

ERM in Banking Challenges and Opportunities

EY Roundtable



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Contents

1. Context Setting
2. Progress in Risk Management after the Crisis
3. Risk Culture
4. Risk Appetite
5. Risk Assessment and Reporting
6. Capital Management and Stress Testing
7. Key Take Away - Where to Start

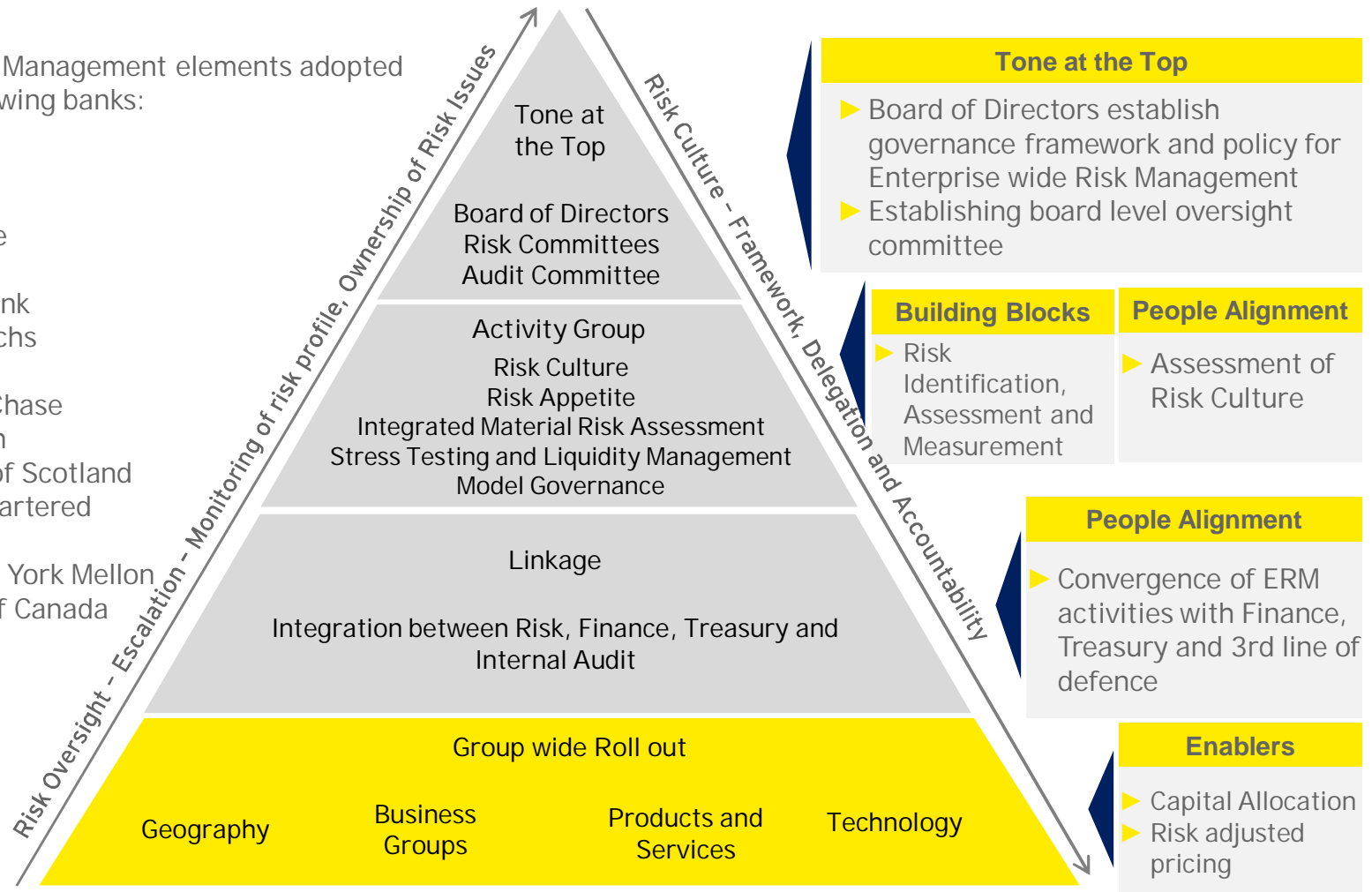
Context Setting – Enterprise Risk Management

Sharing our experience on Industry Leading Practices

Enterprise Risk Management leading practices observed in the banks and financial conglomerates across the world

Enterprise Risk Management elements adopted across the following banks:

- ▶ Barclays
- ▶ BNP Paribas
- ▶ Credit Suisse
- ▶ DBS
- ▶ Deutsche Bank
- ▶ Goldman Sachs
- ▶ ING
- ▶ JP Morgan Chase
- ▶ Merrill Lynch
- ▶ Royal Bank of Scotland
- ▶ Standard Chartered
- ▶ UBS
- ▶ Bank of New York Mellon
- ▶ Royal Bank of Canada



Progress in Risk Management after the Crisis



Risk Management after the Crisis

Key Issues impacting Financial Institutions Globally

The key issues impacting financial institutions globally based on the result of EY survey* and Global Network#



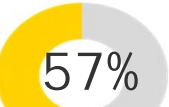
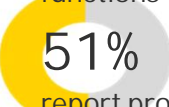
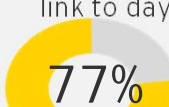
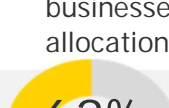
* **EY along with Institute of International Finance (IIF)** has undertaken three annual surveys to track changes in risk management landscape post financial crisis. **69 banks** and **6 Insurance Companies** participated in the last survey conducted in 2012

EY has collaborated with **non-executive directors of 13 global banks and participants from regulatory bodies** to form the **Bank Governance & Leadership Network (BGLN)** to provide view point on various challenges faced by financial institutions

