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29th September 2013

Dear Sir or Madam,

Principles for an Effective Risk Appetite Framework - Consultative Document

On behalf of Productive Human Endeavour Limited, (PHEL) I am pleased to submit to you our observations on your consultative document.

PHEL provides consultancy services primarily in the banking industry derived from the practical experience that John C Perry - Managing Director - has gained by having worked for over 37 years in HSBC serving in the Group Head Office as well as in its principal subsidiaries in Asia, Middle East, Europe, South and North America.

His recent experience was with HSBC Holdings plc as Global Head of Independent Model Review (2012-April 2013), and formerly Senior Manager – Group Recovery & Resolution Plan (2011), Executive Director HSBC Bank Middle East Limited (2009-2010) and previously HSBC Group Project Manager - Basel 2 – Global Banking & Markets division (2004-2008). John has had first hand experience of developing implementing and training management on the Risk Appetite Frameworks within HSBC. John is currently engaged by the British Bankers Association within its Prudential Capital and Risk function to coordinate industry responses. For further information refer to http://www.phelimited.co/welcome/experience-of-john-c-perry/

Summary Comments

The purpose of this review of the FSB consultative document is to explain how the practise has evolved beyond what has been proposed and to set out thoughts that challenge the traditionally held views on the measures of success that banks currently report.

We recognise the challenge to balance the need to set out 'principles' as distinct to 'practical advice, guidance and wisdom' that enables banks to improve their governance and management of the Risk Appetite Framework.

However, our overall comment is that the principles are too high-level to provide sufficient practical guidance to firms and yet with respect to the allocation of roles and responsibilities they are too prescriptive and risk being seen as providing tasks to be included in job descriptions.

It is our opinion that the G-SIFIs and O-SIIs will be unlikely to find anything new in the FSB principles, primarily because these firms have progressed their thinking beyond the FSB's proposals. Unfortunately the vast majority of banks that are looking for guidance on how to improve their risk appetite framework will find that the FSB principles provide very little tangible practical assistance in their quest.

The inspiration for writing this review is to therefore a) help banks to begin to think of measures of success from a very different perspective and b) as a bi-product to show to the BCBS that serious thought is being given in some quarters as to how changes could be made that would "*provide reliable signals for the absolute and relative resilience of banks*" that in turn should result in "*sensitivity in funding cost changes to risk-taking.* "

Proposals for a Supplementary Best Practice document

The FSB may wish to use some of the suggestions set out in this document to revise its own document and or to promote the idea for the BCBS to prepare a supplementary paper:

1. Redefine the scope to embrace a holistic view of the bank's "Reward for Risk Framework" (RRF)

2. Propose a pro-forma table of contents of an RRF for the inclusion in a firm's Annual Report & Accounts

3. Propose a classification of the indicators of the measures of the RRF

4. Explain the difference between
    a. Outcome measures i.e. "Measures of Success"
    b. Drivers i.e. "Inputs to the measures of success"

5. Clarify the difference and role played by "target ranges" and "limits".

6. Set out more clearly the primary role played by each component of Governance, Management and the Internal Audit / Independent Review function.

This paper explores each of these topics in more detail and sets out proposals on how to put in place an effective Reward for Risk Framework that PHEL believes more appropriately represents the FSB intention.

PHEL would be happy to assist the FSB and or the Committee in these endeavours.

Yours faithfully

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1. Introduction: Comparability across banks and over time

In July 2013, the BCBS published it discussion paper "*The regulatory framework: balancing risk sensitivity, simplicity and comparability*". It is clear from that paper that there is concern about the inability of the public (and regulators) to make meaningful comparisons of banks and through time. The BCBS set out its opinion that improvements to the comparability of capital ratios can be achieved by having less risk sensitivity – achieved by less use of "*complex model*" i.e. moving towards simpler approaches to measuring risk. Their opinion is that it was the failure of models – specifically those developed by banks – (both capital and liquidity management) that was a major cause of the so-called "banking" or "financial crisis" that befell certain countries predominantly in the EU and the USA in 2007-2009.

The paper issued by the Committees sets out three conceptual considerations that should be followed, "*simple", "comparable"* and *"sensitive to risk*". It expresses its view that "*comparability*" is the most important tenet of a "Regulatory Framework". Thus, when faced with a choice between "*simplicity*" and "*sensitivity*", then the BCBS recommends "*simplicity*", because this approach leads naturally to improvements in "*comparability" of Capital ratios that the Committee believes to be the driver of investor confidence*." The consequence of this line of reasoning is that the Committee is minded to focus on achieving that objective through "*the removal of undue complexity from the denominator i.e. the risk-weighted asset calculation methodologies*". [1] It also says that it is Committee's opinion that the factors that drive investor confidence (or otherwise) in a bank is whether or not the *Risk-based ratios provide reliable signals for the absolute and relative resilience of banks.* This in the BCBS view requires confidence in the calculation of Risk Weighted Assets (RWA) and specifically Risk Weights (EaD / RWA) expressed as a %.

The Committee expresses its opinion that confidence may be lacking because "*if some banks look weaker or stronger than they really are, it is because the methods of calculating risk weights were not comparable", "driven by complexity in the risk-weighting process"* and this makes it *difficult for bank equity analysts to understand differences in risk-weighted assets both across firms and through time*. This in turn results in a lack of *"sensitivity in funding cost changes to risk-taking.*

With respect to complexity, the Committee's view is that "*some complexity within the regulatory framework is inevitable, as banks' business models cannot be simplified beyond a certain point*". Complexity in the rules for calculation of capital ratios is seen as function of "*the process of reaching international agreement on standards that must be applied across many jurisdictions*", reduce the opportunities for "*the potential for risk-shifting that overly simple rules can allow*". i.e. to "*hinder (capital) arbitrage"* and "*innovation within financial markets, adaptation of rules to accommodate new products,* especially the so called *'difficult cases' "*

The Committee's view is that complexity "*arises (from) mainly in the context of banks' use of internal models*", even though in the Committee's opinion "*the aim*" of permitting internal modelling was to "*bring the regulatory assessment of risk closer into line with banks' own assessments, thereby reducing the incentives for regulatory arbitrage*".

[1] Paragraph 39 – page 11 of the Committee's paper

2. The need for consistent measures of Rewards and Risk Framework

The essence of this review is to put forward the proposition is that a) the problem with the current framework is not that it too complex, but that the inputs into the various models (both internal and the BCBS models) are not well understood and b) the outputs from these models are being misrepresented and thus inappropriately used.

The FSB guidance is that the measures (statements) should align with the strategy. Today, banks see it the other way around. It is the definition and publication of the target ranges and actual 'Measures of Success' that is the framework within which the strategy is articulated.

The FSB document sets out the traditional narrow focus of looking at risk, the downside of risk, the *'loss or negative outcomes*' that can occur. However, the terminology of "Risk Appetite" and the adoption of "Risk Appetite Statements" have evolved to the extent that it now covers a much wider scope the measures of risk than proposed by the FSB.

A review of the FSB document reveals that there is no mention of the word 'reward', or 'profit'. Banks are focussed not just on the risks, but on the rewards that are derived from risk-taking within the confines of achieving success through an economic cycle.

That is why it is recommended that the name of the framework be changed to "Reward for Risk Framework" (RRF) that embraces a holistic view of the bank's approach to the management of risks and rewards.

It follows that a RRF should show very clearly the reporting of the rewards and risks of a bank, in order to achieve comparability. If this were to be achieved, it would in Committee's opinion be an important factor in driving investor confidence (or otherwise) in a bank by *providing reliable signals for the absolute and relative resilience of banks* that in turn should result in *"sensitivity in funding cost changes to risk-taking.*

In effect what the Committee is saying is that today it is not possible to see how the various measures of rewards and risks categorised within the following 7 principles of banking achieve the objectives.

1. The Capital Adequacy
2. Risk
3. Liquidity
4. Balance Sheet Management
5. Income Statement
6. Attributable to Shareholders

Given the fact that most of the measures within those categories have been in place for decades, it should be a matter of concern to everyone this might indeed be the root cause of ineffective principles of a reward for risk framework that the FSB sets out to resolve. Therefore, in this paper, PHEL will bring together the Committees concerns - by highlighting why a number of those well-established measures are not fulfilling their purpose. In doing so this paper will set out some proposals for revisions in the measures of reward and risk that in turn if adopted by banks, would achieve both the FSB and BCBS objectives.

