WP-2015-014

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May 2015
http://www.igidr.ac.in/pdf/publication/WP-2015-014.pdf

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Abstract

The paper argues that context is important in discussions of financial stability. It explores weaknesses in domestic and international reforms and ways of overcoming them, based on mitigating the fundamental failures finance is subject to. Relevant market failures need to be taken into account even in the design of monetary policy regimes such as inflation targeting. Rather than blind following of international prescriptions better alignment to domestic structure and needs whether in monetary policy, restructuring financial regulators, capital adequacy criteria and bank balance sheets is required. It argues marginal changes in India's financial regulatory structure will suffice, brings out a possible trade-off between capital adequacy and leverage caps following from special features of Indian regulations some of which need to be preserved, gives the history behind the rise in non-performing assets, and points to technological changes that may make financial inclusion more compatible with financial stability. The possibility of coordinating on simple leverage reducing measures with good incentive possibilities should be taken up in global dialogue, and regional alternatives supported as a corrective for asymmetries in bargaining power.

Keywords: Financial stability and reforms; market failures; leverage caps; non-performing assets; inflation targeting

JEL Code: G18, G28, F36, E50

Acknowledgements:

This is a revised version of invited comments on a public lecture on financial stability by Professor Dilip Nachane at Indian School of Political Economy, Pune. The lecture and all comments on it will be published in the Journal of Indian School of Political Economy. The paper gained from comments and discussion following the presentation. I thank Professor Chitre for the invitation, and Reshma Aguiar for excellent assistance.

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Introduction

In his paper on financial stability Dr. Nachane commendably manages the very difficult twin tasks of being comprehensive and up-to-date in an area where there are continuous new developments. His paper draws lessons from the global financial crisis and evaluates the success of Indian policies in following the seven point agenda identified by the G-20 as necessary for financial stability. In these comments I will attempt to extend the analysis of some of these agenda items, by bringing in more issues relevant in the Indian context. This is very much in the spirit of the paper since its sub-title is 'An Indian perspective'.

We first discuss how macroeconomic paradigms and monetary policy issues point to the importance of introducing relevant market failures. In going to the core topic of financial reforms, we explore weaknesses in domestic and international reforms and ways of overcoming them, based on mitigating the fundamental failures finance is subject to, before taking up some special features of Indian reforms such as methods used to cap leverage, the evolution of non-performing assets (NPAs), and possibilities of inclusion.

Macroeconomic Paradigms

In arguing for a paradigm shift in macroeconomics Dr. Nachane makes a compelling case against what he labels the New Consensus Macroeconomics. Certainly, there is much to criticize in the package he puts under this label especially that it led to an advocacy of financialization. I would, however, make four caveats. First, while new classical macroeconomics, with its belief in perfect market clearing, could certainly be said to have subscribed to the efficient market hypothesis (EMH), the neo-Keynesian view emphasized imperfections in markets, including financial markets. Many authors belonging to this school, for example, Stiglitz and Krugman, contributed to the analysis of financial crises, and studied persistent deviations from equilibria.

Second, a macroeconomic perspective differs fundamentally from an efficient markets one, because it is about markets failing to fully employ resources, and getting caught in vicious cycles of over- or under-shooting. Therefore a consensus that includes the EMH cannot be called macroeconomic. A major reason the global financial crisis (GFC) occurred was inadequate financial regulation. The latter was inadequate because of a belief in self-

regulating markets. To attribute the GFC to macroeconomic theories is to give them more power than they had and to absolve the financial market view that caused the real problem. Neglect of the basic macroeconomic insight of market malfunction resulted in lax regulation, and led to the GFC.

Third, a common criticism made is that inflation targeting regimes did not internalize the effect of monetary policy on financial stability. This is true, but monetary policy should not be asked to give financial stability first priority either, since that would elevate the financial sector over the real sector. Growth and inflation must continue to be the priorities since supervision, rules and regulations are available to target the financial sector. These are often more effective against sectoral imbalances such as a housing bubble, in comparison with a general monetary tightening. The effect of monetary policies on the financial sector must, of course, also be kept in mind. The prevailing macroeconomic policy paradigm can rightly be blamed for neglecting this, but in doing so it was itself going against the basic imperfect markets macroeconomic insight, influenced by the financial market view.

Fourth, later on in the paper, Dr. Nachane shows why systemic failures require giving more weight to macro-prudential over micro-prudential policies. But systemic failures arise from feedbacks and contagion across markets, and therefore the analytical frame must include several markets—this is precisely what general equilibrium that includes frictions and imperfections, tries to do, even as it provides the necessary discipline and framework of analysis. So macroeconomics cannot dispense with general equilibrium, but must include the relevant market failures. In any complex system, her ability to include and emphasize the components necessary to address the issue at hand demonstrates the skill of the analyst or the policy maker. In this respect, there were failures in the pre-crisis paradigm. But whatever it was, the consensus was not macroeconomic.

In macroeconomics, progress has always consisted in learning from experience to fill in gaps discovered over time. For example, the Great Depression brought in the analysis of demand. The current slowdown comes as a reminder to those who were tending once again to focus too much on the supply-side, even bringing in the EMH. There is regression whenever there is a movement away from the relevant generality. For an emerging market (EM) like India generality requires including structural aspects that effect aggregate outcomes, such as the

large share of food in the consumption basket (Goyal 2011). We take up this issue in the next section.

Monetary Policy

The first point in the agenda list Dr. Nachane takes up is an overhaul of monetary policy. He criticizes monetary policy's neglect of asset price bubbles, and therefore is wary of inflation targeting which can lead to a neglect of financial stability, and is correctly worried by the EMH on which many of the committees recommending inflation targeting for India are based.

But apart from EMH, to return to the theme running through these comments, the problem often is not inflation targeting but the ignoring of the relevant structure and context. For example, the Urjit Patel report on inflation targeting uses the New Keynesian (NKE) framework to justify inflation targeting, but the presentation of that framework does not discuss the NKE analysis of supply-shocks. The omission is all the more glaring since such shocks played a major role in recent episodes of high Indian inflation.

NKE models have shown that under forward-looking behaviour there is no output cost of monetary tightening if demand is in excess. But policy has to choose the trade-off between current growth and inflation under supply shocks, and if there is excess capacity the growth sacrifice can be very large. In the report's view there is no growth inflation trade-off, and it is inflation that is hurting growth. But in Indian conditions any attempt to quantify the trade-off has to include supply shocks. These raise inflation while growth falls under conventional tightening. Policy that reduces inflation expectations yet maintains demand would be first best—one such is supply-side measures to reduce food inflation.

