

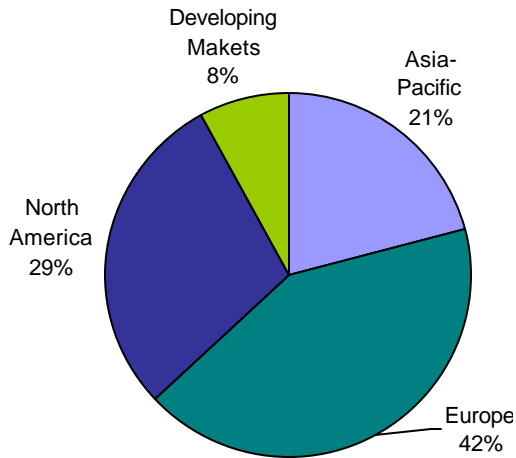
2008 ACT/Citi FX Risk Management Survey

Highlights

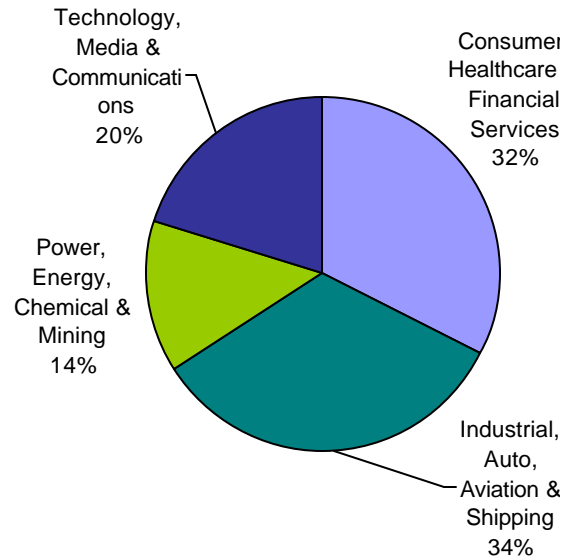
2008 Corporate Risk Management Survey

- In Jan 2008, Citi and Association of Corporate Treasurers (ACT) conducted a survey of corporate FX risk management practices. 287 multinational companies participated globally from various industry groups

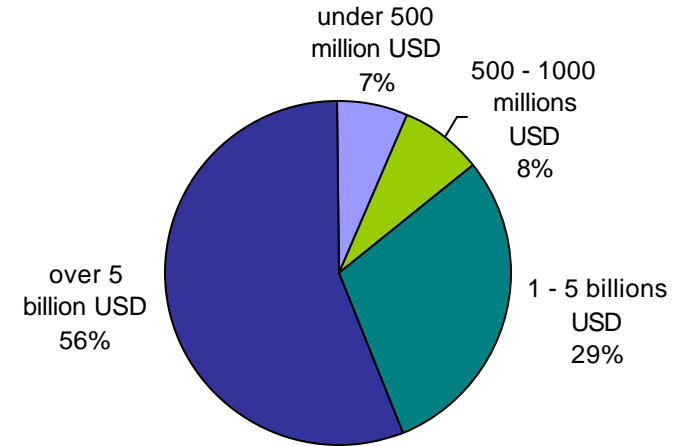
Participation by Region



Participation by Industry Groups



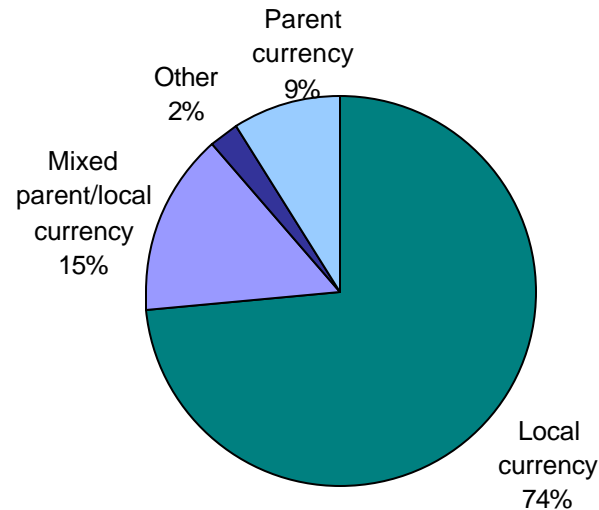
Participation by Sales Turnover



FX Risk Profile & Risk Management Policy

Functional Currency of Foreign Subsidiaries

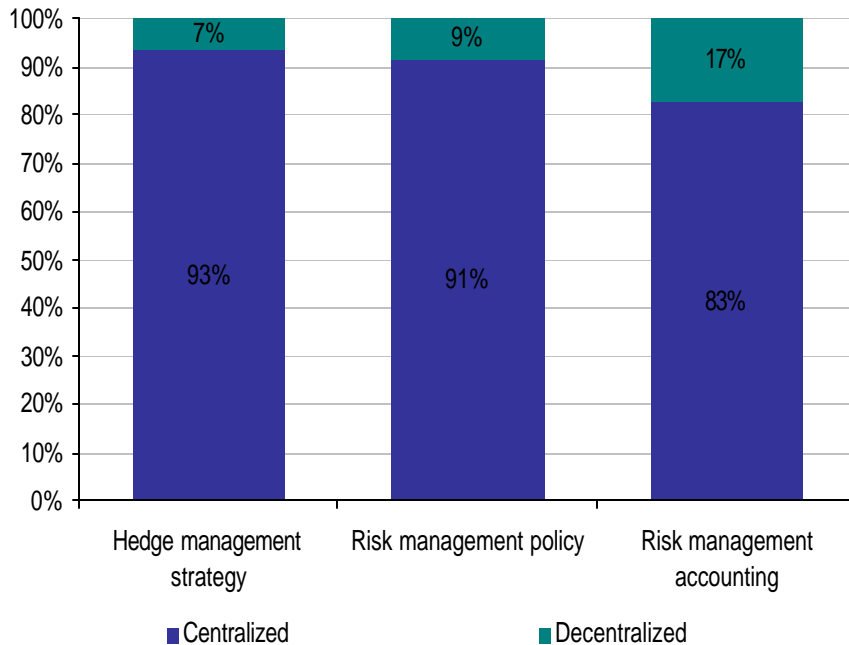
- Most foreign subsidiaries (74%) are local currency functional, reflecting the primary economic environments by which subsidiaries operate
- While typical in the commodity and energy sectors, only 9% of parent companies impose their reporting currency



