

technology

HEDGE ACCOUNTING

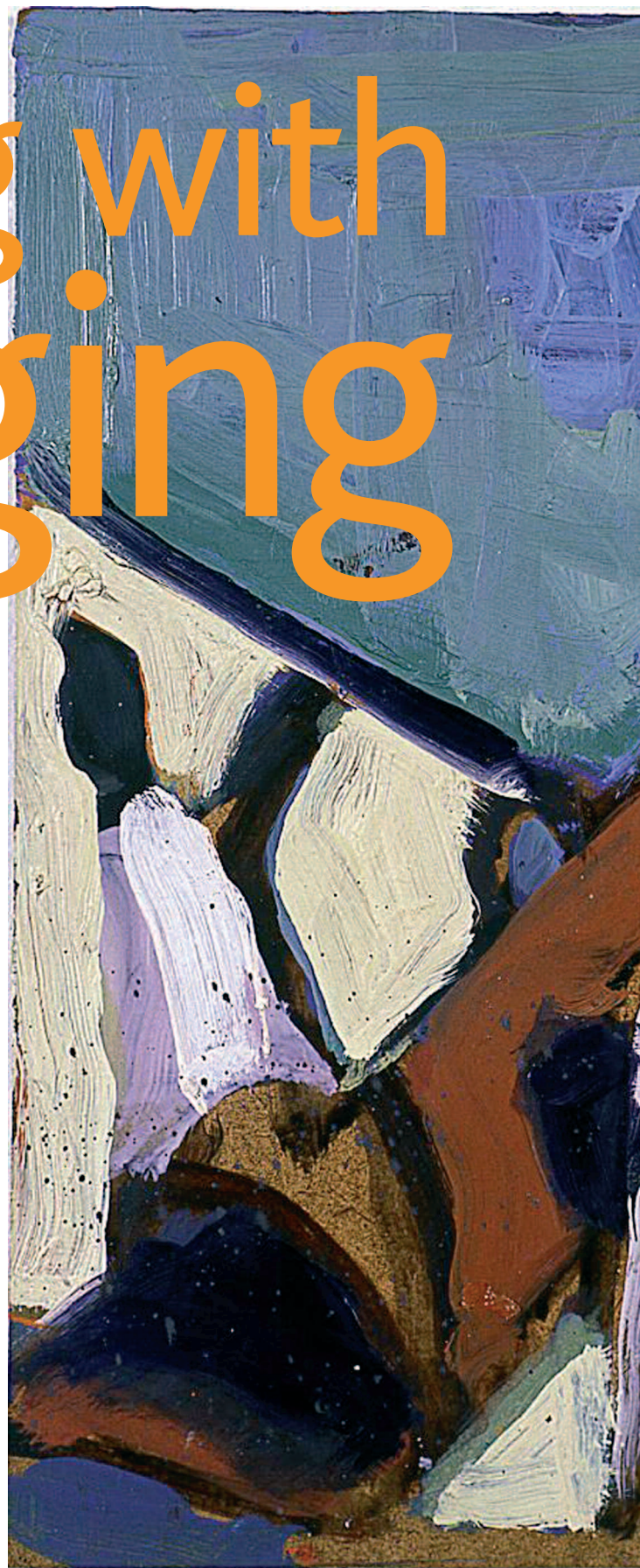
Helping with hedging

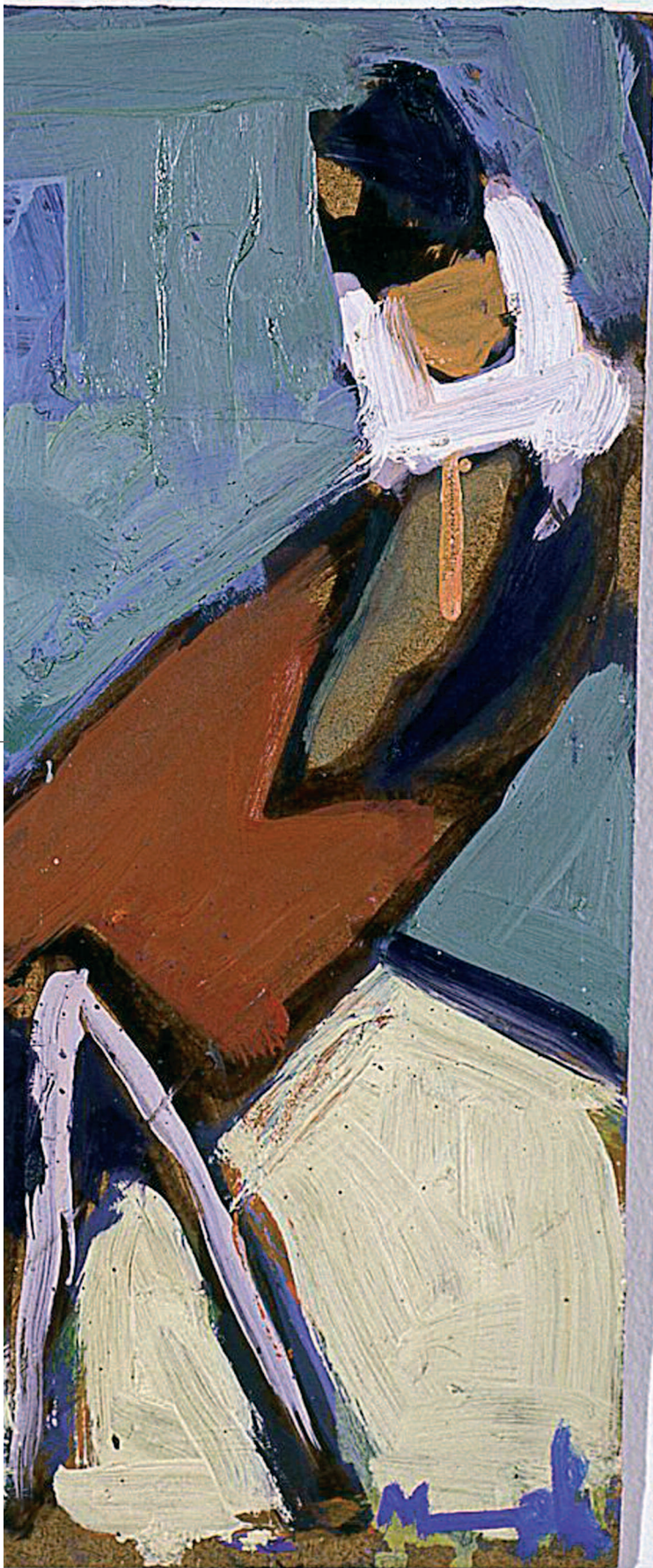
IN THE FIRST OF TWO ARTICLES **KELVIN WALTON** LOOKS AT HOW TECHNOLOGY CAN HELP IN HEDGE ACCOUNTING