A nuanced analysis of supply shocks, and the degree to which they are persistent, can identify if second round effects are occurring. Then policy must tighten, but if there are multiple supply shocks a subtler response is feasible. The most critical lacunae in the recent inflationary period was poor policy coordination between the government and the RBI, since what the government did raised food inflation and what the RBI did hurt industry and employment.

The report begins by discussing flexible inflation targeting, with the target to be reached over a two year business cycle. But then says in the Indian high inflation context the first priority must be the nominal anchor. Growth and financial stability can be considered only subject to its achievement. But true flexibility implies being able to give other objectives priority in the short-run to the extent they do not affect inflation forecasts. Over-reacting to the current situation and imposing unnecessarily high costs will give inflation targeting a bad name.

The report also takes away flexibilities given in a gradual glide path to reduce inflation, by asking that the real policy rate must always be positive. It wants policy rates to rise one-to-one with headline inflation above the target, even in the short term, without the smoothing central banks worldwide practice. This is not warranted in India where interest rate spreads are high and forward-looking behaviour is not extensive. Loan rates are much higher than policy rates. The report does not acknowledge that temporary shocks affect the equilibrium real rate, and policy has to change with these. Headline inflation that is expected to persist and affect inflation forecasts should be reacted to, while temporary inflation spikes should be looked through.

The report justified raising the policy rate above a volatile headline inflation target because this is the inflation that is most visible to households and affects their expectations. But the report could not ignore the severe external shocks that have buffeted the economy in recent periods. So it asks for a flexible set of interventions to deal with such shocks. But this makes it intellectually inconsistent. If the simplicity that was to anchor household expectations is lost, why is flexibility not possible for other types of supply shocks affecting headline inflation?

But even in the event of an external shock, first preference is to be given to raising interest rates to stabilize the rupee, in order to synchronize market expectations with the RBI. This even though such a rise in interest rates did not work in 2013, hurt both the real and the domestic financial sector, increased fragility and is not applicable in Indian conditions where equity flows still dominate debt flows, and expected growth affects both. What worked were measures to increase reserves and the swaps with oil companies and banks (Goyal 2015a). These also do not hit domestic growth the way the interest rate defense does.

Genuine flexible inflation forecast targeting would be a good via media in India conditions, since it would allow consideration of multiple indicators, as is the current practice, but would more clearly communicate the expected path of inflation. As the understanding of what causes inflation in India deepens and is shared, it would credibly reduce inflation expectations (Goyal, 2014b), even while supply and external shocks relevant in the Indian context, and financial indicators relevant for financial stability are responded to. Flexibility will enable any growth sacrifice to be kept to the minimum. The financial sector itself wants strict inflation targeting since that will allow it to pre-guess the RBI and take profitable but risky positions. This should warn regulators to retain flexibilities. Flexibility is essential for real sector considerations to get greater weight over financial sector interests.

Flexible inflation targeting would meet Dr. Nachane's concerns about possible neglect of asset bubbles under inflation targeting. He emphasizes this neglect in the run-up to the GFC, instead of the required early pricking. But matters are even worse now because of the deliberate use of quantitative easing (QE) to create asset booms in order to raise household wealth and spending, irrespective of the financial risks also building up, and without an adequate strengthening of prudential regulations. The next section examines what is required for such a strengthening.

Regulatory reform

'An Indian perspective' is part of the title of the paper, but the analysis of regulatory changes following the GFC, while admirably thorough, tends to follow the international literature. We add some more discussion of special Indian needs and experience keeping in mind the fundamental failures to which finance is subject, and which reforms therefore have to address. The fundamental failures are asymmetric information, leading to exclusion and to arbitrage across asset-types and markets; large systemically important financial institutions (SIFIs) that are too big to let fail; and spillovers that create excess volatility or procyclicality (Goyal 2013). There are also regulatory failures that include delay, and either laxity or over zealousness. Improving transparency and reducing incentives for procyclical excessive risk-taking are essential to mitigate the failures. Moreover, implementation, to the extent possible, should minimize regulatory discretion.

Dr. Nachane does systematically discuss shadow banking, improving the quality of bank capital, reducing pro-cyclicality of capital requirements and the leverage of financial

institutions, and devising market incentives for prudent behavior in the context of Indian reforms. The first topic he takes up is strengthening regulation and supervision, and he discusses the weaknesses of the Financial Sector Legislative Reforms Commission (FSLRC), which wants a restructuring of Indian regulators, and their way of functioning. The FSLRC unfortunately does not sufficiently emphasize the fundamental failures. These issues need to be further debated.

Strengthening regulation and supervision

The FSLRC seeks to simplify financial laws and regulatory structure using a principle-based approach. It wants drastic regulatory restructuring, tending to ignore both domestic context and international post-crises learning (Goyal, 2014c).

Weeding out obsolete and conflicting laws should be made a national objective to be followed with vigour in a number of areas, not just in finance. The FSLRC did make an early start on this and offers many useful suggestions. The concept of deemed approval, if timelines are not met, should be adopted. But many of the simplifications the FSLRC promises are illusory. Sector-specific laws are to be replaced by a simpler principle-based unified financial code. This will guide regulators, who are to draft subordinate regulation as required, but subject to judicial oversight. So the complexity of regulation does not go away, but is simply pushed down to a messy process of appeals, even against rules and policy decisions. This would harm the exercise of regulatory judgment, which is essential when financial contracts are incomplete and so cannot be proved in Court.

Moreover, the principles followed are arbitrary. In the financial system, as elsewhere in a democracy, a delicate balance has to be maintained between conflicting interests. The FSLRC seeks to tilt the balance towards financial firms, political representatives, and the legal community. This is dangerous because the first two have a short-run perspective, and the last has severe capacity constraints in India. It follows the poor would remain unprotected while the rich would use the legal system to more easily avoid regulation.

Principles such as consumer protection and competitive neutrality in treatment, for example, of domestic and foreign firms are unexceptional. But qualifications to the principles tend to privilege firms by requiring, for example, that consumers take adequate responsibility for their decisions, while financial innovation, efficiency, access and competition are not

compromised. Any obligation on a firm is expected to be consistent with the benefit expected from such obligation.

The key lacunae, however, is the FSLRC views a financial crisis as due to human errors more than to behavioural aberrations, so that micro-prudential regulation is adequate to safeguard firms. Systemic spillovers are thought to occur from failures of large systematically important financial institutions (SIFIs). They are to be made the responsibility of the Financial Stability and Development Council (FSDC), even though this may increase response time.

In actuality the FSDC is better suited to improve coordination among Indian financial regulators, which is poor, rather than to enact macro-prudential policy, where timing and detailed information is crucial. Better coordination would reduce the need for a unified regulator. The FSDC can homogenize compliance requirements to reduce transaction costs, introduce centralized reporting, and encourage innovation. In a country of India's size and complexity, some regulatory competition is healthier than an error-prone one-size-fits-all unified regulatory regime. Adequate democratic oversight can be imposed on regulators through transparency and accountability to Parliament.

