

Why Basel 3 could be another Minsky moment in financial history

By John C Perry
Managing Director
Productive Human Endeavour Limited
Influencing the Future

Excessive leverage in the real economy is the true cancer

In “The Financial Instability Hypothesis” Hyman Minsky explains that there is a cycle in which society first pays its way by repaying principal and interest, then pays only the interest, and finally participates in the “Ponzi schemes” that allow some to repay unpaid capital and interest before the majority suffer the ignominy of reduced real wealth. This is a progression to pure excessive leverage.

JK Galbraith explained in his book “A Short History of Financial Euphoria” that *“Excessive leverage, or misunderstood leverage is a root cause of each successive over-exuberance and inevitable failure (busts)”*. He argued that *“bubbles are inherent in the free-market system because of ‘mass psychology’”* and the *“vested interest in error that accompanies speculative euphoria”*. Governments believe that they are “Changing Banking for Good”, the BCBS believe that Basel 3 is “Restoring Confidence in Banks”, and Central Bankers believe they have banished the prospect of “Boom and Bust” with the capacity to use macro-prudential tools to counteract the hitherto excessive economic cycles that the banking sector causes. Are these beliefs illusionary? These actions are a typical historical response to counter perceived past excesses (real or otherwise) with increased regulation designed to curtail financial risk. However, are these actions appropriate? Are banks solely to blame for this leverage? Or is excessive leverage in the real economy caused primarily by societies’ greed to obtain a free lunch at the expense of others, often condoned by Government and Central Bank policies. Why is the Basel Committee not looking into the mirror?

Conventional wisdom

The Basel Committee on Banking Supervision (BCBS) seeks the “convergence to common standards” supported by a ‘global-one-size-fits-all’ approach to the calculation of financial ratios.

A premise of Basel 3 is that new appropriate checks and balances to curb ‘excessive’ risk taking and leverage by the banking sector will lead to a safer and more stable and thus growing society and economy, eliminating another ‘Minsky moment’. Will they?

The conventional wisdom - promulgated by the BCBS - is that it is banks that calculate the total and unexpected credit, operational and market risk losses using “complex internal models” and thus self-determine the amount of capital they need. Therefore, it is the actions by banks that cause the boom and bust cycle by creating excessive leverage in the economy and thus it is they who sow the seeds of their own failure by inappropriately modelling risk. Are these opinions by the BCBS valid?

Modelling Probability (Risk) vs Possibility (Uncertainty)

Risk is primarily local. It is what you can observe. It is the ‘known known’ events that have measurable probability with varying levels of confidence (standard deviations) and ergo ex-post validation. This is the real world of the variation around the expected. Uncertainty is remote. It looks at possibilities and assumes worst-case scenarios, yet contains the certainty that all possibilities cannot be countenanced.

The dilemma facing society with respect to financial risks - that should be concentrated within the financial services sector - is that if banks are the primary agents to create the inherent leverage in the real-economy, then can this leverage risk - differentiated between the two extremes (probability vs possibility) - be measured within banks? Then if so how can the leverage risk and its potential consequences be quantified in order to determine the appropriate constraints on the composition of bank balance sheets and capital resources to support unexpected and or total losses?

A Bank’s primary focus is to live within a “business as usual” world and to combat mild doses of illness. This is the volatility of the “expected loss world”. The BCBS primary focus is to now ensure that if any bank was to immediately contract terminal cancer, that it could be resolved without any donations (bail-outs) from society. This is the “total loss world”. The twilight zone in-between is the “unexpected world” namely total loss minus expected loss. Are they compatible within one framework?

Dispelling myths: It is the BCBS that calculates a bank's risk – not a bank!

The BCBS would have everyone believe that it is banks that calculate their total loss risk. The BCBS increasingly believes that increased simplicity - even at the expense of risk sensitivity - leads to comparability (across banks and over time). Thus it is focussed on a simplified approach to the calculation of the Core Equity Tier 1 capital (CET1) ratio (using a Standardised approach), a non-risk sensitive Leverage Ratio, and cliff-effect Liquidity Coverage Ratio (LCR) and Net Stable Funding Ratio (NSFR). These are supported by an IFRS accounting view of the balance sheet and profit & loss statement, backed by volumes of detailed opaque disclosure reporting.

