



A Newsletter from Aptivaa  
2011 Volume 2



# Contingent Capital

Calibrating the IRB PD Model

Liquidity Risk Requirements

Shadow Rating Model

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# The Capital Idea - Three Lefts make a Right

Would the Barings debacle have been averted if capital had not been so scarce? The overwhelming consensus is in the affirmative. It is no surprise that yet again, capital is becoming the focus of banking regulations. While it is clichéd to state that risk management is not about capital alone, most of the recent regulatory guidelines and subsequent debates globally have, as its leitmotif, the form, quality and amount of capital.

Common Equity Tier I (CET1) has now become the primary disciplining tool and a great source of comfort for regulators. And banks have started calibrating their capital attribution models around CET1, Additional Tier I and Tier II capital. They are also facing challenges to deal with different thresholds prescribed by Basel III and home country Regulators. For instance, the Swiss regulator has mandated a much higher regulatory capital to risk weighted assets of 19%. The FSA too has been considering imposing higher capital requirements than the 10.5% mandated by Basel III.



Getting capital is tough but generating returns on it is tougher. Return on Equity (ROE) is expected to permanently diminish because of higher capital requirements. This is further compounded by legislations attempting to ring fence banking such as the Volker rule of Dodd Frank Act and the Vickers ringfencing in the UK. Banks' need for attractive returns would mean the additional costs would be passed onto the customer.

So what is the future of both equity and non equity capital? We have put together some thoughts on various aspects impacting capital in this issue of Exponent. Our cover story details out the intricacies of contingent capital, more frequently referred to as CoCos.

The article also explores the trade-off between Risk and Return expectations from shareholders in the emergence of Basel III regulatory requirements. Since a lot of our Emerging Market clients have been embarking on IRB compliance, our first article focuses on issues in Probability of default model calibration and another suggesting a methodology for building a model for rating banks. Finally, we have an article focusing on the requirements emerging for tackling Liquidity Risks.

We are once again pleased to issue this edition of Exponent. As always, we look forward to your feedback and suggestions.

A handwritten signature in black ink, appearing to read 'Alok Tiwari'.

Alok Tiwari - CEO

04 Calibrating the  
IRB PD Model

09 Liquidity Risk  
Requirements

12 Contingent  
Capital

18 Shadow  
Rating Model

# Calibrating the IRB PD Model

Importance of Model Calibration to predict accurate PD's for portfolios

**Models for the** prediction of default risk are as good as the accuracy of the Probability of Default (defined as the likelihood that a customer will not repay his/her obligation) being estimated by them. A Probability of Default (PD) Model that wrongly predicts the default likelihood can expose the Bank to serious Business Risks, as is evident from the recent financial crisis. Hence, it is vital that appropriate adjustments are made to ensure that the Model is properly 'Calibrated'.

Model Calibration exercise, for the purpose of this article, is defined as the part of the model development lifecycle wherein the output from the Model is mapped / transformed to a suitable PD estimate that closely represents the customer profile of the Bank in terms of its inherent quality.

No matter how robust, stable and efficient an Internal Ratings Based (IRB) PD Model is, it always requires an appropriate calibration to ensure that accurate PDs are being estimated. Calibration exercise not only allows correcting for sampling biases but also enables the incorporation of an appropriate rating philosophy within the IRB PD Model output.

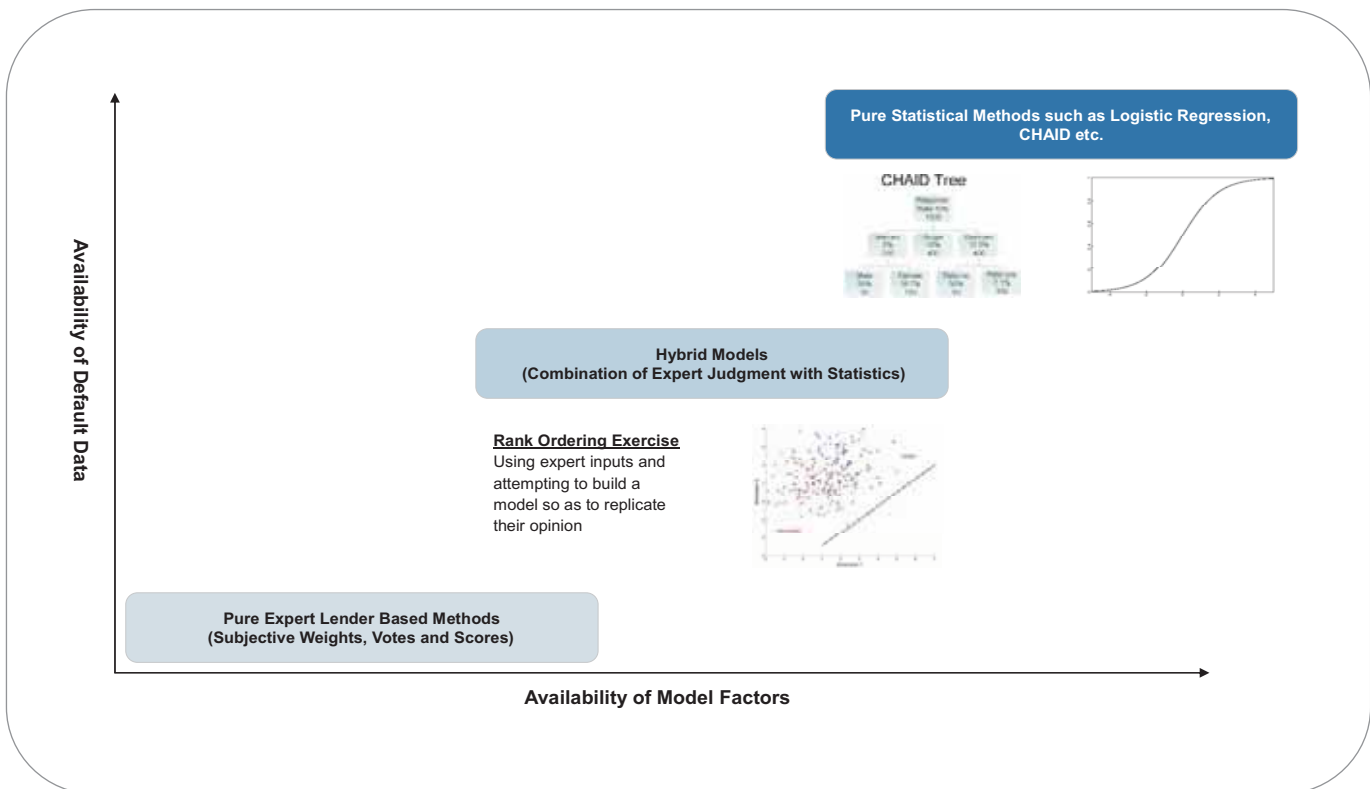
Moody's	Fitch	S&P
Aaa	AAA	AAA
Aa1	AA+	AA+
Aa2	BBB	BBB
A1	A+	A
Aa3	AAA	AAA
A1	A	A
Aa4	AAA	AAA
Aa5	AAA	AAA
Aa6	AAA	AAA
Ca	CCC	CCC
Aa7	BBB	BBB
Ba1	BBB+	BBB+
Aa2	A+	A
Aa3	BBB	BB+
Ba1	BBB	BBB
Aa4	AAA	AAA
A1	A+	A
Aa5	AAA	AAA
A2	A	A
Ba2	BBB	BBB
Aa1	BB+	BB+
A1	A+	A+
Aa2	AA	AA
Aa3	AA	AA
Aa4	AAA	AAA
Aa5	AAA	AAA

The methodology used for calibrating a PD Model is primarily dependent upon the type of model, availability of default data and finally the rating philosophy that the bank has chosen to follow. The rest of this article discusses how each of these aspects affects the calibration of the IRB PD Model followed by a typical process flow for the IRB PD Model Calibration exercise.

*Calibration exercise not only allows correcting for sampling biases but also enables the incorporation of an appropriate rating philosophy within the IRB PD Model output.*

### Type of model

The type of an IRB PD Model is determined by the methodology used for Model development. The methodology used is in turn driven by the availability of data (factor data and default data). The chart below shows the spectrum of possible methodologies (along with a few indicative Modelling techniques) for the development of a PD Model.



Depending upon the type of PD Model, the final output can either be a score, a PD value (computed from Model Log-Odds which is defined using a ratio between the Probability of Default and the Probability of Non-Default) or a Rating Grade (usually derived using a mapping from PD or Scores). The calibration process (mapping) that is typically followed in each of these cases is as outlined below:

- **Scores:** A transformation function (such as an exponential distribution or the generalized logistic function) can be used to map these scores to suitable PD values.
- **PD:** Statistically developed models gives PD as an output(or Log-Odds). In such cases a simple linear transformation (scaling) can be done to the model output PDs (or Log-Odds) so that the final PD more accurately represents the quality of the portfolio.
- **Rating Grades:** The underlying criteria (scores or PD ranges) that the Model uses for the generation of Rating Grades can be used to perform the calibration using one of the aforementioned methods.

*In cases where enough default information is available so as to be considered statistically significant, the calibration exercise becomes limited to aligning the Model output to the overall observed default rate*

#### Availability of default data

The availability of default information for a portfolio not only drives the model development methodology (as discussed earlier) but also has a significant impact on the methodology that is to be used for Model Calibration.

In cases where enough default information is available so as to be considered statistically significant, the calibration exercise becomes limited to aligning the Model output to the overall observed default rate (called the Target Central Tendency (TCT)).