3. Contents of a Reward for Risk Framework (RRF)

The FSB document states:

> *Risk appetite may not necessarily be expressed in a single document; however, the way it is expressed and the manner in which multiple documents form a "coherent whole" need to be carefully reviewed to ensure that the board obtains a **holistic**, but compact and easy to absorb, view of the firm's risk appetite.*

The FSB alludes to the scope of an RRF, without explicating setting out a proposed structure of an RRF that it would like to see adopted by banks (and consolidated banking groups) for publication in an Annual Report & Accounts (AR&A) and or in a Pillar 3 disclosure. It might appear unwise to be entirely prescriptive with regard to the format of such document(s). Nonetheless there are benefits of setting out a proposed high-level structure to achieve transparency and comparability between banks [2] as proposed below:

1. '**Purpose**' of the bank i.e. why it exists
2. '**Measures of Success'** (MoS) (with templates showing the "target ranges" for acceptable, outside the range, unacceptable with RAG [3] status).
3. '**Strategy**" to achieve those measures of success highlighting the most important measures.
4. "**Key drivers**" that are the inputs to those 'Measures of Success'
5. '**Values**' that the bank espouses that set out the confines and
6. '**Risk Culture'** consistent with the strategy to achieve the measures of success.
7. "**The plans**" for ensure that the measures of success are achieved and remain within the 'Target ranges' approved by the Board for each measure. [4]
8. "**The stresses**" to which the bank is subject to and the scenarios that could impact the measures of success

For most banks, the above should merely be a collation of existing material that is currently dispersed within its AR&A and Pillar 3 disclosure. For banking groups that are structured as subsidiaries under a holding company, it would be helpful if this structure was followed for each of them and a comparative table setting out the measures of success for significant entities was shown as well as producing a separate one for the holding company.

However, it is not sufficient to have a document to ensure that an "effective" RRF is in place it is also necessary to have an Enterprise-wide Reward & Risk Management System, keeping track of and reporting the key drivers and measures of success.

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[2] BCBS: The regulatory framework: balancing risk sensitivity, simplicity and comparability - discussion paper July 2013 http://www.bis.org/publ/bcbs258.htm

[3] RAG status is an abbreviation of the Red-Amber-Green. This is a colour coding that is now used by many banks to indicate the status of a measure of success, or inputs to those measures.

[4] Plans should be consistent with the classification of the Measures of Success and thus would most likely include capital plans, risk optimisation plans, financial operating plans, compensation plans etc,

4. The RRF is the outcome of a holistic modelling of a bank

The FSB make the assumption that all quantitative and qualitative statements within the RAF/RAS are equal. This is not true. There is fundamental difference between the statements that are "drivers" and those that are "outcomes".

- Outcomes are the "**Measures of Success**" (MoS)
- Drivers are the "Inputs to the measures of success"

The process is for the "management body" to first define the Measures of Success and then task "senior management" [5] to ensure that the drivers i.e. inputs to those MoS are understood. It is the inputs that are modelled and managed, i.e. influenced in order to affect the MoS. The logic for this differentiation is that it is consistent with guidance set out by the FRB-OCC paper 2011-12 issued on April 4, 2011 - "Supervisory Guidance on Model Risk Management" [6]. The Reward for Risk Framework is essence a model. It is the holistic modelling of the bank. The following is an extract from the FRB-OCC paper:

The term model refers to a quantitative method, system, or approach that applies statistical, economic, financial, or mathematical theories, techniques, and assumptions to process input data into quantitative estimates. A model consists of three components:

- *an information input component, which delivers assumptions and data to the model;*
- *processing component, which transforms inputs into estimates; and*
- *a reporting component, which translates the estimates into useful business information.*

The definition of model also covers quantitative approaches whose inputs are partially or wholly qualitative or based on expert judgment, provided that the output is quantitative in nature. Models are simplified representations of real-world relationships among observed characteristics, values, and events. Simplification is inevitable, due to the inherent complexity of those relationships, but also intentional, to focus attention on particular aspects considered to be most important for a given model application.

From this simple explanation it will be seen that the RRF has

- Input values based upon assumptions.
- Processes that transform these inputs into "estimates".
- The reporting component that translates the estimates into useful business information i.e. the Measures of Success.

There is a tendency to think of every input value, e.g. Risk Weighted Assets, Profit and Loss statement, Provisions for Loan Losses, Analysis of the outflow and inflow of cash to calculate liquidity etc, as precise values. Yet that is rarely the case. Almost every value has some underlying assumption and thus every value is precise to only varying levels of confidence, i.e. with varying degree of volatility. Thus ergo the processes to transform values have differing levels of confidence and thus the outcomes. In summary the measures of success are – if properly understood and independently assessed – estimates of usual business information.

[5] These terms are used as set out in the EU CRD.
[6] http://www.occ.treas.gov/news-issuances/bulletins/2011/bulletin-2011-12a.pdf

5. Measure of Success (MoS)

A Measure of Success is a value [7] that enables an assessment of otherwise of the success of the governance / management of a bank. Thus by definition the measure must be disclosed in the public domain for it to independently assessed. It is for the public (shareholder, bondholder, customers, i.e. society) to determine if the bank is successful or otherwise. This is an important distinction. Within a RRF, banks will have hundreds or thousands of metrics of measurement down to segments within businesses, branches, functions etc. These will often be referred to as measures of success, but if they are only reported internally, then these success measures are not true measures of success, only internal invisible measures of a bank's own perception of success.

Notwithstanding the comments in the previous section, that the measures of success are 'estimates', we need to assume that the calculated values are reasonable and within acceptable tolerances of accuracy to make them precise enough to be useful to the management body, to senior management and the public.

Each MoS must be standalone i.e. it cannot be derived from or have a direct impact upon another MoS. [8]

One might think that the measurement of the risks and the quantification of them that a bank manages and the "long-term success of the bank" (MoS) including "its delivery of sustainable value to its shareholders" are clearly reported up-front in the published financial statements (AR&A) of a bank. However, you would be mistaken in assuming this. Although, most banks now include a summary of important "financial highlights", the arrangement of these highlights is unique to each bank and arranged in a seemingly ad-hoc way. Although there might be comparable measures for the past three to five years, it is difficult to see the direction that the financial highlights are travelling either positive, or broadly neutral or negative.

It is also very difficult to interpret the value of these measures and or the definition and or calculation. It is also not obvious which of the "financial highlights" are in fact the "Key Performance Indicators" ('KPIs')" that are the key measures of success. Not every value and ratio has equal weight or influence on the soundness of the bank. The KPIs are often reported in the body or at the end of the overview of the AR&A. In fact it will be observed that some KPIs are not in fact reported in the financial highlights but are only reported in the Pillar 3 disclosures. Furthermore it is very difficult to comprehend what a bank considers as the plausible scenarios that it might be subjected to, that in turn would cause stress on the values and ratios and thus what action would be taken to mitigate the effects.

Although Global SIFIs and many other banks have now produced Recovery & Resolution Plans (RRP), that are known to the regulator - that embody target ranges for key RRP indicators of their financial health -, there is a noted absence in the public domain of what these indicators are and the target ranges for each.

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[7] An internal MoS is a mathematical quantitative value that will be capable of independent replication. External MoS might be both quantitative and or qualitative.

[8] The reason for this is that when constructing a model (a process) to construct a MoS there must be no "circular loops" in the process of categorising and classifying the values. Otherwise, it would be impossible to construct a process to model the values.

6. Categories of Measures of Success (MoS)

As set out above, measures of success used inside a bank that are invisible to the public are not true measures of success. They are merely barometers or internal indicator to facilitate the management of the bank. It therefore follows that the focus of management bodies and senior management should be on those publically disclosed Measures of Success.

There are two broad categories of MoS

- Internal – those defined by the bank and public disclosed
- External – those set by, determined by or sourced from outside the bank

All Internal Measures of Success (I-MoS) have a common mathematical attribute:

1. They are all "**Relative Values**".
2. Relative values are derived from the absolute values and / or an analysis of the absolute values.
3. Relative values will contain the word "to", "return on", "ratio", "for", "per" or "%" in the measure.
4. These measures therefore express the relationship between two values and most often this an expression of Reward for Risk
5. They are calculated by the bank

External Measures of Success (E-MoS)

1. These are determined externally
2. These are values calculated by a third party.
3. They are either a fact or an opinion with regard to the bank.
4. An external measure of success can therefore be
   a. either an '**Absolute value'** or a
   b. '**Relative value'**

6.1 Classification of MoS

All Measures of Success can be identified within one of the following classifications. These can be referred to as the "7 Principles of Banking".

Internal Measures of Success (I-MoS)

7. Capital Adequacy
8. Risk
9. Liquidity
10. Balance Sheet Management
11. Income Statement
12. Attributable to Shareholders

External Measures of Success (E-MoS).

13. Others [9]

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[9] PHEL believe that external measures are bank specific

7. Traditional approach to defining Measures of Success

PHEL conducted a review of the 2012 consolidated annual report and accounts of a G-SIFI in order to identify its publically reported measures of success. The measures were found in the bank's financial highlights, and / or its Key Performance Indicators (KPIs) and Pillar 3 disclosures. Some measures were reported in its section on Risk and / or in the section on Risk Appetite or in the Pillar 3 Disclosures.

The measures in *italics* were not reported, but will be required to be reported in the future for EEA banks complying with CRD IV. All the following internally defined measures of success are all relative values i.e. there is a numerator and denominator and thus are consistent with the conceptual approach outlined in this paper as a "Reward for Risk" measure.

