IMPACT OF BANK REGULATIONS ON CAPITAL AND ASSET QUALITY: A REGIONAL PERSPECTIVE

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1.0 Introduction

Twelve years after the financial crisis it is opportune for us to look at the impact of the regulations that came into force as a result of the series of events which occurred in 2007/08 in the world. It is common knowledge that the financial crisis led to the plethora of regulations the banks are faced with today. The aim of the regulations was strengthening loss absorption capacity and therefore increasing capital. Two factors become evident, (i) Unexpected events and losses will occur and (ii) capital as a single metric best captures viability of banks in the long term. It was also understood due to the public nature of a bank's business, its short-term viability is largely dependent on reputation which can be seriously affected if liquidity is impeded. Therefore, liquidity has been hailed as a metric for assessing near term viability.

Both banks and regulators across the world have committed resources in both time and money to inculcate a risk-based capital building culture in our financial institutions who are custodians of public money. It is indisputable that the regulators' first interest has been the depositor followed by the senior and other lenders and finally the ordinary shareholders in the event of a bank crisis. However, as paragraph number 2.0 indicates there have been some changes in the advanced economies post the significant government sponsored bail outs we witnessed during the financial crisis.

Several regulations have been introduced by the Bank for International Settlements(BIS) under three Basel accords.[1] Basel I was already in place prior to the financial crisis as the Basel Committee felt banks who were assuming several significant risks were inadequately capitalized. This article pertains to regulations governing capital captured under the Basel accords. These regulations have changed the dynamics for the banking industry. They have increased the financial services sector's capability to withstand unexpected losses. The aim is to ensure that a global meltdown of the scale we witnessed in 2008/09 will have less of an impact on consumers and taxpayers if the same conditions were to prevail once again. As yet these precautions have not been tested.

[1] The Basel Accords are set by a committee set up under the auspices of the BIS. These have no legal standing or enforcement capabilities. The committee supervises the standards and sets best practices which are now followed by banks all over the world.

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2.0 Regulatory measures

In the aftermath of the crisis the following methods were used to regulate the banking industry:

- **Ring-fencing banking business from other businesses** so that the deposit funded book is regulated separately (Dodd-Frank Wall Street Consumer Protection Act, July 2010 and Volcker Rule)[2]. If banks wanted to engage in investment banking or any other speculative businesses, they are permitted to do with shareholders' money as opposed to depositors' money (The Volcker Rule prohibits banks from using customer deposits for their own profit. They can't own, invest in, or sponsor hedge funds, private equity funds, or other trading operations for their use. The rule is section 619 of the Dodd-Frank Wall Street Reform Act of 2010).

- **Bailing in –** Banks to rely on their unsecured creditors to rescue them rather than expecting the taxpayers to provide them with solutions. In this regard a game changer is that depositors too are treated as unsecured creditors of the bank. However, deposit insurance schemes for depositors either mandated by the regulator or self-imposed have reduced the bail in risk to the depositors.

- **Emergence of the systemically important banks –** There are globally, and locally systemically important banks known as G-SIBs and D-SIBs. Each national regulator will determine the criteria for their D-SIBs. The categorization compels those banks which are G-SIBs or D-SIBs to comply with higher standards of capital requirements commensurate with the impact these financial giants could have on the global and local financial systems of the world.

- **Regulatory bodies –** Multiple bodies were set up to monitor the activities of the financial and banking industry to ensure every piece in the banking business was regulated.

- **Corporate culture change –** Incentive schemes which influence employee behaviour through excessive risk taking with aggressive payoffs were scrapped and transparency introduced around key officers' performance and reward goals. Although this may not have been prevalent in Asia, we have seen the advent of closer scrutiny of key management personnel and appointments of CEOs in banks. In India the Reserve Bank of India (RBI - the Central Bank of India) have used tools available them to pre-approve appointments of CEOs, and chairmen to the boards of banks and appoint RBI nominees where required to the boards of target banks.

[2] The rule was originally proposed by American economist and former United States Federal Reserve Chairman Paul Volcker to restrict United States banks from making certain kinds of speculativeinvestments that do not benefit their customers

3.0 Rationale for regulation on capital

The aim of increased macro prudential regulation was to achieve economic stability through the significant mitigation of systemic risk.[3] The quantum and complexity of laws and regulations appear to overcompensate for achieving systemic health. However, in this instance the means have justified the end as for the past decade the sector appears to have healed and become stronger against the kind of events that occurred with cataclysmic impact on the financial institutions of the world 12 years ago. Systemically important banks require implicit public subsidies due to bail outs required to maintain systemic risk at an acceptable level. Therefore, tighter regulation on internationally active banks, G-SIBs to D-SIBs is an irreversible characteristic of modern-day banking.