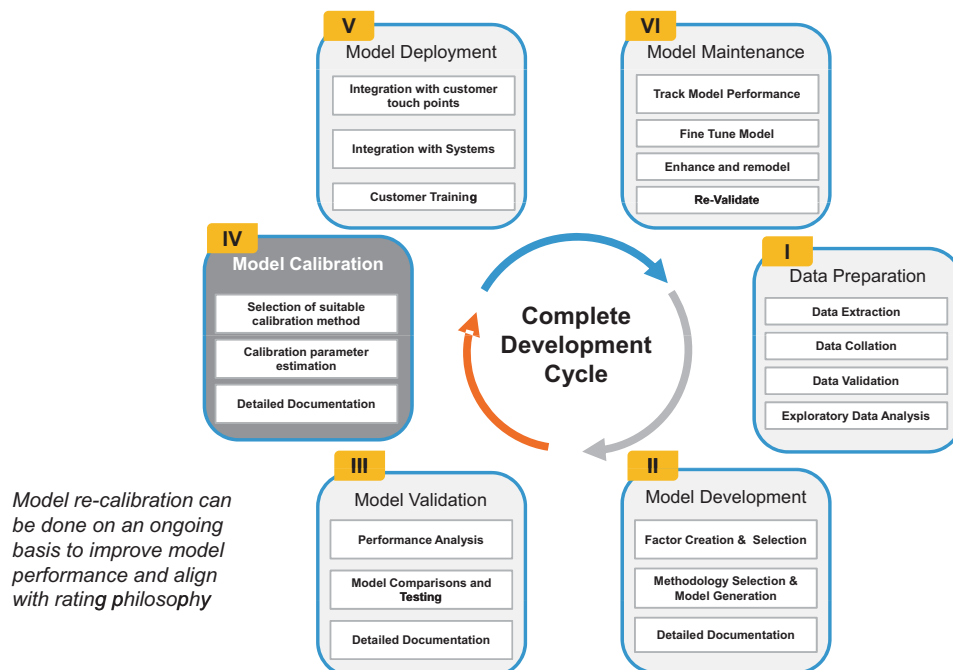
In cases where enough default information is not available, an appropriate measure of the TCT needs to be derived using methodologies such as taking inputs from experts or external benchmarking. Other methodologies such as the Pluto/Tasche method can also be used for calibration of Low Default Portfolios (LDPs).

#### Rating philosophy

Rating philosophy is one of the most important aspects that are to be considered during Model Calibration. Regulatory requirement states that the bank should have a clear rating philosophy that may include:

- **Point in Time (PiT) PDs:** These are model outputs that are aligned to the observed default rates and relate to the default behaviour of the obligors over the short term.
- **Through the Cycle (TTC) PDs:** These are long-run estimates of Probabilities of Default which take into consideration the effect of economic cycles over the long term. Such incorporation of economic cycle renders these PDs relatively stable over time.
- **Hybrid PDs:** Model outputs that lie in between the PiT and TTC continuum.

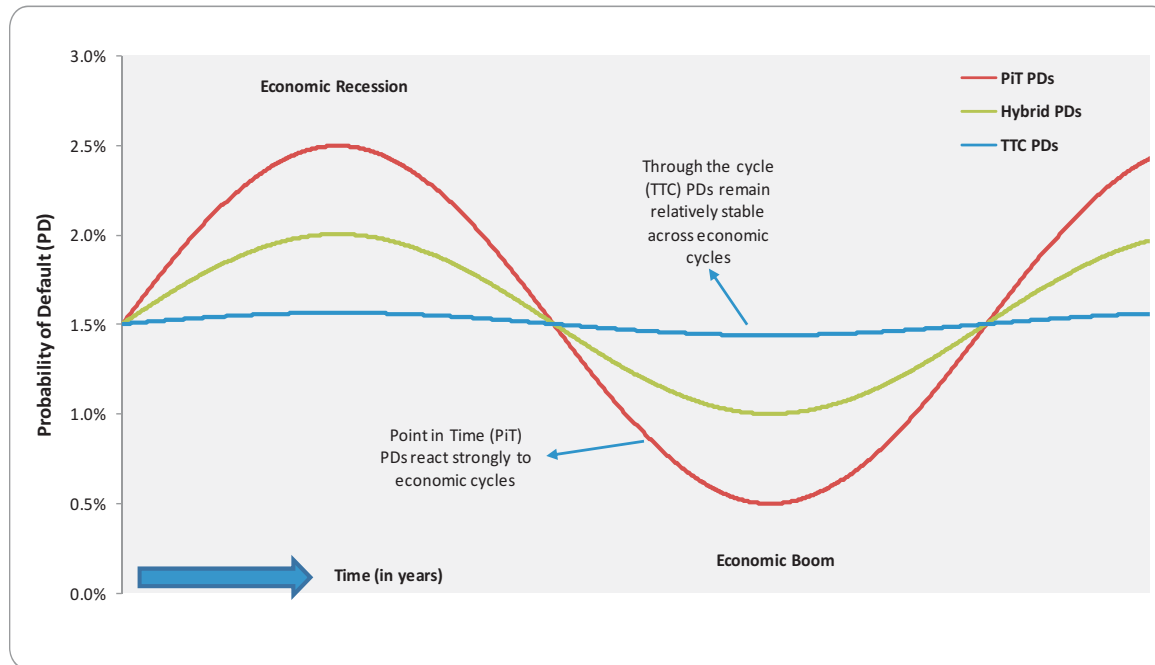
#### Stages within the IRB Model Lifecycle



Model Calibration within the overall PD model lifecycle

As per the definitions given above, the rating philosophy helps a bank to decide whether it wants the internal rating systems to grade borrowers according to the current condition (point-in-time), or the expected condition over a cycle (through-the-cycle).

This is an important decision for the banks because the rating philosophy influences many aspects such as rating volatility, the internal rating model power, pricing, early warning of default, calculations of expected and unexpected losses, regulatory and internal capital requirements, validation, backtesting and stress testing and finally the competitive position of a bank.



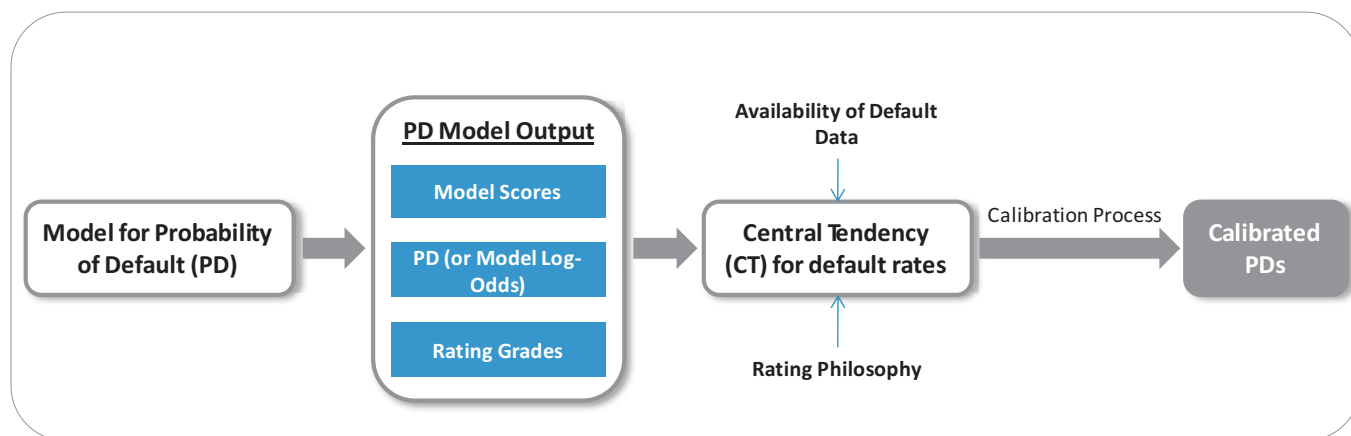
Most of the Models in pragmatic situations produce a Hybrid PD which can then be calibrated to either a PiT or a TTC PD depending upon the Rating Philosophy to be followed.

Some of the aspects of the three determinants of PD model calibration discussed within this article are interlinked to each other (e.g. the determination of model type is driven by the availability of default data). Nevertheless, these three dimensions constitute the primary spectrum of considerations when determining a suitable calibration methodology for the IRB PD model. Banks should analyze these three facets in detail before choosing an appropriate calibration for its models.

Given the aforementioned three drivers of IRB PD Model Calibration, the chart overleaf shows a simplified version of the steps that are undertaken during the Model Calibration exercise

*The rating philosophy influences many aspects such as rating volatility, the internal rating model power, pricing, early warning of default, calculations of expected and unexpected losses, regulatory and internal capital requirements, validation, backtesting and stress testing and finally the competitive position of a bank.*





Several methods, such as an optimization based determination of Calibration Parameters, can be used to carry out the 'Calibration Process' as shown above.

The estimation of the relevant risk parameter (Probability of Default in case of an IRB PD model) is the ultimate objective of any risk model. Given this, it is very important that the banks should have clarity and a sound understanding of the underlying methodology that has been used for calibrating its PD models. If, on the one hand, under-prediction of PD can have serious consequences in terms of exposing the Bank to high risk customers, over-prediction of PD can lead to the loss of some worthy customers to the Bank.

### **Concluding Remarks**

With increasing focus on internal assessment of risk, both due to regulatory pressure and a requirement for more effective risk management, internal rating models have gained a lot of importance within the last couple of years. Almost all the major Banks across the globe are in different stages of development, implementation and use of models for risk assessment. PD calibration, across the three dimensions mentioned within this article, ensure that these models meet the Bank's objective comprehensively in terms of accurately reflecting the underlying riskiness of its portfolio. Detailed assessment of the modeling objective across these dimensions will help the Bank in fully understanding the underlying issues that they face with regards to PD estimation so as to chart a suitable strategy to handle the same.