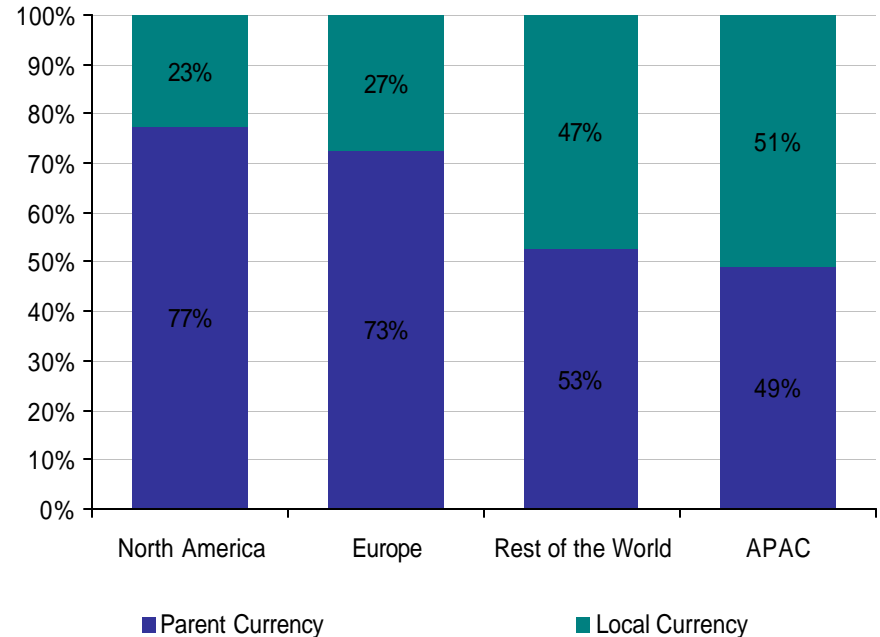
Functional Currency of Subsidiaries

Decision-Making Structure & Evaluation Currency

- Treasuries appear to be highly centralized in the management of FX risks
- Even though most subsidiaries are local currency functional, their performances are predominantly measured in the parents' currency for North American and European companies



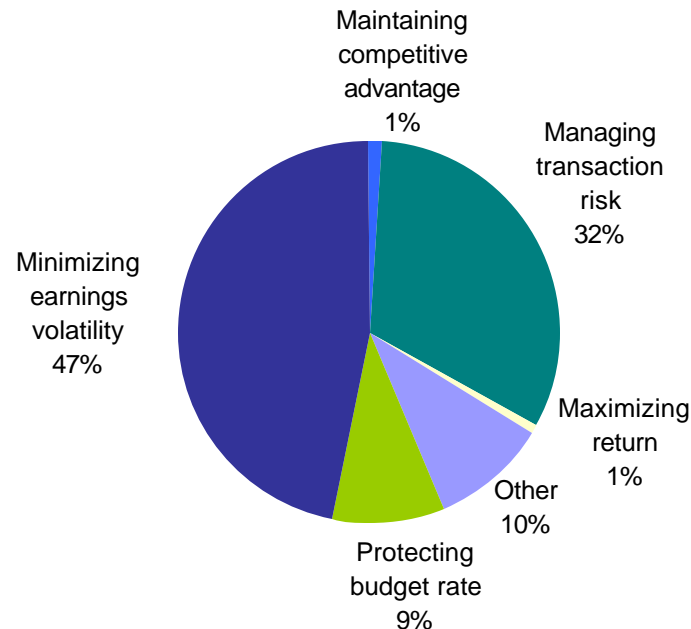
Centralized vs. Decentralized Hedge Management



Currency Used to Evaluate Subsidiaries' Performance

Risk Management Objective

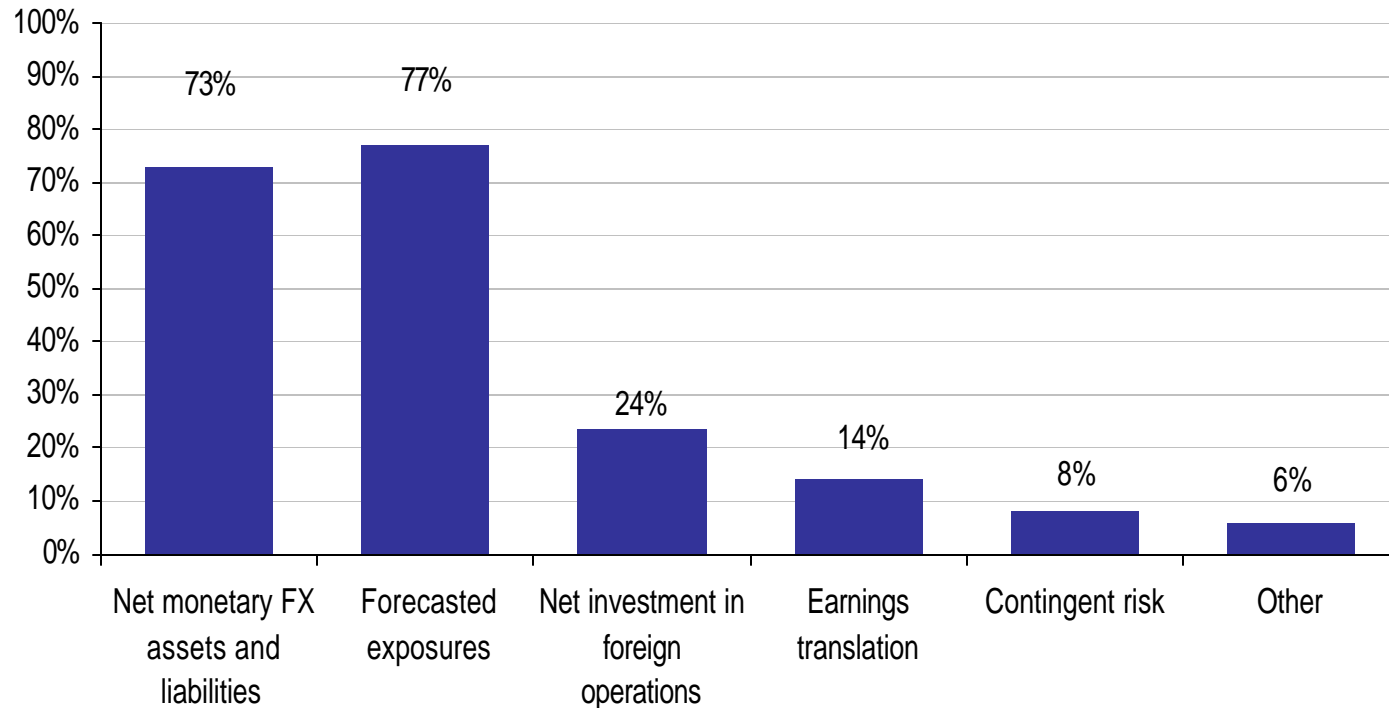
- Cited by a majority of North American companies (61%) as their main risk management objective, *minimizing earnings volatility* is also the predominant objective overall
- Of the respondents who aim to *minimize earnings volatility*, 42% manage FX impact on year-on-year change of quarterly earnings while 30% manage the gap of actual earnings versus expected earnings at the budget rate



Percentage of Companies with Risk Management Objective

Risks Hedged

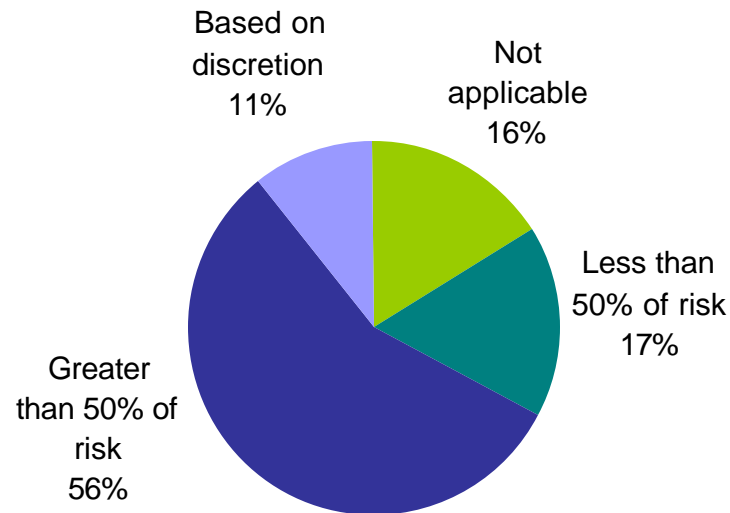
- The main hedging programs are articulated along hedge accounting qualifications:
 - Fair Value: balance sheet items (i.e. FX payables/receivables, FX borrowing and lending)
 - Cash Flow: forecasted foreign currency transactions (i.e. anticipated cash flows)
 - Net Investment: a distant third with only a quarter of companies hedging that type of risk



