FS Regulatory Brief

CCAR 2012: Analysis of Results

Three overall themes emerged from the CCAR 2012 results

1. ***The CCAR 2012 methodology is the most severe, comprehensive and rigorous of the three rounds of stress tests conducted by US banks***

   More macroeconomic variables were stressed and the stress scenario methodology was more sophisticated. The macroeconomic assumptions were significantly more severe than any of the past scenarios, despite improved economic conditions.

   Operational, contingent mortgage and European sovereign debt risks were added. Tier 1 common capital reduction after stress is higher for CCAR 2012 (-380 bps) than for SCAP (-310 bps).

2. ***CCAR 2012 results for the largest banking organizations indicate a more highly capitalized and resilient segment of the banking industry***

   With the exception of one institution, all firms were able to maintain capital levels above target after application of the severe stress testing.

   Nonetheless, four of the 19 BHCs have one or more projected regulatory capital ratios that fall below regulatory minimum levels at some point over the stress scenario horizon.

   Lower loss rates in problematic portfolios such as mortgages, CRE and credit cards suggest better quality portfolios.

3. ***CCAR institutions will continue enhancing their capital management process and related validation processes***

   There is a limited transparency on how the quality of the capital management process and data/analytics influenced results.

   Large banks need to continue working on turning the stress testing process and infrastructure into a business as usual mode.

   We expect banks to promote refinements in the supervisory model to facilitate supervisory "due diligence" and minimize the potential for selective judgmental supervisory adjustments of stress test results.

Theme 1: The CCAR 2012 methodology is the most severe, comprehensive and rigorous of the three rounds of stress tests conducted by US banks

Increased comprehensiveness of macroeconomic scenarios

- Extended set of US economic variables (14)
- 12 new sets of variables to summarize global economic indicators and exchange rates than was previously used in CCAR 2011
- Enhanced methodology for scenario definition

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Increased comprehensiveness of loss types

Scope of loss types was extended to include operational losses, mortgage put-back expenses, and European sovereign debt risk.

Higher severity

Severity of scenarios is significantly higher in CCAR 2012 (see appendix).

Impact

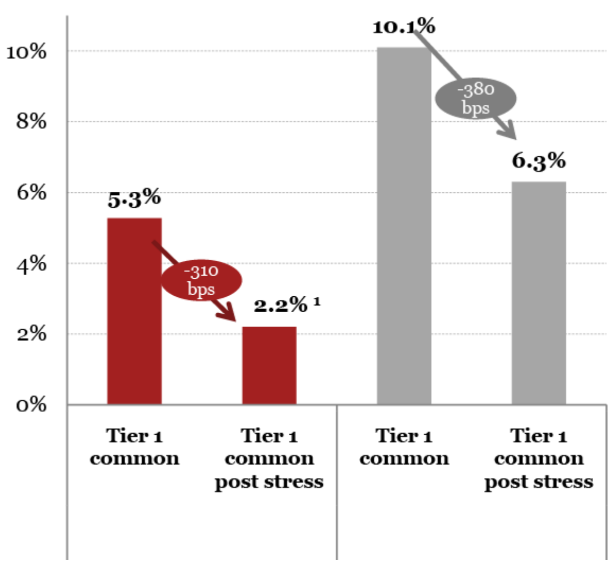
Tier 1 common:

- Results show significantly higher impacts of CCAR 2012 scenarios in comparison with SCAP results (CCAR 2011 results were not disclosed).
- However, most of the BHCs maintain stress regulatory capital ratios (even after including capital actions) above regulatory minimum level.

Total losses are similar where as assumptions for scenario were stricter and more severe. Capital dilution is significantly higher for CCAR 2012 than for SCAP (+33%).

Tier 1 common pre-stress for the CCAR Banks stays at approximately 10% anticipating Basel III higher capital standards.