### **Further readings on calibration**

**Designing and Implementing a Basel II Compliant PIT-TTC Ratings Framework; Scott D. Aguais, Lawrence R. Forest Jr, Martin King, Marie Claire Lennon, Brola Lordkipanidze; Dated 27th January 2008**  
Paper written on the Barclays Capital methodology for PD calibration discusses a framework for PIT and TTC PD estimation and an implementation approach, which supports ongoing updating, for the same.

**Through-the-Cycle EDFTM Credit Measures; David T. Hamilton, Zhao Sun, Min Ding; Dated 15th August 2011**  
Paper written by Moody's Analytics discusses in detail a methodology for the estimation of TTC EDFs (Expected Default Frequencies) along with examples and applications

**Thinking positively; Katja Pluto and Dirk Tasche; Dated July 2005**  
A widely used paper on the calibration of PD outputs in case of low or zero default scenarios, this document proposes a statistical method to assign non-zero probabilities of defaults given a desired degree of conservatism



# Liquidity Risk Requirements

A serious conversation on recent regulatory developments and hurdles faced by banks

**The legacy from** the 2008 crisis is that banks are indeed more focused on risk management, but due to the deluge in regulations and the challenges to their business models, banks are unable to complete all the necessary changes simultaneously. A phased implementation approach is the norm, which means implementation of the more advanced or challenging elements in bank risk management strategies are being delayed. Liquidity Risk is one of the areas most at risk of delay, due to the complexities involved in data capture, despite the overwhelming liquidity risk in the market for many banks as they adjust to new modalities. This article identifies and provides a short commentary around some of these more sophisticated areas.

## Elements of Liquidity Risk under Basel

Basel provides for over 600 new policies on Liquidity Risk in the various papers. For clients, we summarise these policies as below, cross referenced to the United Kingdom FSA rules.

Basel Principle	FSA-BIPRU	
13 Disclosure of liquidity position and framework	12.2.13	Disclosure
12 Liquidity buffer – taking into account stress scenarios	12.2.8	Business Model
11 Contingency Funding Plan and outcome of stress tests	12.4.11	
10 Conduct stress test to ensure consistency with tolerance	12.4.12	
9 Management of collateral	12.3.22	
8 Management of intraday liquidity positions	12.3.17	
7 Establish a diversified funding strategy	12.3.31	IT
6 Management liquidity risk – legal entities, business lines, currencies	12.3.26	
5 Identify, measure, monitor & control cash flows	12.3.21	Governance Liquidity Risk Management
4 Align risk taking with liquidity costs	12.3.15	
3 Develop strategy, policies and practices	12.3.3	
2 Articulate liquidity risk tolerance	12.3.7	Disclosure
1 Establish robust liquidity risk management framework	12.2.1	

The Liquidity Risk regimes being installed by many jurisdictions bear close resemblance to the Basel rules. We are able therefore to treat most banks with one treatment although jurisdictions without government bond markets are experiencing some technical difficulties with the concept of a Liquidity Buffer<sup>1</sup>.

If a bank has complied only with basic elements of Basel, it is normally the case they have developed policies and technology to address the monthly collection of information to provide data for ratios such as NSFR and LCR<sup>2</sup>. However, for a bank to derive a material benefit from the work it puts into place for Liquidity Risk systems and new processes, four advanced capabilities are required for the bank to have a beneficial risk process:

- Liquidity pricing
- Intraday risk measurement
- Collateral management
- Stress testing

### Liquidity Pricing

Basel states for Liquidity Pricing,

Senior management to attribute costs, benefits and risks to the relevant activity so that a liquidity charge be assigned as appropriate to positions, portfolios or individual transactions<sup>3</sup>

Many banks have not been able to implement Liquidity Pricing that reflects the liquidity costs, benefits and risks of different products and customers. An example is the value of customer deposits coming from branches where historically these deposits have been sticky<sup>4</sup>. Pricing the benefits of these deposits into an overarching framework for Liquidity Risk can assist banks in deciding against closing a branch (which otherwise has marginal economic benefit) when measuring their contribution on a liquidity risk adjusted basis.

The complications are many to being able to do this rigorously, for example, for a bank to measure the individual benefit from a branch often requires more information than the GL can often provide. This means many banks move to a macro view of products within the balance sheet and assign coarse measures which lose much of the risk data necessary for effective risk measurement.

For banks with significant wholesale funding, Liquidity Pricing can be used to penalize funding positions that severely impacts on short and medium term liquidity consumption, e.g. excessive reliance on one month rolling finance for example.

Basel also references new product approvals<sup>5</sup>, which are consistent with ax ante type measures we see in Economic Capital. The advantage of using ex ante type techniques would be to use Liquidity Pricing as a strong incentive in business acquisition, but this is not possible without advanced systems integration into customer relationship management (CRM) systems.

### Intraday liquidity

Basel has specified the items in Principle 8 as Active Management of Intraday Liquidity. The requirements whilst not prescriptive do require that banks should have the capability to manage and anticipate intraday liquidity requirements.

Typically, cash management of the short end of maturities is managed by small trading teams, and in global operations they can be distinct teams, who move cash and collateral to satisfy bank's immediate liabilities. It is probably unrealistic to model global balances intraday, but two items are specified in Basel:

- Intraday of internal business lines and main customers<sup>6</sup>
- Stress testing and contingency funding plan consideration<sup>7</sup>

These requirements would require the collection of more data across the organization e.g. global customers, whose cash requirements are across multiple nostros and the ability to model the collected statistics to simulate stressed conditions on global funding lines, especially FX.

Intraday Liquidity Risk measurement is a significant logistical exercise, so it makes sense to run it as a de-centralised monitoring/cash management process. However, Liquidity Risk measurement and management should not be only at the discretion of the cash management desk. The data should be liberated for use across the organization Risk, Finance and Treasury are interested parties. Operational Risk management is specifically interested in the capture and analysis of intraday liquidity risk data, including data around late and failed settlement of cash and collateral. See Pelican papers on the interplay between Liquidity Risk and other risk departments for more information<sup>8</sup>.

### Collateral Management

Unless the bank is in the Fixed Income marketplace, they have often not got robust Collateral Management Systems (CMS) in place. The close-coupling of CMS with Liquidity Risk systems is required to provide timely data (again intraday being a requirement, but Close of Business is the main checkpoint) for the modeling of Counterbalancing Capability<sup>9</sup>. The ability to model inventory, pledging, encumbrance is what makes the ability to fully comply with Principle 9 of the Basel rules.

Furthermore, as Summer progresses in 2011, the sovereign debt crisis shows little sign of abating. This means the haircuts being used for Liquidity Buffers will require vigilance<sup>10</sup> and sophistication. Inevitably, the holding of eligible collateral will increase in costs as the collateral itself is under stress in the debt markets. The economics around this aspect of Liquidity Risk management are going to inevitably increase costs of being a bank, but the main driver for sophistication in this area will be reputational. Banks know which counterparties are able to actively manage their portfolio and in a liquidity crisis, the traders will be more likely to offer liquidity to trusted counterparties who can be relied upon to deliver collateral.

### Stress Testing

The interesting thing about Stress Testing is that it requires banks to model market situations which are extreme. However, the key insight into this approach, is that ALL cashflow models for Liquidity Risk arise from scenarios, starting with base case scenarios (e.g. Business as Usual) which can then be scaled up to yield extreme events such as interbank liquidity drying up. Stress Testing is therefore a type of scenario, so the true requirement is to be able to model scenarios. The ability to model cashflows, based on a number of scenarios/parameters, for all products is probably the most sophisticated requirement from Basel. This ability is where banks can really derive economic benefits, in addition to complying with the rules. Some examples include:

- Model the effect of the business model of the bank on to its Liquidity Risk positions. If a bank is growing aggressively in Mortgages, these long-term instruments can be modeled ex ante to determine the

*The economics around this aspect of Liquidity Risk management are going to inevitably increase costs of being a bank, but the main driver for sophistication in this area will be reputational.*



*Banks that model scenarios properly have greater control over their business franchise, and are able to assimilate new market phenomena quickly and seamlessly into their Liquidity Risk analysis.*

best refinancing profile to work with the ex post liabilities term structure whilst also managing interest rate risk

- Model systemic risk, such as that which seized-up the markets in 2008, and determine the number of days the bank can survive when closed out from the wholesale markets in each currency (FX markets also seize up)
- Model Operational Risk parameters which can simulate real events such as Nuclear Power Station failure, extreme weather events etc to understand the impact on liquidity.

Banks that model scenarios properly have greater control over their business franchise, and are able to assimilate new market phenomena quickly and seamlessly into their Liquidity Risk analysis. Scenarios will also inform risk management in setting limits. These limits can then alert senior management ahead of the firm entering a critical phase, and consider the Bank Contingency Funding Plan.

#### Summary

Banks are working hard on many fronts to remedy past failings in risk management. Liquidity Risk implementation is a bi-modal distribution of banks:

- one (larger) cluster around banks that have

implemented a compliance only solution, and

- a second cluster of banks that see economic advantage in developing a stronger capability that not only delivers the tickbox required for regulators, but also provides
  - enhanced risk management (therefore decreasing reputational risk) and / or opportunities for services to other banks/ non-banks for enhanced cash management and liquidity services effectively using their platform to provide transparency around client positions.

The Basel rules do not provide a guide to which rules are a priority. Banks therefore tend to implement those rules that are easiest to attain, with action plans to deliver other initiatives in later releases. There is no escaping that the world is more volatile, and also harder on banks that fail to rectify risk management mistakes. It would be an ill advised Chief Executive who did not realize that of all the risks, Liquidity Risk is the one which can lead to insolvency the quickest. It can be amazing to non-participants that Banks did not have excellent controls pre-crisis for Liquidity Risk. Think how amazed observers will be, after the crisis subsides, if Banks do not learn from recent mistakes. If banks do not create a risk culture, systems and processes and only focus on profits and cost

cutting, then they are running an unsustainable balance sheet that will not weather the storms that are yet to come.