Percentage of Companies Hedging Types of FX Risks

Fair Value Hedging

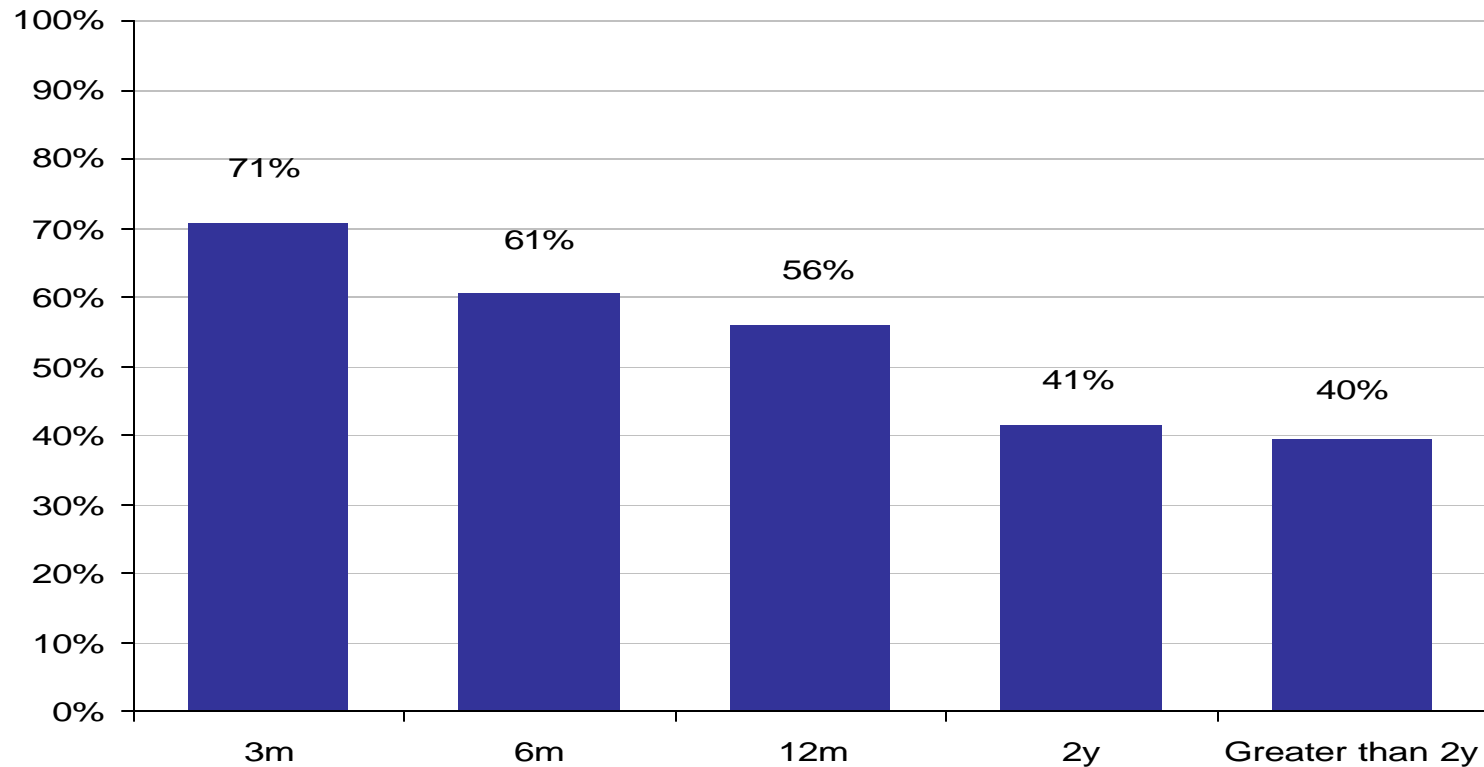
- Only 56% of respondents hedge more than half of their *existing FX assets & liabilities* risk



Percentage of Companies Hedging Various Percentage of Existing Assets & Liabilities Risk

Cash Flow Hedging: Hedge Ratio

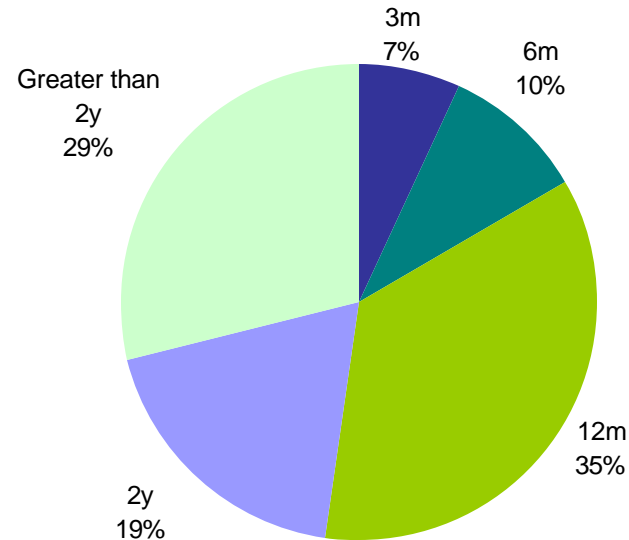
- Hedge ratio of *forecasted transactions* decreases as tenor increases, reflecting uncertainty in the underlying exposure



Hedge Ratios of Forecasted Transactions by Hedge Horizon

Cash Flow Hedging: Maximum Tenor

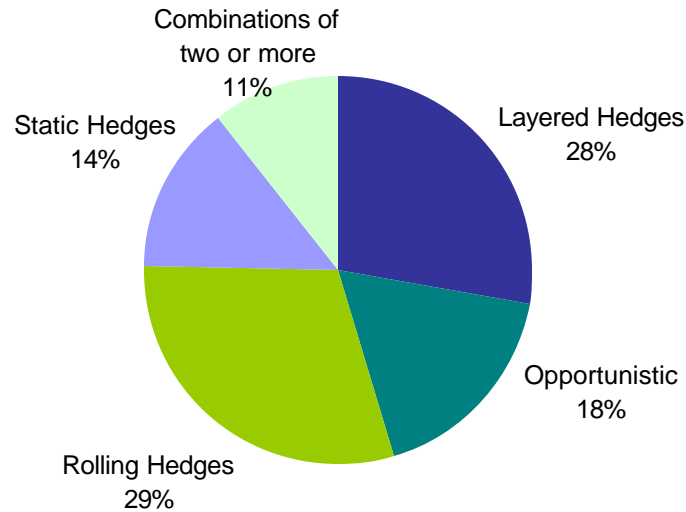
- For *Forecasted Transactions*, 12m is the most commonly hedged tenor (35%) as many companies' hedging programs are geared around annual budget, reporting or fiscal cycles
- However, a significant (48%) of companies do hedge their *forecasted transactions* out 2 years or more



