Our Consulting Services for Performance Measurement in Banks:

- 1) Capital Attribution
- 2) Funds Transfer Pricing (FTP)
- 3) Cost Allocation



Three Key Components of Performance Measurement

- Proper performance measurement is a prerequisite to optimal capital allocation.
- Capital attribution, FTP and cost allocation are key components of performance measurement:



- Attribute risk capital requirements to transactions
- Based on exposure amount and risk parameters
- Should ideally be based on economic, but regulatory capital can be a substitute

- Allocate indirect costs to transactions
- Aggregate with direct costs to obtain total costs
- Based on appropriate cost drivers

3 Cost Allocation

Performance measurement

- BU level
- Product / Portfolio level
- Customer level

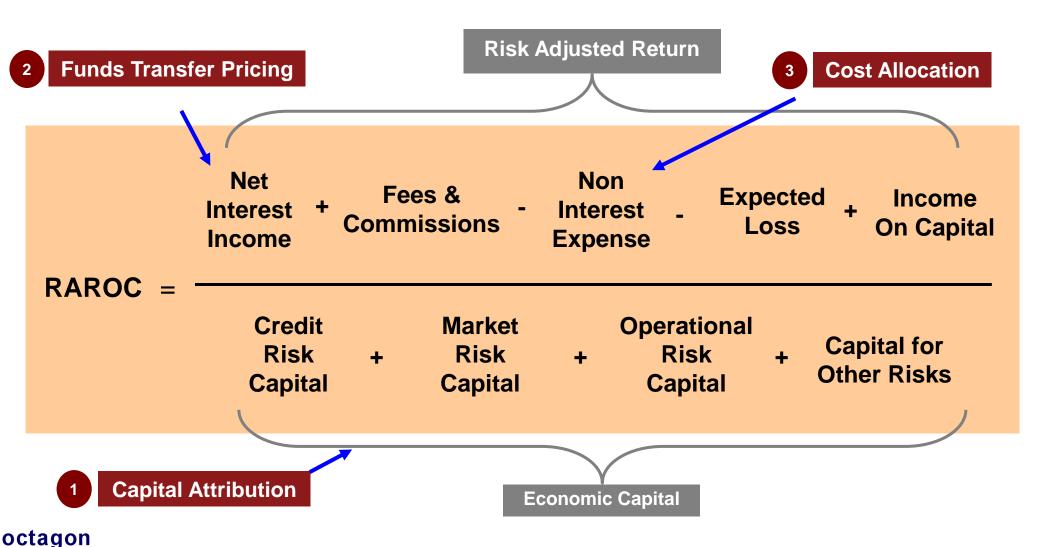
- Assign cost of funds or return on funds to transactions
- Based on market benchmarks, tenor of funds and product characteristics

Funds
Transfer
Pricing



Key Inputs in Computation of RAROC and EP

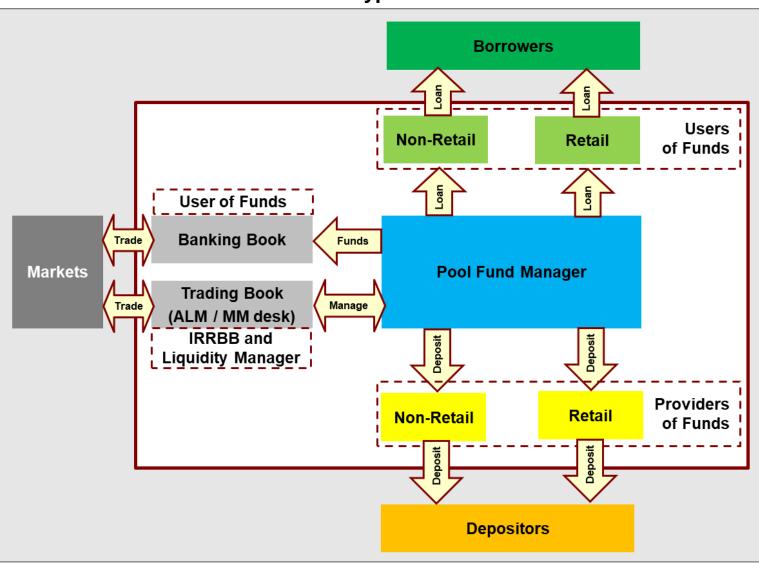
■ The inputs required for computation of RAROC are generated through different management processes within the bank



2

Overview of FTP: Parties Involved in a Bank's FTP Framework

This illustrates how FTP works in a typical bank:



 Pool fund manager (PFM) buys funds from providers of funds (e.g. deposit collecting units) and sells funds to users of funds (e.g. lending units).



Interest Spreads to Lending Units and Deposit Taking Units

Loan Rate Net income is the difference Interest Spread = Lending between loan rate & the rate at Loan Rate - FTP Rate Units which funds can be borrowed in the inter-bank market **FTP Rate** Net income is the difference **Deposit** between the rate at which Interest Spread = **Taking** deposits can be invested in the FTP Rate - Deposit Rate **Units** inter-bank market & the deposit rate **Deposit Rate**

*We understand that the bank may grant loans at Prime Rate+ or Prime Rate-. The above chart illustrates the distribution of interest spread between lending units & deposit taking units when loan interest rate is at Prime Rate.



