

Leveraging Core Banking for Risk Management and Analysis

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Banking and Risk Management

- Banks
 - Icons of Trust, Conservatism
 - Central Role in Economy and Commerce
 - Well practiced system
- Safety aspect of banks have shown vulnerability
 - Spectacular
 - Barings Bank scam (Nick Leeson story), Lloyds TSB scam
 - Indian bank scam – Operations Risk
 - South East Asian crisis
 - NBFCs in India – ALM mismatch
 - Under publicised
 - Documented losses not leading to failures
 - Constant, undocumented losses from operations

“the structure of financial markets has changed. Structure of financial supervision and regulation is way behind, on a global basis. There’s no reason why we shouldn’t have it.”

“when we talk of process, you have to put in place all kinds of supervision and certain codes of behaviour in large institutions that makes them too good to fail”

Henry Kaufman

President, Henry Kaufman & co. Inc

The significant transformation of the banking industry in India is clearly evident from the changes that have occurred in the financial markets, institutions and products. While deregulation has opened up new vistas for banks to augment revenues, it has entailed greater competition and consequently greater risks. The traditional face of banks as mere financial intermediaries has since altered and risk management has emerged as their defining attribute

- Report on Trend and Progress of Banking in India 2001-02, Reserve Bank of India

Past environment

- India had a highly regulated financial sector regime till 1991, which eliminated market risk
- Borrowing and lending rates were prescribed, guaranteeing spreads
- Controlled foreign exchange regime ensured allocation of overseas resources as per Government policies

Changed environment

- Lending and borrowing rates are freed
 - Only savings deposit rates regulated
 - Deposit accepted from 15 days onwards
 - Differential rates offered for higher amounts
 - Exports and Priority sector advances regulated
- Capital Adequacy , Income Recognition Asset classification, Provisioning Standards, Investment valuation norms introduced for Banks and Fis
- Gradual drop in banks PLR from peak of 16%
- Gradual increase in MTM on SLR securities
- Increase in investments in capital market instruments