Percentage of Companies with Max Hedge Tenor for Forecasted Transactions

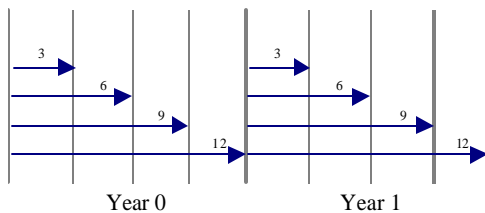
Cash Flow Hedging: Implementation

- Rolling and layered hedges are the most common approaches for hedging *forecasted transactions*

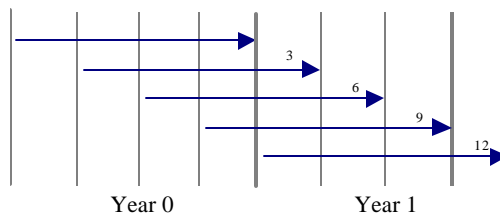


Percentage of Companies that Use Various Approaches to Hedge Forecasted Transactions

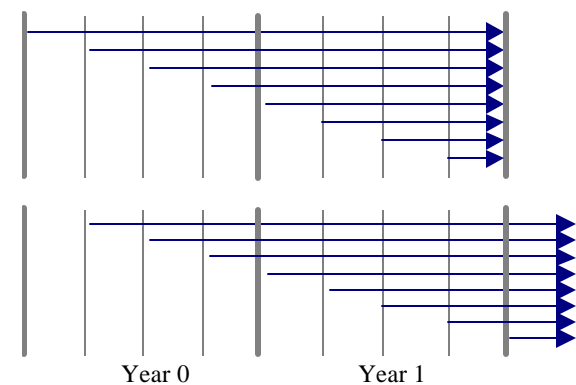
Static hedging program



Rolling hedging program

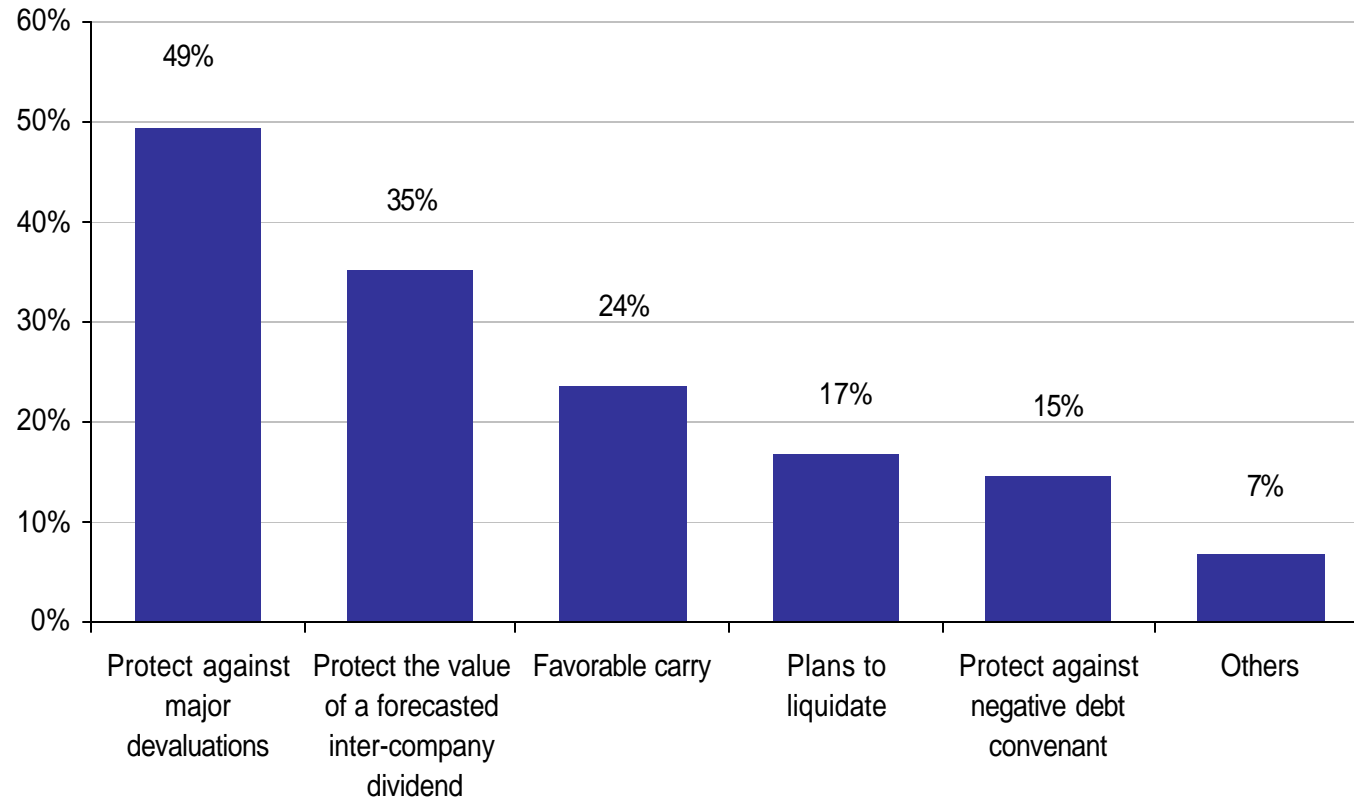


Layered hedging program



Net Investment Hedging

- The most common reason for hedging *net investment* is to protect against major devaluation (49%)
- The main reason cited in the “others” category is to manage earnings volatility