Behavioral aspects, which the FSLRC neglects, are important in finance. Too much risk is taken in good times, without internalizing negative spillovers on others. These risky strategies are widely copied, so SIFIs are not the only potential threats. Therefore, micro-prudential regulations, applying at the firm level, should work in tandem with macro-prudential regulation. Information acquired during the first helps in the design and timely application of the second. The FSLRC's proposed restructuring would result in a serious loss of information and weaken regulation.

The experience of the global financial crisis made most countries give more responsibility for financial stability to their central banks. The UK had shifted to a financial sector funded unified financial regulator, focused on supporting innovation. The FSLRC wants to follow this experiment. But the UK found it to work poorly and returned powers to an independent Bank of England. It created a new bank regulator, the Prudential Regulation Authority, as a subsidiary of the Bank of England, and also established a systemic risk regulator within the central bank.

The Volcker Alliance report has argued for a similar structure to plug continuing weaknesses in US financial regulation. It wants a new agency affiliated with the Fed to write prudential rules and perform supervision currently done by the Fed, the Office of the Comptroller of the Currency and the third bank regulator, the Federal Deposit Insurance Corporation. While these countries are strengthening CB based macro-prudential regulation the FSLRC wants to weaken it. It is not able to establish the case for moving away from current system in which the RBI could implement innovative protective macro-prudential policies, to a design that proved unstable elsewhere. Moreover, the regulatory division proposed with all trading to go to a new Unified Financial Agency will split regulation of debt products and of credit. The government securities market could be set back, and the conduct of monetary policy harmed.

It is in the short-run that financial risks build up. For a long time after independence the RBI was forced to help finance the government's development expenditure. It maintained financial stability by squeezing the private sector. A measure of independence reforms established with great difficulty should not be reversed by giving more power to the Finance Ministry.

Cash-starved and growth-hungry governments are often tempted to ease foreign borrowing. Again, this is a soft short-term option that, without complementary domestic reforms, creates long-term risks. The FSLRC wants the Finance Ministry to decide on inflows and the RBI on outflows. But international agreements often make it difficult to restrict outflows of foreign capital, so the RBI will be asked to ensure a stable balance of payments without adequate instruments. Consider the recent experience of foreign investment in local currency debt. India followed a careful sequencing in capital account convertibility with risk sharing equity inflows liberalized before riskier debt inflows. But in the 2000s many EMs allowed local currency debt inflows, which at least shared currency risk.

Following these trends, and to finance widening current account deficits, the cap on debt inflows to India from institutional investors began to be raised from 2007. In 2004 the cap was $1bn; in 2013 it reached $81 bn. The larger debt exposure now impacted domestic interest rates, not just the exchange rate.

Ten per cent of the $6.6bn that had come in since 2011 left in June after the May 2013 taper-on announcement. The rupee depreciated from around 60 in July to a low of 68 in August. A

3% rise in short-term rates was aimed at retaining debt flows since zero open positions already prevented domestic banks from speculating against the rupee. But higher short rates did not stop debt outflows and by November 40% had left. Interest rate spreads and long-term rates also rose, hurting the domestic recovery and domestic financial markets, where turnover fell further. As is the case for equity flows, potential capital gains, macroeconomic stability and low country risk, rather than interest differentials, proved more important in attracting debt flows. As stability improved debt flows jumped up despite a partial reversal of the rise in short-rates.

Raising short rates to defend the rupee was motivated by applying mainstream thinking to a context where it was not applicable. That the interest rate defense did not work was not surprising since perhaps it was not even required as yet. In September 2013 the share of debt securities was still small at 36 per cent of equity securities and 6 per cent of total liabilities. Debt flows also revived after September 2013, but even so of the approximately USD 50bn FII inflows over 2013 and 2014, debt inflows were just a little over half. As IMF (2014) pointed out, bond mutual funds, especially retail funds, are twice as sensitive as equity mutual funds to global sentiment. Domestic debt markets must be developed before allowing large scale entry so that external volatility can be absorbed. Changing the existing balance of power towards politicians in search of soft options will aggravate these issues. To prevent this, changes in the Indian regulatory structure must be only marginal.

While the FSLRCC seeks to change the legal and institutional structure of the financial sector, banking sector reforms are in line with changes in the international regime, such as Basel III. But international financial regulations also fail to address the fundamental failures outlined, and are sometimes especially inadequate in the Indian context.

Weaknesses in international financial reforms

Among reform weaknesses are the continuing gaps and exemptions that will invite arbitrage, enhance pro-cyclicality, and leverage. Delays in implementing reforms aggravate these features. Dr. Nachane pays considerable attention to prudential regulation. We will revisit the issue to bring out the trade-offs between types of regulation, and how a particular subset may better suit Indian conditions.

Arbitrage and shadow banking: Incompleteness shows up in many dimensions. It affects institutions and transactions, and also appears over time. Any kind of incompleteness gives rise to arbitrage. The Basel III and Dodd-Frank regulations focus on banks is driving more financial intermediation to the shadow-banking sector. Shadow banks include a broad array of institutions engaged in bank-like activities, among them hedge funds, private equity groups and money market funds. Reforms are in some ways too strict in allocating all risks to banks, but are too weak in leaving many gaps that enable escape from regulation. The IMF points out in its 2015 Global Financial Stability Report that replacing banks' functions and a search for yield has raised fund managers securities turnover by 40 per cent over 10 years to $76trillion. It suggests stress tests for hedge funds like those for banks.

There are proposals for more universal reforms. Hanson et al. (2011) suggested imposition of a minimum haircut requirement at the level of asset-backed securities for all investors, not just on banks. Such a measure can constrain short-term leverage for all investors taking a position in credit assets, thus restraining shadow-banks also.

Transparency, including records of different types of transactions, is a pre-requisite for broader based regulations. There has been progress on improving reporting including creating what are called legal entity identifiers (LEIs). These give a unique number to each registered legal entity globally, and are overseen by the financial stability board (FSB). They have the potential to improve risk management for the individual firm and at the system-wide level. They help identify counterparties, and linkages among counterparties, all potential sources of default contagion, so that firms and regulators can take steps to reduce risk. By 2014 more than 320,000 LEIs had been issued to entities in 190 jurisdictions.

Systemic risks: Since individuals do not take into account systemic spillovers from their decisions, risks build up cyclically. Countercyclical macro prudential regulations that increase the long-term cost of giving credit during booms and reduce these costs during busts are therefore required.

