Federal Reserve Model Symposium: Capital Planning and Management

Confidential

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Executive Summary

- The evolution of capital planning, in response to changing regulatory capital requirements and the development of best practices since 2008, includes the following thematic changes:
  - **Centralized capital planning**: In contrast to earlier periods when the industry operated under a limited number of capital regimes, capital planning today requires a dynamic framework that accounts for how a firm's activities and exposures may be treated under multiple binding capital constraints, both current and future. A centralized function is needed to holistically target and maintain an appropriate level and mix of capital
  - **Stress testing as a key component of capital adequacy**: Stress testing has evolved from a risk management tool into a firmwide coordinated effort that encompasses comprehensive risk identification, scenario design, results assessment, and effect on capital levels
  - **Greater focus on returns vs. revenues**: Before the introduction of Basel 3 and CCAR, performance was often assessed by comparing revenues to balance sheet usage and risk metrics. Today, with capital as a binding constraint, return on capital has become central to business selection

	Pre-2008	Today
Stress Testing	• **Risk position P&L centric** - Value-at-Risk metrics - Non-standardized, scenario-based stress tests • **Structure:** Often managed by risk functions with limited integration with capital teams	• **Fully integrated into capital planning** • **Holistic scenario modeling including:** - Risk ID and completeness processes - Firmwide revenue / expense projections - RWA and capital ratio forecasts
Business Planning / Selection	• **Revenue and balance sheet focus** - Less capital differentiation by product under the regulatory capital rules at the time; fewer capital regimes - Business planning oriented around revenue forecasts, balance sheet usage, risk limits	• **Return on capital focus** - A business' individual capital profile depends on its stressed earnings and positional nuances (product type, probability of default and loss given default, etc) - Business planning oriented around capital density and return opportunities

Return on Attributed Equity ("ROAE")

Framework Principles and Properties

- In response to the thematic changes to capital requirements post crisis, the firm developed the Return on Attributed Equity ("ROAE") methodology to analyze the impact of regulatory capital to better manage its businesses and capital committing activities
- The framework was developed based on the following key principles:
  i. Regulatory capital is potentially binding and can influence the size and mix of the firm's businesses
  ii. Multiple capital regimes exist and accrue capital to businesses at different rates
  iii. All capital should be attributed to the business units
  iv. Individual transaction and business unit performance should be evaluated with a consistent framework
- The firm developed a robust framework to attribute capital associated with each capital regime. This enabled the firm to identify the capital requirements for various business activities, for both spot, stressed and planned capital deployment
- The firm's ROAE methodology blends the multiple binding capital constraints into a common unit where:
  - The most scarce capital attracts higher weight, as determined by current capital usage and targeted levels
  - A business' capital is a function of its resource utilization and the relative resource scarcity
  - Capital allocation is dynamic; weights change along with resource consumption and the firm's capital position
  - Businesses can be evaluated comparably

Return on Attributed Equity ("ROAE")

Components

Net Revenues

- Revenues are fully loaded, accounting for liquidity, hedging, funding

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Expenses

- Expenses include both compensation and non-compensation expenses with full allocation of technology / administrative costs. The firm fully attributes all expenses to each division and does not maintain a corporate center for unallocated charges

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Attributed Equity

- Attribution weighs a multitude of internal and external factors when attributing equity including Basel 3 capital requirements, G-SIB, CCAR, and leverage requirements

