THE REAL IMPACT OF EVOLUTION

EVER-CHANGING MARKET NEEDS ARE PUTTING INCREASING PRESSURES ON TREASURERS TO PRODUCE EVER-MORE SOPHISTICATED REPORTING. **SCOTT COFFING** OF SUNGARD REPORTS.

The past few years have seen a huge increase in the demands made on treasurers to supply relevant and increasingly sophisticated risk information. The diversity of reports which publicly-listed companies are expected to produce as part of the regular reporting routine has grown as a result of the market's demand for transparency of financial information. The main driver of this is, of course, the concern of shareholders and regulators that businesses do not have financial black holes.

Now that most people have come to grips with the external requirements of Financial Accounting Standards (FAS) and International Accounting Standards (IAS), it is time to take an 'information inventory' to see how to move forward. Traditionally, treasury risk reporting has fallen into the following broad classes of reports:

- **current position reporting:** cash balances; current cashflow forecasts; hedge positions; funding and investment positions; and accounting profit and loss (P&L).
- **black hole reporting:** FAS/IAS; stress testing; and value at risk.
- **performance benchmarking:** cost of funds; and return on investments.

HOW WE GOT WHERE WE ARE. I am often asked about the current state of corporate risk management and how user requirements are evolving. To answer this, it is interesting to look at how corporate risk reporting has changed over the years and then try to identify the influences that shaped those changes. Historically, banks and regulators have had the biggest influence over corporate risk reporting. If you look at the evolution of risk in banks, you can see a clear knock-on effect. In the corporate treasury risk world, most of these key advances have been adopted, albeit with a time lag and a corporate twist. The most recent and sophisticated of these, value at risk (VAR), has had a poor take-up about 10% among corporates.

Along with emphasis on FAS and IAS, I see the low take-up of VAR as a clear sign that treasurers are identifying the limitations of bank-style risk management when it is applied to a corporation.

☐ EVOLUTION OF MARKET RISK IN BANKING

Early 1980s	Accrual-based P&L
Mid 1980s	Major uptake of OTC derivatives NPV positions/MTM-based P&L Sensitivity measurement Cross product consolidation
Late 1980s/early 1990s	Capital allocation Risk-adjusted return RAROC Performance benchmarking
Early/mid 1990s	Value at risk

BUSINESS IMPACT REPORTING. After implementing bank-style risk practices and satisfying regulatory requirements, treasurers are aggressively focusing on how their group impacts their respective businesses. Currently, the main push in the market is to extend banking-style notions of mark-to-market P&L towards business impact reporting.

Business impact reporting aims to measure the impact of financial operations such as hedging, funding and investing on overall corporate performance. It measures the impact of instrument choice, policy and forecast accuracy under various market scenarios. The outputs of this reporting are expressed in terms of impact on: profit and loss; profit margins; average hedge rates; and weighted cost of funds or return on investment.

WHAT ARE YOU TALKING ABOUT? There are as many schemes to measure business impact as there are businesses. There are, however, a few generic areas in which treasurers seem to be universally interested. Two of these are the impact of forecast variability and the impact of currency hedging policy.

IMPACT OF FORECAST VARIABILITY. Nearly all large corporations have found it necessary look to foreign markets as a source of growth for their business. Looking internationally for new revenue is an obvious growth strategy but it brings with it a step change in the

☐ FORECAST VARIABILITY 100% COVER

CASHFLOW HEDGING EXAMPLE, ASSUMING 100% COVER. This matrix shows the impact of inaccurate forecasting in a treasury that has a policy of hedging forecasts fully. It assumes the following: (i) FX forwards are the hedging instrument; (ii) GBP as base currency and US$ as risk currency; and (iii) subsidiary forecasts to revenue of $23,624,365.

POSITION IMPACT. In *Figure 1*, the position is fully hedged when the forecast is 100% accurate. The forecast matrix then shows, for example: (i) if a subsidiary only achieves 90% of its forecast, and US$ strengthens to 1.3582, then we have over-hedged (oversold) by ($2,278,556); and (ii) if a subsidiary achieves 105% of its forecast and US$ weakens to 1.4582, then we have under-hedged by $1,223,158.