In the context of Asia a few banks in China and Japan have been identified as G-SIBs. As opposed to non-G-SIBS these banks are required to maintain total loss adjusted capital levels (TLAC) with deposit insurance offsets. These requirements are in effect from 2019.

Although the financial crisis's direct impact was on western and advanced economies the spillover to Asia, viz East and South East Asian markets was unavoidable.

4.0 Objectives of regional perspective

1) Broad analysis of how the capital regulations impacted the business of banking
2) Implementation of capital regulations in the South Asian region
3) Impact on credit risk management in the South Asian region
4) Critical success factors

4.1) Impact on the business of banking

As a result of the regulations introduced post the financial crisis, the following were noted:

- **Banking capacity and market structure**

A first consequence is the capacity for lending which saw a reduction in some advanced economies but a surge in the emerging and Asian economies. After more than a decade we have seen all banks affected and not affected by the crisis have grown. The banks merged with one another as they looked for cost efficiencies and synergies to preserve the scarce resource of capital. Banking has always been an industry with high entry barriers. The bank promoters are required to have deep pockets as equity capital is valued as much as internally generated profits in the new regulatory environment for capital. Banks' strategy is to commence with capital and start leveraging to ensure they stay in business to fund the growth sectors of the

[3] The risk that the provision of necessary financial products and services by the financial system will be impaired to the point where economic growth and welfare may be materially affected: European Central Bank (ECB), 2017.

economy which offers the best profits within prudential guidelines and national laws. Banks have emerged to be stronger players in the economy as the increase in financial depth shows in Charts 1 and 2 below.

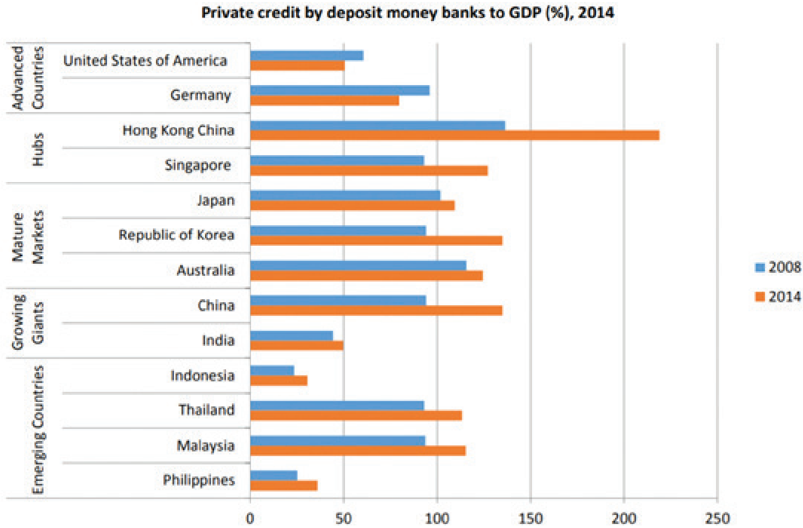

Chart 1 - Financial Depth in Advanced Economies and Asia

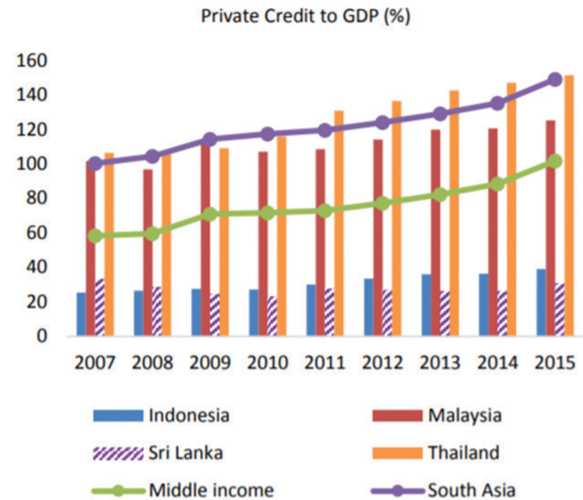

Chart 2 – Financial Depth - Asia
Source: The state of Finance in Asia and the Pacific: United Nations ESCAP

An increase in financial depth is witnessed right across Asia. Banks have increased their participation in the economy. The challenges to the regulators in these economies have been governance and enforcement of macro-prudential regulations with the deepening that we have witnessed. It is noted that India, Indonesia and the Philippines's financial depth is less than or equal to 50% of GDP which indicates a sizeable share of the GDP is still coming from the shadow banking, debt markets and other sources. The financial crisis laid bare the risks run by banks specially in advanced economies hence the reduction in bank credit compared to GDP post crisis in the more advanced economies.

