BANK INDONESIA
BANK SENTRAL REPUBLIK INDONESIA

Hedging and Risk Control

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Hedging and Risk Control

- How to manage risk associated with hedging transactions
- Mark to market? When and when not?
- Distinguish hedging from speculation
- Identify goal of hedging
- How to measure hedging performance
- Compare active hedging with forward prices
- Management reporting: hedging and risk control

The Framework

Exposure

↓

Volatilities and Correlations

↓

Risk Measurement

↓

Risk management actions

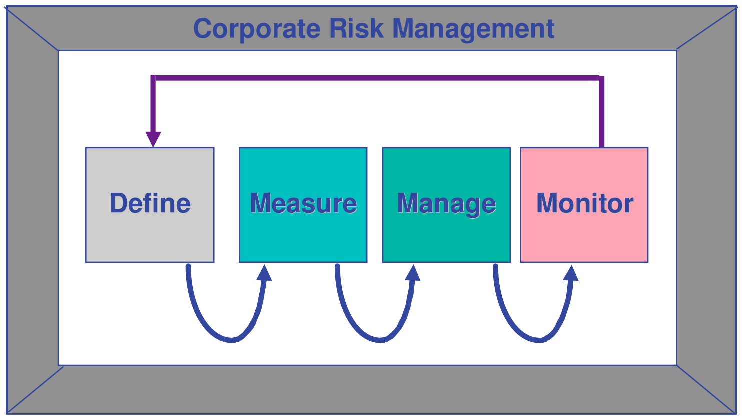
↓

Performance evaluation

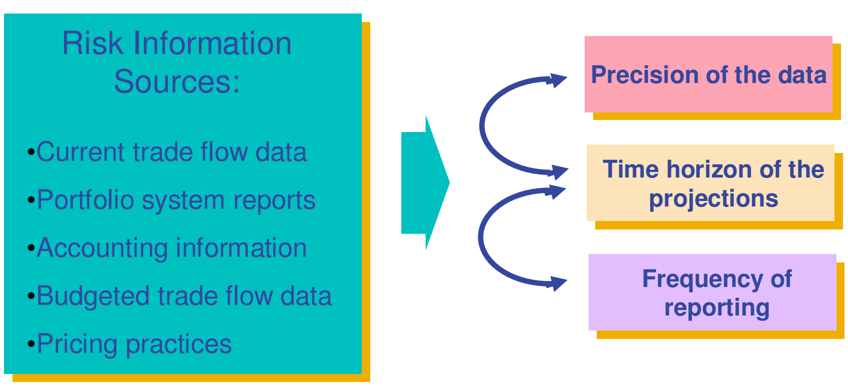
Measuring Market Exposure

- Defining corporate exposure:
  "How will my company's value be affected by market price fluctuations?"
- Types of exposure
  - Transactions
  - Balance sheet/portfolio
  - Economic
- Every bank and company needs a **risk management framework**.

