

Shadow banking in India: creating opportunity out of a crisis

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Intermediation, disintermediation, and re-intermediation are various stages in the process of evolution of many aspects of commerce – clearly so in case of financial flows. While banks are traditional financial intermediaries, several intermediaries developed over time – asset management companies, credit institutions, and so on. The age of technology made it possible for entities that bring together the users and savers of money—hence, P2P lending platforms have started emerging as a challenge to financial intermediaries.

In this Chapter, we examine the scope and size of shadow banking in India, particularly with a view to understanding the linkages between banking and shadow-banking framework, regulatory challenges and responses, and the scope for any reforms.

From “shadow banking” to “non-banking financial intermediation”

The term “shadow banking” emerged during regulatory debates following the GFC, and is generally credited to PIMCO’s Paul McCulley to refer to entities that thrive on regulatory arbitrage, that is, which substantially serve the same economic function as banks, and yet escape financial regulation. The Seoul Summit of G20 Leaders in Nov., 2010 warned that regulatory gaps may emerge due to shadow banks¹. The Financial Stability Board (FSB) subsequently recognised² shadow banks as “credit intermediation involving entities and activities outside the regular banking system”. From 2011, FSB has been publishing annual global monitoring reports on shadow banking, but in the 2018 Report (published in Feb., 2019)³, it moved away from the term “shadow banking” and has started using the expression “non-banking financial intermediation” (NBFIs) instead.

From the very wide conspectus of non-banking financial intermediation, the FSB has narrowed down to such non-banking financial intermediaries, which pose risk of systemic instability. The FSB refers to such NBFIs as “narrow measure NBFIs”, meaning those NBFIs which perform the economic functions of credit intermediation, and yet are not banks. The narrow-measure NBFIs sit within the larger universe of the financial system, as shown in the accompanying graph. [See Figure 1: Size of financial assets]

The narrow measure NBFIs accomplish maturity or liquidity transformation. Based on the economic functions (EF), the FSB classifies the narrow measure NBFIs into 5 types:

Type	Definition given by FSB	Typical entity types identified by FSB
EF 1	Management of collective investment vehicles with features that make them susceptible to runs	MMFs, fixed income funds, mixed funds, credit hedge funds (that is, that that invest in corporate loans or bonds), real estate funds

¹ The Seoul Summit Document, November 2010, Para. 41

² https://www.fsb.org/wp-content/uploads/r_111027a.pdf

³ <https://www.fsb.org/wp-content/uploads/P040219.pdf>

EF 2	Loan provision that is dependent on short-term funding	Finance companies, leasing/factoring companies, consumer credit companies
EF 3	Intermediation of market activities that is dependent on short-term funding or on secured funding of client assets	Broker-dealers, securities finance Companies
EF 4	Facilitation of credit creation	Credit insurance companies, financial guarantors, monolines
EF 5	Securitisation-based credit intermediation and funding of financial entities	Securitisation vehicles, structured finance vehicles, asset-backed securities

GLOBAL FINANCIAL ASSETS

(As at the end of 2017)

