



# The Knowns and the Known Unknowns of Capital requirements for Market Risks

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FRTB : publication of a set of rules in Jan. 2016 (B3) on the basis of July 2015 impact study

Reforms are a compromise : perpetuate the autonomous function for monitoring risks within banks, but set up a safety net to avoid drift linked to self-regulation

Uncertainties still for the final calibration

Implications for economic banking models :

- reduction in financial market banking intermediation will benefit managers of bond funds and insurance companies
- rising strength of standardised markets in futures/swaps confirmed by fall in OTC derivative trading, but customers will continue to use customised products and may face extra costs from banks

## 1.- Market regulation

Basel 3 :

- higher solvency ratios : rise from 2 % up to 18 %
- more restrictive prudential equity capital (CET1) as the numerator of solvency ratios : deduct minority interest, dividends, intang. assets, goodwill, deferred tax, + Debit Valuation Adjustment (DVA) + Additional Valuation Adjustments (AVA) for market price uncertainty, close-out costs, model risks and concentrated provisions
- increased capital charges on counterparty risks on derivative products (linked to the variability of CVA, for bank exposures to CCP), increase in RWA for interbank exposure to large or unreg. entities
- leverage ratio : for the BCBS, leverage ratio (3 %) only a safeguard ; in the US, eSLR (enhanced Supplementary Leverage Ratio) introduced in Sept 2014 on 8 banks (up to 6 %) ; B3 methods completed in 2017 for implementation 2018 ; Europeans in fact follow US norms

## 2. Reasons for overhauling the calculation of RWA on trading books

FRTB addresses shortfalls on previous regulation :

- introduction of Stressed VaR in calculating RWA
- take account of risks of bankruptcy and ratings migration
- portfolio correlation
- B2 + 1996 amendments for taking into account market risks : emergence of quantitative models



- concept of VaR is simple, but implementation not easy or transparent : models complex and difficult for auditing, comparisons difficult (different banking cultures), correlation difficult to assess, underestimation of some risks, difficult to consider high volatility or extreme risks, complexity favors big banks, internal models smooth out volatility ; VaR was a poor indicator
- challenge on supervisors to audit models

### **3. Present state of reforms in the calculation of RWA on trading books**

- regulatory fragmentation is detrimental to all
- rise of standardised approaches due to scepticism of regulators and economists ; questions
- relative costs of risks determined correctly by regulators ? do they lead to good incentives ?
- detail of risk analysis is less than in internal models, threshold effects
- standard approach is a compromise : comparability vs complexity
- new framework considers expected shortfall during the stressed period at confidence level of 95.5 %
- debate on relative merits of VaR and Expected Shortfall
- default risks in the trading books : possibility of using internal models to calculate RWA assets confirmed by BCBS (securitisation excluded) ; new default risk charge (DRC) instead of IRC ; introduction of floors on default probabilities, use of default probabilities and recovery rates based on internal models (challenges for data quality and consistency with banking book), inclusion of equity risk

### **4. Future trends**

- implementation in 2019 ; for Europe : need amendment to CRR
- improving the quality content of RWA in the trading book is the cornerstone of the new prudential framework
- credibility of the new methods of calculating RWA will depend on the quality of supervision (audit of internal pricing models) ; requires from supervisors top level capacities in quantitative risks
- no evidence that the recalibration of rules will not lead to an increase in RWA for trading portfolios
- final arbitration in 2017 by BCBS in conjunction with GHOS and FSB, then transposition

### **5. Rethinking banks' capital market activities**

- evolution of bank profitability in capital markets activities
- rules for calculating the denominator (RWA) changed, ratio mostly expected to increase and capital requirements to rise
- banks should amend products, pricing and strategic positioning ; least profitable banks penalised ; implementation (data, modelling teams) and compliance costs of internal models will increase
- new regulation leading to strategic choices
- need to quantify changes in expected profitability (ROE)

### **Conclusion**

- new rules in 2019 will replace Basel 2.5 (the 1996 amendment to market risks and the additions introduced after the crisis)



- considerable but unquantifiable consequences of the new capital requirements for trading activities
- denominator (RWA) of the solvency ratio changes greatly
- remaining questions :
  - role given to the leverage ratio relative to risk-based solvency ratio
  - trust on internal models of banks and ability of supervisors to monitor
  - should the level of equity capital be increased ? no clear answer from regulators
  - what is the main tool for supervising large banks ? solvency ratios or stress tests as is the case in US ?
  - not possible to quantify realistically the impact of the new measures
  - effectiveness of the new system is not guaranteed from the point of view of financial stability
  - cannot be ruled out that the new rules will reduce ability of the banking system to ensure market-making functions ; possibility of risks moves to less regulated areas
  - in the long term, it is the profitability of banking activities that guarantees the viability of the banking system
  - FRTB, full scale experiment.