Risk Management after the Crisis

Key Issues Impacting Financial Institutions Globally

Despite the challenges, firms participating in the survey reported continued progress on risk management improvements

| | Substantial progress made globally | | Challenges |
|-----------------|--|---|--|
| Governance | Governance structures strengthened; board involvement increased; board risk committees almost universal; role and influence of CROs expanded |  <p>57% report increase in size of the Group Risk function and 48% report increase in Business/ Unit Risk functions</p> | <ul style="list-style-type: none"> ▶ Still evolving role of risk committees and boards; boards are overwhelmed with new regulatory expectations ▶ Embedding risk appetite into businesses and linking to decision making ▶ Turning stress testing into a flexible management tool ▶ Adjusting to Basel III and to new local regulations ▶ Upgrading data and systems is a long-term costly effort |
| Risk Appetite | Risk appetite for most has been introduced at the enterprise level |  <p>51% report progress in setting risk appetite at the enterprise level, but only 26% believe they have embedded it into the businesses & only 37% report link to day to day decision making</p> | |
| Risk Assessment | Forward looking assessment frameworks and risk indicators have been deployed |  <p>77% are either under way or finished with in-depth reviews to identify & assess risks taken across businesses. And 57% have made changes to capital allocation across businesses</p> | |
| Use Test | Liquidity and capital management practices and processes have been improved | | |
| Data / IT | Internal risk transparency has been improved |  <p>63% predict IT spend will increase over the next two years</p> | |

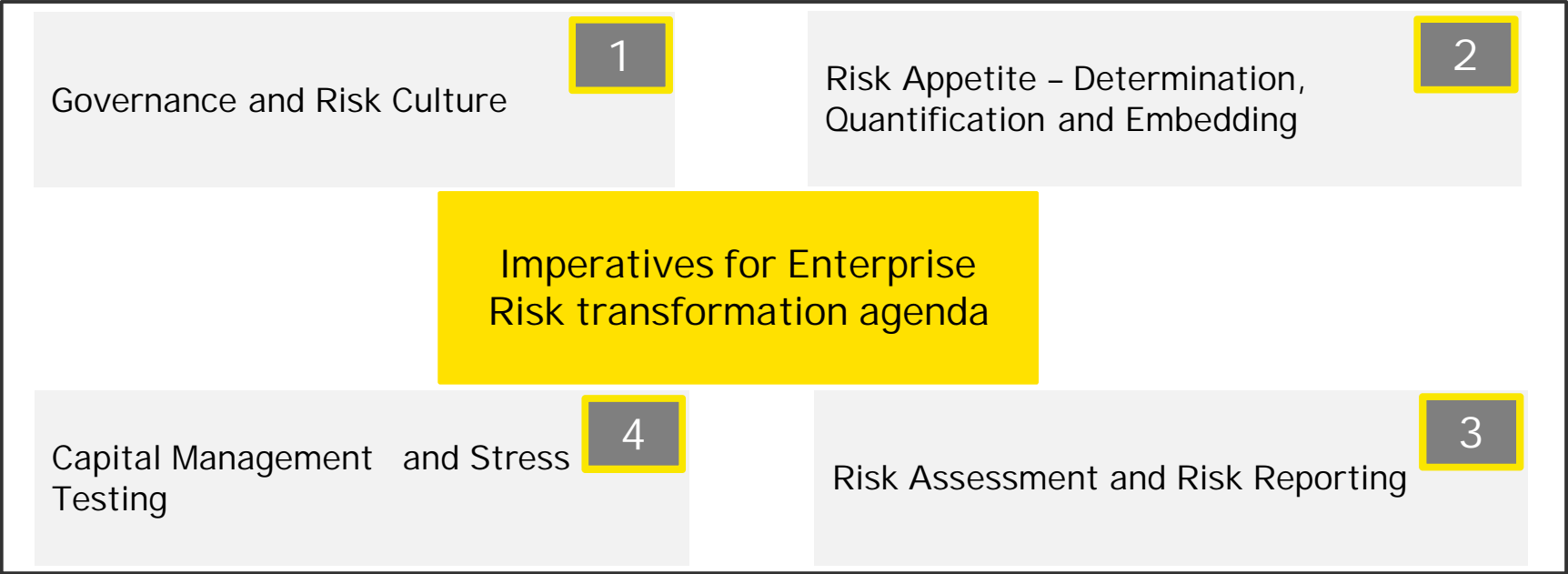
"During the crisis, we probably learned more about risk in our company than we had in previous 10 years"



"It's a work in progress because everybody is trying to learn on the job"

Key focus areas in deploying the Enterprise Risk agenda

Drivers: Key issues impacting the ERM agenda for financial institutions today



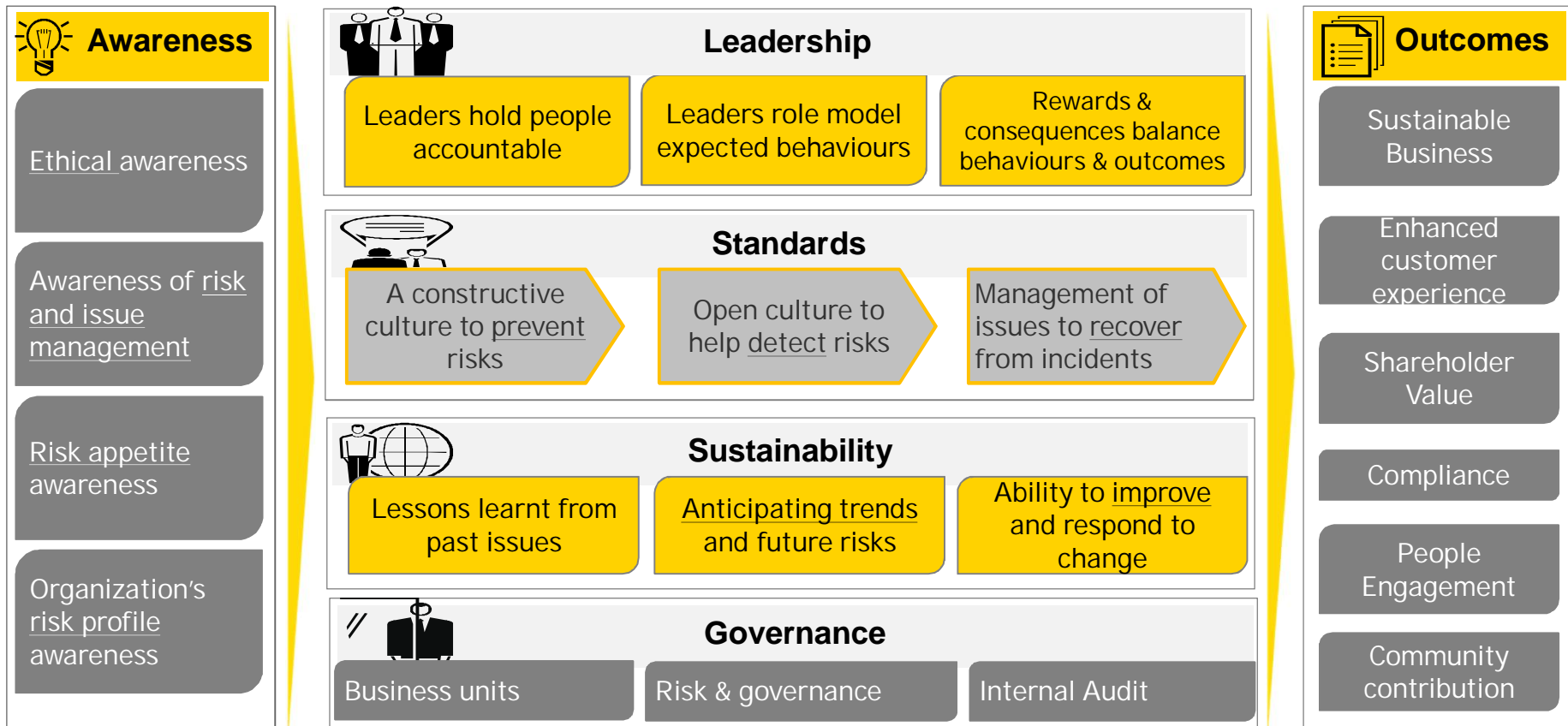
Key Focus Areas in deploying Enterprise Risk Agenda