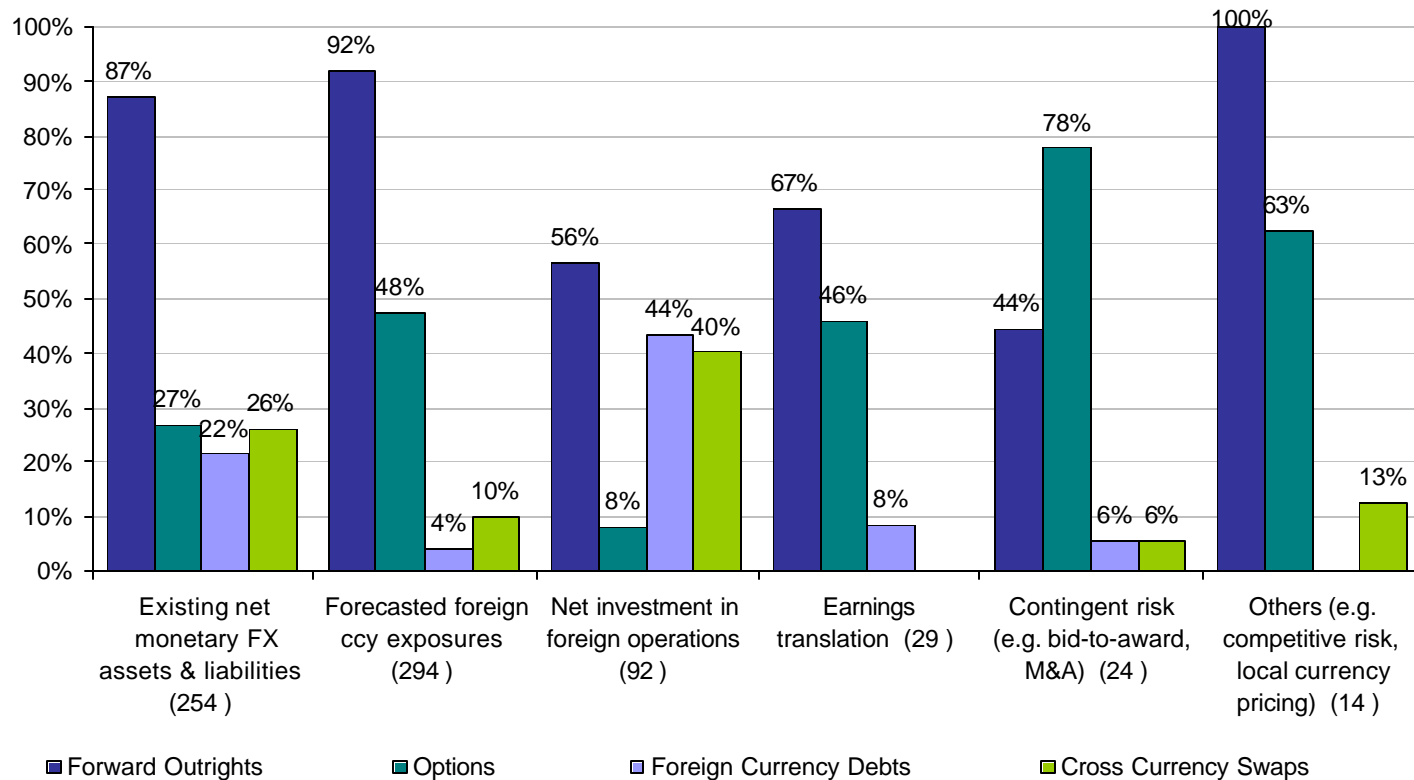


Percentage of Companies Hedging Net Investment for Various Reasons

FX Risk Management Practices & Execution

Hedging Instruments

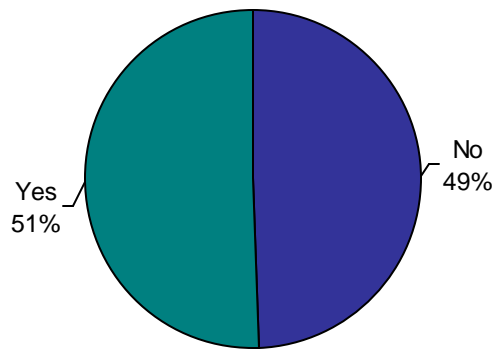
- Forwards are the most commonly used instrument for fair value and cash flow hedging programs
- Options are widely used to manage uncertainty, whether linked to the market or the exposure's actual size
- As net investment hedging corresponds to a funding strategy, debt & cross currency swaps are more frequently used in that context



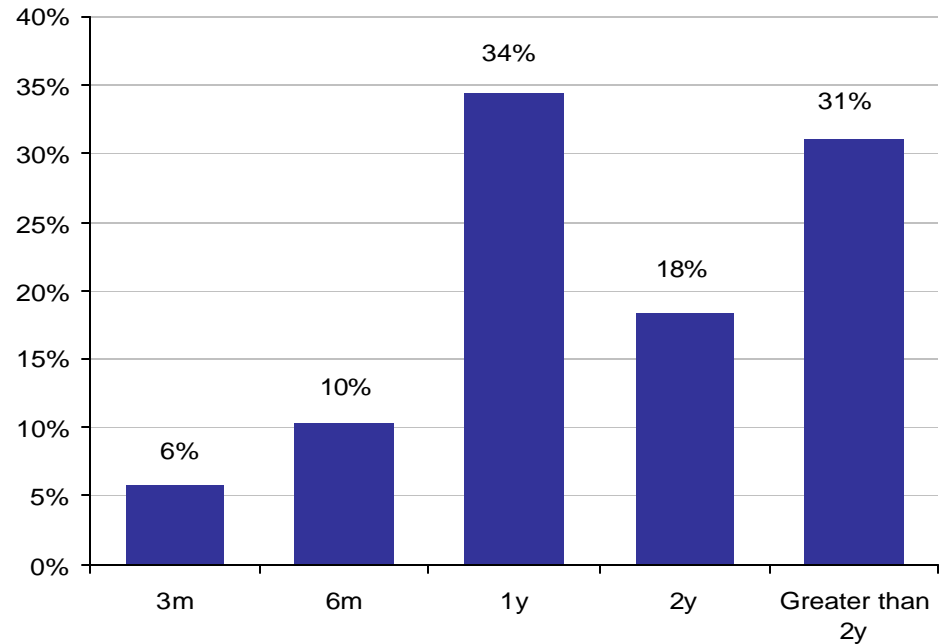
Percentage of Companies that Utilize Hedge Instruments for Various FX Exposures

FX Options Usage

- In order to manage uncertainty in longer-dated forecasts, the percentage of respondents that use options increases with the hedge horizon applied
- A majority of respondents (72%) that use options spend premium to purchase options
- Of those that spend premium, only 40% indicate defined budget to spend

