Credit Risk Programme

Module 8

Risk Tolerance

Learning Objectives

At the end of this session, you will be able to:

- Understand how and why the Group's Risk Tolerance Statement developed over time.
- Understand the difference between Risk Capacity, Risk Tolerance and Risk Appetite.
- Identify Risk Tolerance thresholds approved by the Board for Retail Credit.
- Understand how the Group's Risk Tolerance statement is embedded into RB risk processes.
- Identify the impact of implementing the Risk Tolerance Statement in countries.

Introduction

Background

- **Sets the tone from the top**

  The Risk Tolerance Statement (previously the Risk Appetite Statement) is ultimate reflection of the Group's shareholders risk tolerance.

- **Motivation**

  The Risk Appetite Statement was revised to a Risk Tolerance Statement at the end of 2014. The revision was driven by the supervisory request to establish an overt link between the Group's Risk Tolerance Statement and Limit Framework and the Group's intent to differentiate between strategic and risk-reward guided risk acceptance.

- **Development of Risk Tolerance Statement**

  In 2014, Oliver Wyman reviewed and benchmarked the Group's Risk Appetite Framework and Statement against best-practices within the Group's international peer-group; regulatory requirements and expectations and the needs of a banking group with an international foot-print.

  The initial calibration was supported by insights gained from an active participation in and review of various Risk Appetite related surveys and studies. Further to this the calibration was validated against the Group's current risk and exposure profile involving key senior level stakeholders and risk control owners.

  The Risk Tolerance Statement was further reviewed at the end of 2015, with risk control owners proposing updates for their respective risk types – these were discussed by the Group Risk Committee and subsequently by the Board Risk Committee who recommended the updates to the Board for approval in December 2015.

The Risk Tolerance Statement is the ultimate reflection of the Group's shareholders risk tolerance. The statement was approved by the Board in December 2015, effective 1 January 2016.

Development 2009 – 2016 (selected)

	2015-16	• Over link with risk and exposure limits • Differentiation between strategic and risk-reward guided risk acceptance
• OCC – Heightened Standards	2014	• Revision and re-calibration of financial element (perf. under stress)
• FSB's - Principles for Effective Risk Appetite Frameworks • PRA – Feedback from Asset Quality Review	2013	• Re-calibration of financial elements (perf. under stress)
	2012 2011	• Commitment to adhere to risk appetite • Specific statement on operational risk • Commitment to maintain a diversified portfolio of credit risks
• SSG's – Lessons Learned from the Global Crisis of 2008	2010 2009	• Clarification of Risk Capacity • Broader set of risks covered (e.g. liquidity risk) • Operationalisation of Risk Appetite Statement (into Group's Stress Testing program)
	2008 (for 2009)	• First Risk Appetite Statement

Source: FSB = Financial Stability Board, OCC = Office of the Currency Comptroller, PRA = Prudential Regulation Authority, SSG = Senior Supervisors Group

Risk Tolerance Framework

Risk Tolerance Framework (schematic)

Risk Tolerance Metric (e.g. Unsecured retail net nominal/total retail)

Risk Capacity

Regulatory constraint not applicable

Risk Tolerance

Unsecured retail net nominal/total retail **25%**

Risk Appetite

Amount of Risk regarded by Retail Risk as optimal to generate returns

- **Risk Capacity**

  The maximum level of risk the Group can assume, given its current capabilities and resources, before breaching constraints determined by regulatory capital and liquidity requirements, or otherwise failing to meet the expectations of regulators and law enforcement agencies.

  Risk Capacity defines externally imposed constraints within which the Group must operate. Breaching risk capacity may have very severe financial and reputational consequences for the Group, such as may result from being placed in resolution by its regulators, or the potential loss of part or all of its franchise.

- **Risk Tolerance**

  The boundary defined by the Group that determines the maximum level of risk it is ordinarily willing to take in pursuit of its strategy, in accordance with its Risk Principles. Risk Tolerance must constrain risk to the levels where the potential for any financial or reputational damage is consistent with the sustained pursuit of strategy and in line with the reasonable expectations of stakeholders. Changes to Risk Tolerances would ordinarily only be considered if they are no longer consistent with approved strategy or if they would conflict with a more constrained Risk Capacity.