Risk Culture Framework



“Risk culture can be defined as the norms and traditions of behaviour of individuals and of groups within an organization that determine the way in which they identify, understand, discuss, and act on the risks the organization confronts and the risks it takes”.



Risk Culture

Sharing our experience

Challenge:

- ▶ Implementing framework that defines and tracks risk culture based on what is called 'abstract attributes' – 'Defining what is good and bad'
- ▶ Transforming values to actions: A clear policy about unauthorized risk taking but way to get promotions are inconsistent with the policy terms and make the bet pay off



Increased attention on risk culture in the past 12 months and 41% (vs. 23% in 2011) say they are pleased with progress to achieve a strong risk culture

Action:

- ▶ Risk Culture Assessment: Determine risk culture through employee morale surveys, measuring parameters to assess recognition of risk, transparency of risk, responsiveness to risk and respect for risk
- ▶ Roles and Responsibilities: Rearticulate roles and responsibilities based on acceptable good and bad behavior within the organization

CRO Speak

"You can embed risk culture in many ways – through rules, control and incentives – to define what is and is not acceptable"



What good looks like:

- ▶ Defined core values and philosophy that the organization believes in and integrated into key aspects of managing employees and their performance, including recruitment, induction, performance assessment and rewards.
- ▶ Bringing Values to life – Process for escalation of alerts if actions are beyond the defined policy limits and triggers.
- ▶ Training programs for all employees to imbibe values in decision making:

Key initiatives to strengthen Culture

Strengthening risk roles and responsibilities **69%**

Enhancing communication and training regarding risk values and expectations **67%**

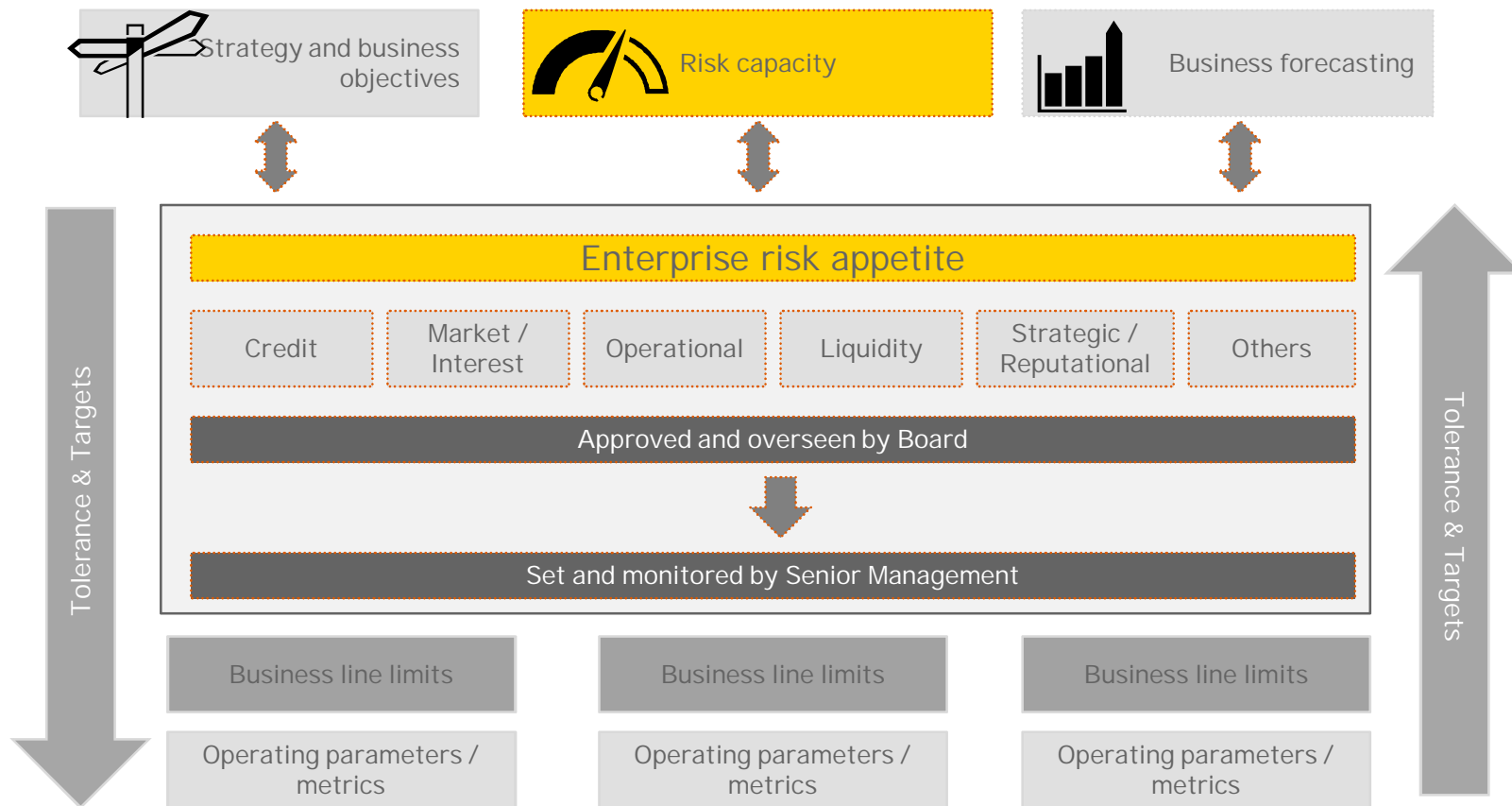
Reinforcing accountability regarding risk management **61%**

19% Changing the composition of the board and senior management team

Risk Appetite Framework



The amount of risk a bank is willing to seek or accept in the pursuit of its long term objectives. A qualitative statement defining the playing field a bank wants to act in. It is driven by a bank's business strategy/ long term objectives.