Treasurers worldwide will need no reminding about the continuing impact of hedge accounting on their operations. From the perspective of treasury technology, the evolving demands of US FAS 133 *Accounting for Derivative Instruments and Hedging Activities* and IAS 39 *Financial Instruments: Recognition and Measurement* have, together with the requirements of the Sarbanes-Oxley Act, provided a very significant and sustained stimulus to the market. Every treasury department that manages a significant degree of risk (of whatever kind) is under pressure to review and potentially upgrade systems to achieve a satisfactory degree of compliance. With respect to IAS 39, the pressure may originate at the finance directorate or board level, and the external auditors will, almost inevitably, have to endorse it. Therefore treasury departments that have hitherto coped well enough with spreadsheet and/or Access based solutions may well be contemplating investing time, energy and money to select and implement more powerful, robust and transparent system solutions.

WHY TROUBLE YOURSELF WITH HEDGE ACCOUNTING? Before examining the implications of hedge accounting and especially of IAS 39, it is worth mentioning the situation of companies which have decided not to hedge account or, more worryingly, not to hedge at all. There are several reasons that could underlie this decision: it may simply be that the interest rate and foreign exchange risk profile is considered so low that there is no positive value in implementing a complex and demanding hedge accounting strategy.

Interestingly there are some more complex treasury departments which have taken a similar decision of deliberately electing not to hedge account. Of course, the implication of this is that the board is prepared to accept the risk of hedge-related earnings volatility. It may see such volatility as justifiable compared with the cost of designing, setting-up and maintaining a hedge accounting solution. This decision impacts the risk managers, who are on the front line





Executive summary

- For those who are committed to IAS 39 hedge accounting there is a variety of technology support.
- Treasury departments are under pressure to ensure that these systems are fit for purpose to manage the risks they face.
- To date there is no consensus on the systems designs which are deemed appropriate.
- From the perspective of product managers, software designers and developers, IAS 39 presents a unique set of challenges.
- Treasurers need an understanding of the technology needed to deliver a solution against ineffective hedging.

designing and executing hedging strategy; the company is highly reliant on their skills and diligence, and it would seem that those treasury departments whose operations are backed by strong decision support and risk analysis systems will have the best chance of anticipating and avoiding nasty surprises. So there is clearly a role for traditional treasury technology – mark-to-market, decision support, risk analysis, hedge execution – to support hedging operations. Time will tell whether investors will grow accustomed to a certain level of hedge-based earnings volatility in some companies; alternatively, the public reporting of a major hedge-related loss may push the consensus towards the adoption of hedge accounting, and therefore also towards its concomitant technology.

ALTERNATIVE APPROACHES TO IAS 39 SOLUTIONS For those who are committed to IAS 39 hedge accounting, there is a range of alternatives available in the field of technology support. Product managers, system designers and developers have created a bewildering variety of approaches. It is hard to say who is right in an environment where the definition of a compliant solution is a contentious point between – and even within – major auditing companies.

The resultant system designs vary between very powerful and flexible – and hence relatively complex and costly – compliance tools and more prosaic mission-specific solutions, with other offerings naturally occupying the middle ground. So who can say which approach is correct, or at least superior? The answer is complex in itself, and it depends on diverse factors such as:

- the details of a corporate's treasury and commercial exposures.
- corporate hedging strategy as accepted by the board.
- the compliance interpretations of the external auditors.