#### Biography

Ian Gilmour is the MD of Pelican Consulting Ltd. He started his career at Midland Montagu in 1990 after gaining an Economics Degree in the UK. His career for the first ten years was as a banker, focused solely on risk management, including the Basel I project at Midland. Later he joined Deutsche Bank and working with Dr Robert Fiedler, delivered the world's first enterprise wide Liquidity Risk system (LiMA). Since 2000, he has been building Pelican Consulting Ltd into a world-class risk technology consultancy, focused on Credit and Liquidity Risk. Pelican is opening offices in the Middle East and North America during 2011 to position for rapid growth in services. [www.pelicanconsulting.com](http://www.pelicanconsulting.com)

<sup>1</sup>The UAE rules in particular have been delayed, with other Middle East countries also having to adapt

<sup>2</sup>See Volume 1, 2011 of this publication for an article on this subject

<sup>3</sup>Principle 4, sub-principle 19.5

<sup>4</sup>Leonard Matz references the stickiness of deposits, for example, using an index to assign deposits

<sup>5</sup>Principle 4, sub-principle 21.1

<sup>6</sup>Principle 8, sub-principle 78.8

<sup>7</sup>Principle 8, sub-principle 83.1

<sup>8</sup>Publications page on [www.pelicanconsulting.com](http://www.pelicanconsulting.com)

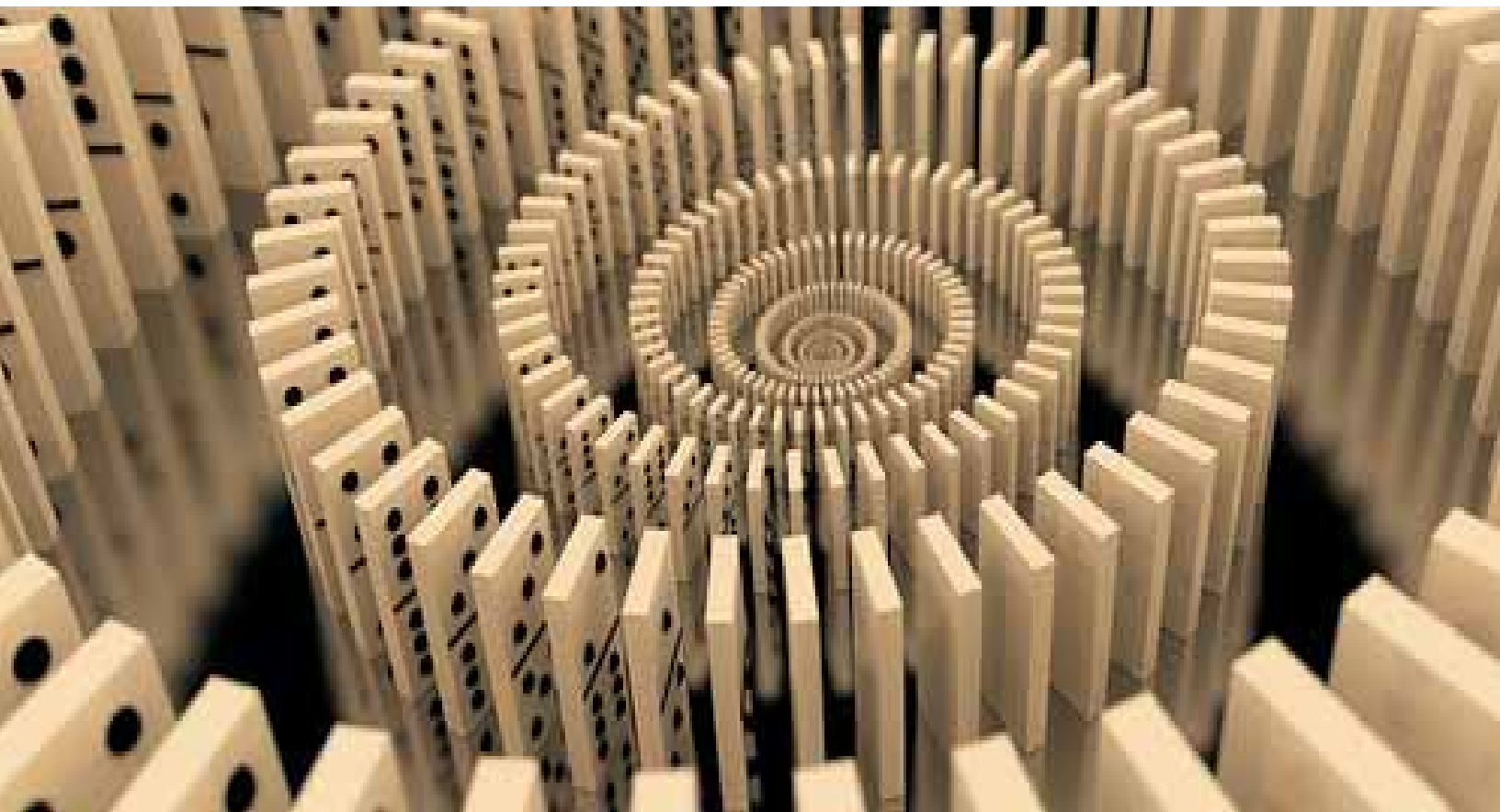
<sup>9</sup>A term invented by Dr Robert Fiedler – see his book coming out soon from Risk publications called “Liquidity Modeling”

<sup>10</sup>Principle 9, sub-principle 87.5

<sup>11</sup>Bankers Trust were already doing this during the 1990s, using a concept called the Barometer which measured the number of days the bank could survive if it lost unsecured market access

# Contingent Capital

Evaluating its practicality and impact on Bank's Regulatory Capital.  
Also a look into the impact of Basel III on the return on equity.





## Introduction

One of the major pitfalls identified in the global risk management practices pre-financial crisis of 2008 was the inadequacy of risk based capital maintained by the banks primarily in advanced nations. Basel Committee has proposed several recommendations which would require the banks to hold higher risk capital in future. The first section of this article discusses various aspects related to converting contingent hybrid debt instruments into equity to meet capital requirements especially in stressed market conditions. However, maintaining a broader capital base does not come without a cost. It's a trade-off between risk and return. Section 2 discusses the impact of Basel III recommendations on the bank's return on equity.

### SECTION 1: Contingent Capital and Regulatory Roadblocks

Contingent capital also known as contingent convertibles or CoCos, refers to 'hybrid' debt instruments which mandatorily convert into equity upon the happening of one or more pre-defined events or triggers. When a bank encounters a liquidity or capital crisis, the CoCos will be converted into equity, thus increasing the bank's capital buffers and avoiding the need to seek governmental intervention. Financial institutions had come to rely on hybrid securities (securities that had some features of equity securities, and some features of debt securities) to raise capital and bolster their regulatory capital ratios.

#### The Pros and Cons

Broadly speaking, contingent capital is just another hybrid security. A contingent capital instrument is expected to assist the bank with leverage when the times are good. When the times are bad, it can also act as a buffer. Academics have compared it to a sprinkler which turns itself on when the fire breaks out. Contingent capital, when it was envisaged, was expected to ease financial distress, reduce bank leverage, minimize incidents of bank insolvency, avoid costly public bailouts, set up a speedy bank resolution regime, internalize bank failure costs, and insulate the rest of the financial system from possible systemic spillover effects. The Basel Committee on Banking Supervision (BCBS) also observed that the use of contingent capital would lessen moral hazard by increasing private sector involvement in the resolution of future banking crises.

In contrast, critics point out that contingent capital and related 'bail-in' mechanisms are too complicated to design, pose difficult implementation concerns, and are less effective than the straightforward approach of requiring banks to have more equity capital.

However, it may be said that on the balance, the reservations critics have with respect to contingent capital focus largely on the practical difficulties likely to be encountered once these instruments are put into use, and not on the desirability of contingent capital as a potential tool for stabilizing banks.

#### Issues related to CoCo's

Taking the debate a point further, it appears that the feasibility and sustainability of CoCos ultimately turns on a careful consideration and resolution of five key areas.

**Trigger :** There is debate on what should be the trigger i.e. at what point should the conversion be made mandatory and also who is to decide the same. Some want the country's regulator to be the decision making authority in this aspect. On the other hand, some want the trigger event to be linked to some market related index or a specific capital ratio. Clarity on this aspect needs to be brought to the structure of such instruments to ensure the effectiveness of such instruments.

**Role of the Regulator:** Regulators need to clarify their role and also clarify the features of such instruments that are permissible. This means that they would need to have discussions with the financial industry and the stakeholders.

**Role of the Credit Rating Agency:** While the rating agencies have been much maligned, the rating agencies are still relied upon by investors to gauge the riskiness of such transactions. The Rating agencies should make transparent the methodology for rating such hybrid instruments. This will increase the acceptability of such instruments among the investors.

**Tax Treatment:** Currently, there is no clarity on the tax treatment for the CoCos. The appropriate tax treatment of CoCos needs to be settled. The primary issue is whether the CoCo will be considered as debt or Capital. In the case of debt, naturally there will be tax-deductible interest expenses. If so, the banks will enjoy the benefits of the debt financing in such transactions and would make the use of such instruments attractive.

**Jurisdictional Differences:** Lastly, differences in the legal treatment of CoCos across relevant jurisdictions need to be sufficiently understood. Some harmonization is desirable, else it would turn into a play field for regulatory arbitrage.