Risk Appetite

Sharing our experience

Challenge:

- ▶ Embedding the risk appetite throughout the organization and embedding it into day to day decision making
- ▶ Availability of data to effectively embed risk appetite through financial metrics

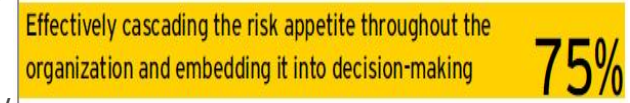


51% report progress in setting risk appetite at the enterprise level, but only 26% believe they have embedded it into the businesses & only 37% report link to day to day decision making

Action:

- ▶ Embedding Risk Appetite: Calibrate bank wide risk appetite function and decompose them into metrics for business groups, portfolios, products etc. to align operational and strategic decision
- ▶ Financial Metrics: Due to lack of sophistication of risk and finance data, proxy methodology to compute risk appetite objective functions were developed. For instance - Provisions for Credit Risk is used as proxy for Expected Losses

Top Challenge



What good looks like:

- ▶ Enterprise wide risk appetite statements tied to key financial metrics, such as, ROE and RAROC and key management metrics and efficient allocation of capital and resources through the Bank. For instance - Entity should look to maintain Return on Equity of at least 15% (Cost of equity) at all times
- ▶ Greater connect of top management and board with line managers on risk matters

Risk Appetite

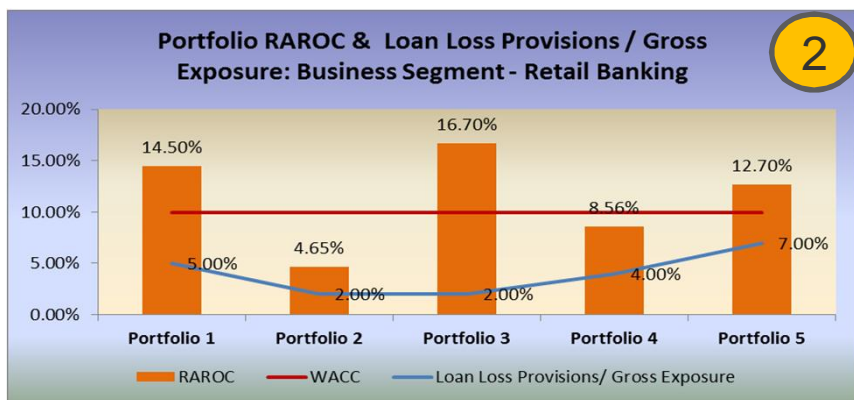
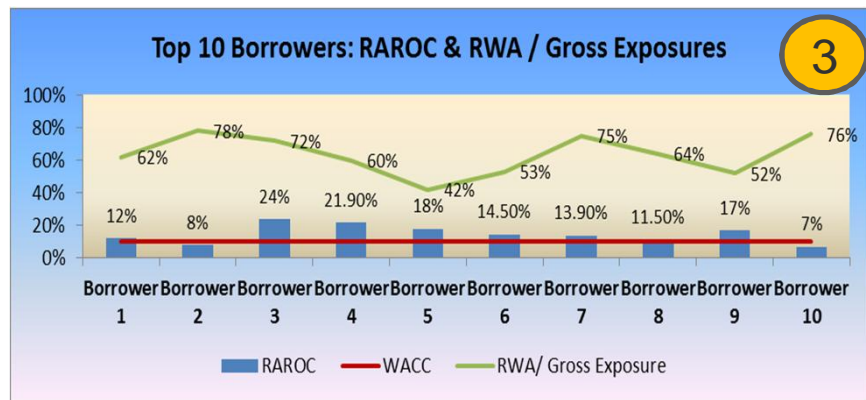
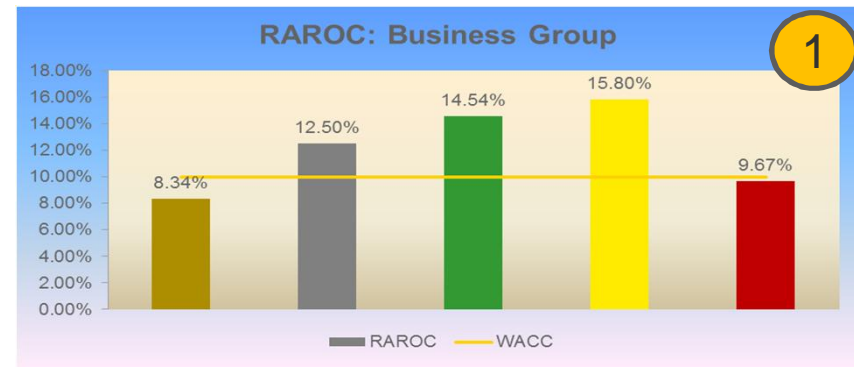
Illustrative – Risk Adjusted Return on Capital (RAROC)

Risk Adjusted Return on Capital (RAROC): Provides risk based profitability measurement framework for measuring risk adjusted financial performance across the bank. It is calibrated down to business groups, portfolio and borrowers

Illustrative Risk Appetite Statement: The bank should target a risk adjusted return greater than the weighted average cost of capital employed at all times (Hurdle Rate).

Bank wide RAROC is decomposed into the following levels and monitored periodically to ensure risk profile is aligned to overall risk appetite of the bank.