Tier 1 Common (Pre- and post stress)



Source: The Supervisory Capital Assessment Program: Overview of Results, May 7, 2009 ("SCAP"), Comprehensive Capital Analysis and Review 2012: Methodology and Results for Stress Scenario Projections, March 13, 2012 ("CCAR 2012")

	SCAP	CCAR 2012[2]
Impact on Tier 1 common	-310 bps	-380 bps
Total losses	$599 Bn	$577 Bn
Capital dilution	$236 Bn	$213 Bn
% RWA	7.6%	8.8%

Source: SCAP, CCAR 2012

Theme 2: CCAR 2012 results for the largest banking organizations indicate a more highly capitalized and resilient segment of the banking industry

Impact

Loan losses are significantly lower for CCAR 2012 than for SCAP (-35%). Trading and counterparty and AFS losses are similar. Operational losses are significant, representing 18% of total projected losses.

Resources to absorb losses

Resources to absorb losses included pre-provision net revenue (PPNR) less the change in the ALLL.

Among the key differences between SCAP and CCAR 2012 PPNR estimates were:

- CCAR 2012 reflects a lower rate environment and flat yield curve over the stressed timed horizon, which produced a more compressed revenue cushion relative to the SCAP PPNR estimates.
- CCAR 2012, PPNR was expanded to include such components as supervisory estimates on losses from operational risk events, mortgage put-back losses, and OREO costs.

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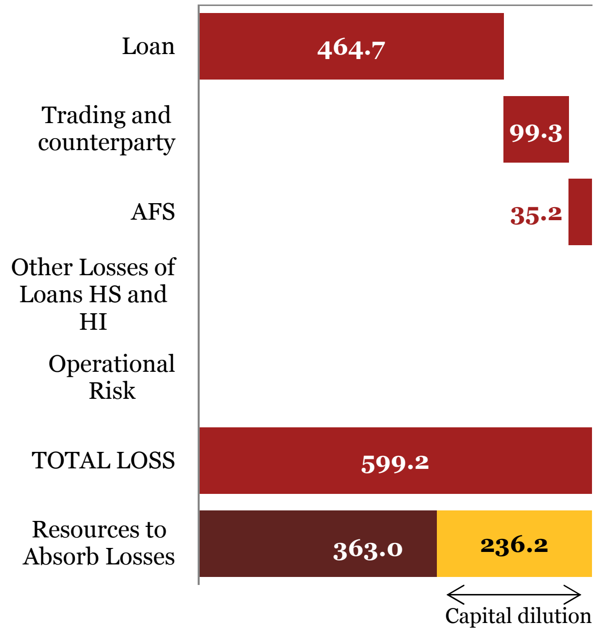
[1] Capital actions (e.g., dividend distribution, capital raise, etc.) were not taken into account in Tier 1 common post-stress results for SCAP.

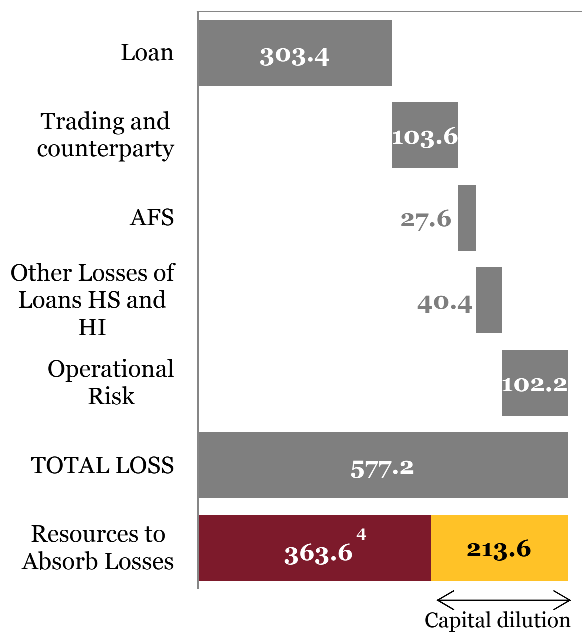
[2] CCAR 2012 results have been adjusted to taken into account the different loss projection horizon with SCAP (8 quarters for SCAP while CCAR 2012 projections are based on 9 quarters).