Traders cluster in activities that appear to be low risk, but the clustering makes the activities risky. This endogenous creation of risk is one reason why the own-assessment-of-risk-based

capital buffers of Basel II were inadequate[1]. But Basel III continues this approach. Risks also change for exogenous reasons—Euro sovereign debt had zero risk weights before the problems in Greece exposed underlying risks.

The primary purpose of capital adequacy or liquidity coverage-type regulation is often to provide a buffer to absorb shocks. While they should be countercyclical, loss-absorbing buffers are often built up in bad times, hurting recovery, and neglected in good times. De facto buffers tend to be procyclical. Shin and Shin (2011) argue the focus should be on preventing risky behaviour rather than on the loss-absorbing or shock-insulating role of buffers.

For this the quality of capital matters. Prudential regulation can align incentives by putting the entity's own equity capital at risk. Admati and Hellwig (2013) believe in the importance of equity buffers that create own liability for risk taken and suggest 20 units of equity must be held for 100 units of assets. In contrast Basel III requires only 7% of equity (core or tier I capital) against risk-weighted assets. The latter can be strategically chosen to be much lower than total assets, so that leverage[2] over equity can be very high, that is, a large amount of credit is created on a narrow base of own-equity.

Basel III does for the first time restrict total leverage through a leverage ratio[3] requiring 3% of equity against total assets going up to 5% for large banks. But 3% is still generous in capping leverage at 33.3 times. A 3% fall in asset values would wipe out equity making the bank insolvent, or putting the burden on the tax-payer. Such a fall in value can come even from so called riskless assets such as government bonds as in the Greek case. Moreover, regulators allow repurchase (repo) transactions and derivatives to be netted out in calculating risk, when the gross value more correctly measures the risk from a collapse of markets or counterparties. It is useful to remember that the leverage in Lehman Brothers was 30 and in

[1] The measure of risk can also be selected strategically. For example, one reason banks' capital varies widely for similar exposures is strategic use of number of years' data in their VAR models used to calculate risk. Accounting practices can be used to make banks' balance sheets inscrutable and non-comparable.

[2] Accounting conventions that affect the measurement of assets also affect leverage. Economic leverage is actually a broader measure. Off balance sheet assets also need to be captured.

[3] A leverage ratio of 0.03 implies 3 units of capital must be held against 100 units of assets acquired, that is the accounting or balance sheet leverage is limited to 1/0.03 or 33.3 to 1. Accounting leverage is the inverse of the leverage ratio and is also known as the leverage multiple.

Bear Sterns 33 when they collapsed. The Admati and Hellwig suggestion would restrict total leverage to 5 times.

A given level of leverage can be achieved either by mandating the asset cover (through a leverage ratio), or restricting leverage itself. Thus leverage caps can complement capital buffers, reducing their total, even as the share of high quality capital is raised. Caps also prevent risky behavior, thus reducing procyclicality. Different types of broad pattern regulation such as loan to value ratios can cap leverage at a level below the ceiling derived from the level of assets and the leverage ratio. These measures can complement the use of a leverage ratio, reducing its disadvantages. It induces banks to acquire higher risk assets, since there is no risk-weighting, and disadvantages banks that do not do so. It is possible to use of financial techniques that increase leverage without increasing borrowing. For example, knock-in options increase gain or loss conditional on some event.

The appendix systematically contrasts the two methods. A leverage cap may make the delays being negotiated in implementing full capital adequacy less harmful. Combined with more own capital at risk and sectoral restrictions on lending it would not lead to a shift to higher risk activities, even while avoiding cloaking of high risk or concentration on low risk activities that then become high risk as happens with over reliance on internal risk assessments.

Since the potential rise in leverage is much larger for large banks with large capital, a leverage cap more effectively reduces the leverage in large banks that could otherwise create systemic risk (Goyal 2014a). Thus it is another way of mitigating the risk from SIFIs, which has increased because of greater post-crisis concentration. There is an attempt to break them up by imposing higher capital adequacy requirements for SIFIs, but implementation has proved difficult. We explore some direct ways to restrict leverage below.

Direct measures that restrict leverage: Although the Basel framework continues to emphasize internal risk-based (IRB) capital adequacy measures, there does seem to be some movement towards more universal measures and effective caps. The Financial Stability Board (FSB), in January 2015 set out a framework imposing minimum requirements on the *collateral* needed when firms borrow money from banks through short-term loans secured by stocks or bonds. The repo market is a key segment of the shadow banking world. A distress

sale of assets used as collateral for repo loans could impact the wider financial system. Tougher rules on collateral for short-term lending proposed will affect both banks and non-bank players. They will reduce non-banks' build-up of excessive leverage and liquidity risk during peaks in the credit and economic cycle.

The FSB wants a minimum 1.5 per cent "haircut" for corporate bonds with a maturity of between one and five years, and a 6 per cent haircut for equities. The latter implies a borrower would have to post $106 of equity collateral for a $100 loan. The haircut floors could in future be raised and lowered as part of efforts to lean against fluctuations in the financial cycle.

While the standards are also to apply to deals between non-banks, transactions that use government bonds as collateral are still exempt, in response to governments' worry about the potential impact on sovereign debt markets. There are also fears restricting the repo market could affect liquidity in many financial assets.

Other potential tools that restrict leverage are *taxes* and *margin requirements*. They are automatically counter-cyclical since the tax base expands in good times, and they can be designed to fall more on highly leveraged activities, thus providing good forward-looking incentives. International harmonization could perhaps be feasible for a simple universal tax. Its mobility made finance under taxed, but new technology is changing that. A low tax that matches transaction fees charged would not be burdensome since the same technology has substantially reduced transaction costs. Taxes would have to fall in EMs and rise in the major financial centers where they tend not to exist. A low Financial Transaction Tax (FTT) is easy to impose but is subject to severe political resistance.

Belgium, Germany, Estonia, Greece, Spain, France, Italy, Austria, Portugal, Slovenia and Slovakia agreed in 2013 to levy a financial transaction tax of 0.1 per cent on stock and bond trades and 0.01 per cent on derivatives transactions. The tax would apply to financial institutions with headquarters in the tax area, or who trade on behalf of a client in the tax area, or for an instrument issued in the tax area but traded anywhere in the world. There are exemptions for the trades of CBs and pension funds. The move is strongly resisted by the US and UK. Business groups fear double taxation.

Given resistance to a tax on transactions independent of profits made, a financial activities' tax (FAT) that falls on profits and therefore is not passed on to consumers of financial services, could be negotiated instead. From an EM perspective, an FTT has the advantage that it applies in the jurisdiction where a transaction is made, and potential profits earned, while at present a profits tax earns revenues only for the country of residence or the country of source depending on tax agreements to avoid double taxation. Dominant tax by residence clauses favour advanced economies (AEs), from where the majority of portfolio investments originate.

