A Case study of Banking Stability – Financial Inclusion Stability

Prof. Parveen Sultana Kanth
Associate professor in Acharya Bangalore B-School
Dr. Kamini Dhruva
Professor in Acharya Bangalore B-School

Abstract
This Case study focuses on constructive aspect of a Banking Stability Mapping which reduced a link with the financial markets and macroeconomic variables. As it is an ongoing case study it establish the direction of causality between stability of the banking sector and overall financial inclusion stability and it thrown a light on the different dimensions used for the constructive aspect of the banking stability to financial inclusion stability. It reveals the movements in the banking stability indicate that a moderate rise in instability of the banking sector in recent periods where financial inclusion mainly induced it shows that the deterioration in asset quality and also in other aspect of the economy.

Keywords: Banking inclusion Stability, Financial inclusion Stability, Stability Map, Stability Indicator.

I. Introduction
As the banks are the vital components of any financial system, the stability of the banking sector has become a paramount policy initiative worldwide.

The issue of financial inclusion is organically linked with banking stability and its inclusion. In fact the historical evidences demonstrate that this financial crisis which had stronger involvement of the banking sector had more devastating effect on the real sector in terms of the fall in real output and a reduction in employment level. The financial crisis of 2007-08 was no exception. The theoretical analysis of the events that preceded the financial crisis prove amply that whatsoever may the origin of the financial crisis be, its trigger took place in the banking sector. There are also evidences that the financial crisis persisted for a longer period because of weaknesses in the banking sector which went unnoticed for a longer period. In view of these developments there is an additional emphasis to ensure the stability of the banking sector by strengthening regulatory norms, focusing on empirical research on the leading indicators of banking stability and by preparing banking stability inclusion maps and banking stability inclusion indicator.

Banking stability is a yardstick to determine whether an economy is sufficiently strong enough to withstand both the internal and external shocks. On the other side, financial stability is a by-product of stability conditions prevailing in the areas of banking, financial market and the real economy. Out of the three, banking stability conditions emerge as a vital ingredient to financial stability inclusion in our country.

Banking stability in itself relies on the efficiency of the several parameters of individual banks, e.g., asset quality, liquidity, capital, costs and return on assets, etc. for its degree of stability during the period under review and in the days ahead. In this background, an attempt has been made, in
this study, to develop a banking stability indicator for India by way of combining some of those indicators which are important in gauging the health of the banking sector.

II. Historical background behind the development of financial inclusion Stability in India

Globally speaking, many central banks have developed or are in the process of developing various methods to identify risk factors linked with the functioning of their banking and financial markets in order to provide early warning signals to the policy makers to enable them to initiate policy measures.

GFSM (Global Financial Stability Map) was introduced as a summary tool for communicating changes in the risks and conditions affecting financial stability in a graphical manner. The GFSM coupled with other financial surveillance tools sought to create a more systematic approach towards monitoring the global financial infrastructure and to improve the understanding of risks and conditions that affect financial institutions and other intermediaries. However, it does not consider certain key sources of financial stability risks, for example, operational risks or micro-structure of asset market.

Judgment & technical adjustments were important in the final assessment of global financial stability and its inclusion. Judgment is made based on market intelligence and related surveillance work in order to determine the final positioning of risk factors in the Map. Technical adjustment is used to account for numerical limitations of the model.

Another attempt by IMF in this direction has been to develop a mechanism called Early Warning Exercise (EWE) jointly with the Financial Stability Board (FSB) to detect risks and vulnerabilities that impact financial stability and its inclusion. As part of the exercise, an Early Warning List (EWL) is prepared and for each risk scenario flagged by the following a) policy actions to mitigate risks and reduce vulnerabilities; and b) suggestions for further analysis in subsequent EWE rounds.

“CAMELS stands for Capital, Asset Quality, Management, Earnings, Liquidity and Systems”.

Finally, the conditions prevailing in the financial market segments, viz., debt, equity and foreign exchange exert pressure upon the banking sector; so also realistic economic parameters like export, import, flow of foreign capital, gross domestic product, etc. determines the volume of banking business. However, ultimately, it is the banking sector that keeps itself resilient against all odds and provides a sense of stability not only to the whole banking & financial system but also to the entire economy.

III Methodology

The Banking Stability Map and Indicator represent an overall assessment in underlying conditions and inherent risk factors that impact the stability of the banking sector. The Map and Indicator are based on five indices which represent the five dimensions of:

- Soundness (S);
- Asset-quality (Q);
- Profitability (P);
- Liquidity (L); and
- Efficiency (E).

A composite measure of each dimension is calculated as a weighted average of a set of standardised ratios (Table 1) which are relevant in assessing the dimension. The ratios &weights are also based on the ratios &weights assigned to the different ratios for the CAMELS rating. Each index, representing a single dimension of the functioning of the bank’s, takes a value between zero (minimum) and 1 (maximum).

The index represents a relative measure for the sample period used for its construction,
with a higher value of the index indicating that the risks emanating to the banking sector when the dimension is higher. Therefore, an increase in the value of the index in any particular dimension indicates an increase in risk in that dimension for that period as compared to other periods. The sample period for assessment was taken at March 2001 to March 2013. The ratios used for construction of each composite index are summarised in Table – 1.