SCAP – Projected losses by type of product/risk



Source: SCAP, CCAR 2012

CCAR 2012 – Adjusted projected losses by type of product / risk[3]



Source: SCAP, CCAR 2012

3 CCAR 2012 results have been adjusted to taken into account the different loss projection horizon with SCAP (8 quarters where as CCAR 2012 projections are based on 9 quarters).

4 For CCAR 2012, the adjusted PPNR is $261 Bn, but adjusted operational losses have been added ($102 Bn) to make comparable capital dilution between SCAP and CCAR 2012.

Lower loan losses

Overall, CCAR 2012 results show that BHCs' portfolios are stronger.

- Loss rates in problematic portfolios such as mortgages, CRE, and credit cards have gone down. This demonstrates that the worst exposures have been charged-off, resulting in stronger portfolios.
- Loss quartile analysis shows that loss estimates for CCAR 2012 are lower than for SCAP.
- Extreme losses (4th quartile) for CCAR 2012 are significantly lower than for SCAP, especially for CRE, Credit Cards, and Commercial & Industrial Loans.

Loss ranges by asset class	SCAP	CCAR 2012
Total loan loss	9.10%	8.09%
First lien mortgages	8.80%	6.58%
Second/junior lien mortgages	13.80%	11.73%
Commercial and industrial loans	6.10%	7.29%
Commercial real estate loans	8.50%	4.62%
Credit card loans	22.50%	15.29%

Source: SCAP, CCAR 2012

CCAR 2012 capital actions

16 of the 19 BHCs proposed capital actions in the submitted plans; this level of request is much higher than in CCAR 2011.

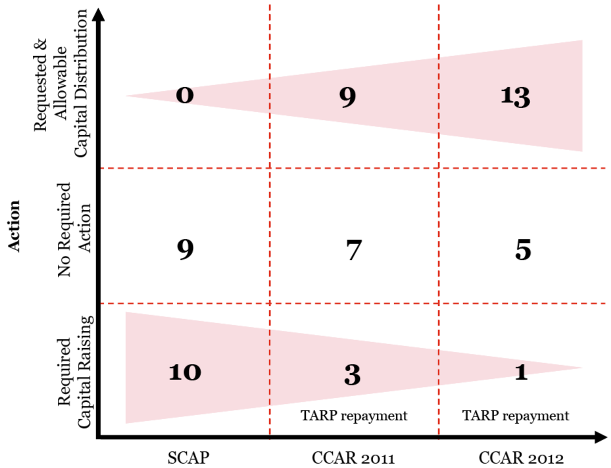
Stress test review

Four BHCs had one or more projected capital ratios fall below regulatory minimums.

- Only one BHC will be required to raise capital as a result of this test.
- Three banks passed the severe stress but failed when capital actions were applied.

The dramatic increase in allowable capital distributions signals a greater resilience among the largest banks.

Number of BHCs falling into each capital strategy



Source: SCAP, CCAR 2012, PwC analysis of BHC press releases

Theme 3: CCAR institutions will continue enhancing their capital management process and related validation processes

The Federal Reserve's evaluation process for stress tests results and capital plans involve multiple criteria:

1. ***Comprehensiveness of the capital plan***
   - Comprehensive scope
   - Capture of all BHC risks under baseline and stressed conditions
2. ***Reasonableness of assumptions and robustness of capital planning process***
   - Thorough data analysis and supporting sound risk measurement methodologies and systems
   - Credible and consistent set of business and financial assumptions (e.g., revenue, cost, loss estimates, balance sheet, etc.) under various scenarios
   - Good data quality and reconciliation to regulatory filings
   - Quality of capital and financial planning and capital adequacy processes
3. ***Policy governing distributions and capital actions***
   - Capital management governance
4. ***Ability to maintain tier 1 common capital ratio above 5% under stressed conditions throughout the planning horizon and inclusive of capital proposed actions***
   - Impact of results in key capital decisions (e.g., dividend and capital buyback programs)
   - Basel III test under baseline scenario

However, there was limited transparency on how the quality of the capital management process and data/analytics influenced the test. Result disclosures focused on criteria No. 4 only.