- 1 The chart provides an indication of which business groups earn a RAROC higher than the WACC
- 2 Enables management to allocate capital on an optimal basis for those portfolios with the highest RAROC and RWA & provisions within an acceptable range
- 3 Provides a borrower view of the RAROC generated vis-à-vis the RWA to the Gross Exposure



Risk Appetite

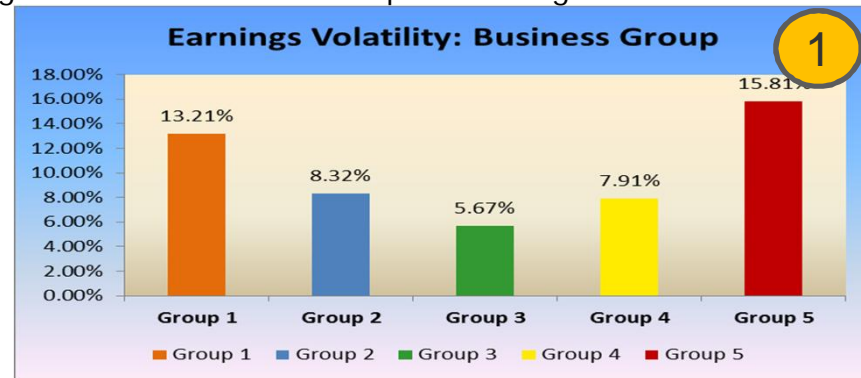
Illustrative – Earnings Volatility

Earnings Volatility (EV): Measures earnings predictability of shareholders, the bank should aim at reducing the earnings volatility to increase earnings predictability and shareholders confidence in reported earnings

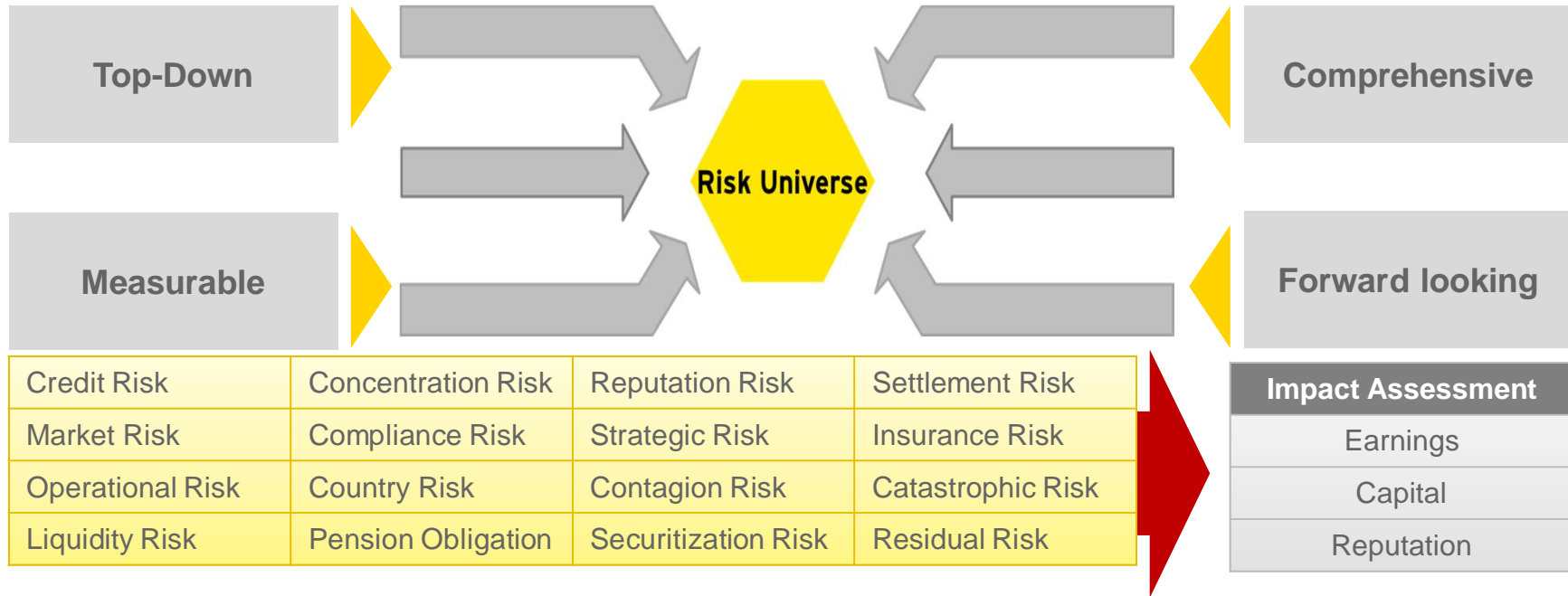
Illustrative Risk Appetite Statement: The bank should target healthy earnings growth and lower earnings volatility by focusing on business segments where it maintains market leadership

Bank wide Earnings Volatility is monitored, via, the following indicators to ensure risk profile is aligned to overall risk appetite of the bank:

- 1 The chart provides an indication of the earnings volatility across business groups and those that are less volatile
- 2 Monitoring Ratios for Earnings Volatility Provides a perspective of the amount of interest expended by each business group to the debt / liability accepted
- 3 Determines the amount of provisions maintained by the different groups to the interest income generated



Risk Assessment and Risk Reporting Framework

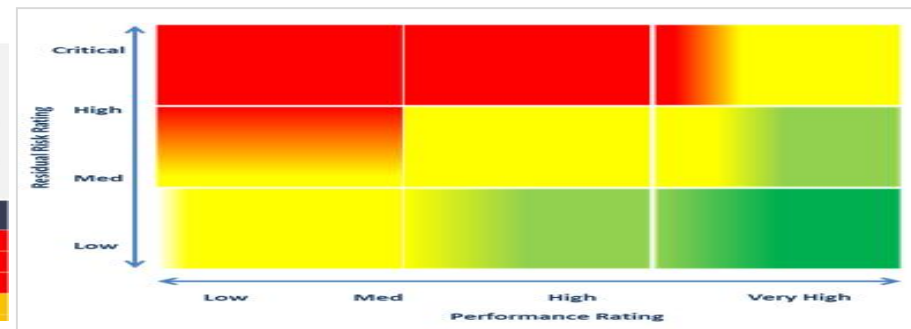


Enterprise wide – Risk Dashboards

Concentration Risk – Group



Risk vs Performance Heat Map



Risk Assessment and Risk Reporting

Sharing our experience

Challenge:

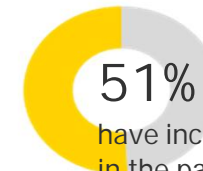
- ▶ The Risk Assessment undertaken are overtly complex (too detailed) and/or conducted in silos (separate reports for risks). The processes is viewed by middle management as a burdensome process rather managerial one,
- ▶ Attitude / Approach to use executive risk dashboards as a tool to state that all material risks are being taken care of.

Action:

- ▶ A *top down* approach that starts with dialogue with top management based on existing risk information and connects with risk appetite,
- ▶ Assessment not just covering risk undertaken but a perspective on *risk vs. return*
- ▶ *Synthesized, actionable risk dashboard*: Drawn from reports & documents used by top management to provide insights on past, present and future. Lay out the action plan required provide holistic status about past action plans,
- ▶ *IT enablement* to provide automation of data collation.