  Risk Tolerances must not exceed Risk Capacity, but given the extremely exacting standards of many regulators and law enforcement agencies, it may not be possible to set them tighter than Risk Capacity for many operational risk types. In these areas, Risk Tolerances should be set with reference to our best understanding of the expectations of regulators and law enforcement agencies having regard to industry best practice.

- **Risk Appetite**

  Is the amount of risk which the Group regards as optimal in order to generate returns, taking account of current and reasonably foreseeable external market conditions. Risk Appetite cannot exceed Risk Tolerance.

Note: Global Portfolio Risk

* Escalation level reflects the point at which actions are taken to review the position in order to ensure that the Risk Tolerance level is not reached.

Risk Tolerance Statement 2016

Risk Tolerance Statement

- **General:** The Group will not compromise adherence to its Risk Tolerances in order to pursue revenue growth or higher returns
- **Credit & Country Cross-Border:** The Group manages its credit and country cross-border exposures following the principle of diversification across products, geographies, client segments and industry sectors
- **Capital and Earnings Volatility:** Under stressed conditions, of a severity experienced on average once in 25 years, the Group's prudential capital ratios on a transitional basis should exceed minimum regulatory capital requirements *(being the level at which the group can operate without additional regulatory restrictions on its activities)*, without recourse to external sources
- **Market Risk:** The Group should control its trading portfolio and activities to ensure that market risk losses (financial or reputational) do not cause material damage to the Group's franchise
- **Liquidity Risk:** The Group should be able to meet its payment and collateral obligations under extreme but plausible liquidity stress scenarios without recourse to extraordinary central bank support
- **Operational Risk:** The Group aims to control operational risks to ensure that operational losses (financial or reputational), including any related to conduct of business matters, do not cause material damage to the Group's franchise
- **Reputational Risk:** The Group will protect its reputation to ensure that there is no material damage to the Group's franchise
- **Pension Risk**: The Group will manage its pension plans such that:
  - *There is no material unexpected deterioration in their funding requirements or other financial metrics*
  - *Members' benefits will continue in their current form although management actions such as a removal of discretionary benefits are allowable in case of a market stress event*

Note: The part of the Group RTS that has been updated is *italicised*

Changes to Retail Credit Risk Tolerance Metrics

Metric	Capacity	2015 RT	2016 RT
Retail Unsecured Net Nominal / Total Retail Net Nominal	N/A	≤ 25%	≤ 25%
Country Retail Unsecured EAD/ T1 Capital (except HK)	N/A	≤ 15%	≤ 30%
Country Retail Unsecured EAD/ T1 Capital (HK)	N/A	≤ 15%	≤ 35%
High LTV* Mortgage Net Nominal % of Total Mortgage Net Nominal	N/A	N/A	≤ 10%
High Risk Credit Card & Personal Loan (CCPL)** Net Nominal % of Total CCPL Net Nominal	N/A	N/A	≤ 10%
Country High Risk CCPL Net Nominal % of Total Country CCPL Net Nominal	N/A	N/A	≤ 25%
Unsecured Loss Coverage (Loan Impairment to Income %)	N/A	N/A	≤ 33%

Notes:

