MANAGING EQUITY RISK FROM M&A

VODAFONE HAS BEEN NO STRANGER TO M&A ACTIVITY. **COLMAN DEEGAN** EXPLAINS HOW VODAFONE GROUP TREASURY MANAGED EQUITY RISK FROM A PREVIOUS DISPOSAL.

vodafone

Vodafone Group Plc is one of the world's leading providers of mobile telecoms services, with a significant presence in Europe, the US, Japan and Australasia, serving more than 100 million customers in 28 countries. Vodafone achieved this position through organic growth and a series of mergers and acquisitions over a two-year period from 1999 to 2001 and most notably the merger with AirTouch Communications in June 1999 and the takeover of Mannesmann in April 2000.

Following its acquisition of Mannesmann, Vodafone set out to divest assets that were not core to the business. One of the transactions that followed was the sale of Infostrada, an Italian fixed line operator, to Enel in October 2000 for an agreed proceeds of €11bn. The transaction also required regulatory clearance from the EU and Italian competition authorities, a process that could have taken some months. This article explores the risks faced by Vodafone as a result of this transaction, the options available to Vodafone Group Treasury to hedge this exposure externally, and the execution and accounting issues raised from hedging this exposure.

INFOSTRADA EQUITY BASKET. At the time of the sale of Infostrada to Enel, it was Enel's intention to IPO Infostrada the following summer, once regulatory clearance had been received. To protect against falling equity prices in the mean time part of the terms of the sale of Infostrada to Enel contained an adjustment to the price of the deal depending on the stock market performance of a notional €3bn basket of telecom stocks and indices (the 'basket') over a nine month period.

The agreed sale price could decline by up to €600m if the performance of the basket declined below €2.4bn but could increase by up to €600m if the value of the basket rose in excess of €3.6bn. Thus Vodafone's maximum gain or loss was limited to €600m if the basket rose above €3.6bn or fell below €2.4bn respectively. The €3bn basket comprised €750m invested in the Nasdaq 100 index, €750m invested in the Milan MIB30 stock index and €1,500m invested in a basket of telecom equities. As a consequence Vodafone's underlying position was characterised as being:

- long the basket at a strike price of €3bn (100%);
- long a put on the basket at €2.4bn (80% of strike); and
- short a call on the basket at €3.6bn (120% of strike).

MANAGING THE EXPOSURE. Vodafone has a conservative approach to financial risk arising from its business and acquisition activities. It was from this point of view that Group Treasury looked at ways to manage the exposure arising from the basket. It became clear there were four options available to hedge this equity risk:

1 do nothing;
2 enter into an offsetting perfect hedge, whereby Vodafone would sell the basket of €3bn, buy a call option on the basket with a strike of €3.6bn and sell a put option on the basket with a strike price of €2.4bn. This strategy would remove any price risk attached to the movement of basket but would have entailed a cost of about 1.77% of the notional €3bn (€53m) as the premium received on the put was less than the premium paid on the call;
3 enter into a zero cost partial hedge, whereby Vodafone would carry out a transaction similar to that in Option 2 above, but accepting some risk to make the transaction zero cost. The transaction would be constructed such that any residual exposure would be to rising equity markets; or
4 enter into a partial hedge whereby Vodafone would sell the basket forward to June 2001 and notionally allocate part of its holding of France Telecom shares[1] as a hedge. In return, Vodafone would receive a 2% premium (€60m) for selling the basket forward and would leave the France Telecom shares in place until June 2001, when they could be sold. The effectiveness of this hedge was dependent on the correlation between the basket and the France Telecom share price.

ANALYSIS OF HEDGING STRATEGIES. Option 1 exposed Vodafone to a loss of up to €600m in the event that the basket fell by 20%. Given the magnitude of the downside risk, this option was not acceptable.

Option 4 was not a perfect hedge, as it exposed Vodafone to a correlation risk between the France Telecom share price and the basket. A certain outcome could only be calculated if it was assumed that there was a perfect correlation between the basket and the France Telecom share price and also that both had identical volatilities. Only under these assumptions could a movement in the value of the basket result in an equivalent rise in the value of the France Telecom shares. In practice, this was not the case. The average historic correlation between France Telecom and the basket moved significantly over time (from zero to over 0.75). Even assuming a correlation of 0.75 and a 95% confidence level the range of returns between best case and worse case was significant.

Furthermore, there was a wide variance between the historic volatilities of France Telecom and the basket. The worst-case scenario for Vodafone under this option would have been a substantial rise in the value of the basket but with France Telecom's

FIGURE 1

VODAFONE'S RISK PROFILE.