#### Basel III and Contingent Capital

Under Basel III, the guidelines for which were issued in Dec 2010, (i) up to 25% of a bank's Tier 1 requirement may be made up of non-common Tier 1 instruments (which the Basel Committee refers to as Additional Tier 1 because 75% of the Tier 1 requirement must consist of common stock), and (ii) up to 25% of its total capital requirement may be made up of Tier 2 capital. Accordingly, Additional Tier 1 instruments and Tier 2

*Some want the trigger event to be linked to some market related index or a specific capital ratio. Clarity on this aspect needs to be brought to the structure of such instruments to ensure the effectiveness of such instruments.*



*Depending on a bank's systemic importance, additional loss absorbency requirements were to be met with a progressive common equity tier one capital requirement ranging from 1% to 2.5%*

instruments (the instruments subject to the new loss absorbency requirement) may only constitute a minority portion of a bank's required capital under Basel III. The remainder of a bank's regulatory capital must be composed of common stock.

All Additional Tier 1 and Tier 2 instruments would either need to: (i) contractually incorporate a mandatory write-off or conversion into common equity feature, or (ii) if certain conditions are met, be subject to a statutory regime that produces the same outcome as the contractual approach. Whether required by contract or national law, the instruments would have to be either written off or converted into common equity upon the occurrence of a trigger event. While Basel III has not used the term Contingent Convertible, afore mentioned definition fits the bill for what has now come to be called as CoCo. Basel III grants to national bank supervisors the authority to declare a trigger event for these instruments. Basel III is not legally binding in any jurisdiction and hence the precise manner in which the new standards will be applied in member states will be determined through future national rulemaking.

However, at its 25 June 2011 meeting, the Group of Governors and Heads of Supervision (GHOS), the oversight body of the Basel Committee on Banking Supervision (BCBS), announced that additional loss absorbency requirements were to be met with a progressive common equity tier one capital requirement ranging from 1% to 2.5%, depending on a bank's systemic importance. This has acted as a dampener on the outlook for CoCos. However, GHOS has said that it would review contingent capital, and support the use of contingent capital to meet higher national loss absorbency requirements than the global minimum, as high-trigger contingent capital could help absorb losses on a going concern basis.

#### **Other Regulations**

The Basel III proposal is only one of several recent contingent capital proposals that are being discussed and studied by bank supervisors, banks, investors and academics. Several nations (including the Netherlands, the United Kingdom and the United States) and international supervisory groups (including the Financial Stability Board) have shown interest in contingent capital requirements and Switzerland has already proposed incorporating a mandatory contingent capital requirement into its bank capital adequacy requirement for its two largest banks (UBS and Credit Suisse).

The Swiss proposal, expected to be enacted into Swiss law by 2012, requires UBS and Credit Suisse to meet a ratio of regulatory capital to risk-weighted assets of 19% by 2019. This is well in excess of the 10.5% (including the minimum requirement and capital conservation buffer) stipulated under Basel III.

Two European banking groups, Lloyds Banking Group and Rabobank Group, attracted significant attention by issuing contingent capital bonds

with capital ratio-based conversion triggers. In November 2009, as part of the HM Treasury's announcement of the implementation of financial stability measures for Lloyds Banking Group and Royal Bank of Scotland, the HM Treasury announced that the recapitalizations would incorporate issuances of contingent convertibles or mandatory convertible notes ('MCNs'). A Lloyds Banking Group affiliate issued £9bn in a form of contingent capital called 'enhanced capital notes' to existing Tier 1 and Upper Tier 2 security holders. The offering was intended to allow Lloyds to avoid the need for further UK government support. The enhanced capital notes have a ten-year term and pay fixed, non-deferrable interest. They are convertible into a fixed number of Lloyds' ordinary shares if Lloyds' consolidated core Tier 1 ratio falls below 5 per cent. More recently, in January 2011, Rabobank issued contingent capital notes with a write-down feature (triggered if Rabobank's consolidated equity capital ratio falls below 8%).

## SECTION 2: Basel III Impact on ROE

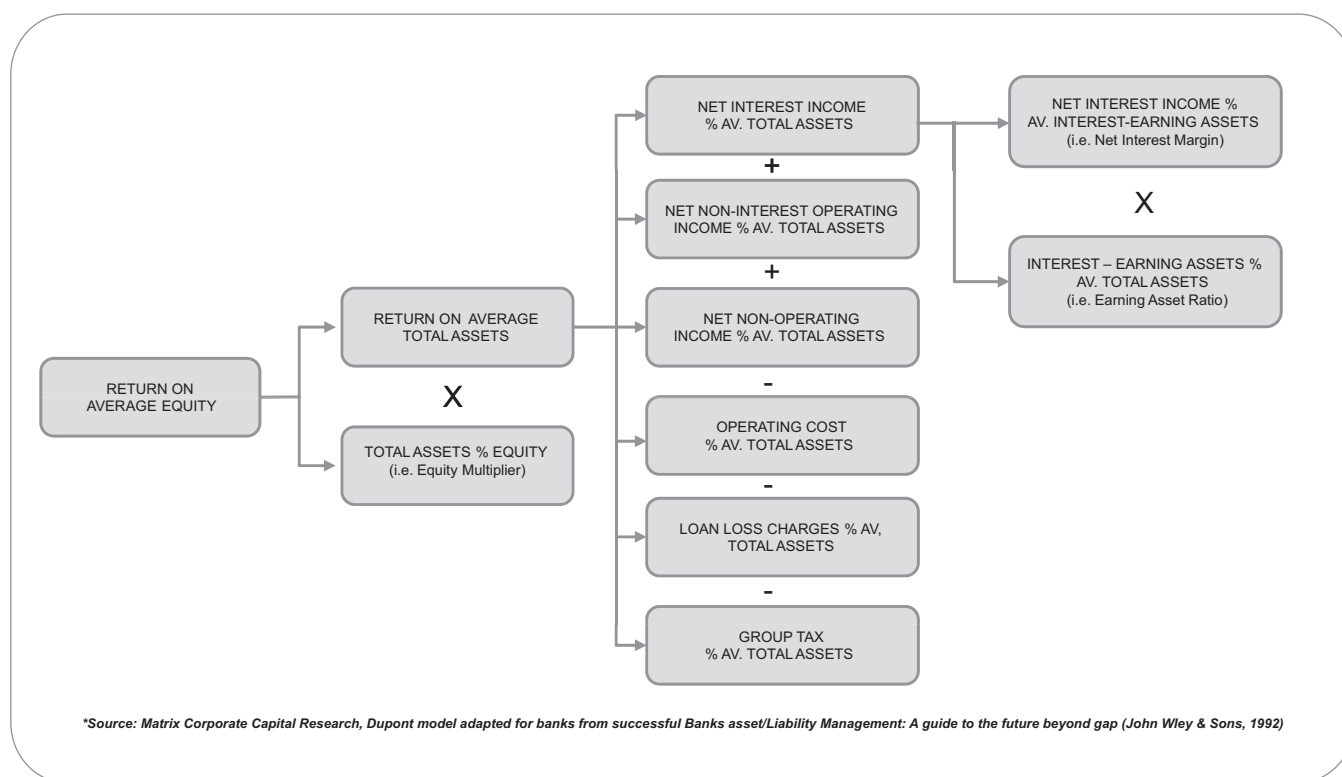
With the release of Basel III regulations, there has been much hoopla in the market over the reduction in profitability / returns on equity of the banks, primarily the western counterparts. The apprehensions were soon confirmed by the big banks at the start of the year when HSBC announced its new return on equity target of 12-15 per cent versus a previous target of 15-19 per cent. While HSBC cut its targeted return on equity by one-fifth, it was followed with similar profit target downgrades by the likes of Credit Suisse and Barclays. Most of the studies conducted on western banks have predicted that Basel III norms would reduce Return on Equity (ROE) of banks by 20-25 percent.

While the banks may argue over the amount of fall, it is certain that the banking industry now faces a permanent decline in ROE and at the same time will also have to raise enormous amount of capital. The pressure on financial markets is going to build up, as the capital requirement, both equity and non-equity, will be quite significant, thereby increasing the cost of capital. Banks can argue that investors should settle for lower returns because the new regulatory norms are intended to make banks safer. But the main concern is that, Will the investors buy this logic?

Meeting the capital requirements under the Basel III regime won't be easy for the banks without adequate planning. These regulations have forced the banks to rethink their future strategy. The traditional business model may no longer work and may not deliver the desired profits. Some may criticize the whole debate by saying that ROE is not a meaningful indicator for judging the performance of banks as it does not take into account the kind of risks the bank faces earning its returns but the fact remains that the shareholders are mainly concerned with ROE and this will be an important factor when the banks start raising new capital.

Herein, we will try to explain and analyse the ROE of the banks and different related components, through a simple model The Dupont Analysis. All of us have studied this either in the first semester of MBA or CFA level 1 exams.

The various components that contribute to the ROE are depicted below:



**The Equity Multiplier** or the leverage has been the root cause of bank's failure during the financial crisis. Basel III aims to control this component by introducing certain leverage ratios. The large western banks have been posting huge return on equity in the pre-crisis era due to high leverage. These banks posed huge losses during the financial crisis. Some of these entities no more exist as they have either been closed or taken over. Those





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who managed to survive the crisis have been struggling to recover and are now coming back to profit. These banks have been forced to unleverage by their regulators that has resulted in huge permanent shift in their return on equity percentages. These types of banks would be most impacted by the new regulations and their shareholders would now have to permanently settle for less return on equity.