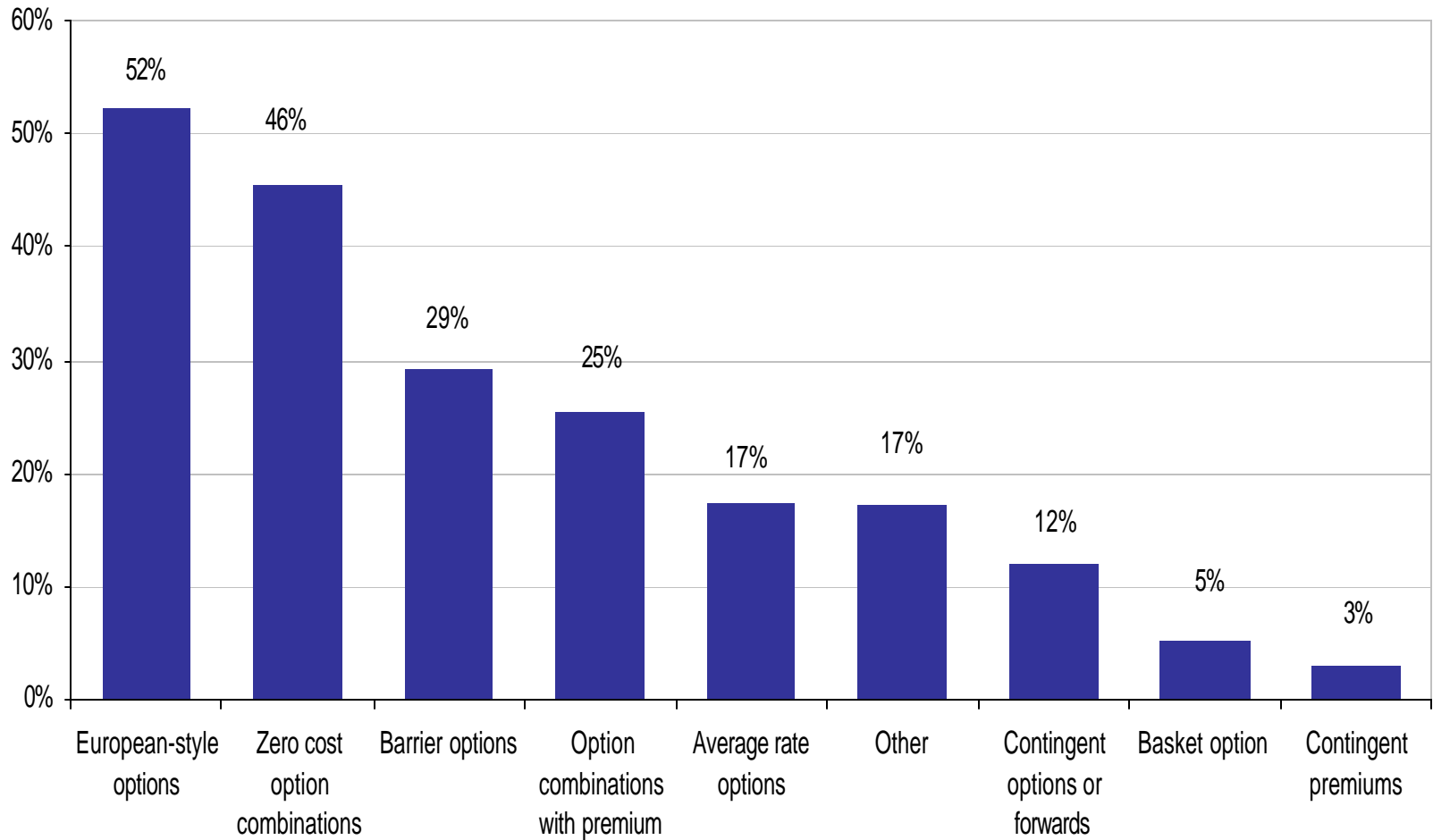


Percentage of Companies that Use Options



Percentage of Companies that Use Options to Hedge Forecasted Transactions out Various Tenors

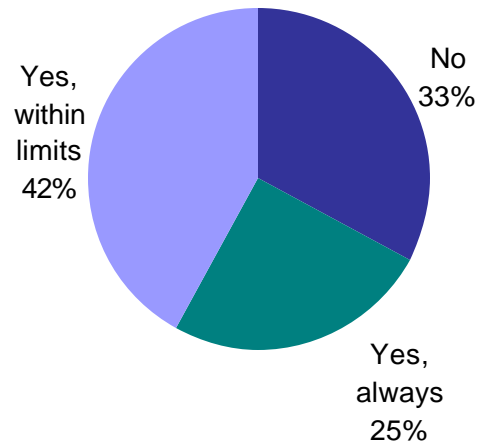
Types of Option Contracts



Percentage of Companies that Utilize Various Types of Options Contracts

Accounting Impact on Hedging

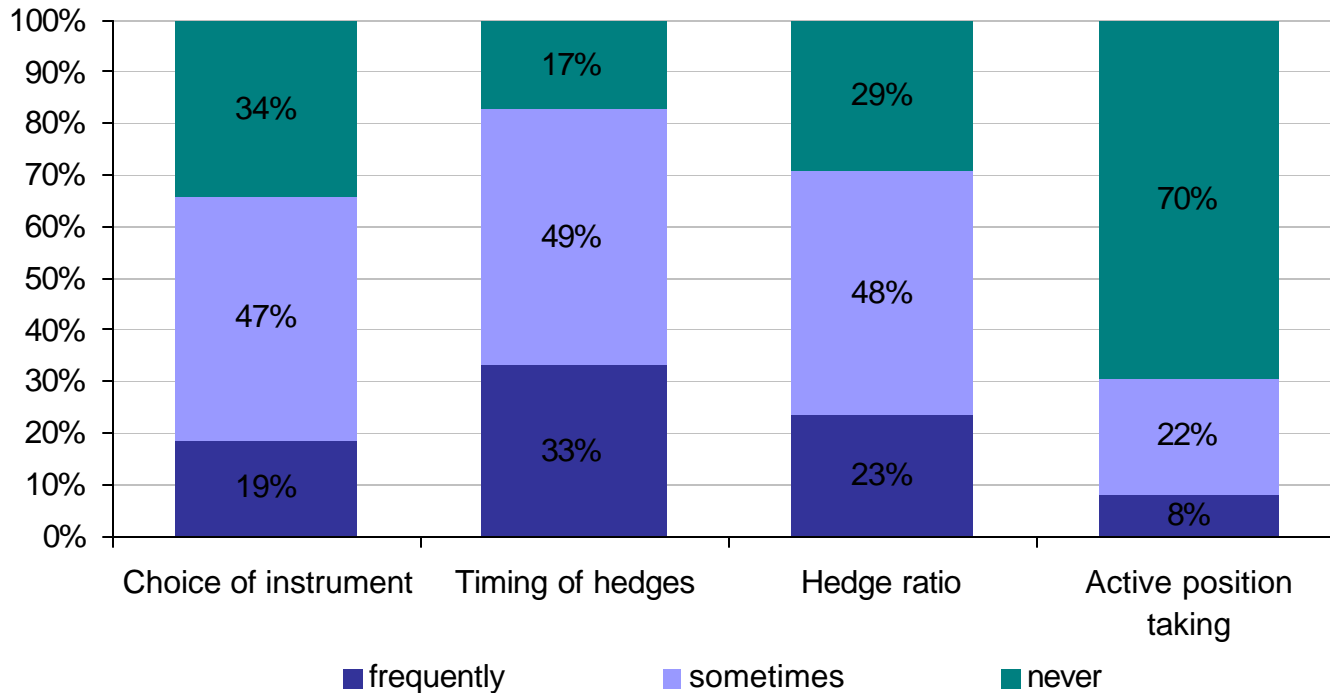
- A majority (67%) of respondents say that they would hedge an FX risk even if it does not qualify for hedge accounting
- However, only 25% indicated that they would hedge any economic risk despite the inability to receive favorable accounting treatment



Percentage of Companies that Hedge Economic Risk without Receiving Hedge Accounting