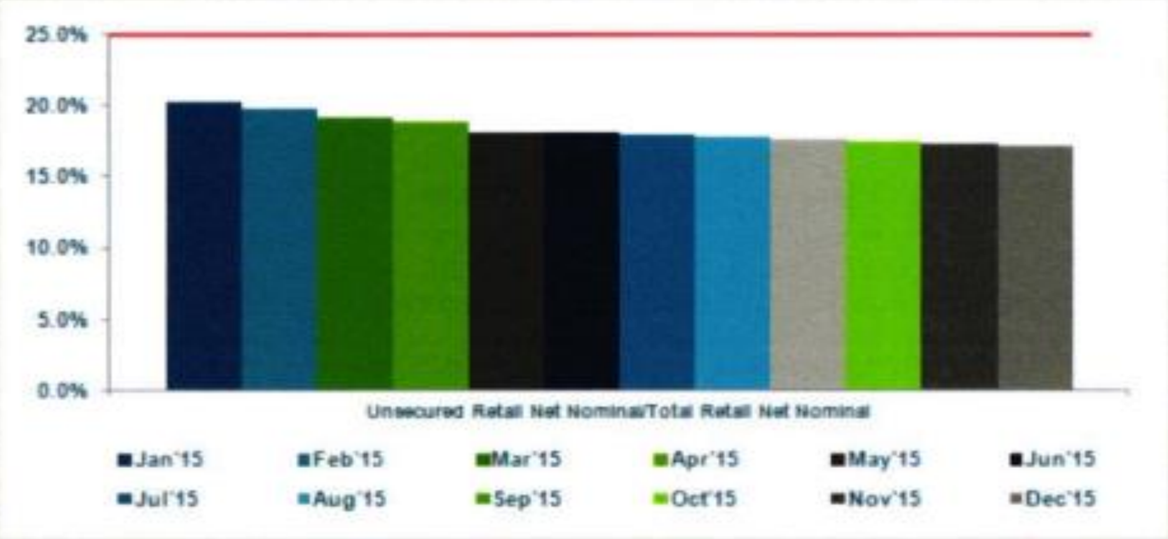
*High LTV - LTV > 80%

**High Risk CCPL – projected gross charge off > 8%

Retail Risk Tolerance Thresholds

Tolerance Metric and Threshold			
Tolerance Metric	**2015**	**2016**	**Changes**
Unsecured Retail Net Nominal / Total Retail Net Nominal	≤25%	≤25%	No change

Impact Assessment



- Trending within RT

Rationale - 2016

- Given the trend in 2015 there is no change to the RT level

Rationale - 2015

- Set at or below peer benchmark level given the Bank's lower appetite for retail earnings volatility, which is typically much higher in this product set

Retail Risk Tolerance Thresholds (Contd.)

Tolerance Metric and Threshold			
Tolerance Metric	**2015**	**2016**	**Changes**
Country Retail Unsecured EAD / Tier 1 Capital	≤15%	≤30%	Tolerance level changed to 30% in line with change in Net Nominal to EAD
Exception: HK	NA	≤35%	Exception given to HK

Impact Assessment

- Retail unsecured exposure trending within RT
- Retail Unsecured includes: Credit Cards, Revolving Credit, Instalment Loan, Consumer Finance Unsecured and Business Clients Unsecured

Rationale - 2016

- Exposure definition changed from Net Nominal to EAD to take into account further draw-downs for revolving products in case of default
- Total Unsecured EAD to Net Nominal ratio is ~200% - therefore, tolerance on EAD basis set at 30%
- Given Hong Kong is a strategic retail unsecured market, an exception is given to 35% of Tier 1 Capital

Rationale - 2015

- This is to ensure that unsecured exposure is not overly concentrated to one country in case of country level idiosyncratic events

Retail Risk Tolerance Thresholds (Contd.)

Tolerance Metric and Threshold			
Tolerance Metric	**2015**	**2016**	**Changes**
High LTV (LTV>80%) Net Nominal % of Total Mortgage Net Nominal	NA	≤10%	New metric