Capital Adequacy

- Core Tier 1 ratio
- Estimated CRD IV CET1 ratio [10]
- Tier 1 ratio
- Total Capital Ratio

Risk ratios

Credit coverage ratios

- Loan impairment charges to average gross customer advances
- Total impairment allowances to impaired loans at year-end

Liquidity [11]

- Stressed cash inflows as a percentage of stressed cash outflows over both one-month and three-month time horizons (Year-end, Maximum, Minimum and Average)
- *Liquidity Coverage Ratio ('LCR')*
- *Net Stable Funding Ratio ('NSFR')*

Balance Sheet

- Advances to core funding ratio
- Ratio of customer advances to customer accounts
- Average total shareholders' equity to average total assets
- Leverage Ratio (LR) [12]

Income Statement

- Loan impairment charges to total operating income

Efficiency

- Cost efficiency ratio

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[10] The estimated CRD IV CETI ratio: This is the ratio estimated by applying the interpretation of the CRD IV draft July 2011 text post transition period (end point CRD IV) to its balance sheet position at 31 December 2012.

[11] The LCR and NSFR are currently not required to be publically disclosed, but will be in due course.

[12] Not required to be publically disclosed. In its Pillar 3 disclosures it chose to provide an estimated consolidated group Basel III/CRD IV end point leverage ratio.

Revenue mix

- Net interest income to total operating income
- Net fee income to total operating income
- Net trading income to total operating income
- Annualised % growth in net operating income after loan impairment and other credit risk charges

Attributable to Shareholders

Returns for Shareholders

- Earnings per share
- Dividends per ordinary share
- Dividends per ordinary share growth
- Return on average ordinary shareholders' equity
- Return on average invested capital
- Total Shareholder return vs appropriate benchmarks (over 1, 3 and 5 years)
- Economic Profit (Loss) [13]

Returns on Risk

- Pre-tax return on average risk-weighted assets

Returns on the Balance Sheet

- Post-tax return on average total assets [14]

Other External Measures – (calculated by or set external to the bank)

- Customer Recommendation Index ('CRI')
- Brand value

Observations

One might think that the above is a comprehensive list from which it would be possible for investor confidence (or otherwise) in the bank to assess whether the information *provide reliable signals for the absolute and relative resilience* that in turn should result in *"sensitivity in funding cost changes to risk-taking.* [15] Readers will note no doubt recognise the same measures reported in their own AR&A and Pillar 3 disclosures.

However, a closer look at the information reported by banks and banking groups reveals that there is some crucial information missing. This is not due to any intention on the part of a bank to deceive the pubic, it is merely the result of banks a) following established tradition b) doing what the regulator and or BCBS wants, and or c) not wishing to provide more than necessary for possible fear of revealing information that other banks are not revealing for fear of placing themselves at a competitive disadvantage?

The following two pages will look at a number of measures of success and the approach to reporting them to illustrate the concern that is being expressed by the BCBS its discussion paper and this should of concern to the FSB also.

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[13] Taking into account a cost of capital

[14] Required in due course by EU CR IV Article 90

[15] refer to paragraph 31 of the BCBS discussion paper.

7.1 Capital Adequacy

A capital ratio and in particular the Core Tier 1 Equity Ratio (CT1E) is supposedly a measure of absolute resilience of a bank. So what does a ratio of 7%, or 8% or 10% mean? Although it is true that many can say how it is calculated, that is not the same thing as explaining what it tells you about absolute or relative resilience of the bank, and thus resilience to what? It is questions such as these that are rightly at the heart of the BCBS concerns with respect lack of comprehension and comparability.

The capital ratio is nothing more and nothing less than an expression of what percentage of total credit, operational and market risk modelled losses is covered by Shareholder Funds (as adjusted for various deductions as defined by the BCBS) referred to as "capital". A ratio of 8% simply means that the coverage is 100%. A ratio of 10% equals 125% coverage. [16] A ratio of 12.5% means 156.25% coverage etc. There has been some simplification and some harmonisation in the determination of the definition of capital. However, the complexity that Basel 3 (and the EU CRD) has introduced is that % of modelled losses that each bank must hold in capital is now based upon many factors, some have and yet most do not have any direct relevance to the volatility of those total losses. For example the G-SIFI and O-SII surcharges are some kind of combination between interconnectedness within the group, systemic importance, further buffer to aid resolution and or estimation errors in the modelling of the losses. The countercyclical capital, and systemic capital charges are not bank specific and have no correlation to the losses. The complexity is that these other add-ons are expressed as percentage of those modelled losses, rather than a separate assessment of the risk. Regulators require other risks (that are not explicitly disclosed) to be modelled and covered by other buffers. Furthermore, all of this capital that is set aside, is not under the control of discretion of the bank to use without constraint. It is there for the regulator's benefit in the event of such losses occurring and they need to intervene to resolve the bank. In which case certain loss-absorbing liabilities (additional Core Tier 1 and Tier 2 Capital) might also be utilised that are reflected in the capital ratio.

Basel III: "*A global regulatory framework for more resilient banks and banking systems"* December 2010 (revised June 2011) states on paragraph 49. *Total regulatory capital will consist of the sum of the following elements: Tier 1 Capital (going-concern capital made up of a) Common Equity Tier 1 and b) Additional Tier 1, and Tier 2 Capital (gone-concern capital).* However, even a layperson can deduce that the capital set aside as explained above is not there to cover the bank as a going concern basis, because if any were to be used, it would probably already be in recovery mode and possibly approaching resolution. So, that is why banks also set aside further buffers of Equity (retained earnings) to cater for the volatility in annual operating profit caused by the fact that there will be volatility in expected losses that might not be absorbed by operating profit. But because the capital ratio i.e. capital resources are still only expressed as percentage of modelled total credit, operational and market risk losses, the ratios are no longer comparable.

[16] The capital ratio is Capital divided by Risk Weighted Assets (RWAs). RWAs for each risk class is merely equal to total modelled losses x 12.5. (It is noted that for IRB the losses are unexpected loss (i.e. Total Losses less Expected Losses) that adds a further complexity to the comparability. This anomaly could be resolved by reporting all Credit Risk Weighted Assets as Total Losses (i.e. add-back the EL x 12.5) and for other asset classes, such as Specialised Lending to add on the expected loss x 12,5 to the current reported RWA.

7.2 Modelling Losses

It can be therefore deduced from the above that a critical component of this absolute ratio (loss coverage) is the accuracy or otherwise of the modelling of the total losses for each of the 3 risk categories (credit, operational and market risks). Reading the BCBS paper, one might be forgiven for thinking that it is the complex models developed by banks that determine these values.

However, that is not the case. Circa 80% - 95% of the total modelled loss is calculated by models that have been defined and decided by the BCBS (with some minor variations established by local regulators).

All that banks do is provide some inputs that BCBS uses to estimate the total losses that in turn define how much capital must hold. For example:

- Operational Risk total losses are determined by a multiplying average gross income of the three prior years by varying % to represent that the idea that a) income is a valid driver of losses and b) different business have proportionality of total losses relative to their income.[17]

- Credit Risk total losses. For banks that have models to determine the average expected losses though a downturn economic cycle (derived from modelling probability of default (PD), loss given default (LGD) and exposure at default (EAD) for each of the four credit risk [Commercial exposures, Mortgages, Qualifying Revolving Retail Exposures and Other]), it is the BCBS that scales these average losses up to total losses using its one-size-fits-all formulas. The fact is that those models, scaling approach, and the parameters were developed over 12 years ago and have not been revised since except for amendments for Securitisation and Wholesale exposures for banks with reported assets > EUR 70b. It is therefore inevitable that those models contain model risk that might represent material misstatements in losses and thus in the capital resources that banks are maintaining and thus in capital ratios. The same can be said for the approaches using the Standardised Approaches.

- Market Risk: These are hybrid models that banks develop to determine losses to a defined level of confidence that are then scaled up to higher levels of confidence for various reasons as determined by models prescribed by the BCBS and regulators. In additional there are standardised approaches set out by the BCBS

What is therefore important to remember is that if a bank sets out its measures of success based upon the modelling of its losses as per the models developed by the BCBS, there potential serious risk that there is model risk in these measures. The BCBS Credit Risk models for example do not contain any concentration risk. It is most probable the correlation of the obligor PD set out by the BCBS do not represent the risk profile of the bank. Furthermore, just as importantly, none of these ratios provide any indication of the relative resilience of banks to withstand volatility in the losses.

[17] Only the Advanced Measurement Approach (AMA) is a model of total losses developed by banks that some regulators accept. It represents though c only 10% of a commercial banks total modelled losses

7.3 Consolidation reporting

The facts are:

- Banking Groups have different operating structures.
- Some banks operate predominantly within one legal entity, domestically or cross border, such as permitted via the EU pass-porting arrangements.
- Others are structured as holding company with arm's length investments in subsidiaries.
- Certain regulators even require foreign branches to be treated as if they are locally incorporated ring-fenced entities.

In effect the world is now full local banks or at most as per the EU, regional banks.

Yet if one examines the AR&A and Pillar 3 disclosures, of all banking groups that have banking subsidiaries and or capitalised branches, you would have very little awareness of this fact.

Banking Groups rely upon providing overall ratios (measures) based upon the accounting conventions (that eliminate intra-group exposures) that suggest that capital held in investments in subsidiaries is fungible when it is not.

Liquidity ratios are reported a consolidated basis as if liquidity is fungible when in most cases it is not.

A consolidated leverage ratio is reported as if this means something when it is just a value and provides no value.

The presentation of most banking groups is on the basis as if there is only one consolidated managed balance sheet enabling consolidated loans to deposit ratios, impairment provision ratios etc to be presented.