**Return on Assets** is the true factor to analyze the true sustainable profitability of the banks and it depends on the business model as well as good management. For the further analysis of the ROA factor, we need to have a look at each of the following components of ROA:

- **Net Interest Income:** The most contributing component is the NII (Net Interest Margin). The Banks that traditionally have high CASA deposits are able to enjoy high NII due to their low average cost of funding. These kind of banks would be least affected by the new regulations. We expect that in longer run most of these type of banks would be able to pass on the cost of higher capital to consumer thus preventing any major reductions in the return to shareholders.
- **Net Non-Interest Income:** This mainly includes trading profits and fee based income. In the pre-crisis era, the banks having huge proprietary books had been enjoying high profits. These banks suffered most losses during the crisis and now are in the process of restructuring their prop trading business. All the major regulators have been after these banks and coming out with new regulations to ring-fence them so that common people don't lose their money. These types of banks need to completely overhaul their future strategy of doing business. Their margins would be hit most whether or not they decide to continue their trading activities due to much higher capital charges for such activities.
- **Net Non-Operating Income:** This includes goodwill impairments, asset write downs, minority interests, income from discontinued operations and exceptional items. After the crisis, all the large western banks had restructured their top management who in turn had been busy cleaning the bank's bad assets, selling expensive office and leasing them, closing inefficient businesses etc. They managed to get large

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cash in the last couple of years through this component. However this component would saturate once all the banks are done with restructuring and their operations are stabilized.

- **Operating costs:** This comprise mainly of personnel and administrative costs. During the crisis when the banks were facing huge challenges in terms of maintaining their revenues, most of them resorted to the bottomline growth. The knee-jerk reaction after the crisis was the layoff of employees, salary cuts, reduced or zero bonuses, cut down on travel and advertising expenses etc. Most of the banks have tried all sorts of methods resulting in huge reduction in their operating costs leaving no further scope of improvement. The operating costs are expected to go higher as most of the banks have rolled back their cutbacks in salary and bonuses. Further to comply with new regulations, all banks would have to increase their IT spends for operational and technical requirements related to increased data reporting as banks will need to pull together detailed information across the organization, slice it and dice it in lots of different ways, and provide it to the regulators. The future strategy should be increased efficiency in management of businesses, alignment of salaries and bonuses with the long term performance, reduction in unnecessary travel and other admin related expenses.
- **Loan Losses:** The loan losses are due to bad quality of loans disbursed due to various reasons like poor quality of rating systems, chasing high yields on bad quality loans, high reliance on much criticized external rating agencies, bad management or failure to attract good quality customers. The banks that closed down during financial crisis did not have any clue about the quality of the debt that they were holding as they were completely disillusioned by the complicated rating models of so called external rating experts giving them the false sense of sophistication and safety. Although the loan losses will normalize in the coming years, we are very doubtful that these banks will be able to achieve the high returns that they enjoyed in the past.
- **Taxes:** The banks cannot hope to benefit from this component as most the government and regulatory bodies have been thinking of ways to control the risky activities of the large banks. The Tobin Tax is one such example. Some of the banks have been analyzing the impact of new regulations on their existing business activities or geographies. The banks are thinking of pulling out of the countries having high taxes or activities that may attract high taxes going forward.

## **Conclusion**

*The Basel III "loss absorbency" requirement is an important international development that has already broadened banking and investor community interest in contingent capital instruments. Within the next couple of years the market for such securities is likely grow as several jurisdictions determine how to implement the Basel III requirement and possibly other "contingent capital"-related rules and requirements into national law. The banking and investor communities will carefully watch international and national rulemaking as rules and standards that emerge from the process will have a meaningful impact on both the design features of, and potential size of the market for, contingent capital securities. As broadened capital base is expected to affect profitability in the long-run, banks will be focused on rebuilding returns in future involving a full range of actions like active participation of Board in day to day management, attracting retail deposits, realigning the compensation of senior executives with their performance, improving risk models and reporting, improving financial and operational efficiencies.*



# Shadow Rating Model

A methodology to build models for rating banks, the objective being to assign weights to the risk factors so as to replicate external ratings as closely as possible.

## Introduction

While most banks have rating models for assessing credit risk while lending to non-banking counterparties (like Corporates, SMEs), several banks rely solely on external ratings while lending to other banks. Regulators around the world are increasingly uncomfortable with banks relying on external ratings while extending credit. This is especially so considering the systemic nature of some banking counterparties. Ratings provided by agencies are not updated frequently and only change when they perceive a change in the company's long-term creditworthiness. Basel II guidelines encourage banks to develop internal models for credit assessment with the possibility of lower capital requirements when internal ratings are used for capital allocation. Internally developed models would reflect banks perception of risk in contrast to Standardized Approach of Basel II where the external ratings determine the capital requirements. An internal rating model provides the flexibility to accommodate both external rating mechanisms and internal points of emphasis, to give the bank an optimal view of the creditworthiness of its counterparties in line with best practices. In the event of banks' external ratings not corresponding to the latest financial records available, an internal model can provide an up-to-date analysis. This will help foster an internal culture of risk awareness, by not outsourcing an important capability.

But there are certain peculiar issues while developing rating models for rating banks there aren't usually enough defaults in the portfolio such that statistical analyses can be performed. Lack of a collaborative bureau to share information is another drawback. An industry practice to develop the model is by way of a 'Shadow Rating Approach'. The objective is to choose and assign weights to the risk factors so as to replicate external ratings as closely as possible when there is insufficient data to build an explicit default probability model.

### What is the Shadow Rating Approach

The shadow rating approach (SRA) is typically employed when there are few/no defaults and external ratings from the major rating agencies are available for a significant part of the portfolio. The underlying concept of the SRA is similar to the other traditional model building techniques such as good-bad analysis. The SRA's objective is to choose and weight the risk factors in such a way as to reasonably closely replicate the ranking of external ratings. To make the resulting rating function usable for the bank's internal risk management as well as for regulatory capital calculation, the rating results have to be calibrated, i.e. a probability of default (PD)

has to be attached to them. With these PDs, the external grades can then be mapped to the bank's internal rating scale. The SRA is considered an industry best practice because it overcomes the following deficiencies of external ratings;

- Inertia in rating upgrades/downgrades as per latest available data
- Significant number of unrated banks
- The inability to modify assessment criteria to suit individual users' business strategy.

The SRA gives banks the ability to mirror external rating agencies' rating mechanisms while accommodating the bank's own points of emphasis

### Model build Methodology

The initial step in Shadow Rating Approach like any other approach is to identify the risk factors such as balance sheet ratios or qualitative information about the other banks that are supposed to be good predictors of future defaults. Like any model development process, the process involves a factor selection process.

- Portfolio Analysis - Studying the nature of portfolio, the distribution of ratings and representation of different geographies in order to assess the suitability of the portfolio as a modeling data set.
- Single Factor Analysis - The process of arriving at a short-list of the most powerful factors, which would then be used to rate the financial records of banks.
- Multi-Factor Analysis - The process of studying the interaction between different factors such that the resultant combination is the focus of the rating mechanism being developed.
- Model Calibration - The final step where model output is calibrated to a Probability of Default grade, which is pivotal to the functioning and validation of the model.

### Portfolio Analysis

For the purpose of building a bank rating model, the modeler would require to carefully study the composition of bank's portfolio before building a data set for

analysis. The modeler would need to prepare a factor long list, which would be a comprehensive list of all possible attributes that can impact the creditworthiness of the bank. This includes all the balance sheet line items, combination of the line items in the form of financial ratios, geographical location, external ratings, external rating chances etc. All the relevant information on financial, market, regulatory and rating can be sourced from various third party databases available in the market. The modeler should not limit oneself to the existing portfolio. An understanding needs to be obtained about the changes in portfolio over the years to understand the trend, and also understand possible changes in the portfolio going forward. Details of future portfolio exposures is typically obtained after consultation with bank's business strategic team. Typically the bank's balance sheet contains information in other currencies, therefore it is important to standardize the information in one currency for ease of modeling.

Selecting the most appropriate rating benchmark is critical in SRA as it requires a calibration of the agency rating to default rates. Thus, adequate care should be taken to select those ratings which have probability of default estimates available. It is an industry practice to use long-term (over one-year) rating as it complies with Basel II requirement of one year horizon for default probability estimation. If the bank has international exposures, it is advisable to use foreign currency ratings as they account for foreign currency translation risk and are more conservative. The modeler must ensure that the rating scale is sufficiently granular for meaningful use as a discriminating benchmark. Typically, short-term or financial strength ratings do not use the same highly granular scale with + and - modifiers as issuer ratings. The shadow bond rating method requires a calibration of the agency rating to default rates and especially so if more than one rating type is used. Rating types which meet most other considerations such as Financial Strength ratings are often not used since a stable default rate calibration is often unavailable. Bank must pay careful attention to factor selection process such that factors with high correlation among them are excluded from the model.

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### Single factor analysis

SRA is an improvement over the traditional good-bad analysis approach as SRA is capable of dealing with obligors with lesser or no default history and that the response variable that is modeled is not binary. Each rating grade corresponds to a particular level of response, as opposed to a binary response variable with the range [0,1], representing non default and defaults respectively.

There are also certain similarities between the SRA and the traditional approach. In Receiver operating characteristic (ROC) analysis, the Model Curve is replaced by the Factor Curve, which represents the impact of changing factor values to the rating of a bank and the Ideal curve is replaced by the agency rating curve. The calculation for Power stat and accuracy ratio remains the same.