As the CCAR process matures, the Federal Reserve and reporting institutions have opportunities to enhance CCAR's utility as a forward-looking supervisory tool and as an additional perspective for the reporting institutions and the public on the status of important counterparties.

These opportunities could include refining the design and application of the Federal Reserve's stress methodology and key assumptions, as well as aligning the CCAR consultation process with Pillar 2 communications. Revision of the capital rules, including implementation of Basel 2.5 and Basel III, will reduce estimation "noise" through clarity and consistency of the capital measures subject to stress.

As the CCAR process and guidance matures, firms will be able to accelerate their efforts to streamline the currently resource intensive capital stress testing process and infrastructure, establishing a business as usual process (see appendix).

How the Federal Reserve's proposal for implementing the Dodd-Frank stress testing requirements for SIFIs would differ from current practice

The Dodd-Frank Act requires Systemically Important Financial Institutions (SIFIs) to meet enhanced prudential standards, including with respect to stress testing requirements. In late December, the Federal Reserve proposed these required enhanced prudential standards, including for SIFI Stress Testing Requirements. The Federal Reserve indicated that these enhanced requirements are also designed to work in tandem with the Federal Reserve's capital plan rule. As proposed, a SIFI or "Covered Company" would include any BHC with $50 billion or more in consolidated assets and any nonbank financial company designated for Federal Reserve supervision.

- The Federal Reserve will conduct annual stress tests on SIFIs using three scenarios – baseline, adverse and severely adverse conditions.
- Each SIFI will also be required to conduct annual company run stress tests using baseline, adverse and extremely adverse scenarios provided by the Federal Reserve. Each SIFI will also have to conduct a semi-annual company-run stress test using scenarios it has developed for baseline, adverse and extremely adverse conditions.
- Each BHC, Savings and Loan Holding Company or depository institution with $10 billion or more in consolidated assets will also be required to conduct an annual company-run stress test using the baseline, adverse and severely adverse scenarios provided by the Federal Reserve.