All of these ratios mask the idiosyncratic reward and risk profile of each bank within the Group.

The consolidated ratios become in effect weighted averages from which it is almost impossible to derive information on the inherent risk sensitivity. [18]

[18] Also for noting is that banking groups produce consolidated market risk total losses on the basis that offsetting positions in different entities would not result in overall losses for the group. This approach is somewhat debatable on the basis that losses incurred in one subsidiary have to be covered by the capital resources held in that entity. The compensating profits would be made in a different entity. Thus this netting is very debate.

8. Guiding principles for establishing Measures of Success

They are appropriate to the reporting entity

The overarching guidance is that a measure of success must be applicable to the level at which it is reported. Thus attention must be paid when establishing and publishing measures of success, to be explicit with respect which level of consolidation within a group, legal entity, branch or business the measures apply. As explained above, many measures are inappropriate to some levels within the banks and yet others are only relevant for certain levels of reporting.

Banks that are organised as a holding company structure with separate subsidiaries and or 'capitalised – ring-fenced foreign branches' will need to think carefully about the level of disclosure of the measures of success of the consolidated group, the holding company, its principal subsidiaries and explanation and commentary as to why different ranges are appropriate.

It is the responsibility of the management body and senior management to work together to ensure the relevance or otherwise for each measure at each level within a banking group. [19] Simply put, if the Leverage Ratio means nothing on a consolidated basis, then by all means report it somewhere as required to do in an appendix to satisfy a regulatory requirement, but do not confuse the public by elevating the status of this ratio to the same level of the target range on the return equity.

The consequence of this advice is that in respect of many measures of success, it would be much better to produce a table setting out the values for each of the significant subsidiaries (and ring-fenced branches) on a sol basis. This would the allow comparability with locally incorporated banks and or subsidiaries and branches of other banking groups. It would have been of benefit to banks if the FSB had brought these principles to the fore.

Alternative examples of thinking about measures of success

The following sets out some ideas as to how to look at three areas within the RRF from a very different point of view:

- Capital Adequacy
- Risk Ratios
- Income Statement & Profit Attributable to Shareholders

This paper does not look at Liquidity ratios on the basis that broadly speaking the measures are comparable and will be become useful and important when the new LCR and NSFR are published. On the contrary, PHEL opinion with respect to the Leverage Ratio is that it serves no purpose at all for assessing the risk of an institution. It is risk-insensitive and thus does not quality for inclusion in a Reward for Risk framework.

[19] As an example: Certain holding companies do not provide core funding to any subsidiary, nor is a lender of last resort and does not carry out any banking business in its own right. Such Groups have a legal entity-based Group structure, with subsidiaries operating under their own boards of directors as separately capitalised, ring-fenced entities in most cases in the country or territory in which they are domiciled.

8.1 Capital Adequacy

In simple terms what a bank (primarily on a solo basis) needs do is to set out how the Capital resources segmented into:

- Adjusted Core Shareholder Funds (ACSF) [20] segmented into
  - Capital resources under the 100% control of the management body and
  - Other remaining shareholder funds (in effect a revised Core Tier 1 Equity less deductions)

- All other loss-absorbing liabilities (The difference between ACSF and Core Tier 1 Equity as defined by the regulator) plus Additional Tier 1 and Tier 2 combined cover the various tranches of types of losses that could occur.

Coverage of volatility of Expected losses

1. ACSF under 100% control of the bank less the difference between Expected Losses and Actual Losses.

   The amount shows the extent to which the surplus buffer can absorb any shortfall in the expected losses or vice-versa a run-rate when actual losses are currently in excess of the expected losses.

2. (Expected Loss – Actual Loses) / ACSF shows the coverage percentage.

There is a further requirement to identify this analysis between Credit, Operational and Market Risk. This would of course require banks to divulge their expected losses and actual losses in these two latter categories that few banks divulge at present.

Allocation of remaining ACSF - Adjusted Core Shareholder Funds

The would detail both the amount and % allocated to cover the following:

Bank specific losses

3. Other modelled losses and or impacts upon capital adequacy such as interest rate risk not included in the market risk charge set out above (this might in fact be reduction of the market risk on the basis that the position in the banking book might more than compensate for downside risk in the trading book),
4. Capital conservation equal to 31.25% (capital ratio of 2.5%)
5. Minimum ACSF equal to 56.25% (capital ratio of 4.5%)

Non-bank specific

- General systemic buffer
- Countercyclical capital buffer
- G-SIFI or O-SII surcharges.

[20] This is different to Core Tier 1 Equity, primarily due the exclusion of the deduction of expected losses because these should be added back onto unexpected losses to derive total modelled losses. Also the focus would be on only retained earnings thus obviating the need to call upon shareholders for additional capital.

Benefits of the above approach is that it becomes clear as how the Total Losses are covered by the component that is known to be volatile and the residual that is the buffer against more extreme volatility.

All other loss-absorbing liabilities

With respect to this value, it is simply worthy representing the amount as an additional % of the ACSF. None of these liabilities are allocated to any of the above-mentioned losses and buffers.

It might be simply worthwhile listing types of risk that are not covered in the above calculations.

For example one matter that is a mater for debate is structural foreign exchange risk (changes in modelled losses that may arise from movements in exchange rates not compensated for by offsetting gains in capital resources held in foreign currency). The problem is that it is simply not possible to quantify this value with any accuracy because the aggregation of the modelled credit losses by currency does not give the answer.

It is for the same reason that modelled credit losses by country within one legal entity does not provide that answer either – despite the BCBS believing that it does.

8.2 Risk ratios

The essence of managing risk is to manage volatility in probabilities. Management bodies and senior management therefore need to have a clear understanding of the extent that the modelled losses include models of

- Risk (defined as ex-ante estimation and having the capacity for ex-post validation) as distinct to
- Uncertainty (possibilities).

Thus ignoring for one moment the latter, it is the probabilities of three types of events (risks) that could cause an accounting loss occurring within the next year that occupy the minds of bankers. These are

1. The default of an obligor from the 'granting of credit' (Credit Risk) [21]
2. Failure of people, processes, systems and external events (Operational Risk) [22]
3. Adverse movements in financial indices (Market Risk) [23]

Thus it is therefore a pre-requisite that if uncertainties have been included in the modelled estimates because of regulatory dictate, then compensations are made for these facts [24] so that only true observable probabilities are included.

The primary measure that needs to be comprehended is Expected Loss / Total Loss [25] This in turn needs to be differentiated between Credit, Operational and Market Risk.

For Credit risk a high percentage is in fact an indicator of low risk. That is because there is less unexpected loss. Conversely a portfolio comprised of highly rated corporate customers is higher risk, because it has low expected loss and thus a much higher proportion of unexpected loss in the total loss. Simple measures such as EL/TL in aggregate can provide a measure of the risk.

There are also other measures such as reporting the implied conditional PD in the portfolio derived from scaling up of the average PDs.

Finally there is of course the need for each of the three risk categories to compare the bank's internal modelling of the total losses (Economic Capital) with those calculated by the BCBS models. Only through this approach can model risk be better understood

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[21] For ease of comprehension, includes Securitisation, Specialised Lending, Counterparty Credit Risk and Equities held as investments, and exposures in banking and trading books.

[22] Excludes losses that are accounted for in credit and market risks

[23] For ease of comprehension includes, Foreign Exchange, Interest Rates, Commodities, Listed and Unlisted Equities, Inflation, etc. both in banking book and trading book.

[24] Many risk managers consider that with respect to top 15 countries by size of GDP that account for 75% of world GDP that the is only a possibility of their default, and this cannot be quantified as one year probability. The new rules on minimum ratio for banks might have almost eliminated the possibility of default and been replaced with the probability of failure, or resolution, that might result in no losses to depositors. PHEL believes that the issue is not so much as low default portfolios per se, it is a function of the granularity that is key. There is nothing wrong in modelling a portfolio of 1000 corporate customers with ranges of exposures and drivers of risk. There is plenty of guidance on how to ensure conservatism and appropriate central tendency etc

[25] This is a measure not currently disclosed. Total Loss is equal RWAs / 12.5. Expected Loss would be the predicted loss for one year based upon current risk profile, but would be expanded to embrace all credit, market and operational risks (with resultant public disclosure of those expected losses)

8.3 Income Statement & Profit Attributable to Shareholders

The traditional approach to reporting a Profit & Loss statement is well known. The statements do though mask what the management body expected to happen compared to what actually transpired.

The affect is that when the profits attributable to ordinary shareholders are reported as

- Return on average ordinary shareholders' equity,
- Return on average invested capital.
- Economic Profit (Loss)
- Pre-tax return on average risk-weighted assets
- Post-tax return on average total assets
- Etc

The values also become inputs into a league table, yet these measures *provide* **NO** *reliable signals for the absolute and relative resilience* or in turn provide any *"sensitivity in funding cost changes to risk-taking.*

An alternative approach would be to produce a pro-forma profit and loss statement that was based upon what was expected to happen, i.e. to show P&L based upon what the credit, operational and market risk losses were expected to be. In that way the public would see what senior management expected (based upon the premise that these expected losses should have priced into the operating plan).