Table 1: Ratios used for construction of Banking Stability Map and Indicator

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Ratios</th>
</tr>
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<tbody>
<tr>
<td>Soundness</td>
<td>CRAR *</td>
</tr>
<tr>
<td></td>
<td>Tier_I Capital to Tier_II Capital*</td>
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<tr>
<td></td>
<td>Leverage_ratio as Total-Assets to Capital &amp; Reserves</td>
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<tr>
<td>Asset-Quality</td>
<td>Net NPAs to Total-Advances</td>
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<tr>
<td></td>
<td>Gross NPAs to Total-Advances</td>
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<tr>
<td></td>
<td>Sub-Standard-advances to gross NPAs *</td>
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<tr>
<td></td>
<td>Restructured-Standard-Advances to Standard-Advances</td>
</tr>
<tr>
<td>Profitability</td>
<td>Return on Assets*</td>
</tr>
<tr>
<td></td>
<td>Net Interest Margin *</td>
</tr>
<tr>
<td></td>
<td>Growth in Profit *</td>
</tr>
<tr>
<td>Liquidity</td>
<td>Liquid-Assets to Total-Assets *</td>
</tr>
<tr>
<td></td>
<td>Customer-Deposits to Total-Assets*</td>
</tr>
<tr>
<td></td>
<td>Non-Bank-Advances to Customer-Deposits</td>
</tr>
<tr>
<td></td>
<td>Deposits maturing within-1-year to Total Deposits</td>
</tr>
<tr>
<td>Efficiency</td>
<td>Cost to Income (Operating expenses to income – interest expenses)</td>
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<tr>
<td></td>
<td>Business (Credit + Deposits) to staff expenses *</td>
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<tr>
<td></td>
<td>Staff Expenses to Total Expenses</td>
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</tbody>
</table>

indicates an increase in risk in that dimension for that period as compared to other periods. The sample period for assessment was taken at March 2001 to March 2013. The ratios used for construction of each composite index are summarised in Table – 1.

Negative is related to risk.

For each of the above ratios, a weighted average for the banking sectors is derived, where the weights are the ratio of individual bank’s asset to the total assets of the banking system. Each index is standardised for the sample period, using a relative distance measure, as

\[
(\text{Ratio-on-a-given-date} - \text{Minimum-value-in-sample-period}) \div (\text{Maximum-value-in-sample-period} - \text{Minimum-value-in-sample-period})
\]

The Banking, Financial inclusion Stability Mapping is representative of the over-all conditions in the banking sector, wherein the relative position of the banking sector pointing to the fact that the risk factors that impact the banking sector have further accentuated.

This case study reveals that a dimensional increase in risk factors emanating from soundness, profitability, liquidity, asset quality and efficiency. Though, the dimension, soundness showed the relative deterioration vice-a-verse the previous periods, the ratios continue to remain well above the regulatory norms. The Efficiency dimension of the study as derived through cost to income & business, remained more or less at the same level.

As a result, non performing advances (NPAs) declined from a peak of 13 percent of total loans in 2000 to about 2.5 percent in 2011; and the Capital to Risk weighted Assets Ratio (CRAR) steadily improved from 11 percent to
14 percent during the same period. When the current crisis initially hit, it affected mainly banks’ trading books, but these losses were easily absorbed by profits. The second-round effects of the crisis resulted in asset quality deterioration.

It established that banking stability is linked with the financial inclusion stability & Continued financial stability improves banking stability and enables the banking sector to absorb the shocks during times of crises, thus minimizing the impact and helping the economy to bounce back with minimum time lag. The good health of the real economy helps to build soundness, efficiency and profitability of the banking system. The impact of shocks in the real economy is reflected in the banking sector through reduced credit growth and deterioration in asset quality. The quantum of the feed-back impact of the banking sector to the real sector is determined by the level of shock absorbing capacity of the banking sector.

The issue of developing a banking stability indicator for India:- The banking stability indicator is based on five parameters which provide insight into the banks’ performance and thus could be in a way considered leading indicators of the nature of developments likely to occur in the banking sector as a whole. The movements in the banking stability indicator amply capture the profile of the Indian banks and indicate that there are symptoms of a moderate rise in instability of the banking sector in recent periods perhaps due to the rise in the NPA. Thus, there is a need to exert precautionary measures to improve the overall performance of the banking sector and initiate regulatory measures appropriately. It may however be clarified that banking stability indicator is presently placed at 0.52 as compared to the 0.75 in 2001-02.

It indicates that banking instability has immediate adverse effect on the financial market stability. This analysis in fact provides supporting evidences that the banking inclusion stability indicator, as developed, captures the nuances of the banking sector. These results also indicate that stability in the banking sector is a necessary condition for maintaining financial inclusion stability. Policy makers will need to work towards strengthening the banking sector to enable the banks to bear the shocks resulting from an adverse turn in the real environment. There is a need to build enough safeguard in the banking sector to avoid the negative feedback loop between the banking sector and the real economy, which could lead to the germination and aggravation of a financial crisis.

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