What Good Looks Like:

- ▶ Insights on the top 5 - 10 risks shaping future performance
- ▶ Major decisions are supported by risk insights
- ▶ Dashboard that has narrative explaining past performance, relationship to current 'big bets' and future implications



have increased focus on risk management in the past 12 months, and 87% now have separate risk and audit committees. 58% of CROs report to the CEO, and 90% have direct access to the board or work committee



CRO Speak

"Banks are still looking at risks in silos, they do not have an aggregated, correlated view"

"Supervisors want a quantitative risk measure that can be aggregated and disaggregated - they are specific, but they can't define it"

Risk Assessment and Risk Reporting

Illustrative – Credit Risk

| | | | | | | | |
|--|---|-------|--------|---------|-------|--------------|-------------------|
| Definition | Credit Risk <ul style="list-style-type: none"> Credit Risk is the current and prospective impact on earnings and capital, arising from the loss to an entity due to inability or unwillingness of a borrower/counter-party to meet commitments in relation to lending, trading, settlement and other financial transactions or reduction in portfolio value arising from actual or perceived deterioration in credit quality of borrowers/counterparties. | | | | | | |
| Name of the Entity: Bank xx | | | | | | | |
| Key Risk Driver Description: | 1 | 4 | 9 | 16 | 25 | Entity Value | Assessment Rating |
| 1. Percentage of unrated exposure to Total Credit Exposure | 0-5 | 5-10 | 10-15 | 15-25 | 25 < | 12 | 9 |
| 2. Gross NPA to Gross Advances Ratio (%) | 0-1 | 1-2 | 2-3 | 3-5 | 5 < | 2.4 | 9 |
| 3. Total unsecured credit exposure as a % of Total Credit Exposure of Entity | 0-5 | 5-15 | 15-25 | 25-35 | 35 < | 26.4 | 16 |
| 4. Ratio of Risk Weighted Assets to Total Assets | 0-40 | 40-50 | 50-60 | 60-70 | 70 < | 63 | 16 |
| 5. Average SMA (SMA 0- SMA 2) as a % of Total Credit Risk Exposure | 0-2 | 2-4 | 4-6 | 6-8 | 8 < | 2.4 | 4 |
| Overall Rating for Credit Risk (Average) | | | | | | | 11 |
| Key Performance Driver Description: | | | | | | | |
| 1. Actual vs Targeted Net Interest Income (Actual as a percentage of Target) | 85 > | 85-90 | 90-110 | 110-125 | 125 < | 112 | 16 |

Illustrative

Legend – Risk Index Low 1 - 7 Medium 8 - 14 High 15 - 22 Critical > 23

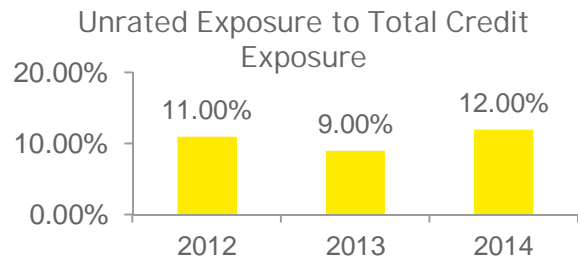
Risk Assessment and Risk Reporting

Illustrative - Credit Risk

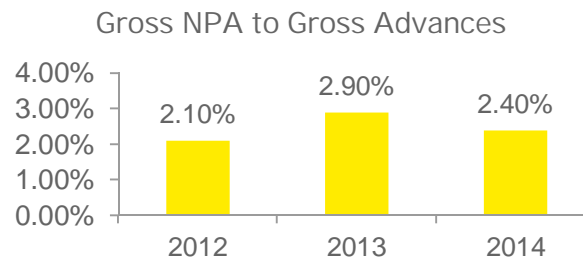
Risk vs Performance Assessment Map



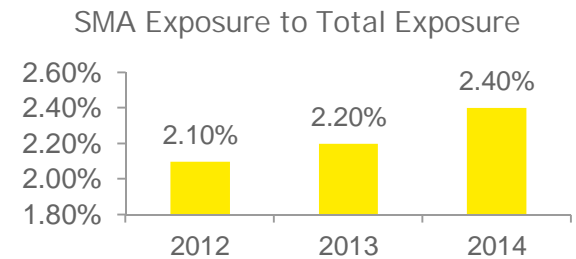
Illustrative



■ Unrated Exposure to Total Credit Exposure



■ Gross NPA to Gross Advances



■ SMA Exposure to Total Exposure

Risk Assessment and Risk Reporting

Illustrative – Compliance Risk

| | | | | | | | |
|--|---|---------|---------|---------|-------|--------------|-------------------|
| Definition | <p>Credit Risk</p> <ul style="list-style-type: none"> Compliance Risk is defined as the risk of legal or regulatory sanctions, material financial loss or loss of reputation a bank may suffer as a result of its failure to comply with laws, rules, regulations, related self-regulatory organization standards, and code of conduct applicable to its banking activities. | | | | | | |
| Name of the Entity: Bank xx | | | | | | | |
| Key Risk Drivers Description: | 1 | 4 | 9 | 16 | 25 | Entity Value | Assessment Rating |
| 1. Amount of Penalties paid to the Regulator and authorities to Total Net Profit (%) | 0.1 | 0.1-0.2 | 0.2-0.3 | 0.3-0.4 | 0.4 < | 0.32% | 16 |
| 2. Average Compliance Risk Score of Entity | 0-2 | 2-4 | 4-6 | 6-8 | 8 < | 6.1 | 16 |
| 3. Amount of contingent liabilities maintained as a percentage of Total Revenue. | 0-2 | 2-4 | 4-6 | 6-8 | 8-10 | 7.5% | 16 |
| 4. Total Number of Show-Cause notices issued against the entity during the year | 0-5 | 5-10 | 10-15 | 15-20 | 20 < | 27 | 25 |
| Overall Rating for Credit Risk (Average) | | | | | | | 18.25 |
| Key Performance Driver Description: | | | | | | | |
| 1. Penalties paid during the year for non-compliance vis-à-vis average penalties paid by peers | > 100 | 90-100 | 80-90 | 70-80 | 70 > | 94 | 4 |