The situation may be further complicated for US-listed companies which will also need to be FAS 133 and Sarbanes-Oxley compliant.

Unsurprisingly there is no consensus, and it is difficult to generalise even within particular industries. For example, we might reasonably expect that two companies which are in the same industry, and which have similar interest rate and FX exposures will adopt similar hedge accounting strategies, and therefore deploy similar technical solutions; in practice, the processes and systems found may differ greatly, for example because of different auditor or consultant recommendations, or different board policies with regard

to shareholder risk appetite.

Let us picture the issue for a moment from the perspective of the product managers, software designers and developers themselves. IAS 39 presents a unique set of challenges. Perhaps most profoundly, a solution demands a fusion between the forward-looking discipline of risk management, and the backward-looking discipline of accounting. The need for this marriage may not be especially obvious, until you consider the need for prospectively testing the efficacy of a hedge over its projected life, coupled with the need to transmit gains and losses to the bottom line when hedges become ineffective. Technically, the code relating to risk management may be quite distinct to the code relating to accounting, and so there is a perhaps disproportionate technical overhead in getting the necessary elements to intercommunicate and interact correctly to engineer a viable solution. The choice of action may lie between a complex updating and integration process, and a system re-write; in any event, serious expense will probably be incurred.

Another type of design dilemma is the temptation to fall into the classic IT corner-cutting error of programming a mission-specific, rigid solution. This would be an attractive, probably low cost option, and is quite a likely response of a budget-strapped company in response to accepting an unambiguous definition of IAS 39 compliance, perhaps by an external auditor. One consequence of this approach is that it will fail when the world changes, through change in treasury or commercial exposure and policy, and even in the accepted definition of 'compliance'. The attractions of following 'Route 1' (such as low cost and relative simplicity) should be contrasted against the risk implications of having to back-pedal fast in the future, to avoid unacceptable volatility and losses. This probability of such changes occurring in the medium term must be seen as being relatively high, given the continuing flux in the general

understanding and interpretation of IAS 39 compliance.

In practice, companies seem to have widely differing reactions in selecting their technology options, and consequently in their strategies. One trend is clear – that very many spreadsheet-based treasuries have elected to take the plunge into the treasury management system (TMS) marketplace, to find solutions that will fulfil hedge accounting needs effectively and transparently and presumably achieve further benefits in terms of treasury control, efficiency and facility.

Among companies presently using TMS, there is a bewildering range of responses, from high satisfaction with their present solution, to significant concern about the quality of IAS 39 compliance that can be achieved. This complexity certainly reflects the different patterns of commercial and financial activity found in the real world; and it almost certainly mirrors the different interpretations of IAS 39 compliance (such as the acceptability of the concept of 'versions') that are found today in European corporate treasury. So in practice, some large operations will be comfortable with a relatively rigid solution; others will look to a third party solution for hedge accounting as a bolt-on or stand alone solution, if their TMS's hedge accounting is found to be inadequate against needs; and others again will go to the market to find a replacement TMS that fulfils all their needs.

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In next month's feature a selection of the practical ways in which technology is being put to work to help companies meet their IAS 39 compliance objectives and obligations.

The Technical Background

- Computers are designed to execute billions of calculations and logical operations very fast. The exponential increase in processor speeds – and the equal real decrease in costs – are well known phenomena, which have brought the powerful risk management algorithms that will be needed for some strains of hedge accounting into the affordable range of more and more corporate treasuries. Control and monitoring functions are of course performed repetitively, precisely and tirelessly by computer systems; such processes may reasonably be considered as electronic sentinels, which constantly monitor portfolios for the occurrence of critical conditions – such as the onset of hedge ineffectiveness.
- There has been a rather similar increase in information storage capacity, and this means that contemporary servers are able to accommodate vast amounts of data without the need for archiving. Servers comfortably have the capacity to hold many years' worth of information generated by active corporate treasuries. This has several consequences for hedge accounting. Most immediately, it means that large amounts of documentary information associated with hedges may be retained online, to facilitate instantaneous research and auditing. It also means that much history can be retained online, to support audit analysis.
- A related point is that the information held in the database may be protected from unauthorised viewing and tampering through the

implementation of contemporary levels of security and encryption.

- Modern databases such as Oracle and Microsoft SQLServer are complex and powerful organisms. Their organisation allows for the multiplication of look-up arguments for accessing the information in the database tables. This means that any of the stored data may be used as criteria to interrogate the database and retrieve the required information. There are several benefits of such contemporary Structured Query Language databases that relate quite directly to hedge accounting solutions: they provide comprehensive inquiry and reporting options, and they enable complex exposure-hedge relationships to be mapped and managed.
- Computer programs ultimately reduce to a set of machine language commands that will always execute with total consistency (unless a very unlikely sequence of hardware errors should occur). Professionally developed software is subjected to a rigorous sequence of quality assurance tests, which assure that the performance of the program is exactly what is required. When a program is made operational, it is locked down into a technical processing environment that effectively guarantees subsequent performance, as the code is strongly insulated against outside interference. Our point here is that properly managed system solutions are extremely reliable, and offer a very high degree of consistency compared with less rigorous alternatives.