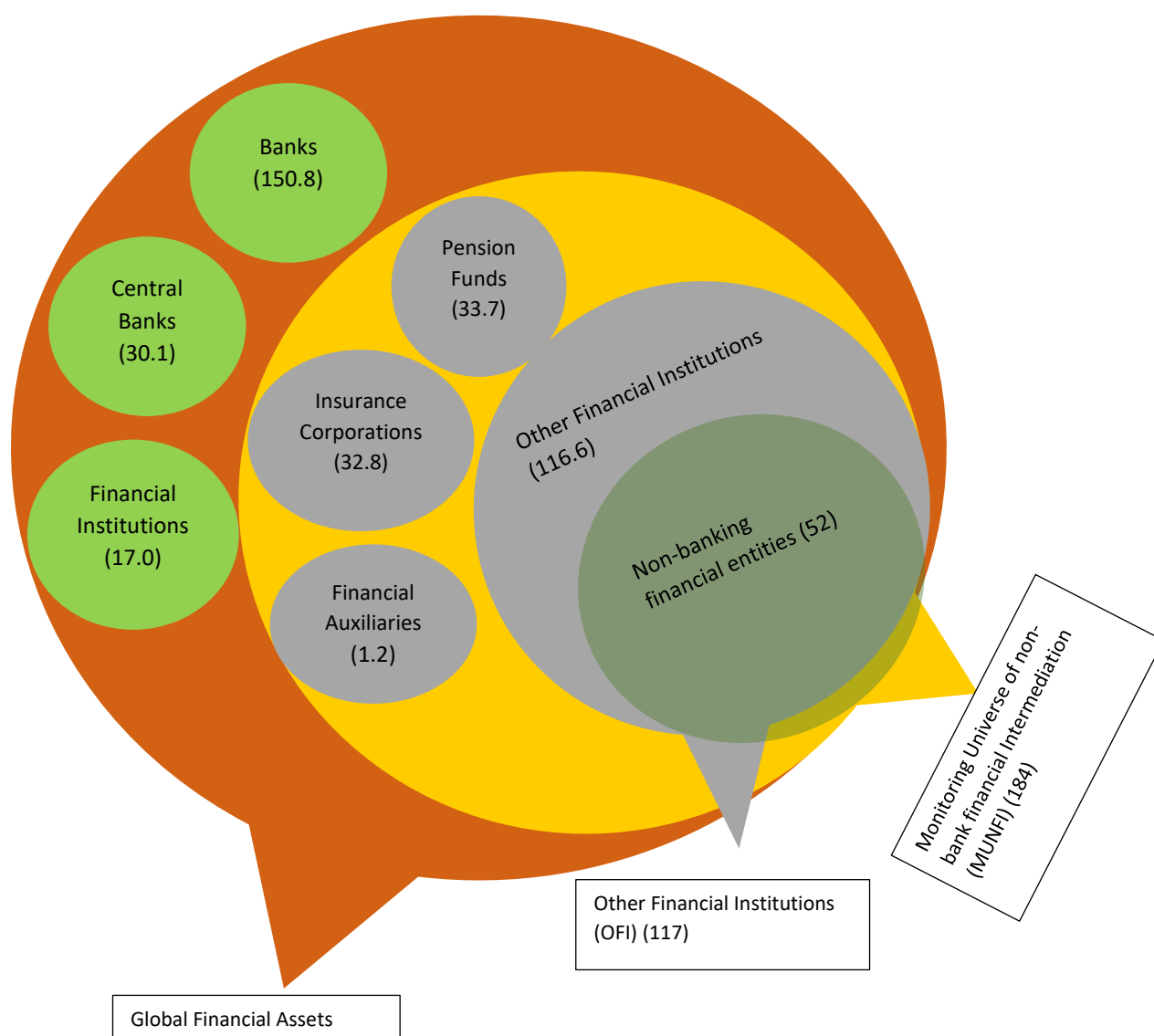


Figure 1: Size of financial assets

Note – the figures in numbers represent the value of assets in USD trillion, as at end Dec., 2017.

The narrow measure NBFIs are identified by 4 metrics - credit intermediation, maturity transformation, liquidity transformation, and usually but not necessarily, employ leverage. These attributes correspond to banking entities. These metrics are further analysed as follows:

Examples of risk metrics	Definition and range
Credit intermediation (CI) $CI1 = \frac{\text{credit assets}}{\text{total financial assets}}$ $CI2 = \frac{\text{loans}}{\text{total financial assets}}$	<p>These second metric C 2 sits within C 1. The value of C 1 will range from 0 to 1. Lower limit 0 indicates no credit intermediation.</p>
Maturity transformation (MT) $MT1 = \frac{(\text{long-term assets} - \text{equity} - \text{long-term liabilities})}{\text{total financial assets}}$ $MT2 = \frac{\text{short-term liabilities}}{\text{short-term assets}}$	<p>MT1 is the portion of long-term assets, not funded by equity or long-term liabilities, scaled by the entity type's total financial assets. It may range from -1 and +1, with 0 indicating no maturity transformation, and negative values implying negative maturity transformation.</p> <p>MT2 is the ratio of short-term liabilities and redeemable equity to short-term assets. A ratio higher than 1 would mean short-term liabilities are not matched by short-term assets, and indicates an asset liability mismatch on lower time buckets.</p>
Liquidity transformation (LT) $LT1 = \frac{(\text{total financial assets} - \text{liquid assets} + \text{short-term liabilities})}{\text{total financial assets}}$ $LT2 = \frac{(\text{total financial assets} - \text{liquid assets} + \text{short-term liabilities})}{\text{total financial assets}}$	<p>LT measures the amount of illiquid or less liquid assets funded by short-term liabilities. Liquid assets are given a narrow definition for purpose of LT1 and broad definition for LT2. Value of more than 1 will evidence maturity transformation.</p>
Leverage (L) $L = \frac{\text{total financial assets}}{\text{Equity}}$	<p>L is the ratio of total financial assets to equity.</p>

Size and significance of shadow banking

The global size of narrow measure NBFIs was estimated at about \$ 52 trillion as of end-December, 2017. This is about 13.6% of the total universe of financial assets [\$ 382 trillion], and compares with the assets with the banking system [\$ 150.8 trillion]. What is notable is that since 2008, the share of banks' assets in the total universe of financial assets has come down from 45% to 39%. Larger part of that decrease in banks' portion has been taken by OFIs (of which narrow measure NBFIs are a part).

The total size \$ 52 trillion is split into the 5 EFs as follows: about 71% of the assets are in CIVs, that is, **EF1** [\$ 36.7 trillion], followed at a long distance by the rest of the EFs: **EF2** (*finance companies*) at 6.7% [\$ 3.5 trillion]; **EF3** (broker dealers or securities finance) 8.2% [\$ 4.2 trillion]; **EF4** (*credit insurance etc*) 0.3% [\$ 0.2 trillion]; **EF5** (*securitisation-based credit intermediation*) 9.6% [\$ 5.0 trillion]; **Unallocated** 4% [\$ 2.0 trillion].

Sheer size of the narrow measure NBFIs apart, the FSB report has also given data about interconnectedness between the NBFIs and the rest of the financial system. With wide differences across countries, banks have exposure in NBFIs (either by way of loans or investments), and NBFIs have exposure in banks (once again, by way of loans or investments).

Size and significance of shadow banking in India

The term NBFI in Indian context may possibly be read as referring to NBFCs – however, NBFCs are only a part of narrow-measure NBFIs. In this discussion, we are using the term NBFCs to refer to non-banking finance companies/housing finance companies registered with the RBI/NHB, and NBFIs in the larger context discussed above.

The 5 EFs for NBFIs discussed in the FSB report exist in India in the following regulated forms:

EF1: MMFs, fixed income funds, mixed funds, credit hedge funds (that is, that that invest in corporate loans or bonds), real estate funds

As per FSB definition, those collective investment vehicles which are engaged in credit intermediation are susceptible to runs in extreme circumstances. In India, there are money market funds, and there are several other income/debt oriented mutual funds which are open-ended, and therefore, do a liquidity transformation. On the asset side, most of these funds invest in debt paper, government treasuries, commercial paper, bank CDs, etc. The susceptibility of these funds to systemic strains was quite obvious, as there was net redemption of more Rs 120000 crores during the period April 2018-March 2019, in the midst of credit concerns. There are real estate focused mutual funds too.

In addition to mutual funds, some of the alternative investment funds (AIFs) also do credit intermediation, as many of them invest in corporate debt. However, the AIFs are privately pooled vehicles, and the redemption of the funds is not uncontrolled. Also, the use of leverage by AIFs is restricted. From this viewpoint, their susceptibility to runs is limited.