The BCBS believe that a set of uniform financial ratios can be defined and reported by banks each of which can show the state of every kind of health of a bank, i.e. from very well, to well, to mildly ill or having terminal cancer. But do they?

It is a myth that any bank has defined any model to calculate its regulatory capital requirement and or balance sheet constraints: These models are defined by the BCBS and it is the BCBS that calculates what it thinks is the total loss risk of each bank.

The only measurable probability of risk that some banks internally model is the expected credit loss of real-economy homogeneous pools of risk. It is the BCBS that scales up these expected losses into a total loss and by subtracting the expected loss calculates the unexpected loss contribution to the overall portfolio of all credit risks. It does this on the premise that the current and future state of the real-economy in every country is within a homogenous global economy and that all obligor defaults in all asset classes, and the benefits derived from lower turnover by SMEs, and maturity transition matrices in all countries are correlated as they were in the 1990s. It is based upon every bank having portfolios of risk that exhibit the concept of portfolio invariance, and no concentration risk and a belief that the “Concordat” is still alive. For all other approaches to credit risk it does not even take into account or scale up banks' expectations. Instead it prescribes prescriptive “standardised” approaches for the calculation of the marginal contribution to the overall total loss distribution that includes its estimation of the default of all sovereigns. Is this appropriate or valid?

For modelling operational losses, it uses the average of the past 3 years' gross income differentiated by business segment, not risk. For market risk it sets the approach based upon the idea that the worst severe movements that occurred will be replicated many-fold.

The macro-prudential tools - supposedly to counter real-economy leverage by varying capital requirements - are wrapped under the illusion of countering cyclicalities to stifle the build-up of leverage during a boom when in reality they are there only to bolster the percentage coverage of all BCBS modelled losses after the bust. The add-on capital buffers for systemically important financial institutions (SIFIs) are a form of tax on the externalities of being big. This is overlaid with a global binding non-risk sensitive Leverage Ratio that treats every asset as ranking *pari passu* when the reality is that this is untrue. The LCR and NSFR are defined on the basis that a bank is either healthy or terminally ill (the cliff-effect) and that in extremis all banks within the banking sector will remain solvent even when every bank faces the same liquidity and funding crisis. These ratios are BCBS models. They contain material model risk.

Model Risk is inherent, and endemic in all of the BCBS models

The fact is that the conceptual approach to modelling the total losses of a bank by the BCBS and the calculation of a capital ratio has not changed. Basel 3 has merely required a higher percentage of the modelled losses to be covered by a redefined regulatory definition of capital. The underlying risks have not been re-measured.

- A CET1 ratio of 10% means simply that a bank has a BCBS regulatory definition of Equity to cover 125% of the BCBS calculation of the total modelled Credit, Operational and Market Risk losses. It does not say anything else. It is not a measurement of risk. The calculation of regulatory capital assumes a gone concern. Yet that calculation has never been validated.
- The Leverage Ratio is merely that same numerator divided by an adjusted accounting balance sheet that results in a herd mentality towards similarly restructured and refocused balance sheets that are risk insensitive.

- The Net Stable Funding ratio is a function of a disguised Standardised Risk Weight and a supposed prescriptive approach to the behaviour of liabilities in extremis. It mixes and creates confusion with the LCR.
- The balance sheet is merely a static statement of the book entry value of assets less liabilities and does not explain or categorise any risk or leverage.
- The profit and loss statement is merely an accounting construct that is a confusing combination of going and presumed gone concern.

The ratios derived from these models are BCBS defined Basel 2 & 3 global-one-size-fits-all modelling of the “total and unexpected loss worlds” that it requires every bank to conform to. Every prudent banker - and those who have read the US FRB-OCC April 4th 2011 paper ‘Supervisory Guidance on Model Risk Management’ - knows that *“the use of models invariably presents model risk”*. Yet the BCBS is not even prepared to even acknowledge that their models contain model risk. Why not?

A revised approach to transparency of reporting a bank’s business is needed.

The consequence of Basel 3 is model risk, less transparency and less comparability because the BCBS ratios do not report or measure the risk of each bank.