Impact Assessment

	Jan 15	Feb 15	Mar 15	Apr 15	May 15	Jun 15	Jul 15	Aug 15	Sep 15	Oct 15	Nov 15	Dec 15
Hong Kong	4.3%	3.5%	3.4%	3.0%	2.7%	2.3%	2.4%	2.3%	2.4%	3.0%	3.5%	4.6%
Korea	2.4%	2.3%	2.1%	1.4%	1.7%	1.7%	1.7%	1.6%	1.5%	1.4%	1.2%	1.2%
Singapore	8.7%	8.3%	7.9%	7.5%	9.8%	9.5%	10.7%	10.2%	9.7%	12.0%	11.5%	11.0%
Taiwan	3.3%	3.2%	3.0%	3.2%	3.3%	3.3%	3.3%	3.1%	3.1%	3.1%	2.9%	5.2%
Malaysia	9.7%	9.9%	7.9%	8.1%	8.2%	6.8%	6.8%	7.1%	7.3%	7.4%	7.4%	7.4%
China	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
India	1.7%	1.8%	1.1%	1.1%	0.9%	0.9%	0.9%	0.9%	0.9%	0.8%	0.8%	0.9%
UAE	15.5%	15.3%	14.2%	18.4%	17.2%	17.5%	19.4%	18.9%	18.4%	20.0%	19.3%	19.1%
Thailand	24.6%	24.5%	24.2%	23.6%	23.2%	22.6%	21.9%	21.8%	21.4%	21.2%	21.1%	20.9%
Total (Top Countries)	**5.2%**	**4.8%**	**4.5%**	**4.2%**	**4.6%**	**4.4%**	**4.7%**	**4.5%**	**4.3%**	**5.0%**	**5.0%**	**5.4%**

Rationale

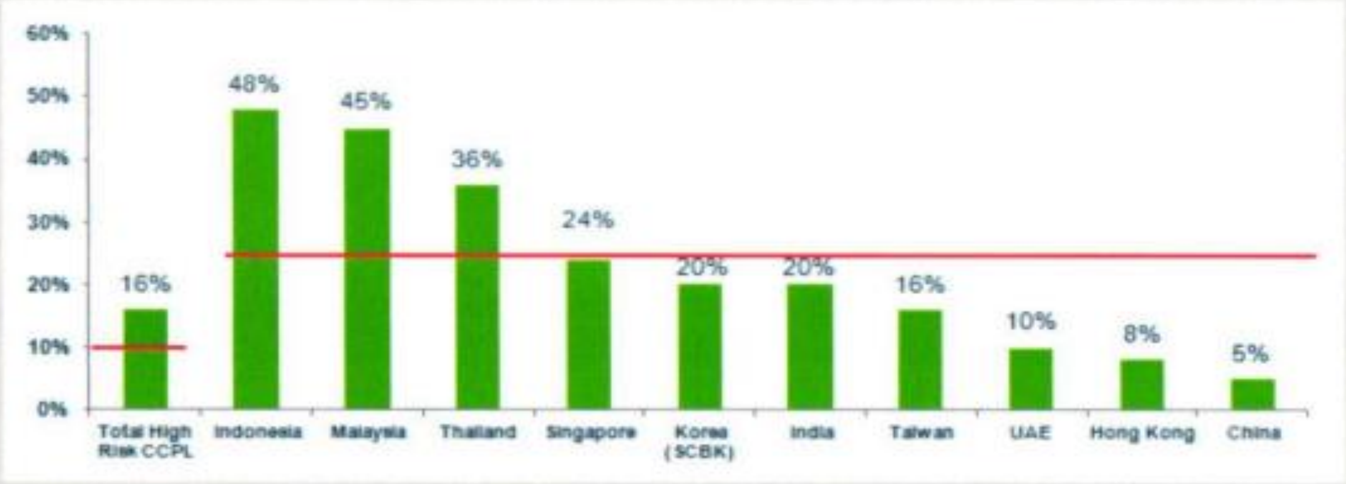
- New metric to control high risk mortgages defined as mortgages with LTV>80%
- RT level set based on following considerations
  - accommodate HK, being our largest mortgage market where LTV can be up to 90% as portion with LTV>70% covered by mortgage insurance programme
  - Allows us to be competitive in emerging markets (India and in Africa) where regulatory LTV are more relaxed
  - Country specific LTV limits are managed via the Risk Decision Framework (RDF) allowing focused actions to be taken on specific markets

*The reporting of this metric covers top 9 mortgage markets ~98% of total mortgage portfolio

Retail Risk Tolerance Thresholds (Contd.)

