

Staff Paper No. 91

**ASSESSING KEY VULNERABILITIES
POST GLOBAL FINANCIAL CRISIS**

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Table of Contents

| | <i>Page</i> |
|---|-------------|
| Table of Contents | iii |
| Abstract | iv |
| 1. Introduction | 1 |
| 2. Risk of Upward Shift in Interest Rates | 2 |
| 3. Capital Flow Volatilities | 3 |
| 4. Challenges of Shadow Banking | 4 |
| 5. Looking Forward: Central Bank and Macroprudential Policies | 5 |
| 6. Conclusion | 8 |

Abstract

This paper highlights some of the vulnerabilities seen as overarching in the SEACEN economies. As the global economy recovers, the following scenarios are probable. Firstly, a possible upward shift of interest rates in developed economies could destabilize the emerging financial markets. Secondly, a potential rapid fall in capital inflows to SEACEN economies as the tapering takes full effect could pose growth risks. Thirdly, the shadow banking system could become a source of systemic risks and create opportunities for arbitrages. The paper also highlights the need for central banks to expand their toolkit to complement monetary policies, in particular macroprudential measures.

Keywords: Global Financial Crisis, Interest Rates, Capital Flows, Shadow Banking, Macroprudential Policies

JEL Classification: F01, G01, G15

ASSESSING KEY VULNERABILITIES POST GLOBAL FINANCIAL CRISIS²

1. Introduction

The world has in recent years seen the worst financial crisis since the great depression of the 1930's. After half a decade into the global financial crisis (GFC), the world continues to be challenged by a high degree of uncertainty and the unsustainable recovery. This clearly has important implications for Asia, being export-oriented economies. For SEACEN economies, the effect of the 'aftermath' of the global financial crisis is clear. Most SEACEN economies have remained most resilient. Since the GFC, there have been no major disruptions to credit flows and domestic financial markets have remained orderly. In other words, the financial system remains robust, with stable asset quality, strong capitalization and sufficient liquidity buffers. Market risk exposures are well supported by diversified lending portfolios, sound underwriting and risk management practices. Foreign currency liquidity positions are also well managed since the heightened volatility experienced during the global financial crisis. While there were some volatilities in exchange rates, the fluctuations were generally within expectation. There appears to be no obvious foreseeable macro-financial risk for this group of economies.

On the other hand, some SEACEN economies have been adversely affected by the prolonged weakness of the global economy transmitted through the trade channel coupled with higher inflation expectations and the negative perceptions on the current account sustainability. This has led to increased stress of the external sector, reflecting rising external indebtedness and increased burden of servicing of external

2. This background information is based on the survey carried out by The SEACEN Centre in collaboration with The Bank of Mongolia. The paper was presented at the SEACEN-BIS Executive Seminar, Ulaanbaatar, Mongolia, 28-30 September 2013, as a background paper. The authors would like to thank member banks for replying to the survey. Any opinions expressed are those of the authors and not those of SEACEN or its member central banks.

liabilities. Member banks have identified three key channels of macro-financial risk in the survey conducted by SEACEN. There are (1) risk of upward shift in interest rates; (2) risk of volatile capital flow; and, (3) risk arising out of shadow banking.

2. Risk of Upward Shift in Interest Rates

The aggressive quantitative and monetary easing in the advanced economies have driven interest rates to very low levels. To some extent, this can potentially result in a number of risks arising out of the macro-financial linkage to economic and financial stability. In a low interest rate environment, the profitability and financial soundness of financial institutions may decline and thus, financial disintermediation to the real sector can occur. Furthermore, the change in the risk taking behavior of economic agents, be they financial institutions or individuals has been increasingly observed. Financial institutions are likely to increase their risk appetite amid the search for higher yields under a prolonged low interest rate environment through various means – e.g., competitive underwriting practices, proliferation of innovative credit products, venturing into new customer/borrower segments with higher risk profile, and rapid expansion into regional economies with higher yields.

Similarly, institutional investors such as pension funds, insurance companies and mutual funds in money market are also seen to increasingly invest in riskier assets. Also, in the low-interest rate environment, if prolonged, it is likely to cause housing price bubbles as households over-extend themselves in the housing market.