Market View

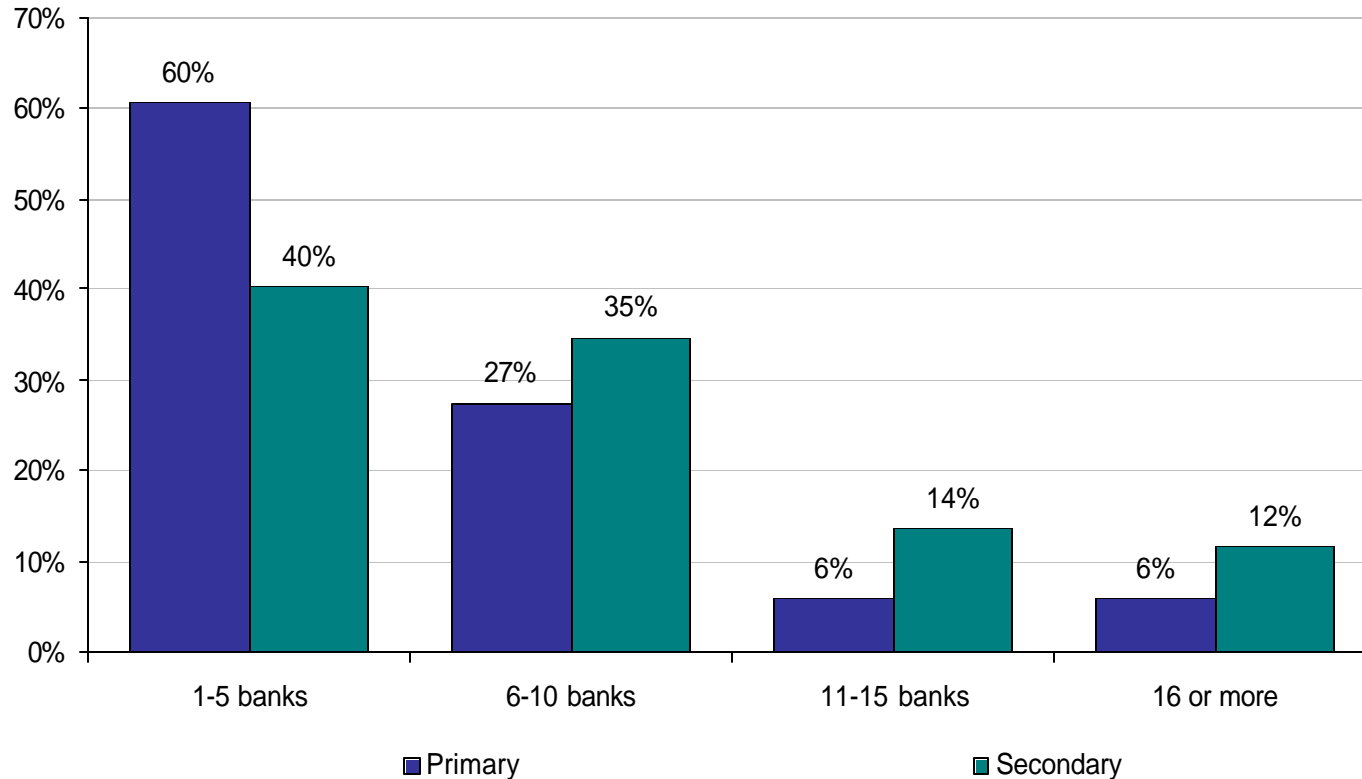
- A majority of companies are affected by market views in their choice of instrument, timing of hedge and hedge ratio. However, only 30% indicate active positions taking based on their view
- Timing of hedges is the parameter most affected by market view



Percentage of Companies that Use Market View in Hedging Activities

Primary & Secondary Banking Relationships

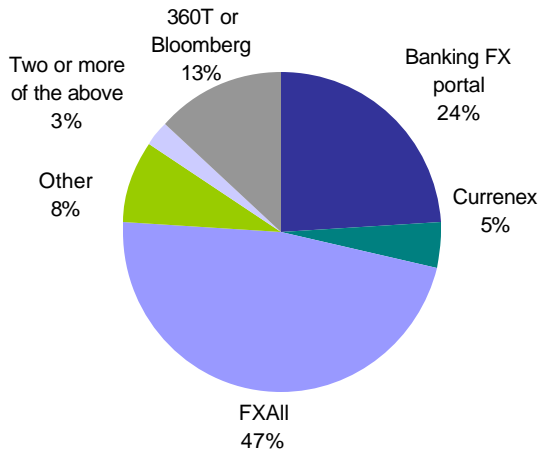
- Reflecting the trend towards centralization of treasuries, a majority of companies maintain primary relationships with only 1 to 5 banks



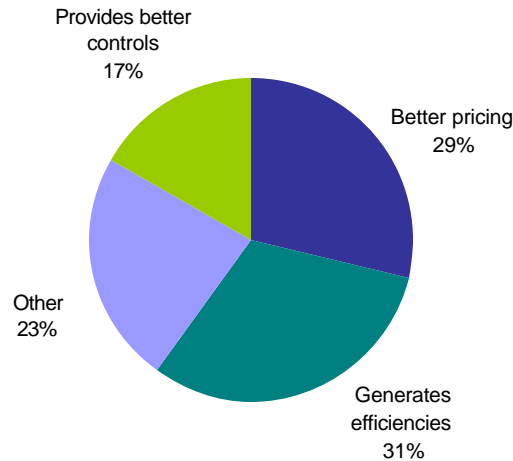
Percentage of Companies that Maintain Various Number of Primary & Secondary Banking Relationships

Electronic Execution

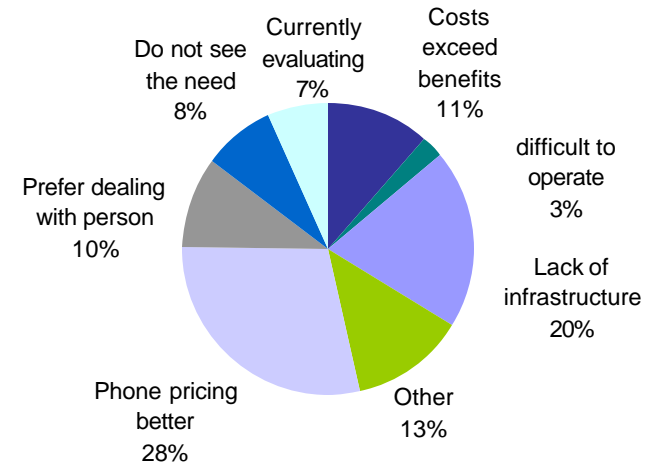
- Only 41% of respondents use electronic systems to execute trades
- Preference for phone dealing is the the main reason why electronic systems are not used
- FXAll is the most commonly used electronic system (47%)
- Efficiencies for executing small trades and straight-through-processing are two of the commonly cited reasons for executing electronically