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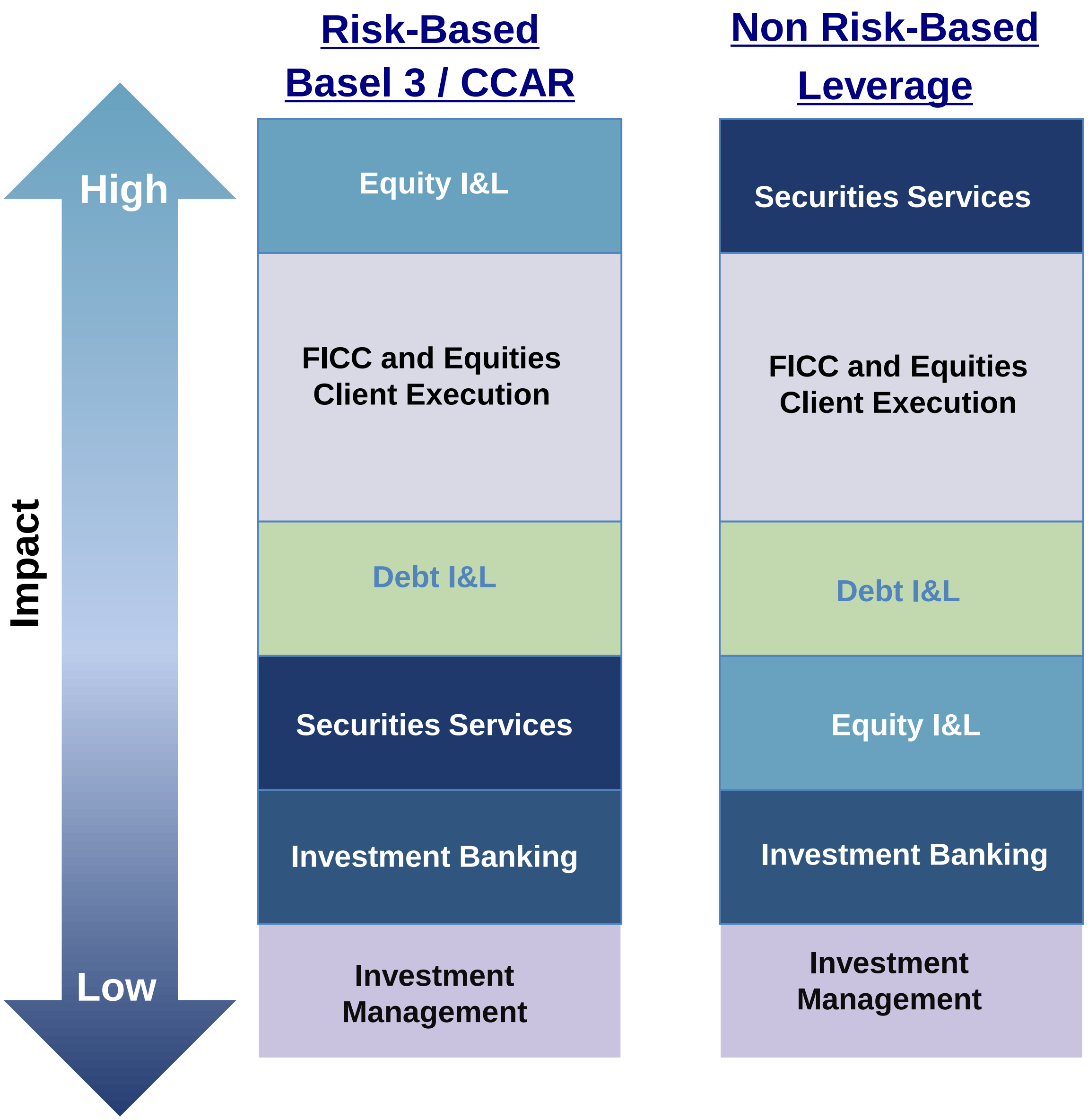
ROAE →

Because firms are subject to multiple capital constraints, a multi-factor model is required to assess a firm's risk-adjusted performance

Client Needs That Require Capital

Attribution and Efficient Capital Deployment is Central to Serving Clients



Capital needs change across multiple metrics

- Equity I&L faces higher capital requirements under a risk-based approach versus a non-risk based approach
- Conversely, Securities Services faces higher capital requirements under a non-risk-based approach like Leverage ratios
- Businesses like Investment Banking and Investment Management are of relatively low capital intensity under both types of approach

Benefits of ROAE

- As different businesses / clients have varied capital profiles, the framework provides a holistic view of the risk / return profile of a firm and is a critical input used for business evaluation and capital planning
- Capital attribution provides management the ability to analyze changes and trends in capital consumption and incentivizes businesses to be efficient in resource usage

Return on Attributed Equity (“ROAE”)

Framework Application

- The firm utilizes its ROAE framework to:
  - Evaluate individual transactions presented at various committees (capital committee)
  - Evaluate counterparty profitability
  - Measure business unit and divisional performance
  - Review strategic acquisitions
- The firm has created a cross divisional committee including representatives from all divisions to review the incentives, methodologies, relevant capital regimes and application of the framework to ensure appropriate governance
- The firm has created technology tools to apply the ROAE framework on a firmwide basis

Capital Attribution Framework (illustration)

	SLR	Basel III RWA Advanced	Basel III RWA Standardized	CCAR	Attributed Equity	ROAE
Firm Total	10,000	20,000	5,000	35,000	70,000	11%
Securities Division						
Franchise						
Equities Franchise						
FICC Franchise						
Investment Banking						
Investing & Lending						
Investment Management						

- Challenges include:
  - Balancing re-calibration frequency (stability versus reflecting most current capital position)
  - Allocation of portfolio based capital charges (diversification)
  - Volatility and transparency of stressed capital results