Given the extended period of low interest environment, there are potential losses arising from rising interest rates, particularly on financial assets. Given that much of the increase in household wealth is driven by a rise in the value of property assets, the decline in wealth should the bubbles burst, could have significant implications for consumer spending. Financial institutions' profitability may rise as interest rates move upward but that profit may be eroded by the potential losses of market value of bonds and other assets they hold. For example, an accelerated increase in interest rates will wipe out housing collateral values (if house prices drop) and this is particularly significant when

there is large loan concentration where collaterals of real estate form a relatively large share in the financial market. Also, a rapid upward shift in interest rates could also potentially lead to an inherent mismatch between the banks' source of funding and assets. For example, banks that fund with mostly short-term liabilities may see their profits reduced and at the same time, experience deterioration in their asset quality. Looking from another angle, with an upward shift in interest rates, the corporate sector could face financial difficulties in servicing their debt repayments, thus negatively impacting the balance sheets of financial institutions. The weakening position of financial institutions can impair credit expansion which eventually deters economic recovery.

3. Capital Flow Volatilities

The aftermath of the GFC saw implementation of unconventional monetary policy in the advanced countries. This unusual policy approach has helped to ease somewhat the tail risks in the advanced economies but has, however, added a new dimension to global liquidity by creating large surges of volatile capital inflows into emerging Asia. However, this trend has reversed following the tapering of quantitative easing (QE) in the advanced economies. The tapering has also already started to generate expectations concerning the lower growth prospect in the emerging market economies (EMEs). While there is no sudden massive sell-off of assets in the EMEs, any sudden reversal of capital flows could disrupt fund availability and dampen the growth of credit and even create loss of monetary control. Thus, economies that have large current account deficits and high dependency on external flows for financing remain most vulnerable. Meanwhile, any large exchange rate depreciation due to capital reversal could affect banks as depreciation directly affect their structure of assets and liabilities denominated in foreign currency, off-balance sheet exposure, and non-asset based services of financial institutions. However, at this stage, it is not clear if financial markets have factored in the full impact of the tapering of QE or whether how they will react to every future announcement of further tapering.

4. Challenges of Shadow Banking

Shadow banking activities are undertaken by entities that fall outside the regulatory perimeter of the authorities which supervise the financial sector. Shadow banking entities play a crucial role in broadening access to financial services, and enhancing competition and diversification of the financial sector. They also add to economic strength to the extent they enhance the resilience of the financial system to economic shocks. These entities can also act as backup to financial institutions should the primary form of intermediation come under stress, thereby constituting an important avenue for risk diversification away from the banking system. That is, they provide alternatives to bank deposits and constitute alternative funding for the real economy, which is particularly useful when traditional banking or market channels become temporarily impaired. However, as shadow banking entities have close inter-linkages with the banking sector from both sides of assets and liabilities, there is the greater probability of contagion risk in times of loss of confidence and uncertainty. In other words, in the context of macro-financial linkage, the shadow banking system could create opportunities for arbitrages and become a source of systemic risks.

As shadow banking entities are not subject to the same level of regulatory intensity, it is difficult to ensure that the governance, risk management and credit underwriting standards adopted by these institutions are at par with those of other highly-regulated financial institutions. Furthermore, currently there is no standard definition of shadow banking and as such, even competent authorities face difficulties in establishing a clear framework in terms of both legal and supervisory aspects to determine and monitor shadow banking related-risks. This lack of regulatory power to require shadow banking entities to submit periodic information on their activities as well as ensure the integrity of their submissions makes it difficult to assess: (1) the size of the shadow-banking sector; (2) the soundness of the financial position, and stability of funding of shadow banking entities, (3) the interconnectedness of the shadow banking sector with the financial system, and (4) the potential risk which the sector may pose to financial stability.

This leads to a number of challenges in monitoring and understanding shadow banking entities and their activities: (1) lack of granular, consistent and quality information for risk assessment; (2) lack of transparency and limited publicly available information particularly on the balance sheets and activities of some of these entities hamper risk assessment; (3) resource requirement in dealing with entities that are typically low in scale but high in numbers, e.g., money lenders and pawnbrokers that mainly focus on retail segment; (4) lack of coordination and cooperation with other authorities to facilitate effective flow of information among domestic authorities to ensure robust assessment of risks to financial stability; and, (5) continuous evolution and innovation in finance, including that taking place in the shadow banking, making it difficult to keep track on them.