It is noted that Financial depth in Sri Lanka lags the regional counterparts and has become less in 2008 than in 2015 whereas all other countries have increased penetration. The financial depth of South Asia is heavily skewed due to India's growth. However, Sri Lanka has caught up with the region in that at the end of 2018 banking sector gross advances were 53% of the gross domestic product at market prices.[4]

- **Systemically important banks and elevated capital requirements**

Ironically the top 5 US banks today hold 45% of the world's total banking assets as opposed to 40% during pre-financial crisis.[5] The inference is very clear. The big have become bigger which means the tough capital requirements must become tougher. TLACs also known as bail -in bonds have been issued in recent times to mixed reactions from the investor community.[6] G-SIBs are required to bring in TLAC of 18% of their total risk weighted assets by 2022. In addition, TLAC instruments must represent a minimum of 33% of all risk weighted assets. The Basel Committee on Banking Supervision (BCBS) assesses five criteria to determine if a bank is a G-SIB: (i) Size, (ii) Inter connectedness with other financial institutions, (iii) readily available substitutes or financial institution infrastructure, (iv) global activity and (v) complexity. Local regulators usually fashion the D-SIB requirements based on the same lines.

In Sri Lanka the D-SIBs are expected to maintain CET1, Tier 1 and Total CAR at 7.00%, 8.5% and 12.5% respectively. The D-SIBs are categorized as total assets of LKR500 billion and above.

- **Changing business models of banks**

Since the advent of the Volcker Rule there are strict borders between investment banking and commercial banking. Cost of capital and regulation compelled banks to reconstitute the asset book with more granular portfolios which attract less risk weights and higher net interest margins. All banks are pursuing granularity to realize higher NIMs as interest income is core income to all banks. Some banks have increased their retail composition in the asset books to as much as 50%-70% which have systemic implications as consumers become more and more

[4] Statistical Report: Central Bank of Sri Lanka on the Real Sector and the Financial Sector

[5] Christine Lagarde, Managing Director, International Monetary Fund, London, February 2019

[6] Unsecured bonds issued by banks with specific features that enable them to be converted into shares or written down at a certain trigger event or at the discretion of the supervising authority.

attuned to a borrowing culture than a savings culture. It also poses hidden risks unless loan to value ratios are controlled. We have seen some regulators controlling the overheating of this segment of the market with ceilings on credit.

- **Bank ownership trends**

There is an encouraging trend on the part of most national regulators to mandate public listing of banks with maximum ownership and minimum public float rules. Despite the transparency measures banks in South Asia are still subject to concentrated ownership by business families and less by funds and retail shareholders apart from public sector banks who own more than two-thirds of the banking sector assets in South Asian markets. The implication for capital raising is significant as equity investors are seeking capital appreciation of their investments while depositors and other stakeholders including the regulators want banks to strengthen capital as risks increase.

4.2) Implementation of capital regulations in the South Asian region

Basel III regulations focus on leverage of banks while minimum capital is maintained for credit risk. Sri Lanka has been ahead of all countries in South Asia in implementation of Basel III regulations. 2017-2019 period saw banks efforts to raise capital to meet minimum requirements. In India the full adoption of Basel III has been postponed to March 31, 2020. The implementation of Basel III requires manpower commitment, IT capacity, external consultants and management attention apart from obvious financial implications. A phased-out implementation was sought by all three countries giving their financial sector time to adjust.

International rating agencies perspective on Basel III implementation could be due to their perceptions on regulators' failure in India and Pakistan to enforce strict capital rules. However, India is currently faced with an economic slowdown and adverse events in the financial services sector which has rightly delayed the implementation. Sri Lankan banks though complying with Basel III are faced with heightened asset quality deterioration in the aftermath of a weak operating environment and lowest GDP growth in two decades. Table 1 below denotes key financial soundness and performance indicators in selected countries in South Asia. Most countries have a differentiated structure for regulatory capital requirements under Basel III for D-SIBs. The criteria of D-SIBs stand at total balance sheet at LKR500 billion. Central Bank is in the process of recalibrating the criteria to grant the D-SIB status to banks in view of Basel III led regulatory environment and the up scaling required to merit systemic importance.