EF2: Finance companies, leasing/factoring companies, consumer credit companies

Finance companies, leasing and factoring companies and consumer credit companies in India are regulated and registered as NBFCs. These entities do credit intermediation, almost similar to banks. The regulatory definition of NBFCs in India includes core investment companies and investment companies too – which is actually not a credit intermediation function. However, while getting into the sizing of these companies, we have excluded the investments held by NBFCs, so as to focus on credit-related assets.

EF3: Broker dealers, securities finance companies

The separate category of securities finance companies does not exist in India – NBFCs provide lending against securities. Stock brokers are not usually dependent on short-term funding except by way of loans for margin trading.

EF4: Credit insurance companies, financial guarantors, monolines

Monoline insurance companies do not exist in India. Financial guarantee or credit insurance, as a credit substitute or credit enhancement, is not practised by insurance companies. Hence, this category also does not materially exist in India.

EF5: Securitisation vehicles, structured finance vehicles, asset-backed securities

NBFCs in India have securitised assets which are held by securitisation vehicles. There are some other forms of structured entities (for example, project finance entities), but these are not engaged in credit intermediation that would be relevant for our purpose and context.

Table 1: Size of shadow banking in India

	Rs. In crores		
Asset size as on	31st March, 2018		31st March, 2019
EF1 (INCOME / DEBT ORIENTED CIV SCHEMES)	11,34,949.71		11,65,891.02
EF2 (NBFCs)			
NBFC-D			
Total Assets	3,46,013		4,21,892
Less: Investments	13,126		23,893
Financial Assets	3,32,887		3,97,999
NBFC-SI			
Total Assets	19,29,963		26,63,588
Less: Investments	2,88,033		4,88,550
Financial Assets	16,41,931	19,74,817	21,75,038
			25,73,037
EF5 (securitisation Vehicles)	1,53,000		2,85,000
TOTAL	32,62,767		40,23,928
Scheduled Commercial Banks (Excluding Regional Rural Banks)	1,52,53,292		1,66,01,224
Financial Assets as a percentage of Assets of Banks	21.39%		24.24%
Financial Assets of Non-Banking Financial and investment Companies as a percentage of Assets of Banks	12.95%		15.50%

Sources:

EF1: SEBI-Statistics on mutual funds

(<https://www.sebi.gov.in/statistics/mutual-fund/mf-investment-objectives.html>)

EF2: RBI-Consolidated Balance sheet of NBFC-D and NBFC-SI

(<https://dbie.rbi.org.in/DBIE/dbie.rbi?site=statistics>)

EF5: Estimated by author based on issuance volumes. Based on the ratio between issuance volumes and volumes of outstanding transactions for FY18, a multiplied of 1.8 was applied for FY 18 data. FY 19 was an outstanding year of new issuance. Hence, the multiplier was reduced to 1.5

Size of bank asses: RBI- Consolidated Balance Sheet of Scheduled Commercial Banks

(<https://dbie.rbi.org.in/DBIE/dbie.rbi?site=statistics>)

The estimate of the size of shadow banking in India are as shown in **Error! Reference source not found..** The aggregate size of shadow banking in India is little higher than 24% of banking sector assets,

which is lower in comparison with the global data [compare narrow measure NBFIs with aggregate banking assets]. However, more than 71% of shadow banking assets in global data are accounted for by CIVs, whereas the size of CIV assets in India as on 31st March 2019 was less than 1/3rd of the aggregate shadow banking assets, partly having shrunk during FY 19 (reasons discussed elsewhere in this Chapter).

On the other hand, the assets of finance companies [EF2] are barely \$ 3.5 trillion, almost 2.33% of banking assets. In India, the assets of NBFCs are about 15% of banking assets – clearly indicating the predominance of NBFCs as a shadow banking player in India.

Evidence of connectivity between financial sector and NBFIs

There is a substantial connectivity between NBFCs and banks, and NBFCs and other CIVs.

