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BEING A TRULY GLOBAL COMPANY, WITH OPERATIONS AND SALES WORLDWIDE, NOKIA IS EXPOSED TO ADVERSE CURRENCY FLUCTUATIONS AGAINST THE EURO. LIZ SALECKA TALKS TO RECENTLY-APPOINTED GROUP TREASURER DAVID BLAIR ABOUT NOKIA'S SOPHISTICATED FOREIGN EXCHANGE HEDGING STRATEGY AND THE STRIDES TAKEN TO BECOME AN EARLY ADOPTER OF IFRS – INCLUDING IAS 39.

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global leader in the provision of mobile communications, Nokia is the world's number one provider of mobile phones, and a leading player in the provision of solutions for mobile network infrastructure. The group, which has its headquarters in the Helsinki suburb of Espoo, Finland, comprises four main business groups — Mobile Phones, Multimedia, Networks and Enterprise Solutions. This organisational structure is complemented by three horizontal groups: customer and market operations, technology platforms and research, venturing and business infrastructure.

A top global brand, Nokia has always experienced strong positive global cashflows (€11.8 in Q3, 2004), and this has enabled it to grow organically over the years and make tactical investments funded from its own cash resources instead of debt. Today, the company has 100 plus subsidiaries worldwide, with research and development (R&D) centres in 13 countries and manufacturing centres in nine countries. In 2003, worldwide turnover reached €29.5bn.

GLOBAL, VIRTUAL TREASURY. Nokia's treasury operations are managed by a single global, virtual treasury operation staffed by global distributed teams in Espoo, Geneva, New York and Singapore. While the head office in Espoo looks after funding and is the home of Nokia's accounting Shared Service Centre (SSC), Geneva covers Europe, the Middle East and Africa (EMEA) and acts as a global netting (including multilateral netting) and global liquidity centre. The New York centre, which also has a branch in Sao Paulo, looks after treasury activities in the Americas, while the Singapore centre, which has a branch in Beijing, covers the Asia/Pacific region. This structure enables the treasury function to maximise its customer focus, while developing strong regional knowledge.

All four centres are fully integrated by a multi-entity treasury management system (TMS) – SunGard's Quantum TMs – which executes and records information on all transactions including FX deals. Being globally integrated, the TMS provides all of the centres with total visibility of the group's FX exposures and cash positions worldwide at any time.

It is also fully integrated with a number of Nokia's other systems, including the company-wide financial services platform – SAP R/3. This enables the automated handling of payables and receivables by the treasury solution for all Nokia subsidiaries (see Funding and cash management, page 40).



Executive summary

- Nokia's treasury operations are managed by a single global virtual treasury operation staffed by global distribution teams in Espoo, Geneva, New York and Singapore.
- All four centres are fully integrated by a multi-entity treasury management system which provides them with total visibility of the group's FX exposures and cash positions worldwide at any point in time.
- One of Nokia's greatest 'risk' exposures is to adverse currency fluctuations against the euro – its reporting currency. In 2003, its ten largest markets accounted for 61% of total sales. More than half of these countries were non-euro countries.
- The most significant sales-driven exposures for the year ended 31 December 2003 were in the US dollar, the UK pound and the Australian dollar. The group has costs in both sterling and the US\$.
- Nokia's FX exposures are consolidated globally, aggregated and then netted off, eliminating the need for any external FX dealing by the group's operating companies. The exposures are farmed out to one of the treasury centres for hedging.
- Nokia was an 'early adopter' of IAS in 1987 and has also complied more recently with IAS 39 (2001). The group claims hedge accounting for certain forward exchange contracts and options and, for these, changes in fair value are deferred in shareholders equity – to the extent that the hedge is effective.

DIVERSE TREASURY ACTIVITIES. Nokia's global treasury operation looks after a range of activities for the group's subsidiaries from funding, liquidity management and cash management to the hedging of foreign exchange and interest rate risks.

The majority of treasury personnel focus on its two key functions: global cash and working capital management, which engages about one-third of its personnel across the centres, and global risk management, which involves about half of the treasury team.

The treasury function operates under a senior management-approved treasury policy which provides principles for overall financial risk management – Nokia is risk averse in its treasury activities – and determines the allocation of resources for this. Operational policies also cover specific areas such as foreign exchange risk, interest rate risk and use of derivative instruments, as well as liquidity and credit risk.

Nokia's overall risk management strategy is based on visibility of the key risks that may prevent it from reaching its business objectives, with strategic, operational, financial and hazard risks all covered. Key risks are reported to the business and group-level management to create assurance on business risks and enable risk management strategies to be prioritised.

GLOBAL FX EXPOSURES. Being a truly global operation, with production facilities across the world and sales in nearly every country, one of Nokia's greatest 'risk' exposures is to adverse currency fluctuations against the euro. Foreign currency denominated assets and liabilities in non-euro countries, together with cashflows from purchases and sales, give rise to foreign exchange exposures against the euro – Nokia's reporting currency.

A key role for the treasury function is to negate the impact that any depreciation in the value of foreign currencies against the euro can have on its sales and operating profits.

In 2003, Nokia's 10 largest markets accounted for 61% of total sales. The fact that more than half of these countries – the US, UK, China, United Arab Emirates, India and Brazil – were non-euro countries illustrates the extent of Nokia's revenue (sales) exposures to the euro. The most

significant sales-driven exposures for the year ended 31 December 2003 were in the US dollar, the UK pound and the Australian dollar.