P&L IMPACT. *Figure 2* shows the impact on the P&L of closing out the under- or over-hedged positions from above. Continuing on from the previous example, we have the following situation: (i) over-sold by ($2,278,556) – that is, a short US$ position; (ii) if US$ strengthens to 1.3582 from 1.4082 we lose 5 cents; (iii) the P&L impact reported to the subsidiary is $2,278,556-$2,362,437 = ($83,881); and (iv) The base currency impact is then ($83,881)/1.3582 = (£61,759).

FIGURE 1

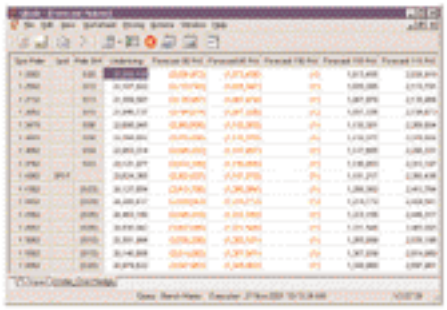
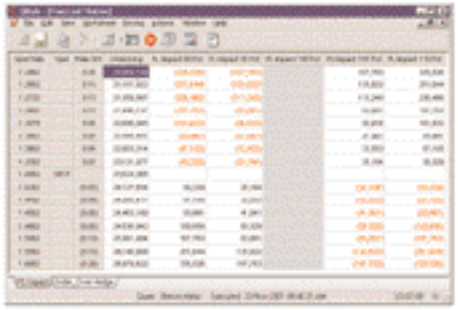


FIGURE 2



☐ HEDGE POLICY IMPACT: 50% COVER

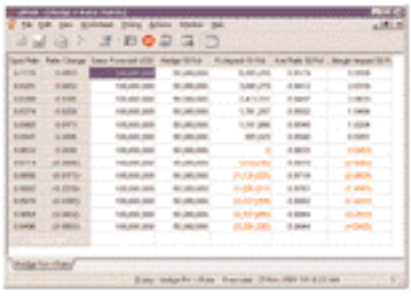
IMPACT OF HEDGING POLICY. In an ideal world, revenues would come on the date and in the amounts forecasted. In reality, there is a great deal of uncertainty in forecasting business flows. As a result, there are many schools of thought as to the percentage of hedge to take, the hedge time horizon, and the type of hedge instruments to use. Each of these dimensions usually gives rise to a policy is executed in the treasury. There are some fairly obvious general rules, such as:
Shorter time horizon = higher certainty of cashflow ⧫ Greater hedge percentage
and closer match of hedge instrument to underlying exposure (that is, FX forward instead of option).

Beyond this, there is a great variety in appetites for risk which lead to a multitude of hedging policies. It is clear that the treasurer has a strong interest in, and often a direct responsibility for, the formulation hedging policy. To do this, the treasurer needs to be able to understand senior management's appetite for risk and then present concrete analysis of the impact of different hedging policies.

50% CASHFLOW HEDGE EXAMPLE. *Figure 3* illustrates the impact of having 50% cashflow hedge policy. The calculations assume the following: (i) EUR base currency; (ii) $100m sales forecast hedged at the current FX rate – that is, .8633; and (iii) The 12 FX scenarios moves are up 5% in 1% increments and down 5% in 1% increments, plus an up and down move of 10% each.

EFFECTIVE COVER RATE/P&L MARGIN IMPACT. This example analyses the impact of hedging uncovered sales forecasts. The primary question it asks is, "If I needed to cover the remaining 50% of the forecast, what would the impact be on P&L, average FX cover rates, and P&L margin percentage?". As an example: (i) US$ strengthens .0173 to .8460; (ii) value of the uncovered US$ (long position) goes up €1,181,986; and (iii) average cover rate strengthens to .8546; and (iv) margin percentage goes up 1.0204%.

FIGURE 3



nature of treasury function. This change, effectively adding currency exposure management to cash management, brings a requirement to understand not just the exposures but the impact on profitability of changes in current revenue forecast.

Given that the responsibility for revenue forecasts is typically outside the domain of treasury, the example above will focus on a simple method of taking current forecasts (some in treasury would say 'guesses') and applying generic accuracy factors to see the impact on P&L.

MAKING THE MOST OF IT. There is a risk of treasurers becoming overwhelmed by outside demands at the expense of solid analysis of the impact treasury has on the business. Therefore, it is vital they get the most out of their IT investments and not spend endless time creating and recreating business impact analysis on spreadsheets.

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