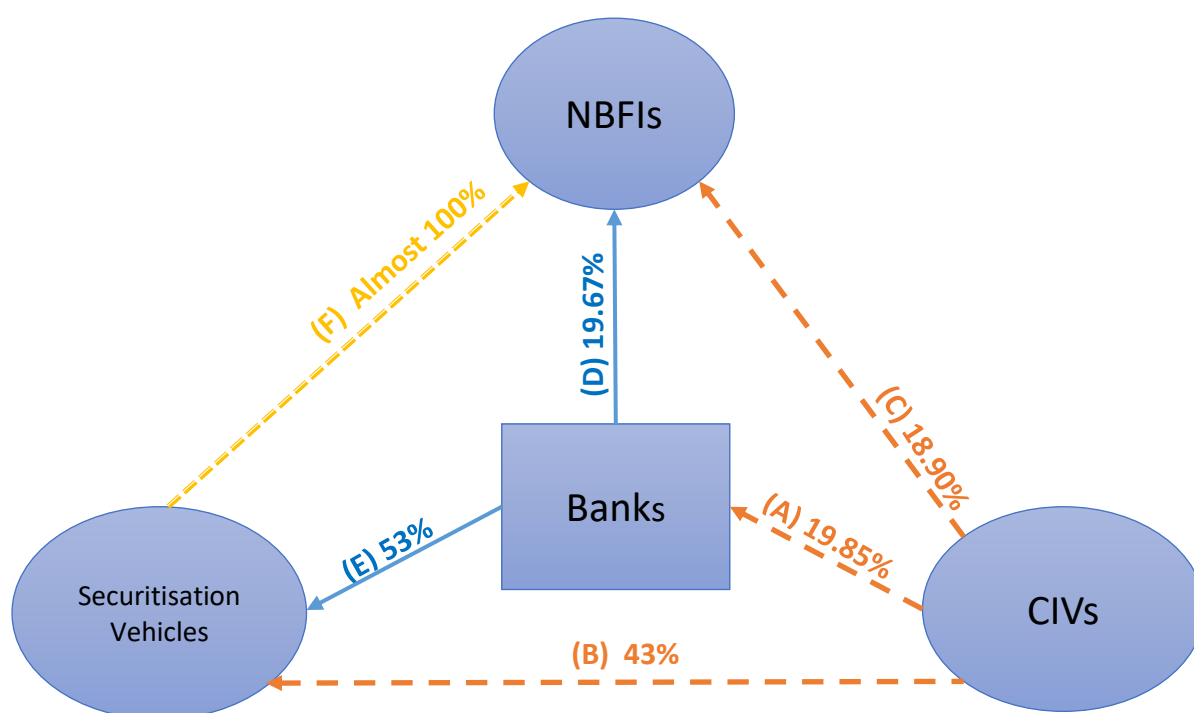
NBFCs rely substantially on bank finance, whether it be by way of direct bank credit, or securitisation/direct assignments. The extent of bank borrowings, as on 31st March, 2019, based on aggregate balance sheet of NBFC-D and NBFC-SI, was about 19.67% of the total liabilities (including share capital).

The total funding availed by NBFCs by way of debentures as on 31st March, 2018 was about 29.36% of the total liabilities (including share capital). These debentures are mostly placed with mutual funds.

Securitization in India is almost entirely originated by NBFCs and HFCs. We have estimated the total size of outstanding value of asset-backed securities to be Rs 285000 crores, which is about 9.24% of the total liabilities (including share capital). Approximately 43% of securitisation (including direct assignment) issuance ends up with mutual funds, and 53% is taken by banks, a 2% by other NBFCs, leaving only 2% which is taken up by other investors such as HNIs. Therefore, nearly 98% of all securitisation issuance ends up with the financial sector⁴.

Therefore, a very strong linkage between banks, NBFCs and CIVs exists. This is further depicted in Figure below.