This would provide three expected measures

1. Expected Return on Equity, and
2. Expected % coverage of Total modelled losses
3. Expected % coverage of modelled Unexpected losses (TL-EL)

The third ratio is very useful. This in effect provides a measure of the riskiness of the profits. This enables a bank that is higher risk (i.e. low EL as % of TL) to be differentiated from a bank with lower risk (i.e. high EL as % of TL). The expectation is that each bank prices into its business the expected loss.

Then by showing same three measures it would be possible to see how the actual profit was different to the expected. One would expect to find that banks that report narrow differences between all three ratios are showing *reliable signals for the absolute and relative resilience* that should in turn provide better information on *"sensitivity in funding cost changes to risk-taking.*

9. Conclusions

The comprehension of the Reward for Risk framework is at the heart of an effective enterprise-wide governance process.

Therefore, there is nothing more important for a management body and senior management to focus on than comprehending the measure of true risk of the bank, to price that risk and to ensure that the operating profits are such that in normal times they deliver expected returns on equity within a range. Volatility is fact of life.

On January 23rd 2010 The Economist published an article entitled '*Base camp Basel – Regulators are trying to make banks better equipped against catastrophe*'. In response to that article, the author of this review wrote a letter to The Economist, which was published on February 4th 2010, setting out the following opinion.

Quote

Principles of banking

The latest attempts (as written in The Economist) to 'make banks better equipped against catastrophe' are no doubt well-intentioned ('Base camp Basel', January 23rd).

When I joined HSBC in 1975, I was given a copy of The Country Banker, written by George Rae in 1885, as mandatory reading to my introduction to banking. Rae wrote about the '*rights and duties of shareholders*' as well as commenting that '*every now and again I still come upon something new – some fresh "wrinkle" some side-light, which goes to enlarge or qualify, sometimes to upset, old and cherished impressions, and to divest experience of finality'*. Looking to the future, he warns '*be especially on your guard in sluggish times of business and low rates of interest for money*'.

No amount of regulation will ever replace common-sense principles for banking. These are namely: customer deposits first, prudent diversified lending second, allied with strong buffers of equity and ample tangible liquidity. All those principles and many more too, Rae explains clearly in his book as well as urging that, '*in banking being cautious is one of the cardinal values*'.

I commend bankers, regulators, politicians and shareholders to read Rae before setting off from base camp Basel, otherwise they will find that by the time they reach the summit, their view of banking although appearing to have changed, has in reality been much as it always was.

Unquote

The world of banking is very little different to what it has always been. What differentiates each generation of new bankers and regulators is their inability to comprehend the basics or reinvent the wheel in yet more inappropriate ways. The following appendices provides further assistance to the FSB, BCBS and bankers to comprehend the holistic modelling of a bank - in essence of a Reward for Risk Framework - in the hope that they might take on board the thought-provoking comments set out above and put in place an effective Risk Appetite Statement.

Appendix

A. The modelling of a bank RRF

The sequence of the classification of the reporting of the Measures of Success is not arbitrary. On the contrary, the sequence is proposed because it is consistent with the logical approach that many banks adopt when modelling a RRF in order to set the ranges for the primary Measures of Success. The following sets out the broad process that banks follow:

		Measure of Success (MoS) Range	**Primary Input Value that drive the MoS**
start	**Capital Adequacy**	Core Tier 1 Shareholder Funds	
			Modelled expected and total losses (Credit, Operational and Market Risk)
drives			
	Risk	Expected Loss / Total Loss	
			Expected Loss (EAD. PD, LGD) and the BCBS models of total loss
drives			
	Liquidity	Liquidity Coverage Ratio ('LCR') Net Stable Funding Ratio ('NSFR')	
			Core Funding
			Other liabilities
			High quality liquid assets
drives			
	Balance Sheet	Advances to Core Funding ratio	
			Customer Advances
		Leverage Ratio (*only because BCBS has said so*)	
			Total Assets
drives			
	Income Statement		
			Income
		Cost Efficiency ratio	
			Expenses
		Revenue mix ratios	
		Loan impairment charges to total operating income	
drives			
	Attributable to Shareholders		
		Return on average ordinary shareholders' equity	
			Dividend pay-out ratio
drives			
	Capital Adequacy		Core Tier 1 Shareholder Funds
End		Core Tier 1 Ratio (End of Year)	

B. Establishing, Reporting and Monitoring Measures of Success

Many banks do publish target ranges for some of their 'Measures of Success'.

The industry increasingly utilises a signalling process referred to as the RAG status (Red / Amber / Green) to indicate the status of the measure:

The following is a recommendation for the establishment of such a process and the reporting thereof:

B1 Target range for each measure

- Green - Acceptable – within approved range
- Amber - Outside the approved range – warning signals
- Red - Significantly outside the approved range

Values that fall within the Green range can be thought as the "steady state", "Business as Usual" (BaU), the "expected" and "expectations" of shareholders and the market. Ideally staying within the range should be achievable throughout an economic cycle (including growth and recession).

The traditional approach of banks is to only look at the "downside". However, arguably one of the failings of governance and management has been to ignore values that are in excess of a range on the "upside".

Thus there is in fact a need to specify both ranges either side of the acceptable:

- Low Red — Any value below the warning signals
- Low Amber — Range below Acceptable - warning signals
- Green — Within the range – Acceptable
- High Amber — Above the Acceptable range – warning signals
- High Red — Any value above the warning signals

B2 Reporting

- Comparison of Actual vs Target with an indicator status
  - Green - Acceptable – within approved range
  - Amber - Outside the approved range – warning signals - High or Low
  - Red - Significantly outside the approved range – High or Low
- For each status an explanation of the actions that management is taking to
  - Retain the status of Green
  - Change the status if Red or Amber
- The movement of the indicator status
  - Positive,
  - Broadly neutral or
  - Negative

- A forward looking projection of the status [26]
    - 6 months,
    - 1 year and
    - 18 months

B3 Stress Testing

- A definition of the stress tests that have been performed and a table setting out which measures of success would be impacted. [27]

- An analysis of the impact of stress-tests on each measure to indicate the RAG status in the event that scenario would occur.

- An explanation of the mitigating actions that management would take to minimise the impact.

B4 Recovery and Resolution Plans – Triggers

As noted earlier, many banks and banking groups have produced, and approved, and submitted Recovery Plans to supervisors.

However, there has been limited publication of values that would trigger a bank and/or banking group to be considered to be in "recovery mode".

It might therefore be useful for those measures of success that the bank deems are the critical MoS that have recovery plan triggers to be identified and published.

[26] Note this is very different to the FSB guidance that statements should be "forward-looking". It is the projections of the status, or the value that must be forward-looking, not the statement itself.
[27] Refer to page 32 of the EDTF report – Enhancing the Risk Disclosure of Banks

B5 Inputs to the Measures of Success

An internal 'Absolute value' is **<u>not</u>** a measure of success because it simply measures size, magnitude etc. Absolute values do not infer any comparability. Thus the "amount of Core Tier 1" is not a measure of success. Thus, from this we can deduce that 'Absolute values' are merely the inputs into the assessment of the MoS.

However, it is possible for absolute values to be combined to calculate a relative value that in turn serves as a further input into a measure of success.

Measures of success that are retained internally and not publically disclosed are more appropriate to be referred to as "barometers" in that they will most likely provide pointers with respect the direction in which the public measures of success are heading.

B6 Scope of measures

The FSB encourages the *establishment of quantitative limits for risk that are difficult to measure.*

In the opinion of PHEL, this is a contradiction in terms. By definition anything that is difficult to quantify should carry a health warning. For example quantifying "Reputational Risk" is notoriously difficult. Thus it makes little sense to quantify non-quantifiable statements.

The FSB proposals are that 'Risk limits' are "*Quantitative measures based on forward looking assumptions that allocate the firm's aggregate risk appetite statement (e.g. measure of loss or negative events) to business lines, legal entities, specific risk categories, concentrations, and as appropriate, other levels".*

The FSB proposals thus contain three dimensions:

- Allocation
- Time perspective
- Limits

PHEL view is as follows:

Allocation

One needs to be very careful when "allocating" i.e. apportioning consolidated measures. In reality this can only be considered inside a legal entity. It is simply not possible to "allocate" measures across legal entities risks.

The ring-fencing of 'subsidiary business model' or even the ring-fencing of branches outside the pass-porting EEA arrangements that is increasingly required by many regulators in many jurisdictions mandates the establishment of separate measures of success. The establishment of Recovery & Resolution Plans also leads to the need to treat each legal entity separately.

Time perspective

The FSB guidance is that statements and assumptions should be "*forward-looking*" and that should each statement (measure) should "*remain consistent with the firm's short- and long-term strategy, business and capital plans, risk capacity as well as compensation programs*;

The focus of the FSB paper is on "*material" risks* in *normal market conditions, stressed market*[28] *and macro-economic conditions.*

PHEL views is that the principles should be revised and that a "Measure of Success" should be defined as a statement that

- Has no time dimension,
- Is the expectation through time and
- Is the steady state.

It is analogous to saying where you want your health to be now and for always. The reality is of course is that it will be rare that actual values will all be within the set ranges.