A random factor or model would sort obligors in a manner which is independent of the factor or model value (by definition) and the PS benchmark is 0%. A perfect factor or

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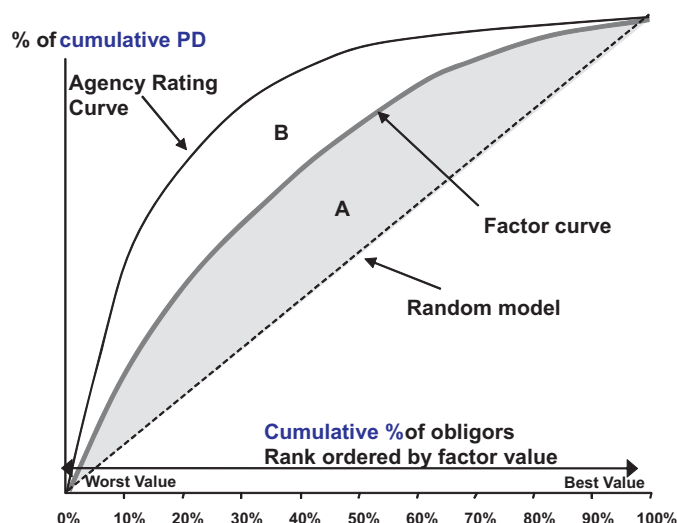
model (PS = 100%) would produce a ranking of all obligors such that the worst rated banks are sorted first by the model (i.e. they are at the lowest end of the factor value spectrum) before highly rated obligors. The relation of area B to the total area above the random curve (A + B) is an indicator of the factor's ability to discriminate between good and bad.

### Multi Factor analysis

The next step in model development is to study the interaction of these factors together, and determining which combination of them is most effective in the assessment of all factors that have been described above. The quantitative module involves allocating

relevant weights and arriving at a financial score.

The parameter estimates would utilize a statistical method. The normal practice is to use a statistical methods like the maximization of likelihood estimate (MLE) in order to compute parameter estimates. MLE helps us to arrive at the best model from a series of models, by giving us an overview of how closely the predictions match the observed rating. A set of candidate models is created, as in any model build process and the models ranked on various modeling results like accuracy ratio, stability and other validation results. For reducing the possibility



$$\text{Shadow Powerstatistic PS} = \frac{A}{A + B}$$

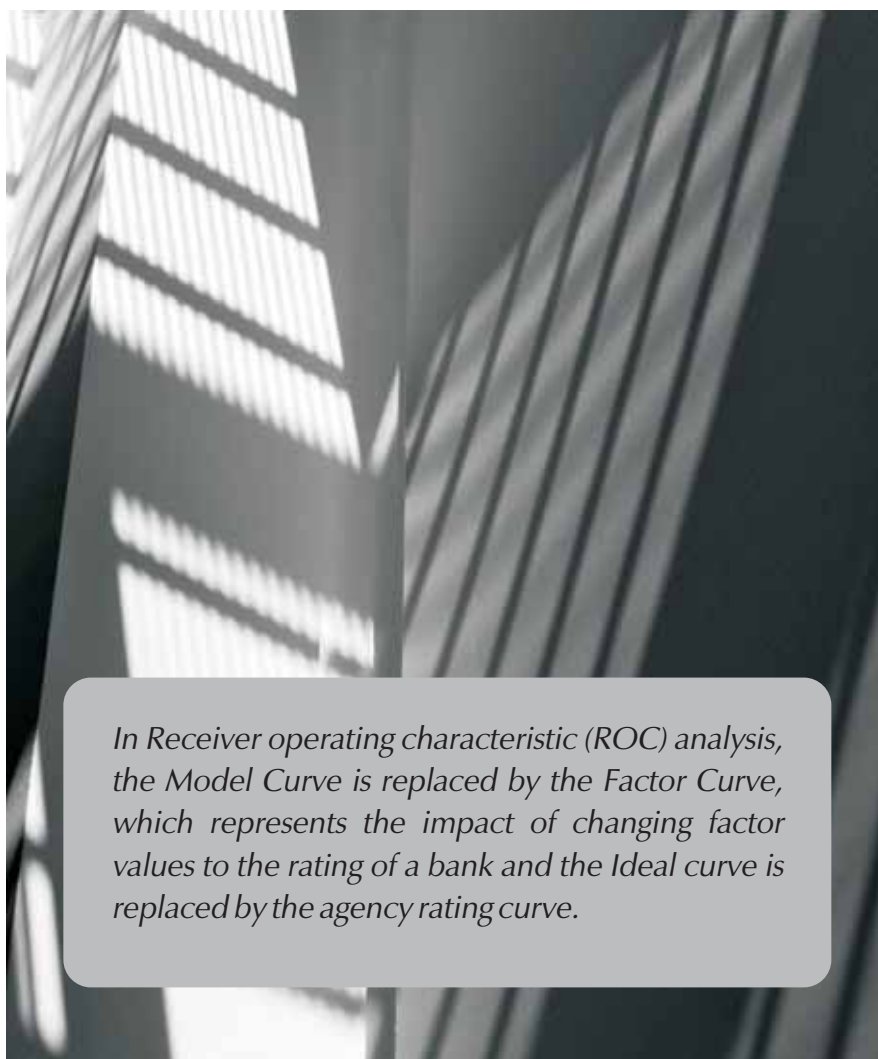
$$\text{Perfect factor: PS} = 100\%$$

$$\text{Random factor: PS} = 0\%$$

of over fitting, a hold out sample is typically used to interpret the model results. A hold out sample is used to test the candidate models to ensure that no over-fitting has taken place i.e. the model is not too heavily biased in favor of the data that was used to develop the model. This hold-out sample would provide a fair analysis of candidate model performance outside the modeling data set, which would greatly help in choosing the strongest model.

#### Model Calibration

Once a model is chosen, the final step in the model build process is calibration. A calibration function is used to convert the score generated by the model into a Probability of Default. Various functions - any of linear, logistic or an exponential function can be used for this purpose. Certain country-specific adjustments could be also made to the quantitative score to improve the overall effectiveness of the model, eliminating geographical differences. It needs to be ensured that the model curve is not below the agency PD curve thereby signifying relative in conservatism that the model aims to achieve. As in any model development life cycle, the model build doesn't stop with the initial calibration process. The model performance needs to be monitored to ensure that the results are in line with expectations. The stability of the model also needs to be monitored - an annual validation exercise is recommended to ensure these aspects, followed by recalibration if needed.



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# Banks in the GCC

## A unique perspective

Darien Middle East's analysis throws up some unexpected names as leading performers





Darien Middle East, a financial consultancy based in London, ranked 70 Gulf commercial banks using six financial ratios. Each of the 70 banks was scored according to how well it performed, relative to its peers, in each of the six areas. The results as will be revealed are surprising.

The six ratios that were used to benchmark are:

Equity To Assets	➤	Measures a bank's ability to absorb large and unexpected balance sheet losses. It is interesting to note that the financial community has taken more interest in unweighted leverage ratios since the international financial crisis.
Operating Profit to Loans and Investment	➤	Measures a bank's ability to absorb loan losses and adjustments to the value of securities without declaring a net loss or this ratio measures a bank's ability to absorb loan losses and adjustments to the value of securities without declaring a net loss or writing down the value of equity.
Net profits to average assets	➤	Measures the return which a bank is able to generate on the assets which it holds.
Net profits to average equity	➤	Measures the bank's ability to generate internal capital. Note that the inclusion of this ratio with the unweighted equity to assets ratio limits the ability of a bank to receive a high overall weighting simply on the basis that it holds large amounts of equity – to score highly in both areas it will also need to be using that equity efficiently.
Equity and customers' deposits to assets	➤	Measures a bank's funding strength, or, conversely, the extent to which it is not reliant on market funding. Some banks might argue that medium term funding from strategic shareholders is at least as valuable as short term funding from depositors but in practice there have rarely been retail-based runs on the bank in the Gulf.
Cost to income	➤	Measures the efficiency with which the bank is employing its operating expenses

Taken together, these six ratios place heavy emphasis on profitability; and in practice, it is banks with strong profitability which lead the rankings. Over the long-term, only banks which can generate strong earnings from themselves and for their shareholders will prosper.

### So, who was the best performing bank in the Gulf during 2010?

It wasn't one of the region's household names like National Commercial Bank or National Bank of Kuwait.

Instead, it was Masraf al-Rayan, a mid-sized bank based in Qatar. The second-best performing bank was also from Qatar – Qatari International Islamic Bank – another mid-sized bank.

Al-Rajhi, the Islamic banking powerhouse based in Saudi Arabia took third place, but most of the top 20 were mid-sized institutions which few people outside the region will have heard of (see box1).

Part of this performance must be attributed to state support which many – though not all – of these banks have received during the global financial crisis. The Qatari authorities bought many of their banks' poorly performing real estate assets and in some cases stepped in to recapitalize banks. The U.A.E. authorities took a more market-based approach to supporting their banks, introducing a raft of measures to enhance the liquidity, but their support was still significant.

But state support does not entirely explain the prevalence of medium and small banks at the top of the rankings. The household names of Gulf finance tend to be large institutions which receive high credit ratings due to the assumption that they will be supported by their

#### Box 1

##### Best Performing Commercial Bank in the GCC: 2010

1	Masraf Al Rayan	Qatar
2	Qatar International Islamic Bank	Qatar
3	Al Rajhi	Saudi Arabia
4	Investbank	UAE
5	National Bank of Ras Al Khaimah	UAE
6	First Gulf Bank	UAE
7	United Arab Bank	UAE
8	Commercial Bank of Dubai	UAE
9	Arab Bank for Investment and Foreign Trade	UAE
10	National Bank of Umm al-Qaiwain	UAE
11	Oman Arab Bank	Oman
12	Qatar Islamic Bank	Qatar
13	Banque Saudi Fransi	Saudi Arabia
14	Qatar National Bank	Qatar
15	Bank of Sharjah	UAE
16	Samba Financial Group	Saudi Arabia
17	Commercial Bank of Qatar	Qatar
18	Ahli Bank	Qatar
19	Doha Bank	Qatar
20	National Bank of Kuwait	Kuwait

governments if they ever run into problems. A recent survey by Global Finance Magazine listed National Bank of Abu Dhabi, National Bank of Kuwait and Qatar National Bank as the three safest banks in the Middle East, based on their credit ratings from Fitch, Moody's and S&P, and their asset size.