⁴ Vinod Kothari Consultants, *India Securitisation Report, 2019* at <http://vinodkothari.com/wp-content/uploads/2019/05/ISR.pdf>



Source: Author's computation, based on various sources

Figure 2: Interconnectivity between banks and non-banking financial intermediaries

In Figure 2, (A) denotes the extent of assets of CIVs invested into the banking sector including investment in CDs. Note that the denominator is the assets of the CIVs. (B) and (E) are the extent of securitisation funding that comes from CIVs and banks respectively, denominator being the size of securitisation. (C) is the AUM of CIVs invested in NBFCs. (D) is the extent of NBFC liability side provided by way of bank loans, denominator being the total liabilities of NBFCs. (F) is the extent of securitisation funding that goes to NBFCs.

The interconnectivity became evident following the failure of ILFS entities around September 2018. Subsequent to that, bank funding to NBFCs became constrained⁵. While direct assignments and securitisation transactions continued to provide liquidity, mutual funds also took a flight to safety and generally shunned NBFC debentures. The resulting liquidity crisis, coupled with other potential factors caused several NBFCs to either default in their bonds, or cause downgrades/MTM losses, and thereby, debt mutual funds suffered NAV losses. There was a marked reduction in flow of funds to debt mutual funds, exhibit in reducing AUM of debt-oriented mutual funds. [See Figure 3: Assets under management of mutual funds [Source – compiled from SEBI data]

⁵ The constrained liquidity was visible both in incremental bank funding, as also in flight to safety. The share of bank finance in NBFCs' sources of funds came down from 31% in FY 2018 to about 20% in FY 2019. [Based on a presentation by Vivriti Capital, at <https://www.vivriticapital.com/pdf/The%20NBFC%20Liquidity%20Situation.pdf>.] Flight to safety was visible in the funding either going to AAA NBFCs or moving from direct bank finance to purchase of NBFC pools.

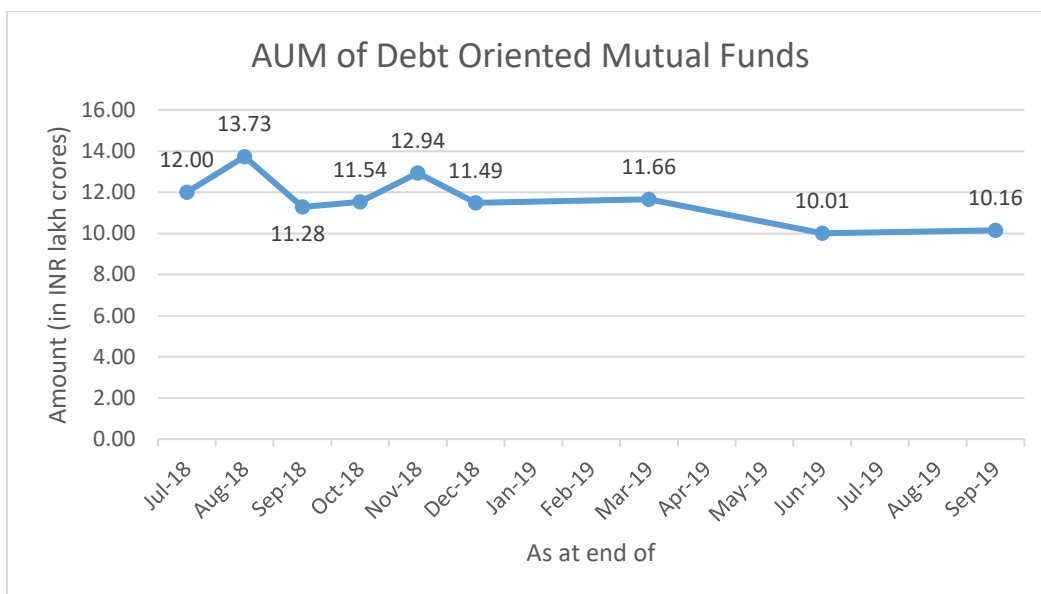


Figure 3: Assets under management of mutual funds [Source – compiled from SEBI data]