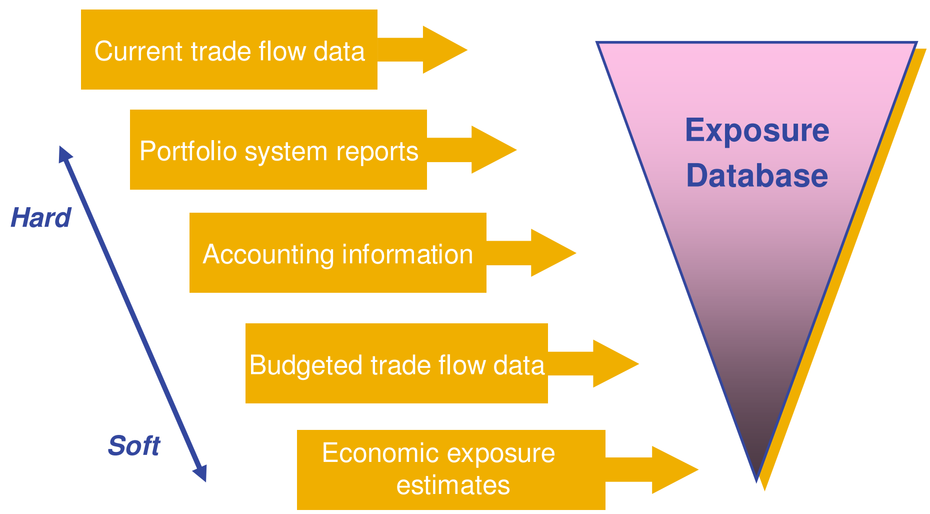
Risk Management is a Process



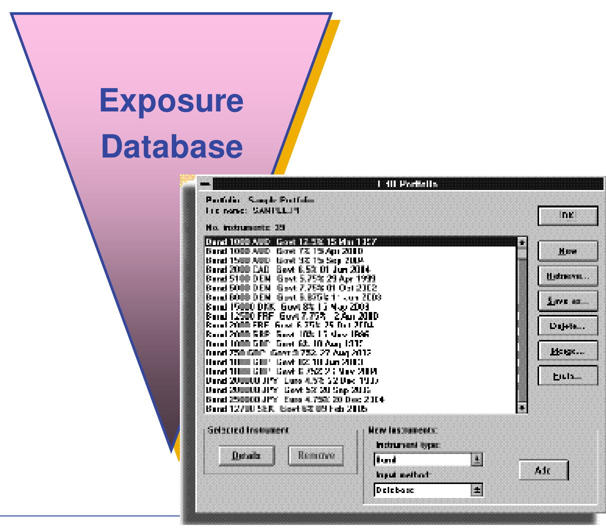
Next Step: Analyze Current Exposure Measurement Techniques



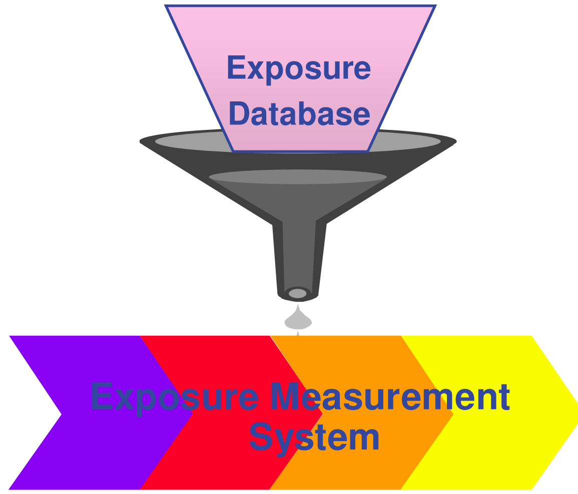
Corporate Exposure Information Sources



Exposure Database: Example

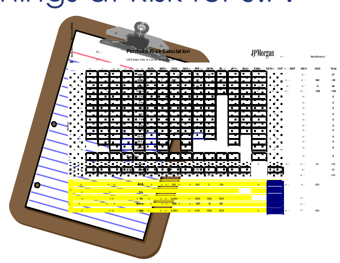


From Data to Analysis



A Management-Friendly Report

1. An example is FourFifteen™, named after J.P. Morgan's market risk report produced at 4:15 p.m. each day.
2. The "4:15 Report," a single sheet of paper, summarizes the Daily Earnings at Risk for J.P. Morgan worldwide.



Exposure Report: Example

Portfolio Risk Simulation

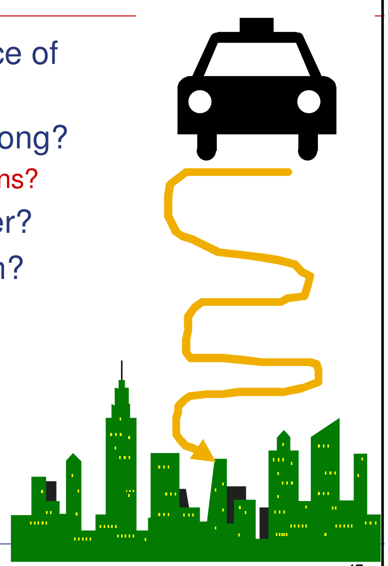
JPMorgan RiskMetrics[a]

USD Base. Vols. & correls. as of May 04, 1995.