The OECD model tax convention implied only profits of a non-resident company with a 'permanent establishment' could be taxed. The aim was to prevent double taxation of the increasing number of firms with cross border business. Since this convention has been misused to escape taxes, there is a proposal to replace it by 'mutual agreement on place of residence'. This is part of the OECD and G-20 led initiative to counter base erosion and profit shifting (BEPS)[4], in a necessary course correction. At the 2013 G-20 meet in Petersburg, it was decided: 'Profits should be taxed where economic activities deriving the profits are performed and where value is created'.

Financial services, which tend anyway to be under-taxed, are often also able to unfairly escape taxes. It is easy to locate strategically, using treaties designed to avoid double taxation, to achieve double non-taxation. For example, the India-Mauritius treaty allows tax by domicile. Mauritius accepts registration as domicile so FIIs come into India through the Mauritius route, thus going against the spirit of the treaty. Another example is VAT on cross-border retail sales. Financial services are VAT exempt but self-assess input VAT; they are able to escape this using inputs from abroad or from related firms.

There is a requirement therefore for simple tax regimes that prevent both double taxation and double non-taxation. Thus even if new taxes are not imposed EMs should actively participate in the G-20 BEPS initiative to make sure foreign investors do not unfairly escape taxes. While one country acting alone can frighten away foreign capital, global co-ordination can reduce the under-taxation of finance, even while reducing the excess volatility that creates

[4] These remarks are based on my presentation on 'Taxation Issues in the G 20' at the 2014 annual G20 ICRIER conference.

risk. G-20 has the potential to be very productive in such areas that require co-ordination across countries.

Margin requirements and position limits are also not uniform across countries. There is evidence that short-term futures price bubbles were more pronounced in domains with lax regulation (Goyal and Tripathi, 2012) , and contributed to the deviation of commodity prices from fundamentals.

Quantitative easing (QE), which consciously sought to drive up asset prices, also drove up oil prices hurting importers such as India. As restrictions on bank's proprietary trade led to the large investment banks exiting commodity trades, commodity market speculation reduced. Moreover, high oil prices brought about a sustained rise in supply weakening OPEC's market power. Chinese demand also slowed, but was not the primary reason for the sharp 2014 fall in oil prices. Chinese growth had slowed to 7.7 in 2012 from 9.3 the previous year without reducing oil prices (Goyal 2014e). Better prudential regulation in commodity markets could have mitigated the oil price bubble and its fallout.

Measures to restrict leverage in India: Leverage in EMs has always been much lower than in advanced countries. The RBI seeks to preserve this regulatory comfort by prescribing a higher leverage ratio of 4.5%, against the Basel III norm of 3%. This allows a leverage of 22:1, but the current leverage is lower at 10:1 for Indian banks (5:1 in PSBs) compared to 25:1 average for AE banks (the Basel cap is 33.3:1).

Indian bank leverage is lower than the regulatory cap because of strong broad pattern regulation such as countercyclical provisioning on credit to some sectors, position limits and limits on exposure to different types of risk, high statutory liquidity ratios to finance government debt, and other types of taxation. Prompt corrective action, that reduces regulatory delay, is easier in response to sectoral cycles than aggregate cycles. India used a countercyclical rise in provisioning for bank housing and commercial real estate loans, when real estate prices rose, and found it to be more effective than changing risk weights, since provisioning affected the profit and loss account of banks. Rising risk weights could be escaped since average capital adequacy ratios were above the minimum (Sinha, 2011).

The broad-pattern regulations outlined above reduce risk-taking even without large procyclical capital buffers. They do not leave open the possibility of arbitrage through strategic use of risk weights. A better combination of financial stability and financial innovation then results.

Moreover, financial systems in EMs tend to be bank dominated, and banks and their lending has to expand with development, even as other legal, governance, and market reforms occur. Therefore, a solely bank-focused reform programme hurts them disproportionately, while the neglect of shadow banking and liquidity creation hurts them again through volatility in capital flows.

Despite domestic features that contribute to financial stability, Indian regulators are implementing more than the required Basel III criteria, and advancing the implementation schedule, since they are concerned about the reputation of Indian banks. Although the BCBS is a 'comply or explain' not a 'comply or else' framework, markets may regard any deviation unfavourably (Sinha, 2011). While burdening banks with these regulations they also allowed cyclical risks facing banks to rise, raising interest rates to retain foreign debt flows, although structural features such as a larger share of loans in assets make banks more vulnerable to such risks.

There is a case, therefore, for reducing required capital buffers in view of these other types of regulation. The latter could fill gaps in global regulatory regimes, including risks from the delays and re-negotiations discussed in the section below. Lessons from EMs, where simpler regulations successfully restricted leverage and acted counter cyclically, should be followed rather than forcing them to follow international regulations that continue to have weaknesses. Trade-offs could be introduced between types of regulations, but not just for India as a special case. Similar standards are essential to prevent arbitrage in search of weak regulations. India should articulate these issues in G-20 and in the BIS.

Delays: Apart from incompleteness and lack of international harmonization, Basel III and other proposed post-GFC regulatory changes are inadequate also because of delays. Although enhanced capital requirements under Basel III are only to kick in from 2018, countries are actively negotiating to weaken the standards. The Dodd-Frank Act is passed but its sheer size and complexity will create protracted legal wrangling aimed at expanding the ambit of the

many exemptions given. It seeks to ban proprietary trading by deposit-taking banks in order to reduce their risk-taking. But exemptions include loans, spot foreign exchange or commodities, and also repo and reverse repo securities lending transactions required for liquidity management. It is inherently difficult to distinguish between trading on own account and that undertaken for clients.

In the EU the 2012 Liikanen report proposed milder ring fencing, without full separation of investment and retail banking, in order to support the European universal banking model. Proprietary trading (with some exceptions to allow client servicing within narrow position risk limits) was to be hived off to a legally separate unit in the same bank holding company. But Europe is softening these proposals so banks do not have to separate out key market-making business. France and Germany are also diluting the capital requirements on their universal banks agreed under the Basel III framework. The outflow calculations determining the liquidity coverage ratio and the quality of liquid assets banks have to carry, in order for them to survive a possible future short-term funding freeze, were moderated in 2013 and the implementation date further postponed. Apart from the government bonds and top-quality corporate bonds required in the initial draft, even equities, BBB- corporate bonds and discounted top-quality mortgage-backed securities are now to be counted in liquidity buffers. This is a boost for the securitization industry and has steeply reduced banks' liquidity shortfall. The collateral requirement for OTC derivatives has also been softened (Goyal 2013).