Tolerance Metric and Threshold			
Tolerance Metric	**2015**	**2016**	**Changes**
High Risk (GCO>8%) Credit Card and Personal Loans (CCPL) Net Nominal % of Total CCPL Net Nominal	NA	≤10%	New metric
Country High Risk CCPL Net Nominal % of Total Country CCPL Net Nominal	NA	≤25%	New metric

Impact Assessment



- Actual for High Risk CCPL as of Dec 2015 at 16% and in breach of the RT level. Actions underway to de-risk more volatile CCPL portfolios - Thailand, Indonesia and Malaysia. Credit strategies based on RDF implemented. New originations significantly better or expected to be better quality which over the next 24 months will bring the level down to 12% and to 10% by 2018
- Indonesia, Malaysia and Thailand would be in breach of the RT level for country high risk unsecured. New originations of improved quality in 2015 – bring within the Tolerance level for these markets in next 3 years

Rationale

High Risk CCPL:

- New metric to limit exposure to high risk unsecured retail exposure, which is defined as exposures with Gross Charge Off (GCO) of > 8% (limited to the top 9 largest markets in the retail portfolio)
- Inclusion of this metric will instill discipline required for Retail Clients to grow high quality and safe business

Country High Risk Unsecured:

- The country level metric provides greater line of sight into what is occurring at a more granular level.
- RT is set a level taking in consideration the diversification of our unsecured retail markets, as some markets will be above the 10% overall tolerance.

Retail Risk Tolerance Thresholds (Contd.)

Tolerance Metric and Threshold			
Tolerance Metric	**2015**	**2016**	**Changes**
Unsecured Loss Coverage (Loan Impairment to Income %)	NA	≤33%	New metric

Impact Assessment

	Jan 15	Feb 15	Mar 15	Apr 15	May 15	Jun 15	Jul 15	Aug 15	Sep 15	Oct 15	Nov 15	Dec 15
Hong Kong	22%	22%	22%	22%	22%	22%	22%	20%	20%	21%	21%	23%
Korea	68%	67%	66%	63%	61%	60%	58%	54%	53%	50%	47%	47%
Singapore	33%	34%	35%	35%	37%	38%	39%	40%	41%	42%	43%	40%
Taiwan	20%	19%	18%	16%	17%	17%	16%	15%	15%	15%	17%	19%
Malaysia	45%	43%	43%	42%	42%	41%	41%	42%	42%	45%	44%	41%
China	23%	22%	23%	23%	23%	24%	25%	25%	24%	30%	31%	31%
India	20%	19%	20%	19%	20%	19%	20%	20%	18%	18%	17%	21%
UAE	30%	30%	30%	30%	31%	31%	31%	32%	33%	34%	34%	33%
Thailand	87%	89%	92%	95%	93%	95%	95%	91%	90%	92%	90%	87%
Total	37%	37%	37%	36%	36%	36%	36%	35%	35%	35%	35%	35%

Currently in breach of RT ~35%. Portfolio under stress and actions already being taken to de-risk and bring it within RT in next 2 years

Rationale

- New metric on Retail Unsecured portfolio to ensure income sufficiently mitigates loan impairment and we are pricing for risk adequately in what is relatively a volatile portfolio