In most SEACEN economies, while the shadow banking sector is not as large and complicated compared to the advanced economies, it is, nonetheless, a fast growing segment. In recent years, the shadow banking entities in some SEACEN economies have been the driving force behind the expansion in household debts, particularly in the personal financing segment.

5. Looking Forward: Central Bank and Macroprudential Policies

Monetary policy has evolved from having one single mission to multiple objectives of price stability, financial stability and growth. Against this backdrop, in most cases, the stance of monetary policy is intended to: (1) safeguard against re-emergence of inflation pressures; (2) address the risks to macroeconomic stability from external shocks and (3) manage liquidity conditions to ensure adequate credit flow to the productive sectors of the economy. As such, monetary authorities must have clear mandates. That is, clear rules governing how central banks are to approach the various objectives. Firstly, while monetary policy should take into account financial stability, it should not be monopolized by it. Certainly financial stability does matter for monetary policy, but only to the extent it poses risks to macroeconomic stability. Secondly, surveillance and assessment on monetary conditions and the potential build-up of financial imbalances need to be enhanced through more

rigorous monitoring of credit, monetary aggregates and asset prices. The main priorities should be on assessing sustainable levels of credit to the economy and identifying asset price misalignments. Also, enhancing central bank surveillance of private sector balance sheets (i.e., looking at their exposure to risks and the systemic implications of these risks) would also facilitate the early detection of build-up in financial imbalances, as well as monitor the efficacy of monetary policy transmission.

It is unanimously agreed that central banks need to expand its macroprudential toolkit to complement monetary policies to manage the risks from financial imbalances. The principles for macroprudential policy implementation are as follows: (1) macroprudential measures are the first line of defence against systemic financial instability risks. For example, for inflation targeters, normally a “two-targets, two-instruments” approach is used. Policy interest rate will continue to be used to safeguard only the inflation target while macroprudential measures may be used to address risks to financial stability³; (2) the policies must be proactive to preempt the build-up of imbalance in the financial system and their implementation should allow flexibility in response to changing circumstances; (3) they are especially useful when used in a targeted manner to address pockets of imbalances that are confined to certain sectors.

It is important to realize that macroprudential policies merely supplement monetary policies as they are not substitutes for sound macroeconomic policy and microprudential supervision. The SEACEN economies have introduced various macroprudential policy measures for different purposes (see Table 1). These include ceilings on FX derivative positions (to mitigate capital flow volatility and procyclicality), loan-to-value and debt-to-income ratios (concern over surges in housing prices and bubbles and household debt delinquencies), the loan-to-deposit limits, liquid assets/total liability ratios (for liquidity risks) and limits on net open currency positions (currency risk).

3. For communication strategy, these measures should be announced outside of the monetary policy cycle to emphasize that the measures are targeted at specific financial stability risks and should not be interpreted as signalling a change in the monetary policy stance.