In India the Reserve Bank of India has permitted perpetual debt issuances for banks. These instruments are eligible for Basle III capital. It has opened a hitherto untapped long-term investor market which helps to increase financial depth.

Another important factor in South Asian banks is the inter connectedness of borrowers which will have a contagion effect in times of crisis. Currently in India high profiled corporate

failures have had a major impact on the share price of key private sector banks whose market capitalizations have declined rapidly with investors rushing to exit investments. We have seen in Sri Lanka a couple of equity raises where subscription was below full due both to the operating environment and lack of investor interest.

The regulatory capital ratio requirements are given in brackets:

Table 1 _ Comparative Financial Indicators of selected South Asian Countries

Country	India	Sri Lanka	Pakistan
Total Capital Adequacy Ratio (CAR) (%)	12.5 (11.5)	16.5 (12.5)	16.1 (12.5)
Tier 1 Ratio (%)	9.6 (9.5)	13.3 (8.5)	13.2 (10.0)
Loan loss reserve ratio (90-day) (%)	60.6	48.5	86.0
Texas Ratio[7] (%)	57.5%	36.3	32.6%

Sources: Central Banks of the countries

An important aspect of implementing capital regulations for banks is to use securitization as a capital relief method with proper legal structures in place. In India securitization is a very popular mechanism for capital relief, liquidity relief and meeting Reserve Bank of India's directed lending targets.[8]

4.3) Impact on credit risk management in the South Asian Region

A noteworthy point is the relatively low loan loss reserve ratio despite the increase in CAR which complies with local regulatory standards. Whilst CET 1 ratio is good indicator of the absorption capacity of unexpected loan loss the loan loss reserve ratio is no comfort to the banks who would either need to provide more at the cost of internal capital generation which contribute to the enhancement of Tier 1 capital and in turn affects the total CAR.

The impact of Basle III capital ratios has far reaching implications for banks in terms of the entire credit underwriting, classifying, watch listing, providing writing off process. In India a slew of corporate failures has left the banking system badly bruised with very high non-performing loans and low loan loss reserves. Banks are strategizing to cope with the twin challenges of higher income and low risk among rising costs of capital.

[7] Texas ratio is defined as gross non-performing loans over equity plus loan loss reserves. The lower the ratio the higher the loss absorption capacity of a financial institution.

[8] RBI has priority Sector Lending (PSL) targets for every bank. Public sector banks and non-banking financial institutions who are active in this market engage in pass-through-certificates (PTC) and direct assignment as securitization variants for capital relief.

However, Basel III is rewarding banks with strong credit underwriting skills as opposed to asset backed lending. It is back to basic credit skills of structuring and vital cash flow analysis as assets get stymied in courts of law and tribunals. IT is proven that banking is all about credit assessment and collection to conserve capital and consistently.

The Texas ratio for the region is relatively high which reflects the under provisions of the industry. Doubtless internal capital generation to boos CET1 and Tier 1 ratios have prevented more aggressive provisions and recognize losses.

The Reserve Bank of India introduced a minimum provision coverage ratio of at least 70% on September in preparation for Basel III to build a pro cyclical buffer. However, the Indian banks met this requirement for about a couple of quarters before asset quality and profitability issues compelled the ratio to come down to below 50% levels.

The regulator can provide guidance in setting standards. Final decision to provide is a business decision which lies with each individual bank. The Texas ratio indicates that all South Asian banks have low coverage and the loss absorption will quickly be depleted in times of a crisis.

Banks need to develop heightened systems to spot early warning signals and escalate issues through a properly established and documented governance procedure on all non-performing assets. Most banks in the region delay recognition through pro-active reschedule Ent which under Basel III will still require classification, provision and loss recognition.

4.4) Critical Success Factors

Corporate Governance – Governance has never been more important than now since the financial crisis in the mid-2000s. Integration of approvals should be at a much higher level in the approval hierarchy to ensure checks and balances prevail.

Four eyed principle - The regulatory environment for South Asian banking industries could vary from sophisticated to moderate. Light touch regulation internally would augment credit risks. Independent validation of key criteria based on a robust process will prevent incorrect and weak underwriting.

Strong credit underwriting skills – While most banks have excellent inhouse and external training provide to their underwriters it is a well-known fact that South Asian banks tend to favor more asset backed lending vis-à-vis cash flow based lending which require more stringent appraisals of the underlying transactions.

Asset management companies and conflict resolution mechanisms

During times of borrower stress markets in Asia are desperate for the experience of asset management companies and funds who specialize in distressed assets. In South Asia apart from India other countries lag the development of these structures which introduce liquidity to the loan market and enable banks to continue lending even after or during a credit crunch.