The forward-looking component is the action that the bank is taking to change the underlying inputs drivers of the measures of success.

The reference to looking at risk in various conditions is also misleading in that the primary purpose of statements is set out the normal state, i.e. the range that is expected. The purpose of looking at what could happen in adverse conditions is to assess how the actual could change to assess the comparison against the normal state.

There is a need to thus comprehend and differentiate for benefit of management bodies, senior management, supervisors and the general public between the

1. Expected steady that is the primary purpose of the Measures of Success and reporting obligations

2. Stress testing – based upon
   a. Internal identification of risks that appear to be stable (such as fixed exchange and/or interest rates) that in fact could be subject to a break
   b. External identification of risks by supervisors

3. Scenarios that often deal with possibilities for which it can be difficult to assess probabilities.

[28] Extract from FSB - Thematic Review on Risk Governance - Peer Review Report 12 February 2013
2.3 Stress testing: The objective of stress tests and scenario analyses is to assess the unanticipated losses that a firm may incur under certain stress scenarios and the impact that may have on its business plans, risk management strategies or capital plans

Limits

With respect to Risk limits it states:

> *For the purposes of risk appetite, risk limits are the allocation of the firms' aggregate risk appetite statement to business line, legal entity levels, specific risk categories, concentrations, and as appropriate, other levels.*
>
> *In order to facilitate effective monitoring and reporting the risk limits should be specific, measurable, frequency-based, reportable, and based on forward looking assumptions.*
>
> *Having risk limits that are measurable can prevent a firm from unknowingly breaching risk limits as market conditions change and be an effective brake against excessive risk-taking.*
>
> *In setting risk limits, firms need to consider the interaction between risks within and across business lines, and their correlated or compounding impact on exposures and outcomes. As such, stress testing should occur at the firm-wide level as well as for legal entities and specific risks. The number of chosen limits should balance the trade-off between comprehensiveness and monitoring costs*".

PHEL view is that the purpose of a limit within a bank is to set an absolute or relative value or above or below which management are required to operate. When a value is above or below a limit, it would be deemed to be a breach.

Measures of Success should **not** be set in terms of limits. They are set in terms of a range, i.e. a boundary within which there is flexibility to operate.

If applicable, a limit is only appropriate to the drivers i.e. the inputs to the measures of success in order to place a boundary around the maximum range for the measure of success.

Limits on the drivers, 'inputs' and thus the reporting of breaches thereof can therefore be useful as warning signals to assist in Recovery & Resolution plans.

C Roles & Responsibilities as recommended by the FSB

C1 Analysis of the actions proposed by the FSB

The FSB states that *the Risk appetite Framework is the overall approach, including policies, processes, controls, and systems through which risk appetite is established, communicated, and monitored. It includes a risk appetite statement, risk limits, and an outline of the roles and responsibilities of those overseeing the implementation and monitoring of the RAF.*

It then sets out a detailed prescriptive list of the roles and responsibilities of the Board, CEO, CRO, CFO, tasks, a Business line leaders and legal entity-level management, and the Internal audit (or other independent assessor)

The concern of PHEL with the approach taken by the FSB, it is that FSB does not set out a process to establish the RAF and RAS,.

This is because the tasks are embedded in a somewhat haphazard and random sequence segmented into overly prescriptive actions.

If the 50 actions are regrouped into topics, it will noted that the following structure emerges

- Strategic thinking
- Establishing the Risk Appetite Statement
- Approval
- Implementation of the framework
- Accountability
- On-going monitoring
- Oversight
- Independent Reviews
- Interaction and Communication with outside interested parties

Refer to Appendix E for the list of actions grouped into this revised classification

At first glance the logic of the above process might seem sensible. However, the list of 50 of tasks reveals duplication of tasks, overlaps and confusion.

It is recommended that the FSB reviews the list of tasks and simplifies then as set out and proposed below.

C2 Comments and recommendations with respect to Roles the process

PHEL view is that it would be more useful to provide guidance on the generally accepted approach that banks adopt to segmenting the process, tasks and responsibilities assigned to the functions that support the management body, committees therefore, senior management and businesses that enable the completion of a Reward for Risk Framework (RRF). [29]

Legal, (including Compliance),

- Focus on global standards" and "values" [30]

Risk

Risk Governance

- Proposing the "risk culture" of the bank
- Working with the CRO and CFO, to propose via the CEO to the Board for its consideration the Measures of Success.
- Acting as the coordinator to facilitate the roll-out and dissemination of the measures and overall RRF to the functions, legal entities and businesses.
- Establishing processes and compiling the monthly reporting in conjunction with the various functions.

Stress testing utility

- Proposing scenarios, and one approved conducting stress tests on the Measures of Success

Strategy and Planning

- Formulating the strategic plans that take into account the Measures of Success
- Overseeing / coordinating the "operating plans" that are established to ensure that the target ranges for the measures of success are achieved

Finance (including possibly a Treasurer function),

- Responsible for capital management, ALM / liquidity management framework investor relations,

Human Resources,

- Compensation

Internal Audit

- Independent review of the processes and control [31]

Technology and Business Services

- Ensuring that the IT infrastructure is in place to enable the information to be produced

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[29] These are supported by various functional, cross- functional and sub-committees of the Board:

[30] Values can incorporate Corporate Sustainability values that are managed by a separate function or a sub-function of Human Resources for example.

[31] Refer to BCBS paper setting out the role of Internal Audit. Note: that banks have a separate independent model risk review function that is either reports to Internal Audit, or the CRO, or directly to the Risk / Audit Committee of the Board

Communications,

- Managing the process of interaction with the market place

Company Secretary

- Managing the flow of information, reports etc. between management and the Board and the various sub-committees of the Board,

Concluding comments

PHEL view is that it is unnecessary and inappropriate for the FSB to set out the actions that should be included in the 'job descriptions of designated executives, or Boards or functions.

PHEL view is that it is merely sufficient to draw bank's attention the broad structure set out above as an example to the segregation of roles and responsibilities.

There is more than sufficient guidance already in the public domain under the auspices of the Basel Committee for Banking Supervision (BCBS) that sets out the roles and responsibilities of the management body, and its various committees, the senior executive management, the businesses, functions and independent review functions including internal audit.

It must also not be forgotten that External Auditors also play a role in the process, and in many jurisdictions regulators themselves conduct reviews of the RRF.

In conclusion the FSB takes a narrow stance on the process of establishing an RRF.

D: The Reward for Risk Framework (RRF) – an example

In order to assist the FSB and the industry in comprehending how all these aspects of a RRF are interlinked, this paper will illustrate a pro-forma RRF by providing illustrations extracted from one G-SIFI AR&A - the HSBC Group 2012 Annual Report & Accounts and its Pillar 3 disclosures. [32] [33] [34] The objective is not to comment upon the appropriateness or otherwise of HSBC statements, but merely to show as an example, so that the FSB, regulators, boards, management and the general public might look for similar statements in their firm, and thus take into account the application of the principles set out by the FSB. (The words 'we' and 'our' have been replaced with HSBC for ease of comprehension). HSBC statements have been re-arranged into the recommended structure set out in section 2 and 3 of this paper.

Purpose:
On page 13 of the HSBC AR&A it states

> "*HSBC aim to be where the economic growth is, connecting customers to opportunities, enabling businesses to thrive and economies to prosper, and ultimately helping people to fulfil their hopes and realise their ambitions".*

Measures of Success
HSBC defines the over-arching measure of its success to be referred to as

> "*Being the world's leading international bank*"

On page 19 of the HSBC 2012 AR&A it states

> "*HSBC aim in executing its strategy is to be regarded as the world's leading international bank.*
>
> *HSBC have defined financial targets to achieve a*
> - *Return on equity of between 12% and 15% with*
> - *Core tier 1 ratio of between 9.5% and 10.5%, and*
> - *Cost efficiency ratio of between 48% and 52%.*
>
> *HSBC have also defined Key Performance Indicators to monitor the outcomes of actions across the three areas of capital deployment, cost efficiency and growth (see page 23 of AR&A).*

The above statements and other measures can therefore be set out in a holistic flow-chart of how HSBC Group establishes its over-arching Reward for Risk Framework and thus gives an illustration of the segmentation between publically disclosed measures of success and the inputs (some of which might indeed be used as 'barometers'' of success.

[32] Refer to http://www.hsbc.com/about-hsbc and http://www.hsbc.com/investor-relations for further information
[33] The reason for choice of HSBC is simply that the writer of this report – John C Perry spent his entire career with HSBC and thus is familiar with the structure and content of the Group's reporting.
[34] This report does not contain any statement about HSBC, its policies, standards, operating model that is not reported by HSBC in the public domain

	HSBC Group 2012	Measure of Success (MoS) Range shown in brackets	Primary Input Value that drive the MoS
start	**Capital Adequacy**	Core Tier 1 Ratio (9.5%-10.5%)	
			Tier 1 Capital
			Risk Weighted Assets
drives			
	Risk	Expected Loss	
			Expected Loss (EAD. PD, LGD)
drives			
	Liquidity [35]	Stressed Coverage Ratio (More than 100% out to three months)	
			Core Funding
			Other liabilities
			High quality liquid assets
Drives			
	Balance Sheet [36]	Advances to Customer Accounts ratio (below 90%)	
			Customer Advances
		Leverage Ratio (above 3%) [37]	
			Total Assets
drives			
	Income Statement		
			Income
		Cost Efficiency ratio (48% - 52%)	
			Expenses
		Loan impairment charges to total operating income (below 20%)	
drives			
	Attributable to Shareholders		
		Return of RWAs (1.8% - 2.6%)	
		Return on average ordinary shareholders' equity (12% - 15%)	
			Dividend pay-out ratio
drives			
	Capital Adequacy		Tier 1 Capital
End		Core Tier 1 Ratio (9.5%-10.5%)	

	HSBC Group 2012	
Others (Absolute values determined externally)		Customer Recommendation Index ('CRI') (75%
		Brand value (a top three position in the banking peer group)

The above is an abbreviated high-level summary of the process that only shows the primary measures of success that HSBC Group currently publishes. It does not purport to represent the process that HSBC might go through.