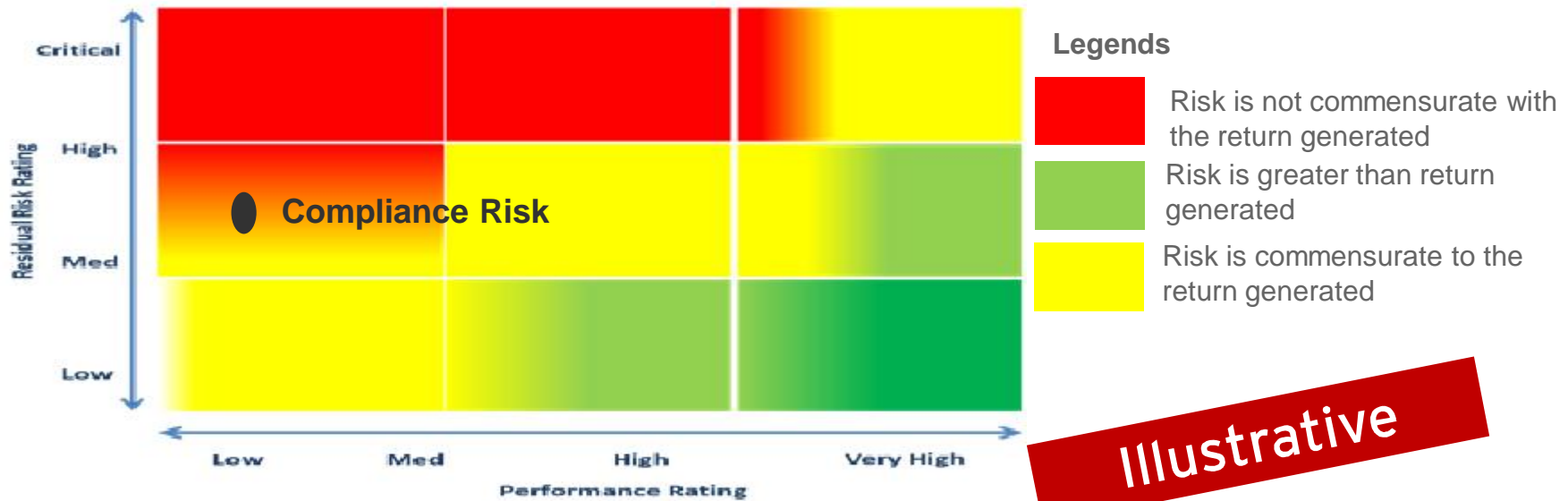
Illustrative

Legend – Risk Index Low 1 - 7 Medium 8 - 14 High 15 - 22 Critical > 23

Risk Assessment and Risk Reporting

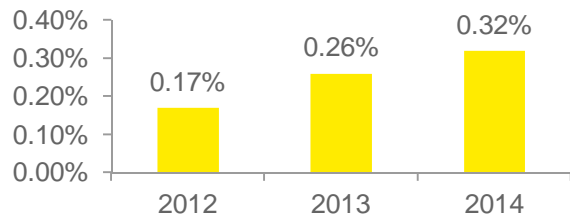
Illustrative - Compliance Risk

Risk vs Performance Assessment Map



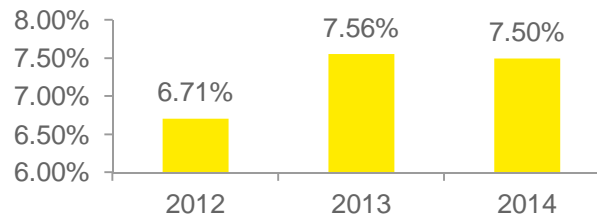
Illustrative

Amount of Penalties to Total Net Profit



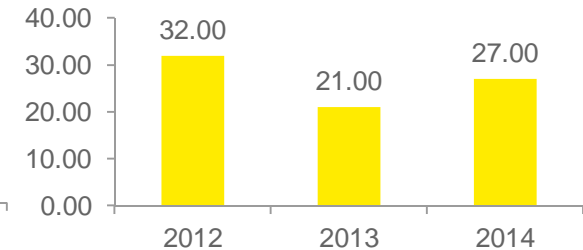
■ Amount of Penalties to Total Net Profit