What is needed is a fundamental re-think on all aspects of reporting of a financial risk inherent in each bank’s business, and for truly comparable information to be provided for every legal entity (and where appropriate ring-fenced country branches) on solo and consolidated basis. For example:

- Balance Sheet:
 - Liabilities reported in sequence by level of risk for repayment to depositors and explicit guarantees such as deposit protection schemes,
 - Assets reported by asset classification and real-economy leverage, segregation between funded and non-funded (contingent) balances, and

- Alternative leverage ratios segregated between funded and non-funded assets based upon for example Exposure at Default (EaD) * Loss Given Default (LGD) set by each local regulator as specific for all institutions within and appropriate to its economy.
- Profit & Loss statement that compares the Expected vs Actual results, showing expected and actual losses for Credit, Market, Operational Risk, thus enabling a comparison of the expected and actual outcomes for the return on average ordinary shareholders' equity and invested capital; and return on risk.
- Capital Adequacy needs to show the true measure of riskiness for each risk type and in aggregate i.e. the expected loss (EL), total loss (TL) and unexpected losses (UL). Reporting EL as a percentage of TL highlights the inherent risk in portfolios i.e. a low % equates to high-risk compared to high % that equates to low-risk, because EL is or should be priced into income.
- Net Equity (accounting based, fact in a going concern) should be differentiated from regulatory capital (fiction in a gone concern).
- The actual amounts held for each tranche in the capital structure should be showed as % of modelled losses (own funds) by Risk and in total with clarity with respect to the Bank's own additional voluntary buffer i.e. the internal management capital buffer that exists to support normal volatility.

Models fit for local purpose

The banking world today is very different to the prevailing Basel 2 doctrine of a world of international banking groups globally diversified operating within a cocoon of the 'Concordat' in which it was assumed that banks could default. The BCBS needs to acknowledge that it is their Basel 3 regulations that are widening the gap between their view of the risk of banks (especially of banks with diversified portfolios of risk) expressed as BCBS modelled losses, and each bank's internal view of risk expressed – but no longer publically disclosed – as Economic Capital.

The BCBS mantra is increased capital inclusive of increased core equity Tier 1 capital no matter what the cost. It is the BCBS view, its calculations that are now dominating the capital allocation and business models of sophisticated banking groups because these BCBS modelled losses are now much higher than the bank's economic capital modelling. This is already having profound effects upon bank's business models as they change their risk and balance sheet profile to adapt to a new regulatory norm.

The fact is the BCBS regulatory framework i.e. the BCBS models is neither calibrated to the risks of any economy or domestic, or regional banking sector in which banks now operate. It is time to reassess the appropriateness of the BCBS global one-size-fits-all Asymptotic Single Risk Factor model (ASRF) that also ignores concentration risk, because it is a fact that the risks of banks are not (and for most banks never were) correlated to the global economy as it was in the 1990s. It is time for local regulators to coordinate local alternative Credit risk ASRF models, and Operational and Market risk models calibrated to their local economies. There is now plenty of data. That would in turn lead to the determination of locally fit-for-purpose standardised risk weightings for banks that do not have the expertise or data to model the inputs. Economic Capital models need to be explained. There needs to be a discussion to answer the question: Is a bank a viable concern providing appropriate returns on equity for the risks that shareholders of banks are going to be taking in the future?

Lessons to be learnt from Hyman Minsky

Basel 3 is focussed on applying global standards everywhere. The BCBS is attempting to create stability by simplicity with the objective of comparability. Yet this could also validate Minsky's hypothesis that "stability breeds instability". The BCBS models applied to all banks in all countries is conceptually unsound. They are not fit for purpose. We need models that focus on local probabilities, not remote possibilities. We need models that are conceptually sound. We need a new way to report balance sheets, profit and loss statements, risk, and the adequacy of capital.

Productive Human Endeavour Limited

3rd Floor, 128 Cheapside, London, EC2V 6BT

M: +44 (0) 7500 89 63 28: E: john.perry@phelimited.co www.phelimited.co

Registered in England & Wales; Number 8628512 VAT no.167 2599 69