International harmonization is difficult to achieve and this failure also creates arbitrage gaps. The disagreements between US, UK and the EU originate from differing financial structures. The UK wants to preserve the current dominance of the city of London as a financial centre. The US and UK want reforms that do not hurt the market-based Anglo-Saxon model of finance. They are worried about competition from fledging Asian financial centers. Major EU countries have a more bank-based model and want to protect their banks, especially since the Euro-debt crisis following the GFC has left them weak.

Simple regulatory or tax-based measures have a greater chance of being applied universally. They can prevent one jurisdiction stalling regulatory reform in order not to lose competition to another jurisdiction with lax regulations. Reforms that are simple yet improve market

incentives are preferable also since the GFC demonstrated regulatory failure. Simple robust reforms are less vulnerable to regulatory capture, discretion and delays.

In addition to delays in the implementation and harmonization of reforms, the new institutional structure being created may be inherently more subject to delays. Systemic concerns have been left to systemic councils where problems of regulatory discretion and co-ordination may lead to critical delays in response.

Non-Performing Assets

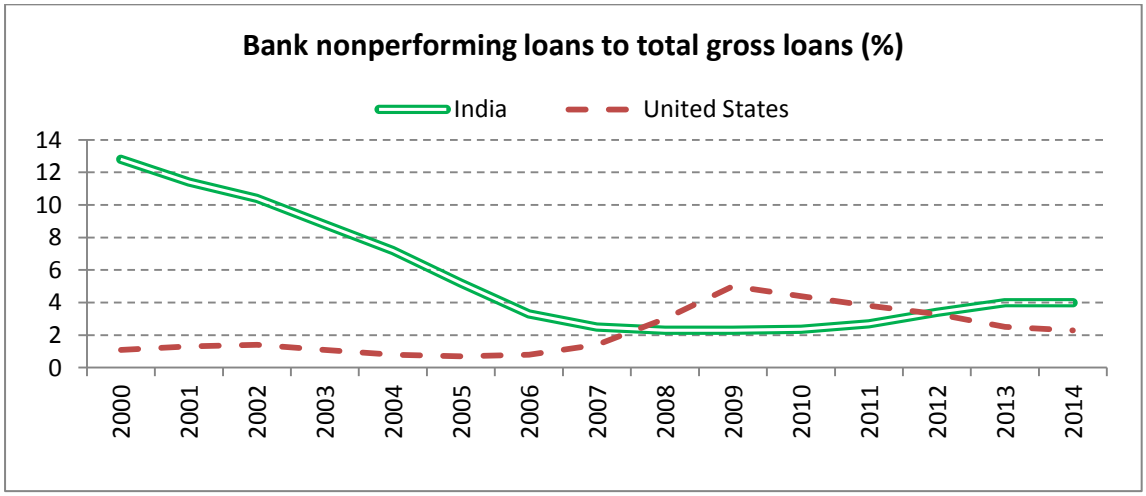
Dr. Nachane brings out Indian weaknesses with respect to NPAs very well but certain Indian strengths also need to be highlighted. These contrast with continuing weaknesses in international financial systems.

The post 1990s reform shift from micro intervention to a strategy of macro management in India included strengthening prudential (safety) norms and the supervisory framework. The Basel I Accord capital standards were implemented fully by March 1996. Indian capital adequacy norms, however, were kept higher than the Basel norms to make sure risky exposures were not under-capitalized since the standardized approach to Basel norms was followed. It was feared the absence of accurate and detailed historical data for wholesale and retail, together with the absence of industry benchmarks to be used in calculation of internal parameters, could distort risk-based pricing. Given diverse capabilities, banks were allowed learning time for migrating to internal risk based capital buffers. BIS (2015) only recently recognized these risks. It warned that banks in EMs and small economies could move to the internal risk based approaches without being ready and then respond to higher capital requirements by not revealing and recognizing all potential risks associated with their balance sheets.

Standardized versions of Basel-type prudential norms were supplemented with broad pattern regulation, which turned out to have incentive features that reduced pro-cyclicality. Additional prudential (safety) norms included provisioning requirements that effectively moderated sectoral booms. Indian financial institutions were thought to be behind their global peers in modern risk management practices, but it should be recognized that a risk assessment methodology not based wholly on self-assessment helped them avoid many problems. Although the choices made originated in inadequacies, such as the lack of skills for complex

risk-based assessment, they helped avoid systemic failures even during the GFC. Simpler regulation turned out to have good stability-enhancing incentives.

The new philosophy of regulation, together with high growth and legal reform that made debt recovery easier, led to non-performing assets falling to historic lows. Reforms reduced excessive government ownership and its draft on the finances with the banking sector. High growth and legal reform that made debt recovery easier, also contributed to NPAs falling to historic lows. As a ratio to gross advances, NPAs fell to 2.4 per cent in 2009-10 from 12.8 per cent in 1991. There were structural improvements in the health of Indian banks. The chart shows the steep fall in Indian NPAs. US NPAs actually rose above Indian during the GFC.



Diversity lends strength to any eco-system—a mono-culture tends to be fragile, especially in the financial sector where following each other's strategies builds risks. So even though public sector bank ownership is often attacked as a weakness, a diversified banking system may be a source of strength. Freer post-reform entry resulted in an even split by ownership by 2009-10: 27 public sector banks (PSBs) with majority government ownership, 22 private sector banks, and 32 foreign banks. PSBs, however, still dominated with 75 per cent of the assets of the banking system. But this was less than their 1991 share of a little over 90 per cent. With diverse ownership in place—policy now aims to diversify by activity-type.

Changes in relative competitiveness illustrate the benefits from diversity. The public sector did unexpectedly well after the nineties reforms, and even overtook private banks on some parameters. It also outperformed during and immediately after the GFC. Features such as

high leverage, short-term market-based funding, risky endogenous expansion of balance sheets, and exposure to cross-border risks, which had led to massive bank failures in the West, were limited. Most banks followed a retail business model. Loans dominated market investments in bank balance sheets. But this varied by bank type. In 2010-11, contingent liabilities as a percentage of the group's total liabilities were 41.4 per cent for PSBs, 167.9 per cent for private banks and 1892.7 per cent for foreign banks. Although technology and skills improved, PSBs lagged behind private banks in systems, fee based services, retail banking, and in use of sophisticated products and derivatives. Or this may reflect choice of a different business model. Business contracted for private banks after the GFC—some were in trouble.