There have been several measures to ease the liquidity crisis in the NBFC sector. Among these, a case of direct intervention by providing sovereign guarantee has been the Partial Credit Enhancement scheme. See **Box**

Box: Measures for resolving liquidity crisis with NBFCs

Measures for increasing banks' credit to NBFCs

- The Reserve Bank of India (RBI) vide notification dated August 13, 2019 increased the limit on banks' lending to NBFCs (other than MFIs) for on-lending to Housing sector to be classified as eligible priority sector lending. The limit was increased to ₹ 20 lakh per borrower as against ₹ 10 lakh per borrower.
- FALLCR (i.e. securities that can be reckoned, both for SLR and LCR) of 0.5 per cent exclusively for lending to NBFCs was introduced in October 2018. This enabled banks to sell off excess SLR securities and at the same time enhanced banks' credit to NBFCs.
- A notification dated November 02, 2019, allowed banks to provide Partial Credit Enhancement (PCE) to bonds issued by the NBFC-ND-SIs and Housing Finance Companies (HFCs) registered with National Housing Bank.
- A press release dated August 13, 2019 introduced Partial Credit Guarantee scheme offered by the Government of India for purchase of high-rated pooled assets of NBFCs/HFCs by Public Sector Banks, wherein the government promised to extend first loss guarantee for purchase of pooled assets by Public Sector Banks (PSBs). Subsequently, in order to enhance the ambit of the scheme, the rating requirement was reduced from AA to BBB.
- Through a notification dated September 12, 2019, the limit on banks' exposure to a single NBFC was revised from 15% to 20% of tier-1 capital of the banks.
- Change in norms for risk weighting of banks' exposure to NBFCs, treating the same at par with Basel III norms for corporate exposures. Circular¹ dated February 22, 2019.

Measures to enhance liquidity

A circular issued on November 29, 2019 provided for conditional relaxation of Minimum Holding Period for securitisation of loans.

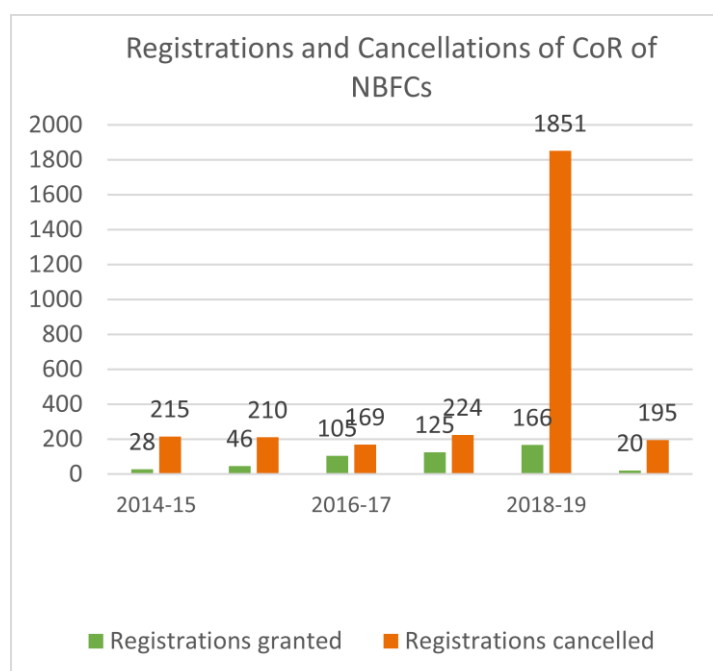
Problems with current regulatory framework

While the policy responses to the shadow banking crisis have been prompt, the issue is whether the regulatory and supervisory framework for the NBFI sector is geared and capacitated given the relevance the sector may have with financial stability.