Table 1: Selected Macroprudential Policies Implemented by SEACEN Economies

| Macro-prudential Policies | Purpose(s) |
|--|---|
| Dynamic adjustment of differentiated reserve requirement | To strengthen monitoring and assessments on systemic risk and safeguard the soundness of financial system |
| Variation in sectoral risk weights and sectoral provisioning | Countercyclical and cross-sectional stability |
| Limits on aggregate interbank liabilities as a proportion of their net worth | Cross-sectional stability |
| Access to un-collateralised funding market restricted to banks and primary dealers with caps on both lending as well as borrowing by these entities | Cross-sectional stability |
| Debt-to-income | To curb surges in mortgage lending and increases in house prices |
| Celling on FX derivatives positions | To mitigate capital flow volatility and procyclicality To rein in excessive corporate selling of FX derivatives and increase in banks' short-term external debt |
| Macroprudential stability levy | To mitigate capital flow volatility and procyclicality To curb excessive increases in financial institutions' non-core FX liabilities |
| Loan Tenure Limits | Ensuring borrowers do not over-estimate their ability to service mortgage loans, and take a bigger loan than they can really afford, due to lower initial monthly repayments made possible by long loan tenures |
| Additional Buyer Stamp Duties | Moderate investment demand to limit volatility of the property cycle |
| Seller Stamp Duties | Moderate asset price inflation by discouraging short-term speculative purchases |
| Tightening Loan-to-Value Ratio Limits | Encourage financial prudence among borrowers Moderate asset price inflation, and avert a drastic price correction which could destabilise the economy |
| Disallowing Interest Absorption Scheme and Interest-Only Loans | Cool investment demand in the housing market Build buffers for the banking system Encourage financial prudence among borrowers |
| Restriction on investment in the capital instruments of other banks and financial institutions | Cross-sectional stability |
| Limits on banks' exposure to NBFIs with NBFIs being increasingly subjected to more stringent prudential regulations and close monitoring of systemically important NBFIs | Countercyclical and cross-sectional stability |
| Prudential cap on investments in liquid schemes of Debt-oriented Mutual Funds (DoMFs) by banks in relation to their net worth. | Cross-sectional stability |
| Regulatory limit on banks' exposure to capital market and monitoring of exposures to real estate and NBFIs | Cross-sectional stability |
| Increase in capital charge for the net open position for non-deliverable forwards (NDF) | To signal against the use of NDFs for speculative purposes which could be de-stabilizing if markets suddenly reverse |
| Imposition of a limit on a bank's total gross exposures to all forms of NDF transactions: | To limit exposure of banks to the NDF market |
| Limits on the ratio of providing credit on the total mobilized capital | To ensure prudential ratios in operations of credit institutions |
| Cap on securities outstanding loans to charter capital | To control the loans to securities trading by a certain credit limit |

Source: Survey Responses of Member Banks.

6. Conclusion

The impact of the QE tapering would be manifested primarily through financial market adjustments. As such, some financial market volatility is expected. However, it appears that the US Federal Reserve at this point in time, instead of abruptly tightening its policy stance, has gradually started the process of tapering.⁴ Judging from this development, an orderly exit is expected. Look from another angle, the tapering may have in fact help reduce the risk of excessive build-up of stretched asset valuations and the risks associated with the search for higher yields.

However, as noted above, policy normalization in major advanced economies could induce a drastic reversal of cross-border capital flows in emerging economies. In this respect, SEACEN economies can take the following measures, both in the long- and short- run to avoid the drying of liquidity in the financial markets and to manage risks associated with an environment of heightened volatility in capital flows and exchange rates: (1) monitor capital flows closely and at the same time promote balanced cross-border capital flows; (2) strengthen liquidity management by using a combination of policy tools, including open market operations, depository reserve, refinancing and rediscount to mitigate the impact on domestic liquidity from capital flows; (3) provide dollar liquidity, grant temporary and limited regulatory forbearance and relax access to the discounting facility in terms of valuation of collateral and acceptable collateral; (4) promote growth of credit in a reasonable and appropriate manner; (5) build sufficient financial buffers and raise the degree of preparedness to manage risks; (6) expand the arsenal of pre-emptive measures of macroprudential tools; and, in the longer run (7) accelerate the transformation of economic growth pattern to become one that is less reliant on exports and more dependent on domestic demand in order to enhance macroeconomic flexibility; and,

4. From the global liquidity perspective, however, there seem to be limits on an individual nation's responses to the exit strategies of advanced economies, and thus close cooperation between advanced and emerging economies through international coordination is needed. Advanced economies need to reduce the uncertainties about their future policy directions by putting forth transparent and consistent policy signals to enable economic agents to prepare for their exit strategies in advance.

(8) continue to develop the local currency bond markets to provide borrowers with opportunities for funding without taking on currency risks, particularly related to currency mismatch. To this end, enhancing bond market depth and liquidity should be a policy priority.

To conclude, for now SEACEN economies except those with deepening fiscal and current deficits or persistently high inflation, could mobilize both monetary and fiscal policies should a major shock materialize. Naturally, for those economies with large fiscal and current account deficits or high and persistent inflation, there is a critical need to implement fiscal consolidation and accelerate broad-based structural reforms without delay.

