be addressed using countercyclical policies. Asian countries have been quite pragmatic in this regard, for example by using supervisory discretion to adjust bank capital requirements.

Stevens noted that the challenge facing Asian policy-makers is to develop an appropriate mix of policies. Improvements in regulations, corporate governance and disclosure to strengthen the foundations of financial systems need to be combined with more proactive prudential and monetary policies. In practice, however,

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monetary policy is unlikely to be able to play much of a role because of the difficulty of determining when, and by how much, policy instruments should be adjusted. Policy-makers also need to choose between rule-based and discretionary prudential policies. The former should provide greater credibility but can be extremely difficult to implement, as indicated by the fact that no central bank uses a purely rule-based approach to monetary policy.

Policy-makers also need to find the right balance between policies targeting micro- and macro-prudential risks. Regulation and disclosure can effectively address micro-, bank-level risks at a point in time. However, they may not adequately deal with a general mispricing of risk over time, which requires more proactive prudential policy. Policy-makers can face a trade-off between micro- and macro-prudential risks, as reflected in the difficulty reconciling enhanced disclosure and transparency due to IAS with forward-looking (dynamic) provisioning. IAS accounting and disclosure rules can dampen procyclicality by making market discipline of bank lending more effective. However, they also restrict bank pre-provisioning when risks are incurred, limiting the scope for using this prudential policy to address mispricing of risk. One solution that has been proposed is to use capital (rather than provisions) in a forward-looking way by increasing capital ratios in upturns to slow the build-up of risk and then allowing them to absorb losses in downturns.

Stevens concluded by noting that the feasibility of different policies depends crucially on the institutional arrangements and mandates. In particular, proactive policies targeted at macro-prudential risks are difficult to implement if supervisors lack independence and a financial stability mandate. Given the influence of capital flows on procyclicality in Asia, these arrangements encompass the capital account framework, including the extent of financial liberalization, and the exchange rate regime.

This module also included discussion of which instruments might be useful in dampening excessive procyclicality. There was a widespread view that monetary policy was too blunt an instrument to use, and that the downside risks were relatively large. Prudential instruments seemed to be viewed more favorably by seminar participants since they could be better targeted and operate with shorter lags. Whatever instruments are used, there was agreement that a coordinated approach that sought to limit arbitrage was favored.

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Notes

1. We would like to thank Sean Craig of the IMF for his contribution to this Introduction.
2. This model implicitly assumes an endogenous business cycle, an issue beyond the scope of the seminar.

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