Steps to Opertaionalise

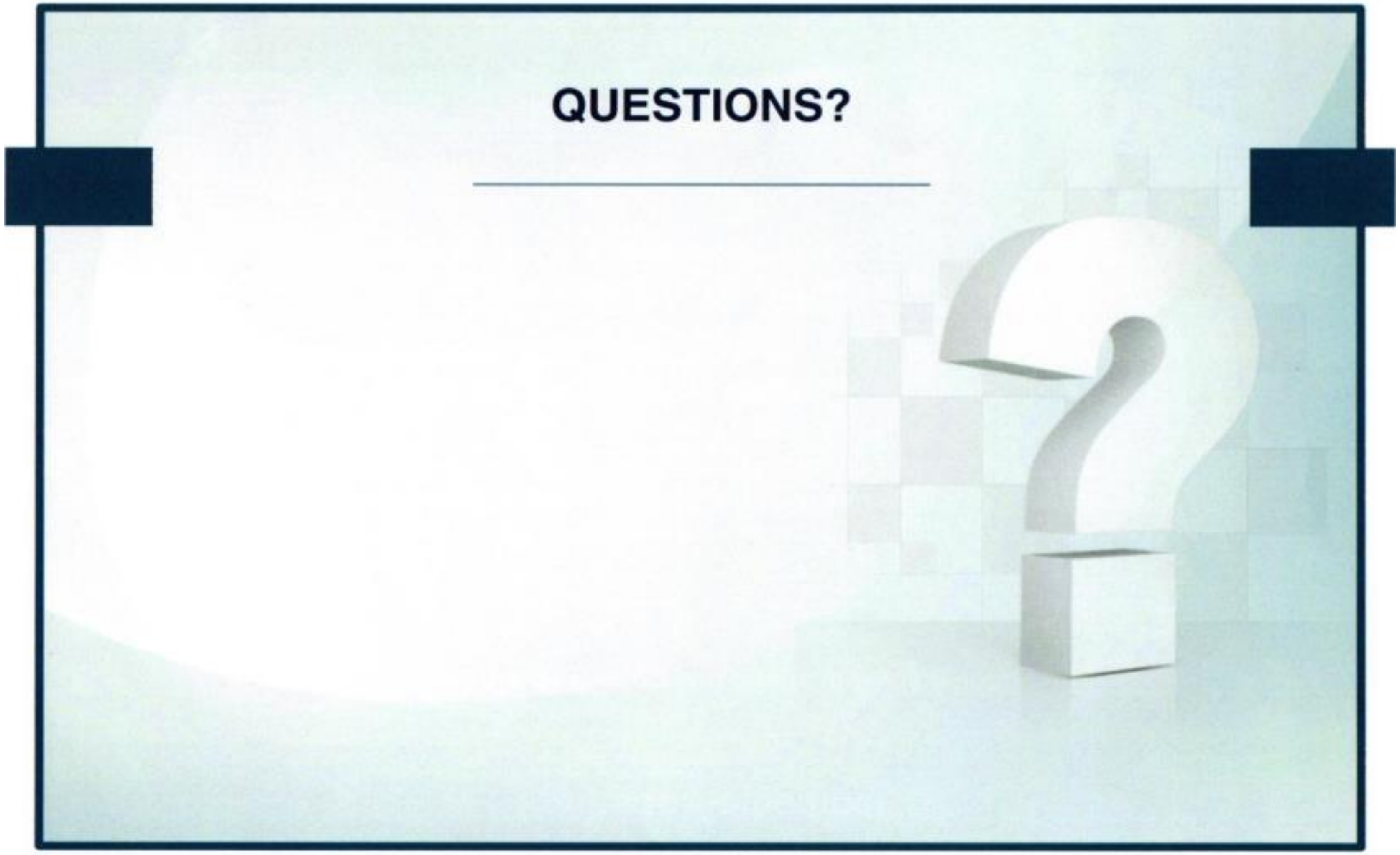
Steps to Operationalise Update of the Risk Tolerance Statement	
Reporting and Monitoring	Align Risk Tolerance management information with the Group's Risk Tolerance Statement
Documentation	Embed the new Risk Tolerance Statement into lramework, policy, procedure and instruction documents
Governance	Align the governance process for any excess in Tolerance levels
Entity-Level RIsk Tolerance Statement	Standardise the Group Risk Tolerance Statement to entity-level Risk Tolerance Statement where applicable
Risk Decision Framework	Ensure country level targets align to Risk Tolerance

Module Summary

We have Three Tiered Approach to Risk Tolerance Implementation

Board	Group Risk Tolerance Statement and Risk Tolerance levels approved by the Board Risk Tolerance is subsequently monitored by: • Board Risk Committee • Group Risk Committee
Retail Clients Risk	Risk Decision Framework established for unsecured lending to ensure Retail Banking • Operates within Risk Tolerance • Optimizes risk adjusted returns • Controls portfolio volatility; and that • Country level triggers are managed, monitored and governed via RDF
Country	• Implementation of Risk Decision Framework • Portfolio shape management • Ensure risk-return targets are met

Questions



Notes