However, the group also has substantial costs in both sterling and the US\$, relating to organisational/ manufacturing/distribution facilities and investments. The only currency in which Nokia has significantly higher costs than sales is the Japanese Yen – a reflection of Nokia's purchase of Japanese components.

Figure 1 shows the breakdown by currency of the underlying net foreign exchange transaction exposures as of 31 December 2003. It reveals that after netting – costs minus sales – 26% of Nokia's exchange exposures relate to costs in Japanese Yen. The highest 'sales' exposure after FX netting is to sterling (30%).

FX HEDGING STRATEGY. Nokia's FX exposures are consolidated globally, aggregated and then netted off, eliminating the need for any external FX dealing by the group's operating companies. Net exposures are then farmed out to one of the three main treasury



David Blair, Group Treasurer, Nokia

David Blair was appointed Group Treasurer of Nokia in July this year with responsibility for global enterprise-wide risk management, including financial, insurance and risk finance, and treasury.

For the previous nine years, he was Managing Director of Nokia Treasury Asia Pte Ltd in Singapore where he was responsible for financial strategy and policy and bank relations in the Asia Pacific region. While in this role, he was Program Director of the RosettaNet Payment Milestone Program which went live in December 2003. He was also President of the Association of Corporate Treasurers in Singapore and a member of the Accounting and Corporate Regulatory Authority and the Economic Review Committee.

He was voted Risk Manager of the Year (2000) by *Risk* magazine and saw his operation named Treasury of the Year in 1998 by Ernst & Young.

David first joined Nokia back in 1988 when, as Deputy General Manager, he helped to set up Nokia's first overseas treasury centre to provide treasury services and products for Nokia group companies. He has also previously worked for ABB's World Treasury Centre in Geneva, Price Waterhouse and Cargill-Tradax.

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Funding and cash management

Nokia's global treasury operation is responsible for the capital structure of all Nokia entities worldwide, and the arrangement of cost-efficient funding for the group.

Being a cash-rich organisation, with \in 11.8bn (Q3 2004) of cash, funding is not a major issue for Nokia's global treasury operation – and the group has had little reason to call on its \in 2bn bank line.

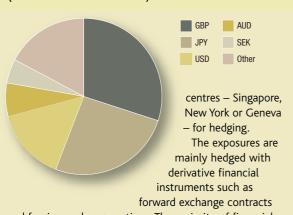
"Nokia has grown organically by making small tactical investments, but this has not been a drain on our cash," explains Group Treasurer David Blair. "Our operating cashflows are also used for the payment of dividends to shareholders and share buybacks."

All of Nokia's 100 plus subsidiaries outsource their working capital management to the global treasury function. Excess cash is swept into the main treasury operation in Geneva which acts as a global netting and liquidity centre and assumes responsibility for the investment of surplus cash in line with the group's policy.

The global treasury function also enables Nokia's subsidiaries to work as cash-free operating companies. It extracts information about invoices from the group-wide SAP system, arranges payment and sends remittance advices on behalf of the subsidiaries as required, and then uploads information relating to execution and collections back into SAP, ensuring that the subsidiaries are always

kept informed of their financial positions. In this way, the global treasury eliminates the need for subsidiaries and their personnel to liaise directly with banks, simplifying processes and reducing the number of banks involved.

Figure 1. Net FX transaction exposures (31 December 2003)



and foreign exchange options. The majority of financial instruments hedging foreign exchange risk have a duration of less than one year with the group not hedging forecasted foreign currency cashflows beyond two years.

To assess foreign exchange risks, the group uses Value-at-Risk (VaR) methodology. This indicates the potential fair value losses for a portfolio resulting from adverse changes in markets, taken over a one week horizon and at a 95% confidence level. Volatilities and correlations are calculated from a one-year set of daily data. Nokia also relies on Monte Carlo simulation to correctly take into account the non-linear price function of certain derivative instruments. The VaR figures assume that the forecasted cashflows materialise as expected.

IAS 39 COMPLIANCE. Despite its reliance on derivative instruments to hedge vast FX exposures, the imminent implementation of the new International Financial Reporting Standards (IFRS), including IAS 39, does not represent a major concern for Nokia. Group Treasurer David Blair explains that the group is already in compliance with the new standards, having been "an early adopter" of IAS in 1987 and, more recently, IAS 39 (2001).

When hedging anticipated foreign currency denominated sales and purchases, Nokia's treasury applies hedge accounting for qualifying hedges – properly documented cashflow hedges of FX risks relating to anticipated sales/purchases – in line with IAS 39's requirements. Here, the cashflow being hedged must be 'highly probable' and it ultimately impacts the profit and loss (P&L) account. Changes in the fair value of derivative instruments that do not qualify for hedge accounting under IAS 39, meanwhile, are recognised immediately in Nokia's P&L account.

The group claims hedge accounting for certain forward exchange contracts and options and, for these, changes in fair value are deferred in shareholders' equity — to the extent that the hedge is effective

Although IAS 39 does not permit net positions to qualify as hedged items, Nokia does allocate external deals to specific actual underlying exposures. It does achieve hedge accounting for the majority of deals, although some end up being taken through the P&L.



Any accumulated fair value changes from qualifying hedges are released from shareholders' equity into the P&L account as adjustments to sales and costs of sales in the same period. If a hedged cashflow is no longer expected to take place, all deferred gains and losses are released into P&L immediately in line with IAS 39.

Nokia also claims hedge accounting for foreign currency hedging of net investments where it uses forward exchange contracts, foreign currency denominated loans and options and option strategies. For qualifying forwards, any change in fair value, reflecting a change in the forward points, is recognised in the P&L account.