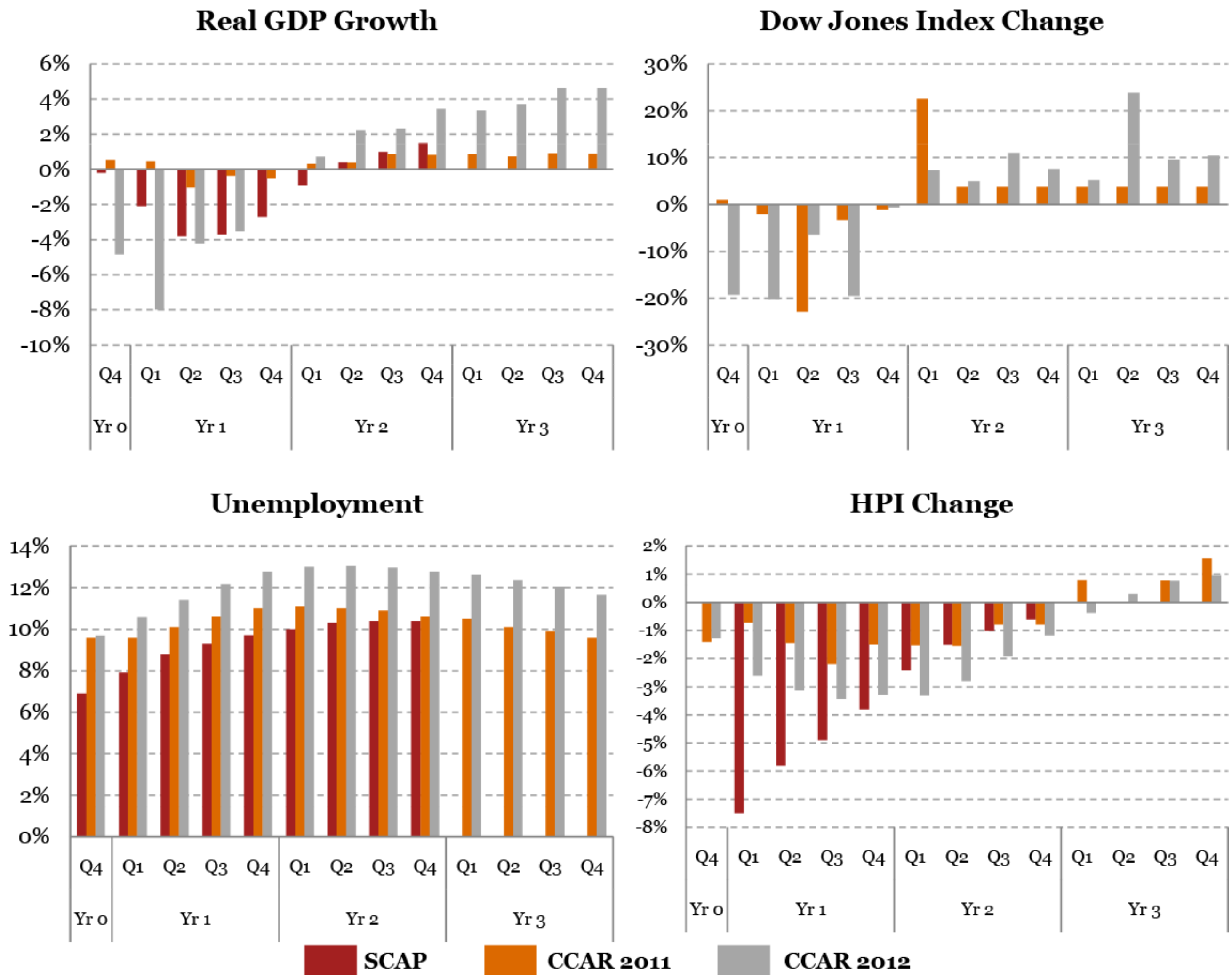
The Federal Reserve stated that its overall assessment of a SIFI's capital adequacy would use the results of standardized Federal Reserve stress-tests as one factor along with idiosyncratic factors, such as evaluation of a company's internal stress testing results, capital planning processes, governance of those processes, regulatory capital measures and market assessments.

The proposed rule would require detailed P&L disclosures on a quarterly basis for a nine-quarter period for the Federal Reserve supervisory stress tests. This has already generated concerns by the Federal Advisory Council (FAC)[5] that the level and specificity of the disclosures would result in the Federal Reserve and the covered companies giving forward-looking guidance over nine quarters creating unnecessary and potentially significant safety and soundness risks.

- The FAC also recommended that disclosure of both supervisory and company-run stress tests be harmonized to avoid potential confusion among investors, bank depositors, counterparties and the public.
- Lastly, the FAC also recommended additional coordination of the timing and sequencing of new disclosures with existing disclosures would improve transparency and facilitate greater understanding among market participants.