Electronic Systems Used



Reasons For Executing Trades Electronically

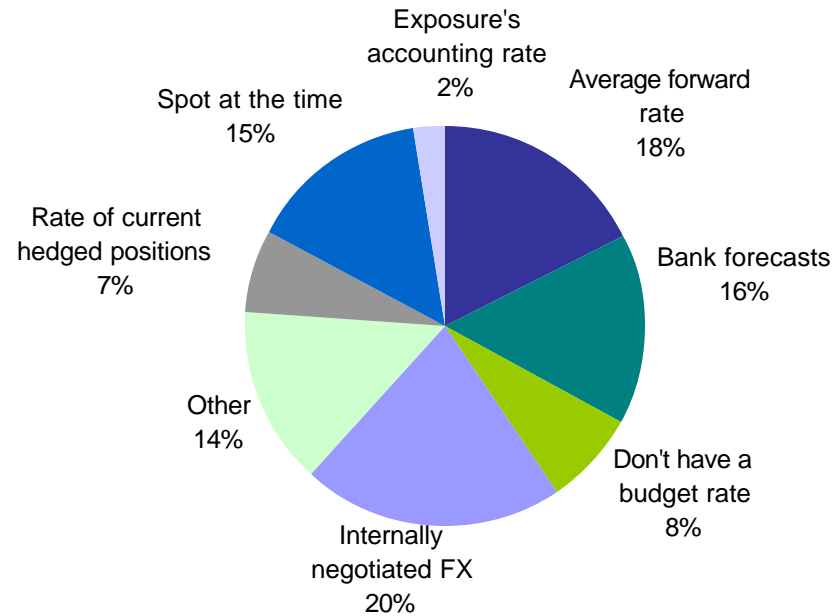


Reasons For Not Executing Trades Electronically

Risk Reporting, Performance Measurement & Feedback Process

Setting Budget Rates

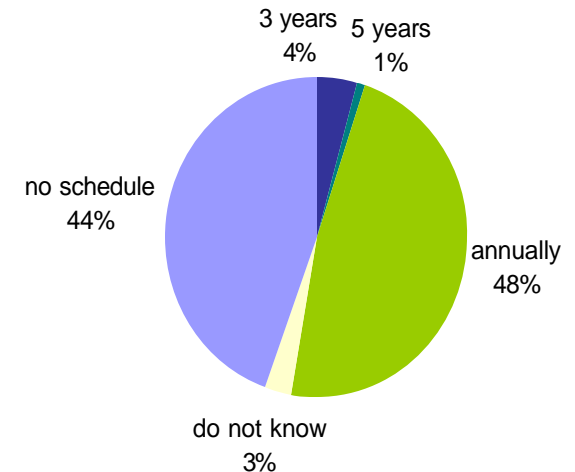
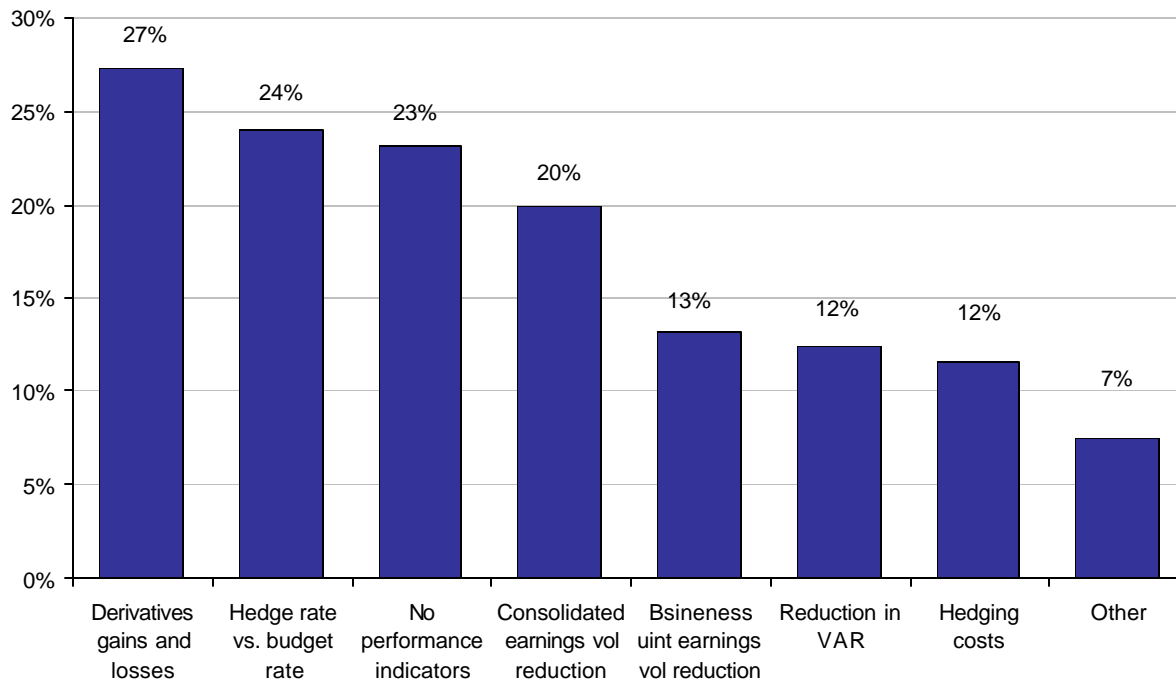
- Most companies have budget rates
- There is not one predominant way for setting budget rate



Percentage of Companies Setting Budget Rates by Various Methods

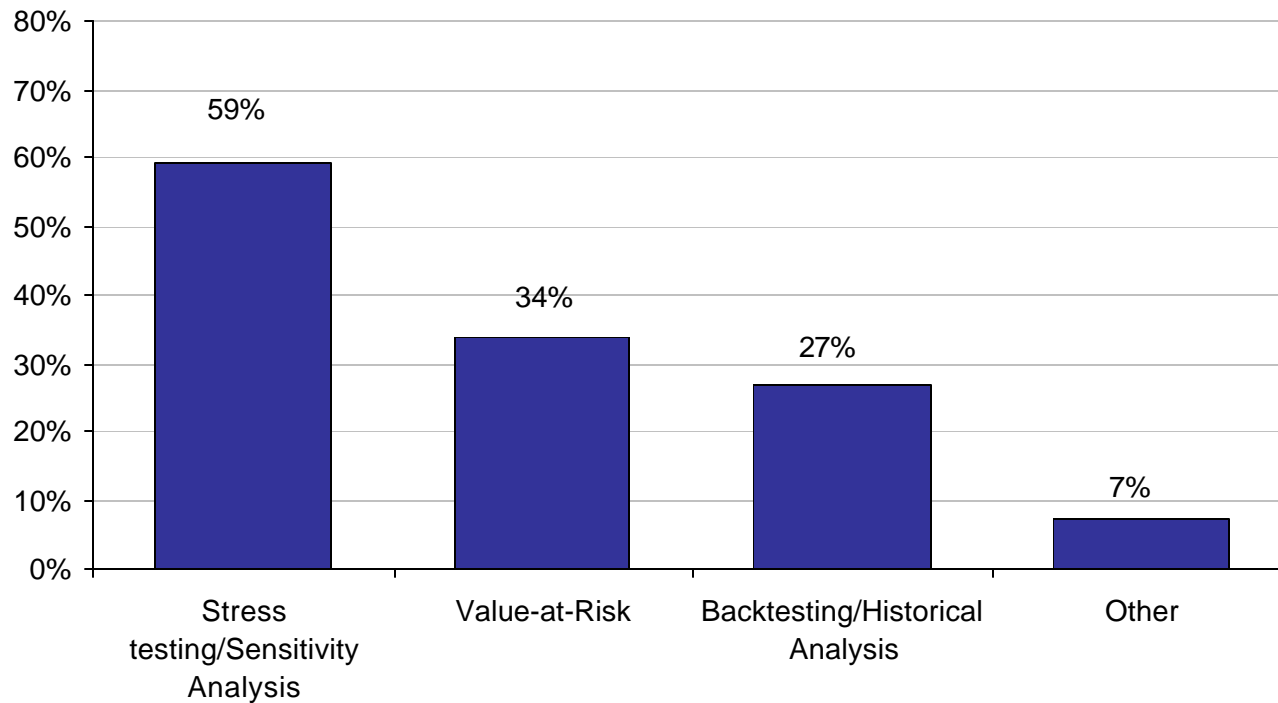
Benchmarking Process

- Only 32% of companies have a formal benchmarking process with senior management
- Of those companies, the most common performance indicator is derivative gains and losses (27%), indicating a focus on the hedge P&Ls rather than it offset to underlying exposures
- 23% of companies do not have a formal performance indicator
- Only 48% of companies review hedging strategy on an annual basis



Risk Quantification

- A majority (76%) of respondents indicate quantification of FX risks
- Sensitivity analysis is the the most commonly used tool to understand potential impact of FX risks
- VaR is the metric of choice when reporting to senior management
- Back-testing is the most popular method to design risk strategy



Percentage of Companies that Use Various Risk Quantification Tools

Current Focus in FX Risk Management

- When asked to identify the main developments in FX risk management over the next 5 years, the following themes surfaced:
 - Increasingly more hostile regulatory environment for hedge accounting
 - Intensification of e-trading
 - Centralization of FX risk management
 - Increase focus on emerging markets
 - Increase use of options and exotic options

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