PSBs heeded the government's post crisis call and participated much more than private banks in infrastructure and corporate financing. Meanwhile private banks concentrated on retail. They used their more flexible hiring patterns to design effective services for the growing middle class, overtaking foreign banks who concentrated on high-net worth accounts. The paralysis in many large infrastructure projects, and interest rate hikes hit PSBs. A loan-based system is highly sensitive to a rise in interest rates. But again regulations, such as position and sectoral exposure limits, were protective although these limits need to be brought down further as industry diversifies. In 2011, banks had reached the exposure limit in financing infrastructure.

NPAs rose again and had perhaps peaked at 4.5 per cent in March 2015. They may come down as there are signs of the economy reviving and projects starting to move. Although provisioning has to be made for restructured accounts from April 2015, in a regulatory tightening, this will apply only to new loans made in a period where rates are coming down, as recovery has started. So they may not further stress banks' balance sheets.

While some PSBs may have made non-commercial decisions, external shocks also were responsible for outcomes. Improved governance mechanisms, including stronger boards with more professionals, can ensure that independent decisions are made on purely commercial grounds. To prevent private parties from exploiting the system, and passing on bankruptcies to the tax payer, processes in debt recovery tribunals can be redesigned to reduce the delays that allow debtors to escape repayment. But disincentives from taxpayer support are not limited to PSBs since no large bank is allowed to fail for fear of systemic spillovers.

Diversity did help, since private banks did well in this period. In 2011, the market capitalization of 24 listed public sector banks, still controlling 73 per cent of bank deposits, fell below that of the 15 listed private sector banks for the first time. The latter also tended to have more foreign investment.

The recent emphasis on technology driven financial inclusion and on mobile banking, may again give some surprise reversals. The public sector SBI has the highest number of mobile banking accounts, more than double those of the private ICICI bank, which is in the second place. PSBs tend to follow government directions, but this need not be harmful so long as social purposes are consistent with viable business decisions, such as in new financial inclusion initiatives discussed in the section below.

Inclusion and financial stability

Any discussion of financial stability in India must also include an analysis of financial inclusion requiring a sustainable expansion of financial services, beyond just credit, to the poor. An RBI survey (2012-13) showed while 74% of villagers had savings accounts only 34% used loan facilities, 24% sent remittances, 12% used over draft facilities, and 15% electronic transfers. The rural share of ATMs was 14.6% while business correspondents (BCs) covered 50% in 2.21 lakh villages. A large under-banked population implies a huge potential market for a well-designed set of banking services.

The 2014 Jan Dhan Yojana may be more sustainable than the earlier credit and farm loan waiver based initiatives that stressed banks' balance sheets, precisely because it offers a bouquet of services meeting customer needs. These include conditional overdraft; insurance; direct benefit transfer and RuPay credit cards. It may not lead to a rise in NPAs down the road, since along with lower transaction costs, and supporting technological advances, these accounts may actually be used and generate revenue. The UID link will enable direct benefit transfers (DBT) and make KYC easier. By December 2014, 100.8 million accounts had been opened under the scheme, and 72.8 million RuPay cards issued.

Proposed diversity in types of banks, and easier entry, may lead to a new phase of beneficial competition. Bricks and mortar banks are difficult to scale up. Mobile telephones, however,

have large penetration, and there is great potential in mobile banking, which has done very well in some EMs.

India and Pakistan both started mobile banking in 2008. Both had bank linked models unlike the African model, whose success was attributed partly to mobile service providers (MSPs) being allowed to go it alone. In South Asia no monetary value could be stored in mobiles. Banks were responsible for security, stability and data records. Each transaction was through a customer account.

Even so, expansion was much faster in Pakistan than in India. Goyal (2015b) analyzes the crucial differences to be in more flexibilities and functions, such as higher initial levels and limits; more income categories; a wider Business Correspondent universe; lower transaction costs, such as no mandatory physical presence for customer registration. All this brought in all classes, allowed customization, expanded market size, and led to a virtuous cycle of cumulative inclusive innovation and use, without compromising on security and stability. Since encouraging relevant content creation was critical, the new initiatives may finally lead to a rapid expansion of mobile banking with the emphasis on bank led mobile banking paying off in the ability to provide a wider range of services.

Cooperation between MSPs and banks may be helped also by new trends such as the greater use of digital money in retail, migration of customers to e-commerce, technological changes such as near field communication, the cloud and cheap smart phones, whose sales in India are expected to cross 650m. The entry of large non-bank players such as Google and Apple in the payment space will provide competition and push innovation.

Global financial architecture and regional alternatives

Dr. Nachane discusses well the role of multilateral institutions comprising the global financial architecture in financial stability, and notes the paralysis in IMF quota reform leading to dissatisfaction in EMs. The comprehensive reform list G-20 produced relies on international institutions to monitor or implement. Therefore governance reform at these institutions is a pre-condition for full credibility. There are some improvements. The membership of the Bank of International Settlement (BIS), and the FSB, has been made more representative. But asymmetric power continues to result in asymmetric adjustment.

After the East Asian crisis EMs reformed, but developed countries did not. The global financial architecture (GFA) was also not modified. If some of the ideas to reduce excessive risk-taking had been adopted the GFC could have been moderated, making AEs also better off. They have become more serious about reforms after the GFC but resistance to meaningful reform continues to be strong. Asymmetric power continues to result in an uneven distribution of adjustment cost and reform across EMs and AEs.

Post GFC QE led easy liquidity tended to depreciate AE and appreciate EM currencies as large capital flows entered EMs in search of yield. As part of raising asset prices it also contributed to a sharp rise in oil prices even though global demand remained low. This hit oil importing EMs such as India, whose current account deficit (CAD) of the balance of payments widened as a consequence. Outflows of foreign portfolio investment that occurred in risk-off periods whenever global financial fragility rose, due to events such as the European debt crisis, made it difficult to finance the CAD. Episodes of rupee depreciation increased the import bill, given inelastic demand for commodities such as oil and gold.

AEs take the position that commodity price rise was not due to QE but to EM demand, again putting the onus on EMs. Another argument is if EMs benefit from inflows they cannot complain about outflows. But inflows are like a drug that weakens domestic muscle, making a country more vulnerable to outflows. A third argument is if QE weakens domestic currency it is alright since it is a side-effect of increasing demand for all countries while EM exchange rate interventions are trade distorting. But in many AEs now the only aim of QE is to weaken their currencies since at zero interest rates it is the only monetary transmission channel left.

While EMs allowed currency appreciation and stimulated domestic demand to correct global imbalances, deficit reduction in AEs was also indefinitely postponed. In the June Toronto G-20 meet AEs committed to at least reduce deficits to half by 2013 and by 2016 to begin reducing government debt GDP ratios that were expected to have stabilized. But at the 2012 summit in Mexico City, it was admitted this target would not be achieved. Moreover, it was said to be not advisable to reduce deficits given continued global uncertainties. Instead AEs only committed to sufficient fiscal consolidation to support the recovery (Goyal 2013). The argument that in a balance sheet recession when the private sector is deleveraging, and there is a possibility of a debt deflation trap, the government must spend has some validity.