		AUD	BEF	CAD	DKK	FFR	DEM	ITL	JPY	NLG	ESB	SEK	CHF	GBP	XEU	USD	Total
Gov't Bonds Zero Cashflow	1 Mo					15	22										37
	3 Mo			-200		20		-30								160	- 50
	6 Mo					25										-5	20
	12 Mo															-105	- 105
	2 Yr																0
	3 Yr																0
	4 Yr																0
	5 Yr																0
	7 Yr																0
	9 Yr																0
	10 Yr																0
	15 Yr																0
	20 Yr																0
	30 Yr																0
Equity																	0
FX	Implied			- 196.1		59	22	-29								54	-145
	Spot					23											23
	Net			- 196.1		82	22	-29									-122
RISK ($000)	Int.			502		262	5	139								400	740
	Eq.																
	Fx			5,048		4265	1383	1820									8516
	divers.			-200		-347	-6	-83									-451
	Net			5,350		4181	1383	1876								400	8805

Why Measure Performance of Treasury?

- Performance evaluation: “the science of attribution”
- Example: Why did this taxi take so long?
  - The traffic; the driver; my bad instructions?
- How much should I tip this taxi driver?
- Would I use this taxi company again?



Why Measure Performance of Treasury?

- Like banks, treasurers face market risks, and must manage them
- Unlike banks, exposures cannot be known with precision - so there's no such thing as "fully hedged"
- Hedging is a dynamic process
- Making money is not enough - must be evaluated relative to cost and risk and capital allocated.

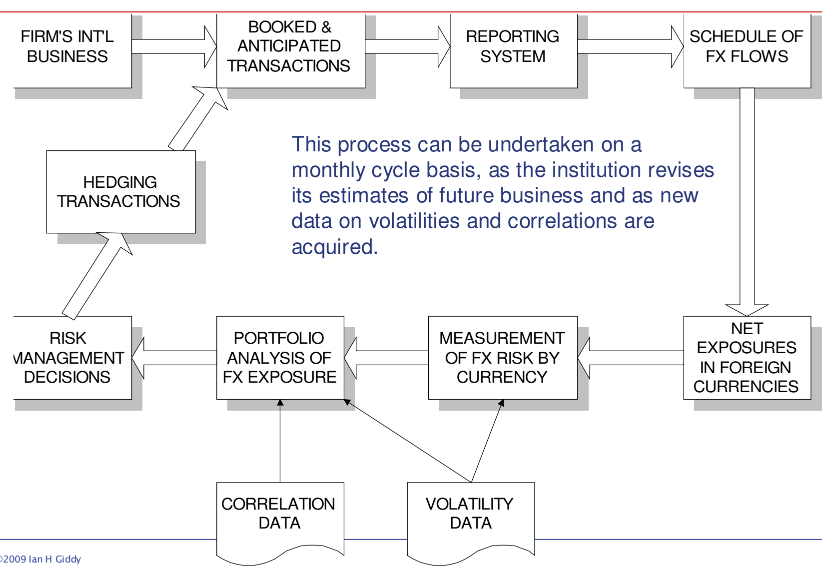
Monitor Performance

- Proper evaluation assures continuous improvement in the overall risk management program
- Essential elements of performance monitoring:
  - measure against predetermined targets/benchmarks
  - ensure compliance with corporate policy
  - trigger revisions to program where necessary

What Do We Want to Measure?

- Return performance (did we outperform some benchmark measure – the forward rate?)
- Risk reduction
  - Hedged positions?
  - Reduced earnings volatility (historical)?
  - Reduced Value at Risk (anticipated)?
- Reporting, disclosure and problem identification (have we improved our risk measurement system?)

The Risk Management Cycle



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How Effective is My Company's Risk Management?

Warning Signs:

- Don't measure risk
- No linkage of risk to value
- No effort to anticipate
- Lack of business risk policy
- Fragmented effort
- Narrow focus
- Poor risk communications
- **Lack of an integrated risk assessment framework**

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A Hedging Framework

- Distinguish hedging from speculation
- Identify *goals* of hedging
- Limit *methods* of hedging
- Limit currency and interest rate *risks*: use hedging and risk control
- Measure hedging performance:
  - Compare active hedging with "passive" hedging (forward rates)
- *Conclusion: separate risk management from risk measurement.*

Contact

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