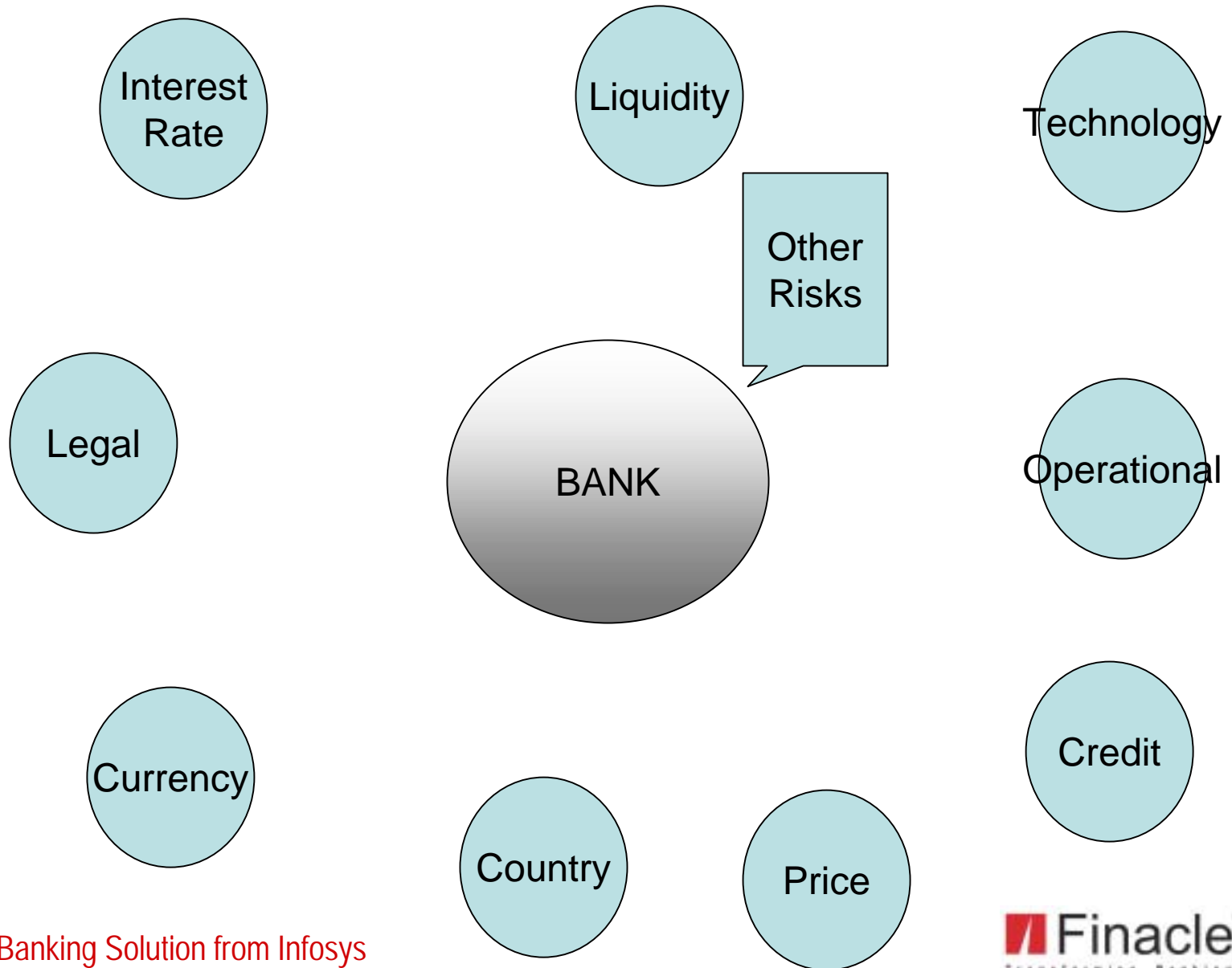
Changed environment .. Contd

- Access to capital markets made easier for corporates
- Rupee is convertible on trade account, FDI is welcomed with a plethora of incentives, FIIs are an established force in stock markets
- Government has liberalised ECB policy
- Investors have a wide variety of options to choose from including mutual funds offering tax benefits
- New structured financial instruments available in lieu of plain vanilla bonds
- From Liability creation to asset creation (In India)

Banking and Risk Management

- What has contributed to risk
 - Probabilistic nature of newer instruments
 - Increased speculation
 - Disparate and islands of information
 - Unable to find information on time
 - Not having checks and balances
 - Risk existed but not measured.

Risk Ecology



Key Risks

- **Liquidity Risk**
 - ◆ Availability of funds to meet commitments on both assets & liabilities and provide for balance sheet fluctuations
- **Interest Rate Risk**
 - ◆ Exposure to adverse movement of interest rates
- **Currency Risk**
 - ◆ Exposure to movement of exchange rates
- **Credit Risk**
 - ◆ Exposure of earnings - counterparty risk

Core Banking

Core Banking systems cater to OLTP nature of banking operations and enables capture of information on customers and processing their transactions. System should be highly secure, flexible, scalable and robust to service existing and growing business demands.

Core Banking Systems provide

- Enterprise Data model for banking
- Update by delivery channels
- Data for CRM
- Different views of relationship of customer

Risk Management

- Basel II
 - Three Pillars
 - Minimum Capital requirement
 - Supervisory Review Process
 - Market Discipline
 - From Core Banking perspective
 - Capital Adequacy is calculated
 - Credit Risk
 - Market Risk
 - » Interest rate risk
 - » Liquidity risk
 - Operational Risk

Risk Management

- Credit Risks
 - Unified view of customer / group of customers etc
 - Collateral information management – lien / escrow etc
 - Multi Dimensional Concentration – eg: Industry / geographic
- Operational Risks
 - KYC rules and confirmation
 - Transaction monitoring and alerts
 - Information security on all channels (web; branch etc)
 - Scalability
 - Refers to all aspects of operations from customer contact to execution
- Others
 - Profitability view of relationships
 - Integrated Trade, Cash and Treasury offering
 - Economic Capital absorbed for each relationship
 - Regulatory compliance reporting (PSL, R-returns, etc)
 - Cross-sell products to Retail customers

Risk Management

- Credit Risks and Core Banking
 - Process Application for Retail Loans
 - Incorporating Best Credit Filter Model
 - Credit Rating
 - Check on 'black list' to address KYC requirements. (Interface to OFAC for validation)
 - Loan Management
 - Financial transaction, disbursements, repayments, installment, interest, charge, insurance payments, collateral, limits, cross utilization, overdue in an online real time basis.

Risk Management

- Market Risk and Core Banking
 - Marking to market
 - Monitoring Limits on Online Basis
 - Evaluate and Monitor limit utilization
 - Address Market Risk due to exchange fluctuations
 - Interest Rate and liquidity Risk
 - Information to be captured by core banking
 - Analysis to be done by external systems (Structural Liquidity gap analysis, Interest Rate gap Analysis, Net Interest income, margin analysis, Tolerance Analysis, Cost to close Analysis, Duration gap analysis, compute CAR)

Risk Management

- Operational Risk and Core Banking
 - Marking to market
 - Password control
 - Transaction Limit
 - Exchange Rate Limit
 - Country and Currency level limit
 - Operational Risk Control
 - KYC Enforcement
 - Maker Checker Enforcement across modules
 - Monitoring Ops of staff accounts
 - Enforcing only application led updates
 - Limits monitoring for counterparties
 - Access to information
 - Collateral wise risk limits control

Risk Management

- Operational Risk and Core Banking
 - Loss Data collection and analysis
 - Loss mitigation knowledge base

Risk Management

- Operational Risk and Core Banking
 - Loss Data collection and analysis
 - Loss mitigation knowledge base
 - Risk profiling
 - Statistical derivation of
 - Probability of error
 - Loss given an error

Thank You

Girish G Vaidya
Sr. VP and Head Finacle