[35] In due course, one might expect HSBC to report ranges for Liquidity Coverage Ratio ('LCR') and Net Stable Funding Ratio ('NSFR') that are not currently required to be reported
[36] or Advances to Customer Core Funding ratio
[37] A requirement effective 2015

These are supplemented by:

Qualitative Measures of Success

Principles of Banking	Characteristic	Strategic and operational objectives
Capital Adequacy	Healthy capital position	Maintain capital in excess of regulatory and internal economic capital requirements
		Maintain a strong tier 1 ratio comprising a high proportion of core tier 1
		Use robust and appropriate scenario stress testing to assess the potential impact on the Group's capital adequacy and strategic plans
Risk	Risk diversification	
Liquidity	Conservative liquidity management	
Balance Sheet Management	Strong balance sheet	Maintain a well-diversified funding structure with a particular focus on advances to core funding ratios
		Off-balance sheet vehicles should not be material in size relative to the total balance sheet
	Robust Group structure of separate legal entities	
Income Statement	The global businesses should produce sustainable long-term earnings growth	Manage impairments and expected losses within the Group's tolerance
Attributable to Shareholders	Risk must be commensurate with sustainable returns	Generate sustainable economic profit commensurate with the risks taken
		Harness benefits from business diversification to generate non-volatile and sustainable earnings
Others (External)	Strong brand	

Notes on the above

The 2012 HSBC AR&A includes financial highlights on pages 2 and 3.

- It shows 33 values each compared with the previous 2 years.
- In addition there are 3 other measures (total shareholder return) compared over 1, 3 and 5 years.

However of those 33 values only four ratios are defined as "Key Performance Indicators" (KPIs) as set out on pages 23 and 24 of which only three have a published target range as set out on page 19.

There are another five KPIs not shown in the financial highlights. However, on page 127 of the AR&A HSBC publishes the target range and actual relative values for one other financial highlight and three others that included in its "risk appetite metric".

This analysis reveals that HSBC currently publishes ten primary measures of the "long-term success of the bank" (MoS) including "its delivery of sustainable value to its shareholders".

Strategy [38]

"*HSBC strategic direction is aligned to two long-term trends*

- *International trade and capital flows*
- *Economic development and wealth creation*

Based on these long-term trends and our competitive position, HSBC strategy has two parts:

1. *International network connecting faster-growing and developed markets*
2. *Develop Wealth Management services and invest in retail banking only in marketswhere we can achieve profitable scale*

To implement this strategy HSBC have set priorities across three areas to simplify, restructure and grow the Group,"

What is the strategic relevance?

1. Connectivity and 2. Economic development

Are the current returns attractive?

3. Profitability, 4. Efficiency, and 5. Liquidity [39]

Does HSBC adhere to global risk standards?

6. Financial crime risk

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[38] Refer to pages 13 and 17 of the HSBC 2012 AR&A for full text

[39] When implementing its strategy, HSBC uses six filters in its decision-making process. It will be noted that these filters include three measures of success,

Inputs to Measures of Success

Some of these inputs might also be reported as internal barometers that indicate the direction in which the public measure of success are heading. The following are the primary absolute values in each of the 6 classifications that are usually found in an Annual Reports & accounts: [40] Those not in italics were reported by HSBC in its AR&A and or Pillar 3 disclosures.

Regulatory Capital

- Core Tier 1 Capital
- Tier 1 Capital
- Tier 2
- Total Regulatory Capital

Risk

- Risk-Weighted Assets
- Credit Risk EaD
- Credit Risk RWA density
- *Economic Capital* [41]

Balance Sheet

- *Total Exposures* [42]
- Total Assets
- Loans and Advances to Customers
- *High quality liquid assets* [43]
- *Values related to calculation of stable funding* [44]
- Total liabilities
- Core Funding (total of core customer deposits and term funding with a remaining term to maturity in excess of one year).
- Customer accounts
- *Expected net cash outflows over the following 30 days* [45]
- Total Equity

Income statement

- Total operating income
- Net operating income before loan impairment charges and other credit risk provisions
- Net operating income after loan impairment and other credit risk charges
- Total operating expenses
- Share of profit in associates and joint ventures
- Profit before taxation
- Underlying profit before taxation

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[40] All the values except those noted were found in the HSBC Consolidated Group 2012 AR&A. It is recognised that other banks will have a different set of absolute values
[41] Some banks publish this value (HSBC does not)
[42] Not currently publically disclosed – but needed to calculate Leverage Ratio (LR)
[43] Not currently publically disclosed - but needed to calculate Liquidity Coverage Ratio (LCR)
[44] Not currently publically disclosed – but needed to calculate Net stable funding ratio ('NSFR').
[45] Not currently publically disclosed

- Profit attributable to the ordinary shareholders of the parent company

Shareholder information – attributable to Shareholders
- Ordinary Shareholders' Equity
- Invested Capital
- Number of ordinary shares in issue
- Market capitalisation
- Share price
- Dividends
- Benchmark cost of capital [46]

Values;

> "*Embedding global standards across HSBC in a consistent manner is a top priority and will shape the way HSBC do business.*
>
> *The role of HSBC Values in daily operating practice is fundamental to HSBC culture in the context of the financial services sector and the wider economy. This is particularly so in the light of developments and changes in regulatory policy, investor confidence and society's view of the role of banks. HSBC expect its executives and employees to act with courageous integrity in the execution of their duties by being:*
> - *dependable and doing the right thing;*
> - *open to different ideas and cultures; and*
> - *connected with our customers, communities, regulators and each other.*
>
> *HSBC continue to enhance its values-led culture by embedding HSBC Values into how HSBC conduct its business and in the selection, assessment, recognition and training provided to staff.*

Risk Culture & Emerging Risks

The FSB emphasises the need for a bank to set out its risk culture and approach to emerging risks. The FSB opine that a "strong risk culture" is seen as "critical" to "sound" risk management and provides an environment that is conducive to ensuring that "emerging" risks that will have material impact on a firm, and any risk-taking activities "beyond" the firm's risk appetite, are recognised, escalated, and addressed in a timely manner.

Risk Culture

An example of the qualitative statements is contained in HSBC AR&A on page 124

> *"All staff are required to identify, assess and manage risk within the scope of their assigned responsibilities. HSBC global standards set the tone from the top and are central to its approach to balancing risk and reward. Personal accountability is reinforced by HSBC Values, with staff expected to act with courageous integrity in conducting their duties and being:*
> - *dependable, doing the right thing;*
> - *open to different ideas and culture; and*
> - *connected to our customers, regulators and each other.*

[46] Utilised to calculate Economic Profit. – Refer to page 51 of the HSBC 2012 AR&A for detailed explanation of the cost of capital and calculation of the Economic Profit (Loss)

Staff are supported by a disclosure line which enables them to raise concerns in a confidential manner. HSBC also have in place a suite of mandatory training to ensure a clear and consistent attitude is communicated to staff; HSBC mandatory training not only focuses on the technical aspects of risk but also on HSBC attitude towards risk and the behaviours expected by our policies.

HSBC risk culture is reinforced by our approach to remuneration, which is discussed in the Report of the Remuneration Committee on page 347. Individual awards are based on the achievement of both financial and non-financial (relating to our values) objectives which are aligned to HSBC global strategy.

Top and Emerging risks

HSBC summarised the Top and Emerging risk on page 123 and gives details of each between 130 and 136:

"HSBC top and emerging risks

- *Macroeconomic and geopolitical risk.*
- *Macro-prudential, regulatory and legal risk to our business model.*
- *Risks related to our business operations, governance and internal control systems".*

E Roles and Responsibilities – Rearranged for ease of comprehension

The FSB states that *the Risk appetite Framework is the overall approach, including policies, processes, controls, and systems through which risk appetite is established, communicated, and monitored. It includes a risk appetite statement, risk limits, and an outline of the roles and responsibilities of those overseeing the implementation and monitoring of the RAF.*

It then sets out a detailed prescriptive list of 50 roles and responsibilities of the Board (12), CEO (10), CRO (9), CFO (5) Business line leaders and legal entity-level management (7), and the Internal audit (or other independent assessor) (7) .