The regulatory framework for NBFCs emanates from the provisions of Chapter IIIB of the RBI Act, which was inserted in 1963, with the objective of regulating deposit-taking by non-banking companies. The definition of the term “non-banking financial institution” was cast wide enough to cover lending companies, investment companies, insurance companies, chit funds, etc. – with the objective that those non-banking entities which used to access public deposits could be regulated. While there have been numerous committees over time that have reviewed the regulatory framework for NBFCs, the definition has remained the same over last 56 years. Irrespective of the liability-side, entities which hold shares/securities of other companies are also regarded as NBFCs. While the RBI does distinguish

Number of NBFCs in India

The number of NBFCs in India was more than 14000 in year 2002, soon after stabilisation of the registration requirements in 1998. Over period of time, the number of companies has been coming down, primarily due to cancellation of registration. The following graph shows new registrations granted, and registrations cancelled in some recent years:



entities which have no “public funds”⁶, the vast number of registered NBFCs includes those entities which may be completely relying on private pool of funds, and may also be investing in private companies. The result is a startling large number of registered NBFCs – 9642 as of September, 2019 . Most of these NBFCs are investment companies with virtually no interface with the financial sector. Every quarter, the RBI cancels certificate of registration of a handful of these [see Box] – all this is leading to a substantial obfuscation of the regulatory scenario. Though there is a regulatory focus on “systemically important” NBFCs (entities with an asset size of Rs 500 crores or above), but the vast number of registered entities coming under RBI’s supervision, and admittedly with neither public funds nor customer interface, is seemingly a perfunctory burden on the regulator as well as the regulated entities.

Collective investment vehicles and privately pooled investment vehicles are not under RBI’s regulatory ambit; entities which are focusing on investment in securities have no difference in role and

⁶ Defined to mean any of the following – bank finance, inter-corporate loans, debentures, public deposits, and commercial paper

functionality from investment vehicles. There seems to be strong case for the RBI to disinvest its regulatory attention from entities mainly engaged in investment activities. This is different from “core investment companies”, which are admittedly group-holding structures. Core investment companies, unless they are holding structures for financial entities, may also be taken out of the financial regulator’s purview.

Since the RBI has recently merged the regulatory and supervisory verticals for banks and NBFCs, it may be useful to put NBFCs under regulatory ambit only after they reach a certain asset size, for example, Rs 500 crores. This will permit the RBI to focus on larger NBFCs that matter for transmission of monetary policies, financial stability, systemic risks and financial failures. The dividends of a focused regulatory approach may be far higher than the downsides involved in deregulating the large crowd of smaller NBFCs.

Asset quality of larger NBFCs leading to idiosyncratic failures may be a source of concern – given the substantial exposure of both banks and CIVs. Effective onsite and offsite asset quality checks may currently be stifled by the very large number of supervised entities. This by itself is a strong reason for putting all investment entities, and smaller credit-focused entities out of the regulatory radar.

A significant rejig of the regulatory environment may turn the current NBFC crisis into an opportunity. The role of NBFCs in efficiency of credit delivery is well appreciated. However, it is important to note that since NBFCs have increasingly become non-depository, most of the leverage in NBFCs comes from other financial intermediaries – banks and CIVs – both of which are susceptible to runs. Therefore, the transmission of shocks by way of poor credit underwriting at NBFCs may be very fast. This underscores the need for rigorous asset quality checks at major NBFCs.

Other related write-ups:

1. <http://vinodkothari.com/2015/04/in-the-rigmarole-on-revised-regulatory-framework-for-the-nbfcs/>
2. <http://vinodkothari.com/2015/04/rbi-notifies-second-leg-of-the-revised-regulatory-framework-for-nbfcs/>
3. <http://vinodkothari.com/2016/09/nbfc-master-directions-2016-both-integration-and-disintegration/>
4. http://vinodkothari.com/wp-content/uploads/2017/03/Presentation_on_Revised_regulatory_regime_for_NBFCs.pdf
5. http://vinodkothari.com/wp-content/uploads/2017/03/RBI_reases_norms_for_NBFC_registration-1.pdf