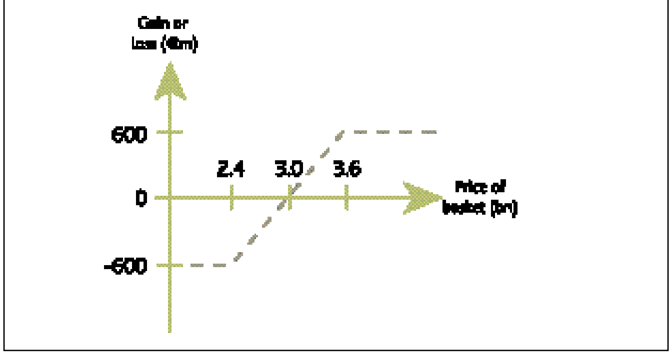
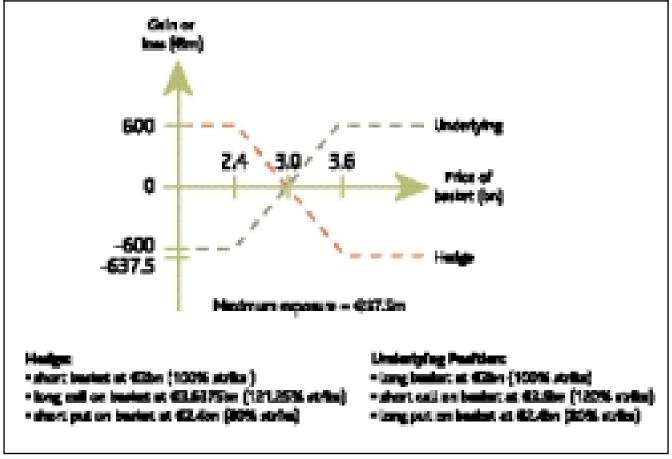


FIGURE 2

THE FINAL OUTCOME FOR VODAFONE



stock price moving in the opposite direction as a consequence of stock specific risk (for example, merger and acquisition activity, managerial change). Given these uncertainties it was decided not to proceed with Option 4.

Therefore the hedging decision came down to a choice between Options 2 and 3. Both were similar transactions with the exception that Option 2 provided a perfect hedge but at a cost, whereas Option 3 was a zero cost strategy but had a residual exposure to rising markets. Given the cost of Option 2 (€53m) and Vodafone's long position in France Telecom shares which would, even if poorly

'IF THE MARKETS WERE TO FALL, VODAFONE WOULD RECEIVE MONEY UNDER THE HEDGE, BUT WERE MARKETS TO RISE, WOULD PROBABLY OFFSET ANY LOSS UNDER THE HEDGE'

correlated with the basket, mitigate part of the downside exposure it was decided to choose Option 3 as the hedging strategy.

Also, should the Infostrada transaction have failed to complete, for example, as a result of the competition authorities not approving the transaction, Vodafone had a natural hedge against the value of Infostrada. For if the markets were to fall, Vodafone would receive money under the hedge, but were markets to rise, the additional value Vodafone would receive from a subsequent IPO of Infostrada would probably offset any loss under the hedge.

EXECUTION OF OPTION 3. Although the structure of the transaction was complex, it was possible to prove the pricing for reasonableness using internal modelling capabilities. To ensure the best execution Vodafone carried out a competitive bid with three banks that had a strong enough capability in equity derivatives to manage the size of the transaction entailed and to provide competitive pricing. Therefore, the strike price of the put was fixed at €2.4bn (80%) and the banks were asked to solve for the strike price of the call.

As a consequence, Vodafone achieved for zero cost a strike price on the call of €3.6375bn (121.25%). This price ensured Vodafone's maximum exposure was limited to €37.5m (and only if equity prices had risen), rather than €600m were the position to be left unhedged. The final outcome can be seen in *Figure 2*.

ACCOUNTING ISSUES. The two key issues from an accounting perspective were:

- did the contract meet the definition of a hedge under UK GAAP; and
- if the outcome of the hedge was not known at Vodafone's balance sheet date, what value would be recorded in respect of sale proceeds for Infostrada and what disclosures would be necessary in respect of the hedge.

It was concluded that it was appropriate to recognise the transaction as a hedge and that the year-end accounts should be prepared on the basis of best estimate of proceeds from the disposal of Infostrada. In the event, no estimates were necessary as the disposal of Infostrada, to Enel, occurred prior to Vodafone's year end.

The hedge transaction came within the scope of the FRS 13 disclosure note and the contingent liability of €37.5m would have been disclosed if the value of the basket increased by 20% in value ie, reaching €3.6bn. As above, no disclosure was necessary as the hedge had been unwound prior to Vodafone's year end.

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NOTE: [1] As part of the consideration for the prior sale of Orange to France Telecom, Vodafone received France Telecom shares.