Amount of contingencies to Total Revenue



■ Amount of contingencies to Total Revenue

Total No. of Show Cause Notices

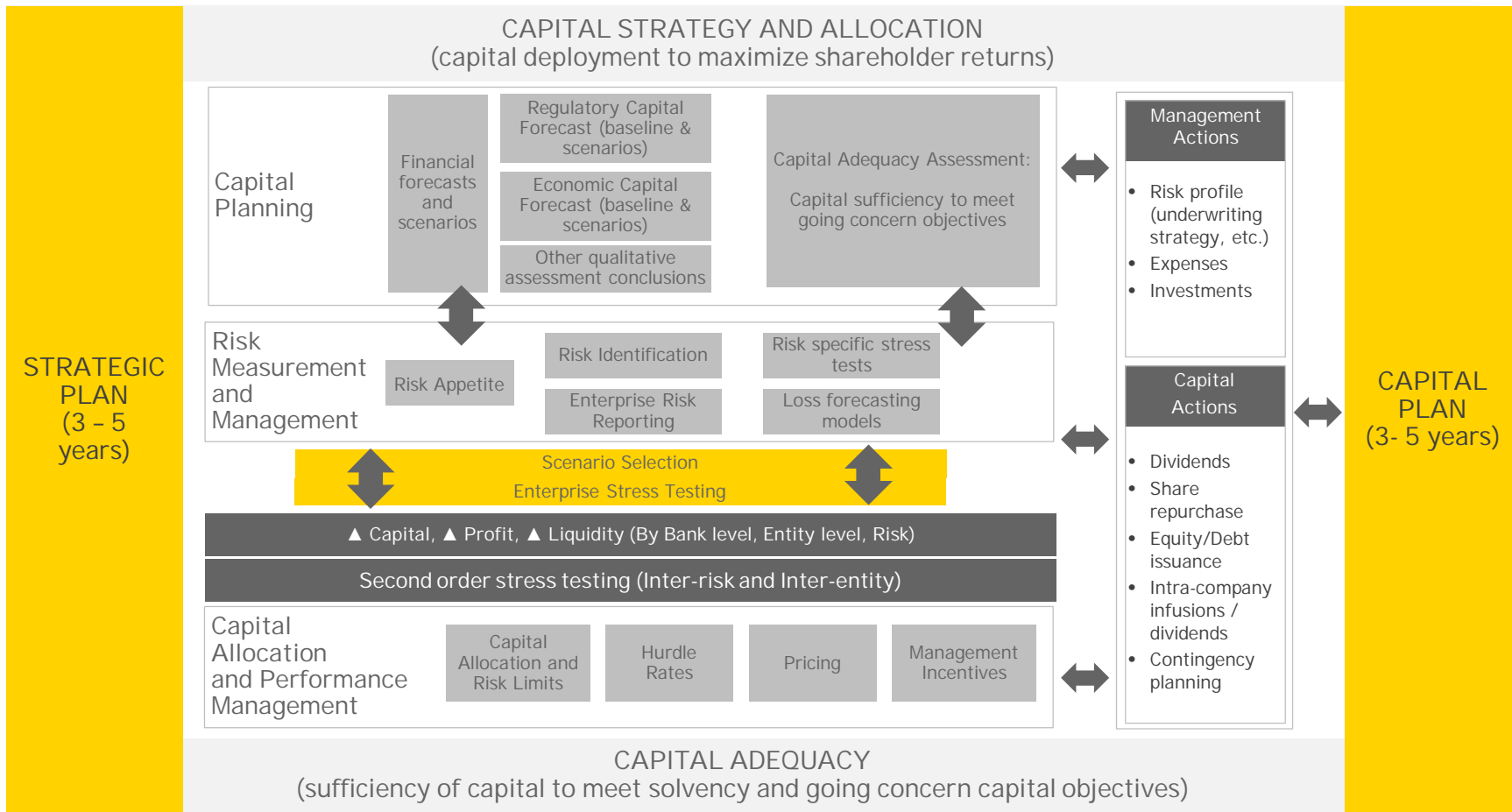


■ Total No. of Show Cause Notices

Capital Management and Stress Testing Framework



To support capital planning, enterprise stress testing needs to link firms' strategic plan, business decision-making and risk management frameworks in developing and measuring effective scenarios

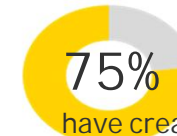


Capital Management and Stress Testing

Sharing our experience

Challenge:

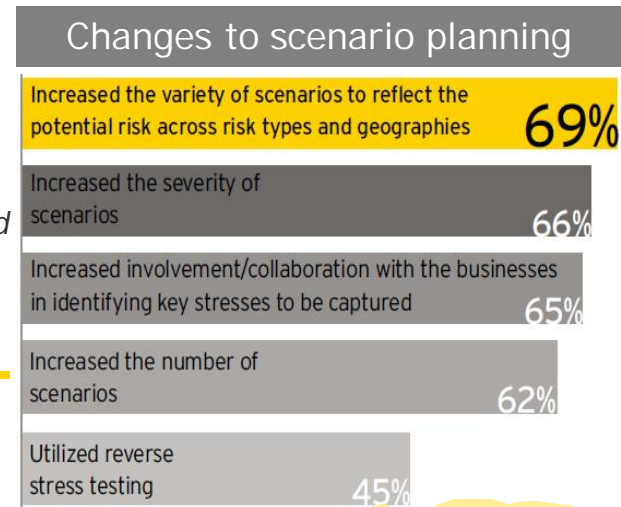
- ▶ Extracting and aggregating data for enterprise wide stress testing
- ▶ Quantifying capital requirements for qualitative risks
- ▶ Integration of risk and finance function



75% have created and implemented new stress testing in the past 12 months, while 49% say that stress testing results are incorporated into strategic decision making

Action:

- ▶ Risk based capital allocation too that allocates capital to business groups / products / branches based on risk undertaken
- ▶ Establish risk and finance working group for collective decision making
- ▶ IT enablement: Establish systems *which would enable user to collect data and perform integrated stress tests taking into account diversification benefits*



Outcome:

- ▶ Provide management with integrated view of possible collation in stress scenarios taking into account various risks
- ▶ Integration of Risk and Finance Function: Capital allocation based on risk undertaken leading to capital saving through efficient utilization of capital
- ▶ Assessment of additional capital based on integrated stress testing result

CRO Speak

"Our internal stress tests go way beyond what is required by the regulators"



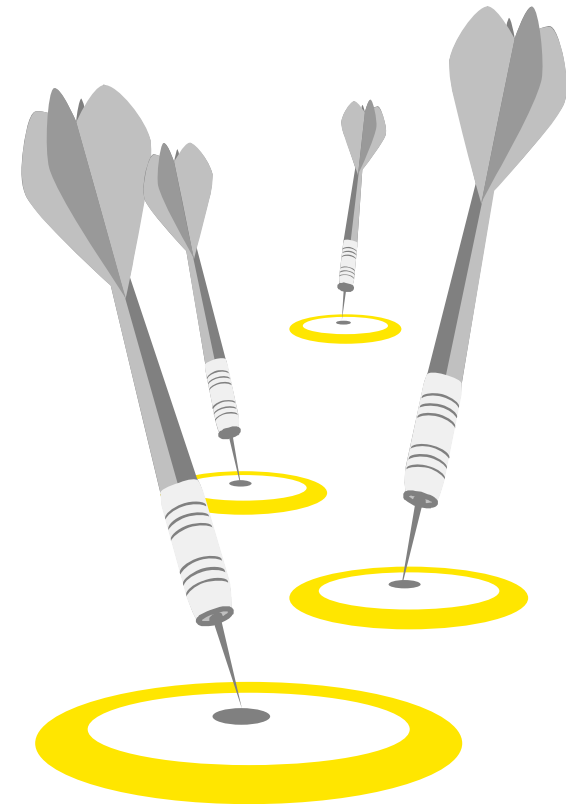
Key Take Away



Where to Start

Priority initiatives to implement ERM Framework

1. Establish risk dialogue forum for top management to discuss risk issues at C – suite level and develop a risk charter for the board clarifying roles and responsibilities,
2. Develop Target Operating Model and ERM Policy describing enterprise risk management elements and initiatives to be implemented,
3. Challenge the current culture of entity-wide risk committees and risk reporting,
4. Develop Risk Appetite and strategy statement for the organization providing what risks to focus on,
5. Establish regular and comprehensive process for risk identification, assessment, prioritization, and reporting,
6. Develop revised set of performance metrics and establish risk-adjusted performance measures that appropriately influence behaviour and strategy (in line with defined risk appetite),
7. Do a pressure testing to assess how well prepared are you to succeed under the different futures that have been developed -Tiering of the businesses to ones that are the core, (they'll always need to be there), winners in all scenarios, fragile-winners in some and significant value destruction in others.



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EY | Assurance | Tax | Transactions | Advisory

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