Reducing debt and deficits is easier when growth is higher. But EM deficits are treated very differently.

A IMF staff discussion paper takes the position that while a country can give greater weight to domestic concerns over international spillovers, where the latter impose costs on other countries there is a case for multilateral coordination that can either ask for a reduction in capital controls or ask lenders to partially internalize the risks of volatile capital flows (Ostry et. al. 2012). It says the latter is 'much thornier'! It will be a major step towards symmetry if the onus for capital flow volatility is put on source countries also instead of the current system where the entire burden of adjustment is borne by recipient countries. But it is unlikely to be accepted.

Advice given to EMs even if not motivated is often not appropriate since it is based on inadequate frameworks designed for mature markets. Rajan (2015) calls this 'cognitive capture'. Since internalizing spillovers may be difficult for them, he suggests large central banks could reinterpret their domestic mandate to take into account other country reactions over time. This weak "coordination" of policy could be supplemented with improvement of global safety nets. In the absence of such a global response domestic policy in EMs may have no choice but to use controls that limit opportunities for other countries.

Our analysis of financial reforms suggests EMs should also press for measures that reduce financial over-leverage, which makes capital flows more volatile. The strength of the G-20 forum lies in coordination on measures that it is difficult for one country to do alone. That is why BEPS has been one of its more successful initiatives, and the success could be extended to other types of coordination. Another alternative is to develop regional safety nets. Participating in regional initiatives may contribute to a better balance of power and more symmetric sharing of the costs of adjustment, even while reducing the dependence on costly self-insurance forced on EMs. The flutter created by the unexpected global participation in the Asian Infrastructure Investment Bank, that China proposes to set up, demonstrates the advantages of competition. The US Congress had stalled G-20 requests for the World Bank to do more for infrastructure finance.

Conclusion

Dr. Nachane ably discusses many features essential for a stable Indian financial system. In these comments we underline the context by further developing the 'Indian perspective' We show why only marginal changes are required in India's financial regulatory structure, bring out a possible trade-off between capital adequacy and leverage caps following from special features of Indian regulations some of which need to be preserved, give the history behind the rise in NPAs, point to technological changes that may make financial inclusion more compatible with financial stability, and suggest that regional initiatives could help to correct current skews against EMs in the global financial architecture.

The arguments indicate points that could be emphasized in the global dialogue to further develop an EM perspective. First, the effectiveness of direct restraints in reducing leverage and a possible trade-off with capital buffers. Second, the possibility of coordinating on simple leverage reducing measures with good incentive possibilities. Third, supporting regional alternatives as a corrective for asymmetries in bargaining power.

In domestic policy the arguments point to the necessity to better align international prescriptions to domestic structure and needs whether in monetary policy, restructuring financial regulators, capital adequacy criteria, or action against NPAs, rather than just blindly keeping up with the Joneses. More communication and dialogue is required for this since global analysts tend to enforce uniformity by negatively highlighting any deviations.

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Appendix

In the Figure[5] the 45 degree line shows outcomes where change in bank capital buffers (ΔC) equals that in assets (ΔA). The line rotates inwards as the degree of leverage rises— the same level of assets is possible for a lower capital buffer . The dashed line denotes the combination of ΔA and ΔC for any given leverage ratio[6] α (=ΔC/ΔA), 0< α<1. The Figure shows the change in assets for a given change in capital (ΔA =ΔC/ α) as leverage rises (α falls below 1) is much higher at high asset levels (HAL) compared to low asset levels (LAL). That is ab > cd. Commonly advanced country banks have much higher assets compared to EMs. The vertical distance between the 45° line and the dashed line gives the difference between the minimum $(\underline{\Delta A})$ and the maximum $(\overline{\Delta A})$ change in assets possible for a given α and ΔC.

Second, a given leverage can be achieved either by mandating the asset cover for a given leverage (through the leverage ratio), or restricting the leverage itself. The EM line shows how, at any asset cover, tighter leverage (through different types of broad pattern regulation such as loan to value ratios found in EMs) caps leverage at a level below the ceiling $\Delta\overline{A}$ possible given capital and the leverage ratio.

Therefore, a trade-off between a leverage cap and a capital adequacy level is possible. Moreover, the potential rise in leverage is much larger for large banks with large capital so a leverage cap is a more effective instrument for large banks that could otherwise create systemic risk.

[5] This is adapted from Goyal (2014a).

[6] Economic leverage is a broader measure that captures off balance sheet assets. The capital buffer C, or what is known as Tier I capital, is the fraction of bank assets held in the form of a liquid liability such as high class equity.

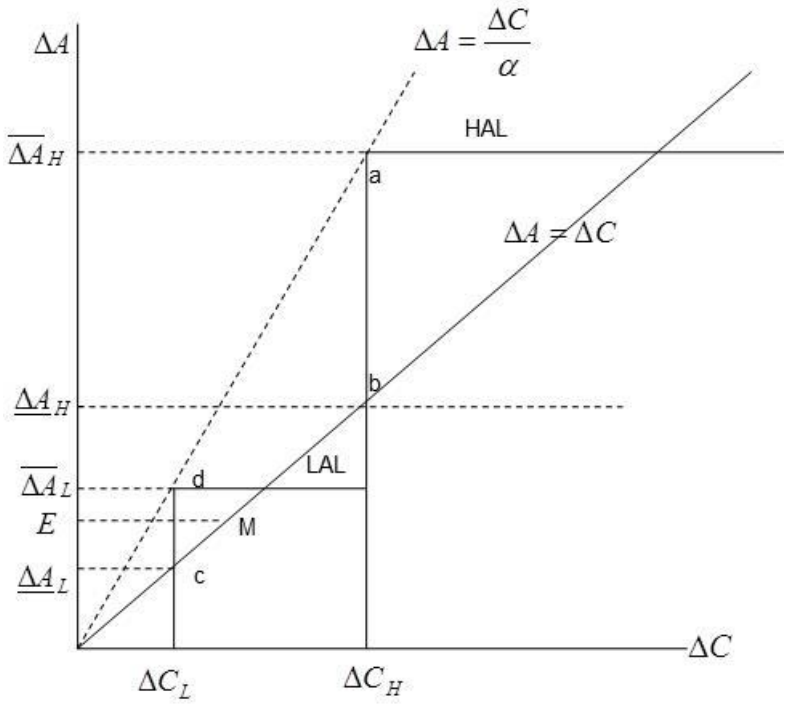

Figure 1: Regulation and fragility in banks