In contrast, the Darien rankings focus on balance sheet ratios and income statement performance and exclude any external factors.

Three Saudi banks feature in the top 20 listing: Al-Rajhi, Banque Saudi Fransi and Samba Financial Group. National Bank of Kuwait is the only Kuwaiti bank and Oman Arab Bank, part of Jordan's huge Arab Bank Group, is the only Omani, reaching a highly-creditable 11th place.

A notable feature of the survey is the absence of Bahraini banks from the list of well performing banks. Two Bahraini banks Future Bank and National Bank of Bahrain narrowly missed out on reaching the top 20, but several Bahraini banks were placed right at the bottom of the rankings. (The tables show only the best performing banks, not the poor performers.)

Performance aside, the commanding heights of Gulf banking have remained remarkably consistent in recent years. A listing of the biggest Gulf banks, ranked by equity, in 1994 shows almost exactly the same banks then as now (see Box 2).

In terms of size, banks in Saudi Arabia and the U.A.E. dominate the region, accounting for about two thirds of equity, loans and deposits. Kuwait remains significant, accounting for 12–14% of GCC balance sheets. The Qatari financial system has been growing rapidly both in terms of the number and size of its banking institutions and is now almost as big as Kuwait.

*Darien Middle East is a London-based consultancy founded by Andrew Cunningham. Mr. Cunningham previously worked as a Senior Vice President for Moody's Investors Service, the rating agency, and as Managing Director of Middle East operations at the Financial Services Volunteer Corps, a New York-based NGO which provides technical assistance to the financial services industry. For a full copy of the Darien Middle East survey, please contact him at Andrew@darienmiddleeast.com.*

## Box 2

Biggest Banks in the GCC ranked by equity	
End 2010	End 1994
Emirates NBD	National Commercial Bank
National Commercial Bank	Riyad Bank
Al-Rajhi	Arab Banking Corporation
National Bank of Kuwait	National Bank of Kuwait
Riyad Bank	Al-Rajhi
Samba	National Bank of Dubai
Qatar National Bank	Saudi American Bank (Samba)
First Gulf Bank	Saudi British Bank
National Bank of Abu Dhabi	Saudi French Bank
Kuwait Finance House	Arab National Bank

## Box 3

Location of equity, loans and deposits*			
	Equity	Loans	Deposits
<b>Bahrain</b>	7.7	6.9	6.4
<b>Kuwait</b>	12.5	13.9	12.3
<b>Oman</b>	2.9	3.4	3.0
<b>Qatar</b>	12.3	10.3	9.5
<b>Saudi</b>	34.2	30.5	37.2
<b>UAE</b>	30.4	35.0	31.5
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

\* These percentages are calculated from the consolidated financial statements of individual banks and as such do not equate to country-by-country market shares, although they can be used as a reasonable proxy for such shares.

# Regulatory Updates



## **Guidance on operational risk issued by the Basel Committee - 30 June 2011**

The Basel Committee on Banking Supervision issued two papers on operational risk: 'Principles for the Sound Management of Operational Risk and Operational Risk - Supervisory Guidelines for the Advanced Measurement Approaches'. 'Sound Practices for the Management and Supervision of Operational Risk' highlights the evolution of operational risk management over this period and 'Operational Risk - Supervisory Guidelines for the Advanced Measurement Approaches' suggests improvement in this area by setting out supervisory guidelines relating to governance, data and modelling.

*For more details, visit <http://www.bis.org/press/p110630.htm>*

## **The impact of sovereign credit risk on bank funding conditions: new report from the Committee on the Global Financial System - 11 July 2011**

The Committee on the Global Financial System (CGFS) released a report entitled 'The impact of sovereign credit risk on bank funding conditions.' The report was prepared by a Study Group chaired by Fabio Panetta of the Bank of Italy. This report examines the relationship between sovereign credit risk and bank funding conditions, how banks might respond to an environment of ongoing elevated sovereign risk and the implications for policymakers. This is an important topic, as sovereign credit risk is already a significant issue for European banks, and over coming years may have broader implications for global financial stability.

*For more details, visit <http://www.bis.org/press/p110711.htm>*

## **Assessment methodology and the additional loss absorbency requirement for global systemically important banks - consultative document issued by the Basel Committee - 19 July 2011**

The Basel Committee on Banking Supervision issued a consultative document on 'Global systemically important banks: Assessment methodology and the additional loss absorbency requirement'. The Group of Governors and Heads of Supervision (GHOS) submitted this consultative document to the Financial Stability Board (FSB), which is coordinating the overall set of measures to reduce the moral hazard posed by global systemically important financial institutions. The assessment methodology for G-SIBs is based on an indicator-based approach and comprises five broad categories: size, interconnectedness, lack of substitutability, global (cross-jurisdictional) activity and complexity.

*For more details, visit <http://www.bis.org/press/p110719.htm>*

## **FSA publishes Recovery and Resolution Plans consultation- 09 August 2011**

The Financial Services Authority (FSA) has published a Consultation Paper (CP) and Discussion Paper (DP) on its proposals for Recovery and Resolution Plans (RRP), required of financial institutions. The 2008 banking crisis highlighted that firms failed to have effective recovery plans in place. The aim of the document is to set out the FSA's proposals on what is expected of firms with regards to planning for a stressed situation, which will require a firm to take action to recover or, if necessary, wind-down in an orderly manner without putting taxpayers at risk of loss.

*For more details, visit <http://www.fsa.gov.uk/pages/Library/Communication/PR/2011/070.shtml>*

#### **Central Bank of Sri Lanka (CBSL) issued guidelines on Integrated Risk Management - 10 October 2011**

Sri Lanka's Central Bank in October issued directions to banks on an integrated risk management framework that will be effective in six months time. The guidelines cover management of credit, market, operational, liquidity and interest rate risks, stress testing and disclosure requirements in an integrated risk management framework based on standard market practices. The guidelines are in addition to the risk management principles and rules required in regulatory and supervisory procedures and other market best practices of banks risk management.

*For more details, visit [http://www.cbsl.gov.lk/pics\\_n\\_docs/09\\_lr\\_docs/directions/bsd/BSD\\_2011/bsd\\_D\\_2011\\_7\\_IRM\\_Framework.pdf](http://www.cbsl.gov.lk/pics_n_docs/09_lr_docs/directions/bsd/BSD_2011/bsd_D_2011_7_IRM_Framework.pdf)*

#### **EBA publishes follow-up review of banks' transparency in their 2010 Pillar 3 reports - 17 October 2011**

The European Banking Authority's (EBA) following up on the work carried by its predecessor CEBS published a review of bank's transparency in their 2010 Pillar 3 reports. While it welcomed banks efforts to improve their disclosures and to convey their risk profile in a comprehensive way to market participants, EBA calls for further improvements and the need for greater harmonisation of the disclosures provided.

*For more details, visit <http://www.eba.europa.eu/News--Communications/Year/2011/EBA-publishes-follow-up-review-of-banks-transpare.aspx>*

#### **Update on Basel III implementation - 18 October 2011**

The Basel Committee on Banking Supervision issued its first 'Progress report on Basel III implementation'. The report provides a high-level view of Basel Committee members' progress in adopting Basel II, Basel 2.5 and Basel III, as of end September 2011. It focuses on the status of domestic rule-making processes to ensure that the Committee's capital standards are transformed into national law or regulation according to the internationally agreed timeframes.

*For more details, visit <http://www.bis.org/press/p111018.htm>*

#### **Capitalisation of bank exposures to central counterparties - consultative paper issued by the Basel Committee - 2 November 2011**

The Basel Committee issued its second consultative paper on the Capitalisation of bank exposures to central counterparties. Its proposal relates to the capitalisation of bank exposures to a central counterparty (CCP) and covers both capital requirements for default fund exposures and trade-related exposures to CCPs. The Committee will finalise the rules around year end and expects that they will be implemented in its member jurisdictions by January 2013.

*For more details, visit <http://www.bis.org/press/p111102.htm>*

#### **The Basel Committee issues final rules for global systemically important banks - 4 November 2011**

Basel Committee's new publication, 'Global systemically important banks: Assessment methodology and the additional loss absorbency requirement', sets out the committee's framework to identify G-SIBs, the magnitude of additional loss absorbency that G-SIBs should have, and the arrangements by which the requirement will be phased in. In addition, it also issued an evaluation and summary of public comments received on its July 2011 G-SIBs consultative paper. Upon careful consideration, it has reached an agreement on the G-SIBs framework including some changes to certain indicators that will improve the methodology for identifying G-SIBs. A few of these changes will be subject to additional testing by March 2012 using updated bank data.

*For more details, visit <http://www.bis.org/press/p111104.htm>*

#### **Basel III counterparty credit risk - Frequently asked questions - 21 November 2011**

The BCBS issued frequently asked questions on Basel III's counterparty credit risk rules. The Committee had received a number of interpretation questions related to the December 2010 publication of the Basel III regulatory frameworks for capital and liquidity. The publication sets out the first set of FAQs that relate to the counterparty credit risk rules, including the default counterparty credit risk charge, the credit valuation adjustment (CVA) capital charge and asset value correlations.

*For more details, visit <http://www.bis.org/press/p111121.htm>*

RISK ● Do You Understand the Language of the Future? WE DO ●

A large yellow speech bubble with a black outline and a tail pointing towards the bottom right. It contains text about a feedback email address.

[feedback@aptivaa.com](mailto:feedback@aptivaa.com)

We would love your feedback on this issue of exponent.  
Please feel free to email us at the above address.