Securitization

In South Asia except for India this market is largely underdeveloped and even in India without adequate strong legal structures to resolve disputes. The assignment and direct transfer methods are used in most countries in South Asia but not actively pursued as a strategy.

5.0 Bank performance trends

The intention of the Basel led regulations on capital was to build capital to avoid systemic risk. This included pro cyclical buffers. All these impact a bank's profitability. The higher NIM and Return on Equity (RoE) era has been terminated as the higher performance targets were achieved at tremendous risk to the system. This means that super normal profits may be a thing of the past.

Table 2 below denotes an analysis of Bank Performance trends in Sri Lanka.

Table 2: Performance Indicators (2014-2019)*

Performance indicator	2014	2015	2016	2017	2018	2019
Total Asset Growth	15.6	14.6	12.1	12.0	15.9	17.3
Loan Asset Growth	18.3	19.3	13.9	17.7	21.2	13.8
Deposit Growth	12.4	15.3	16.5	14.9	14.8	18.3
Return on Equity	16.6	16.2	17.3	17.6	13.2	10.1
Loan to deposit ratio	86.9	69.2	72.6	74.6	77.7	77.0
Cost to income ratio	51.4	51.0	49.2	45.7	50.0	53.6

*Until June 2019
Source: Central Bank of Sri Lanka

It is noted that with increased equity capital to comply with Basel III capital requirements banks' RoE will diminish which will impact shareholder returns and may detract investors from funding the industry. However, capital infusion is not only for growth rather for increasing downside protection which in the long run improves returns to shareholders. This is especially true for South Asia where more than 60% of the banking assets are held by public sector banks whose equity must come from the governments.

Asset selection by banks in the post Basel III area is towards those which consume less capital such as retail assets which has long term economic implications for banks. The real sector's needs need to be addressed through the traditional model of credit intermediation by banks which is their primary role.

Growth trends have been moderate in this period resulting in a cumulative annual growth rate (CAGR) of 18% for loan assets. However, this trend is in line with lower GDP growth and introduction of several regulations which would have curtailed some of the lending activities of the banks.

Cost to income ratio is an interesting indicator as it shows a relatively higher metric even though state banks' cost to income ratio is lower than private banks and state banks control 60% of banking sector assets.

6.0 Concluding Remarks

Banks face new risks all the time and regulation around building capital for new risks is a continuous conundrum in the banking eco system. This is the new normal for banks. It reminds the writer of the tremendous enthusiasm with which markets embraced the credit default swaps and the related financially engineered products which most players invested in without really comprehending the risk matrix around them. Each new product or venture will attract capital and banks need to allocate the scarce resources intelligently as that alone will be the sustainable competitive advantage going forward. It is felt that the advent of fintech in the financial services industry along with blockchain technology etc. require careful informed analysis prior to allocating capital and resources to develop revenue generating product streams around it as some risks are unknown and ill understood.

Regulations are debated, drafted and finalized under the auspices of the BIS. However, national regulators have been given permission to customize the regulations to suit each unique jurisdiction. The important achievement is for all to be on the journey rather than being the first to adopt the standards. Regarding D-SIBs some Asian bank regulators need to be prepared for TLAC in the coming years as their banks may cross the threshold scores based on G-SIB methodology. Although this is unlikely in South Asia soon, enhanced requirements for D-SIBs cannot be ruled out.

Regulation should be viewed as an enabler rather than an impediment. Since regulations are not going to disappear banks should accept the fact that profits of the sector have been made without adequate capital for the risks taken by the sector. In terms of credit risk, the loan loss coverage is inadequate for our region. This is due to the fact that many of our borrowers are interconnected in many ways thereby leading to a systemic crisis when corporate failures occur as is happening in India.

The diminishing RoEs reflect that banks need to understand pricing the risk. It would require a behavioral change from the product lines to reach profitable, risk-based pricing for its asset products and other off-balance sheet activities. Each product which burns more capital than others should require higher profitability. This is an ongoing analytical exercise. In fact, banks should factor in impending regulations as a future threat/opportunity in their medium-term strategies.

Funding mix will play a crucial role for banks. Risk approach to capital management in banks will weigh in for more deposits. However, if bailing in is required by regulators for D-SIBs Asian banks would be more attracted to raise funds through bonds.

A bank must decide on the identity it wishes to have in their own banking system. A business model of a bank may be to live and thrive as a small to medium player without becoming a D-SIB which requires a higher level of capital and commitment of resources which it may not have the capacity to do so.

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