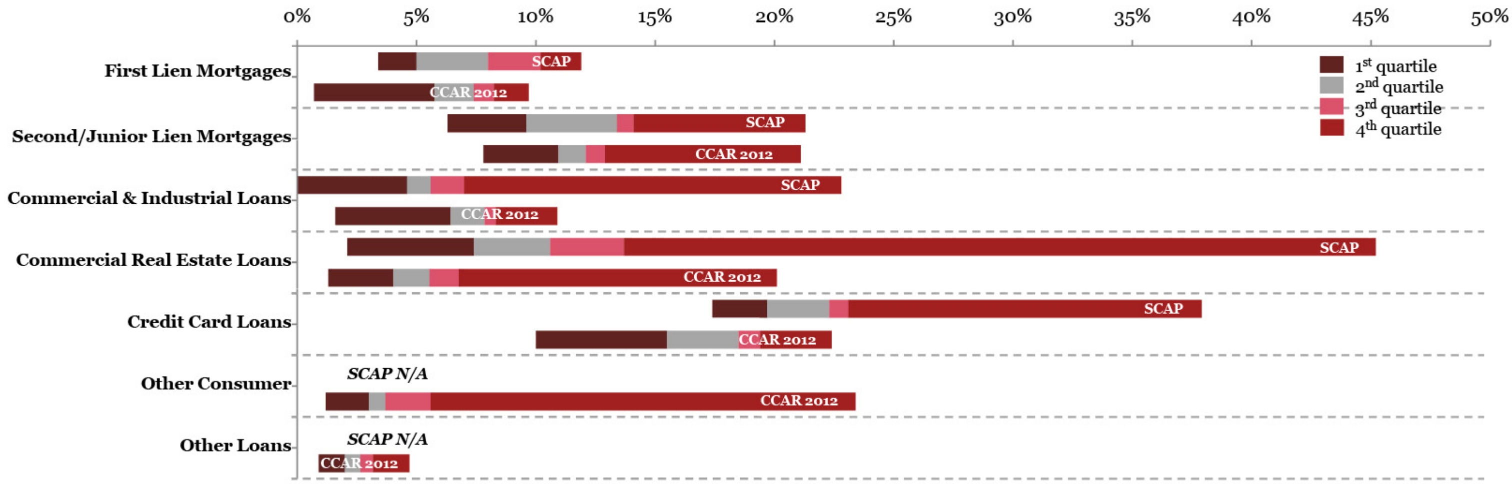
[5] The Federal Advisory Council is composed of twelve representatives of the banking industry, and consults with and advises the Federal Reserve on all matters within the Board's jurisdiction

Appendix



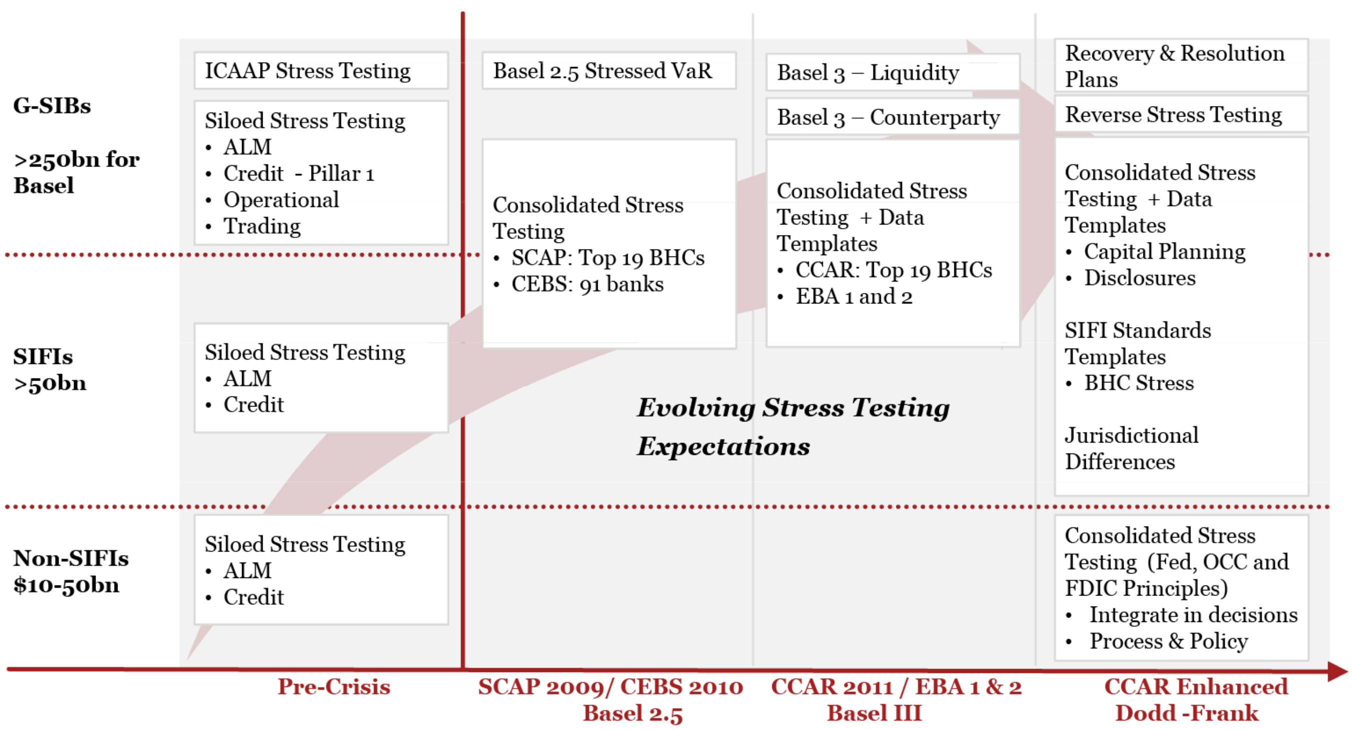
Source: SCAP, Comprehensive Capital Analysis and Review 2011: Objectives and Overview, March 18, 2011 ("CCAR 2011"), CCAR 2012