For example for the establishment of the RAS it says

- *CEO should* ***establish*** *a prudent* [47] *risk appetite (RA) for the firm*
- *CFO should* ***develop*** *a prudent risk appetite (RA) for the firm*
- *CRO should* ***develop*** *a prudent risk appetite (RA) for the firm*

The requirement is that the RA *established by the CEO and developed by the CFO should be consistent with the firm's short- and long-term strategy, business and capital plans, risk capacity, as well as compensation programs.*

There is no apparent requirement for the RA to be developed by the CRO. Yet it is the CFO responsibility to "*incorporate risk appetite into the firm's compensation and decision-making processes (in collaboration with the CEO and CRO), including business planning, new products, mergers and acquisitions, and risk assessment and capital management processes".* Only the CEO and CRO have a duty to ensure that the RA "*aligns with supervisory expectations*"

With respect to the task of independent review of the RAF / RAS it states that it is the

- CRO responsibility to "*independently monitor business line and legal entity risk limits and the firm's aggregate risk profile to ensure they remain consistent with the firm's risk appetite*; and
- the requirement of the Business line leaders and legal entity-level management is to "*cooperate with the CRO and risk management function and not interfere with its independent duties*".
- The role of Internal Audit is described as allowing it to "*effectively and credibly debate and challenge management recommendations and decisions*";

Comment son the FSB proposals

In the opinion of PHEL the above examples illustrate some muddled thinking with regard to separation of and an overly prescriptive approach to attempting to define a process.

The problem with the approach taken by the FSB, it is that the recommended process to establish the RAF and RAS is in fact not set out, because the tasks are embedded in a somewhat haphazard and random sequence within the roles.

[47] Prudent : As distinct from the opposite RA that would be careless, imprudent, incautious, unwise.

In attempt to make sense of the 50 tasks, PHEL has re-arranged the tasks under various headings: Strategic thinking, Establishing the RAS, Approval, Accountability, Implementation, On-going monitoring, Oversight, Independent review and Interaction and Communication with outside interested parties.

At first glance the logic of the process might seem sensible. However, when the list of 50 of tasks reveals duplication of tasks, overlaps and confusion as set out below

Strategic thinking

Board

- *include an assessment of risk appetite in their strategic discussions including decisions regarding mergers, acquisitions, and growth in business lines or products;*

Establishing the RAS

CEO

- *establish a prudent risk appetite for the firm (in collaboration with the CRO and CFO) which is consistent with the firm's short- and long-term strategy, business and capital plans, risk capacity, as well as compensation programs,*
    - *and aligns with supervisory expectations*

CFO

- *develop a prudent risk appetite for the firm (in collaboration with the CEO and CRO) which is consistent with the firm's short- and long-term strategy, business and capital plans, risk capacity, as well as compensation programs*;

- incorporate risk appetite into the firm's compensation and decision-making processes (in collaboration with the CEO and CRO), including business planning, new products, mergers and acquisitions, and risk assessment and capital management processes;

CRO

- *develop a prudent risk appetite for the firm (in collaboration with the CEO and CFO) that meets the needs of the firm*
    - *and aligns with supervisory expectations*;

Approval

CRO

- *obtain the board's approval of the developed risk appetite and regularly report to the board on the firm's risk profile relative to risk appetite;*

Board

- *approve the firm's RAF, developed in collaboration with the CEO, CRO and CFO, and ensure it remains consistent with the firm's short- and long-term strategy, business and capital plans, risk capacity as well as compensation programs*

Implementation of the framework

CEO

- *Set the proper tone and example by empowering and supporting the CRO and CFO in their responsibilities, and effectively incorporating risk appetite into their decision-making processes;*
- *ensure that the firm-wide risk appetite statement is implemented by senior management through consistent risk appetite statements or specific risk limits for business lines and legal entities;*
- *ensure, in conjunction with the CRO and CFO, that the risk appetite is appropriately translated into risk limits for business lines and legal entities and that business lines and legal entities incorporate risk appetite into their strategic and financial planning, decision-making processes and compensation decisions;*
    - *CRO establish and approve, in collaboration with the CEO and CFO, appropriate risk limits for business lines and legal entities that are prudent and consistent with the firm's risk appetite statement;*
- *ensure business lines and legal entities have appropriate processes in place to effectively identify, measure, monitor and report on the risk profile relative to established risk limits on a day to day basis;*
- *dedicate sufficient resources and expertise to risk management, internal audit and IT infrastructure to help provide effective oversight of adherence to the RAF;*

Business line leaders and legal entity-level management

- *ensure alignment between the approved risk appetite and planning, compensation, and decision-making processes of the business unit and legal entity;*[48]
- *cascade the risk appetite statement and risk limits into their activities so as to embed prudent risk taking into the firm's risk culture and day to day management of risk;*

Accountability

Board

- *hold the CEO and other senior management accountable for the integrity of the RAF, including the timely identification, management and escalation of breaches in risk limits and of material risk exposures;*

CEO, CRO and CFO

- *be accountable, together with business lines for the integrity of the RAF, including the timely identification and escalation of breaches in risk limits and of material risk exposures*;

[48] This includes, but is not limited to: strategic and annual business plans and decisions regarding new markets and new and modified products and services.

On-going monitoring

CRO

- *ensure the integrity of risk measurement techniques and MIS that are used to monitor the firm's risk profile relative to its risk appetite;*
- *establish a process for reporting on risk and on alignment (or otherwise) of risk appetite and risk profile with the firm's risk culture;*
- *actively monitor the firm's risk profile relative to its risk appetite, strategy, business and capital plans, risk capacity, as well as compensation programs;*

CFO

- *work effectively with the CRO and CEO to establish, monitor and report on adherence to applicable risk limits;*

Business line leaders and legal entity-level management

- *establish and actively monitor adherence to approved risk limits;*
- *implement controls and processes to be able to effectively identify, monitor and report against allocated risk limits*;

CEO, CRO, CFO [49] and Business line leaders and legal entity-level management

- *act in a timely manner to ensure effective management, and where necessary mitigation, of material risk exposures, in particular those that are close to or exceed the approved risk appetite and/or risk limits*

Business line leaders and legal entity-level management

- *escalate immediately breaches in risk limits and material risk exposures to the CRO and senior management in a timely manner.*

CRO and CFO [50]

- *escalate immediately to the board and CEO any material risk limit breach that could seriously put in danger the financial condition of the firm.*

CEO

- *establish a policy for notifying the supervisor of serious breaches of risk limits and unexpected material risk exposures.*

Board

- *Regularly review and monitor actual versus approved risk limits (e.g. by business line, legal entity, product, risk category), including qualitative measures of conduct risk;*

[49] Risk limits applicable to the CFO function
[50] The CFO is only required (if appropriate) to notify breaches in risk limits and material risk exposures

Oversight

Board

- *satisfy itself that there are mechanisms in place to ensure senior management can act in a timely manner to effectively manage, and where necessary mitigate, material adverse risk exposures, in particular those that are close to or exceed the approved risk appetite statement or risk limits;*
- *question senior management regarding activities outside the board-approved risk appetite statement, if any;*
- *discuss and determine actions to be taken, if any, regarding "breaches" in risk limits;*
- *ensure that annual business plans are in line with the approved risk appetite and incentives/disincentives are included in the compensation programmes to facilitate adherence to risk appetite;*

Independent Reviews

CRO

- *independently monitor business line and legal entity risk limits and the firm's aggregate risk profile to ensure they remain consistent with the firm's risk appetite;*

Business line leaders and legal entity-level management

- *cooperate with the CRO and risk management function and not interfere with its independent duties;*

Internal audit (or other independent assessor)

- *routinely include assessments of the RAF on a firm-wide basis as well as on an individual business line and legal entity basis;*
- *identify whether breaches in risk limits are being appropriately identified, escalated and reported, and report on the implementation of the RAF to the board and senior management as appropriate;*
- *independently assess at least annually the design and effectiveness of the RAF and its alignment with supervisory expectations;*
- *assess the effectiveness of the implementation of the RAF, including linkage to strategic and business planning, compensation, and decision-making processes;*
- *validate the design and effectiveness of risk measurement techniques and MIS used to monitor the firm's risk profile in relation to its risk appetite;*
- *report any deficiencies in the RAF and on alignment (or otherwise) of risk appetite and risk profile with risk culture to the board and senior management in a timely manner; and*
- *evaluate the need to supplement its own independent assessment with expertise from third parties to provide a comprehensive independent view of the effectiveness of the RAF.*

Board

- *obtain an independent assessment (through internal assessors, third parties or both) of the design and effectiveness of the RAF and its alignment with supervisory expectations;*
- *ensure adequate resources and expertise are dedicated to risk management as well as internal audit in order to provide independent assurances to the board and senior management that they are operating within the approved RAF, including the use of third parties to supplement existing resources where appropriate; and*
- *ensure risk management is supported by adequate and robust IT and MIS to enable identification, measurement, assessment and reporting of risk in a timely and accurate manner.*

Interaction and Communication with outside interested parties

Board

- *discuss with supervisors decisions regarding the establishment and ongoing monitoring of risk appetite as well as any material changes in the elements of the RAF, current risk appetite levels, or regulatory expectations regarding risk appetite;*

CEO

- *provide leadership in communicating risk appetite to internal and external stakeholders so as to help embed prudent*

END OF REVIEW