2

Process to Select Funds Transfer Pricing Methods for Products

- Factors to consider when selecting FTP method for a loan or deposit product:
 - Cashflow
 - Re-pricing interval
 - Term to maturity
 - Customer behavior, e.g. prepayment
- Process to select appropriate FTP method:

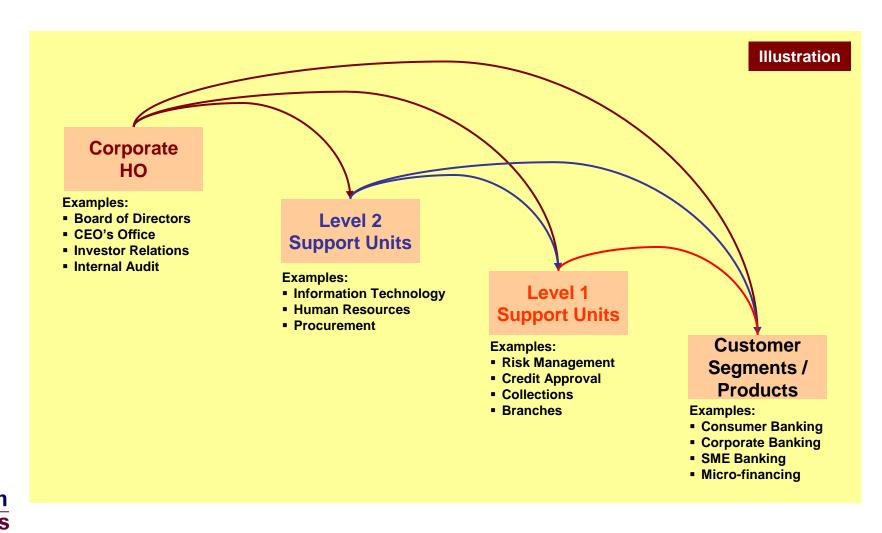
Interest Rate: Repricing **Maturity:** Cashflow: Fixed / Float / Frequency: **Appropriate** Asset / Determinate / Known / Liability Non-Interest Known / Method **Indeterminate** Unknown **Paying** Unknown

- Application of liquidity premium and other adjustments:
 - Where the market benchmark curve does not fully reflect the cost of funds (for assets) or return on funds (for liabilities).
- Management actions to adjust FTP:
 - To apply management incentives and subsidies to drive the BUs towards the desired business objectives, in the form of incentive spread.
 - A range of management actions to be applied to cater to different circumstances.



Overview of Cost Allocation: Determining Hierarchy of Costs

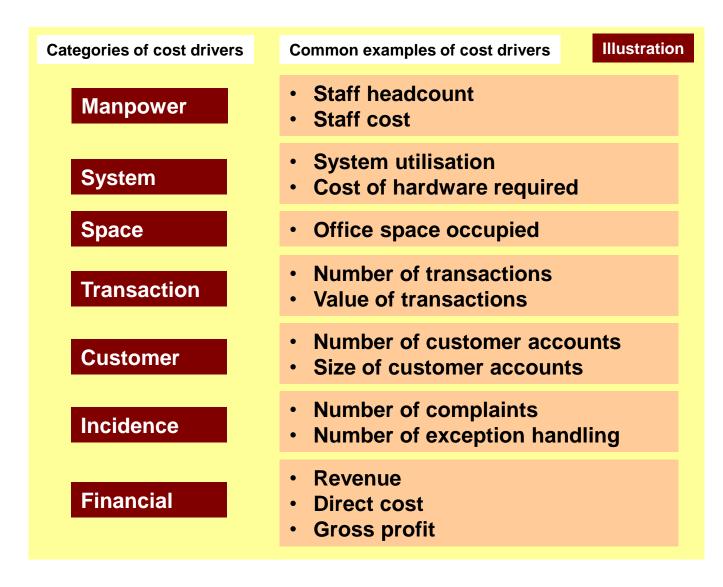
- Costs are allocated through a hierarchy of cost pools.
- Costs should be allocated from pools at a higher level in the hierarchy to those at the same or a lower level.





Assigning Appropriate Cost Drivers to Various Cost Pools/Items

Cost drivers selected should be intuitive, measurable and stable.





Our Consulting Services for Performance Measurement in Banks

- We customise our services for each bank depending on its current situation:
 - Design and develop for a bank without the relevant framework and methodology
 - Review and enhance where the bank has existing framework and methodology

No	Components of Performance Measurement	Scope of Services (Summary)		
		Governance, Roles and ResponsibilitiesFramework and Policies	MethodologyReporting	Computation and ImplementationApplications
1	Capital Attribution	 Review and approval of scope, policies, methodology and use cases Rollout, maintenance and monitoring Treatments of deviations / exceptions Dispute resolution 	 RAROC / RoRWA / EP computation methods RAROC / RoRWA / EP reports 	 Ex-ante pricing Ex-post performance measurement Annual capital allocation Strategic capital allocation
2	Funds Transfer Pricing (FTP)		 Market benchmarks FTP methods and reports for all products 	 Product FTP Transaction FTP Residual FTP for ALCO book
3	Cost Allocation		 Cost hierarchy, drivers and approaches Direct, indirect and total costs reports at various dimensions 	 Business unit / Support unit costing Product costing Customer costing Transaction coting

End