Two-year loss rate distribution for 19 BHCs organized by quartile (adverse scenario)



Source: SCAP, CCAR 2012, PwC analysis

As the CCAR process and guidance matures, firms will be able to accelerate their efforts to streamline the currently resource intensive capital stress testing process and infrastructure, establishing a business as usual process.



Actions to turn stress testing into business as usual, leveraging PwC's Stress Testing Maturity Framework

	At Risk *Inefficient Unstable Stress Testing Process*	**Functional** *Issue Awareness with Manual Processes and Control*	**Sustainable** *Reliable, Controlled Function*	**Aspirational** *High Performing Enterprise-wide Business enabler*
	Stabilization		**Sustainability**	
Strategy	• Siloed Stress Testing Approach • Ad-hoc planning for consolidated stress testing exercises	• Coordinated business and corporate stress testing approach	• Integrated business and corporate approach • Comprehensive coverage and alignment of stress testing efforts	• IT enabled strategy focused on creating value for business and corporate function • Integrated framework fully aligned to Basel, ICAAP, contingency, recovery and resolution planning
Governance	• Structures remain inconsistent and are based on "who can do it" rather than "who should do it" • Skills and capabilities requirements loosely defined	• Consistent structures exist with clear functional boundaries between risk, finance and LOB • Some functions are centralized • Skills and capability requirements are well defined and pursued	• Stress testing committee and working group • Centralized and organized stress testing unit to increase accountability and drive expertise	• Stress testing fully aligned to strategic planning and performance evaluation • Highly skilled resources focused on analysis vs. result production • Leverage shared services to deliver routine, high volume transaction processing when necessary
Process	• Scenario Analysis, loss forecasting, aggregation and reporting processes are informally documented, not standard and disconnected • Issues are partially known and managed reactively	• Standard policies and procedures are well documented and maintained • Ad-hoc efforts to standardize and automate procedures • Activities are performed manually and consume excessive resources • Outsource of systemic scenario generation	• Processes are highly standardized and consistent across LOBs • Linkage between LOB and corporate stress testing processes • Key activities and controls are performed on a timely basis based on controlled cycle time and effective preventive controls that reduce errors	• End-to-end process approach to standardization & simplification • Integrated loss and RWA forecasting • Continuous process improvement and ongoing formalized documentation
Technology	• Multiple databases with no common structure or reliable interfaces • Heavy reliance on ad-hoc reporting to provide information • Significant data manipulation to support stress testing needs	• Streamlined inventory of risk and finance applications participate in stress testing process • Data validation controls in place to ensure completeness and reconciled information to GL/disclosures	• Automation of balance sheet aggregation and reporting steps in stress testing process • Model and data quality governance and controls in place	• Financial and risk applications (scenarios, loss forecasting, balance sheet aggregation and fully integrated into a common stress testing platform • Ability to expand functionality and link other areas (RWA, ICAAP, liquidity risk, ALM, etc.) • Flexible functionality (e.g., what if and sensitivity analysis)

Additional information

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