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Hedging Currency Risks at AIFS

Christopher Archer-Lock, London-based controller for student exchange organization American Institute for Foreign Study (AIFS) talked almost daily with his Boston-based counterpart, Becky Tabaczynski, CFO for the group's high school travel division ACIS. On this day in early July, 2004, their daily phone call had been especially invigorating.

As often before, they had discussed foreign exchange hedging, an area of key importance for the company. AIFS received most of its revenues in American Dollars (USD), but incurred its costs in other currencies, primarily Euros (EUR) and British Pounds (GBP). The currency mismatch was natural given AIFS's business: it organized educational and cultural exchange programs throughout the world. Two of AIFS's major divisions served American students traveling abroad. The Study Abroad College division, where Archer-Lock was controller and treasurer, sent college-age students to universities worldwide for semester-long programs, and the High School Travel division, whose finances Tabaczynski managed, organized 1-4 week trips for high school students and their teachers.

Currency hedging helped AIFS protect its bottom line from damaging exchange rate changes. Using currency forward contracts and currency options (**Appendix 1** summarizes currency instruments). AIFS hedged its future cost commitments up to two years in advance. The problem was that the hedge had to be put in place before AIFS had completed its sales cycle, and before it knew exactly how much foreign currency it needed. The dilemma meant that Archer-Lock and Tabaczynski frequently discussed two points. First, what percentage of the expected costs should they cover? Currently, AIFS covered 100%. Second, in what proportions should AIFS use forward contracts and options? Today, Tabaczynski had promised Archer-Lock to put together scenarios for how changes in sales and exchange rates could affect the company. He was eager to see what she meant.

AIFS Activities and Business Model

Through its family of companies, AIFS sent more than 50,000 students each year on academic and cultural exchange programs worldwide. Founded in the U.S. in 1964 by Sir Cyril Taylor (HBS MBA 1961) the group had annual revenues close to \$200 million. Two of the group's main divisions focused on Americans traveling abroad:

Professor Mihir A. Desai, Executive Director of the HBS Europe Research Center Vincent Dessain, and Research Associate Anders Sjöman prepared this case. Some names and data have been disguised for confidentiality. HBS cases are developed solely as the basis for class discussion. Cases are not intended to serve as endorsements, sources of primary data, or illustrations of effective or ineffective management.

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- The **College** division organized study abroad programs for more than 5,000 American university-aged students during the academic year (Academic Year and Semester, AYS) or the summer (College Summer School, CSS.) All courses were for academic credit, with most participants traveling to Europe, and a significant portion to the United Kingdom. Countries with study programs included Australia, Austria, the Czech Republic, France, Italy, Russia, South Africa and Spain.
- The Boston-based **High School Travel** division had been founded in 1978 as the American Council for International Studies (ACIS) and organized chaperoned educational travel for about 20,000 high school students and teachers annually. The groups traveled on 1- to 4-week educational trips to Europe, China, Mexico, Africa, Australia and the Americas. For most participants, these trips were their first exposure to foreign countries, and so AIFS organized the whole trip: airfare, transportation, hotels, tour manager, guides etc.

Overall, the College division had higher margins than the “low margin/high volume” operations of the ACIS division. ACIS was also more exposed to world events than the College division. High school travelers reacted immediately to news of war, terrorism or political uncertainty. Sales could drop up to 60% on such news. In the last 25 years, four events had led to such drops in ACIS sales: the 1986 terrorism acts, the 1991 Gulf War, the 2001 September 11 attacks and the 2003 Iraq war.

AIFS also ran several other programs, such as an Au Pair division which annually placed 4,000 young people in American homes to assist with child care, and the Camp America division, which placed 10,000 young people as camp leaders in USA summer camps. AIFS also arranged Academic Year in America (AYA) for students wanting to study in the U.S.

Catalogs, Guarantees and Pricing

By and large, AIFS’s business was “catalog-based.” The College division distributed two main catalogs per year (one Summer and one Fall/Spring) and the High School division had one main Fall catalog, with several smaller catalogs distributed throughout the year. A key feature was that AIFS guaranteed that its prices would not change before the next catalog, even if world events altered AIFS’s cost base. Although the idea often came up for discussion among AIFS management, it was always agreed that it would be hard to abandon the notion of guaranteed prices. The primary customer base (which was *not* the students, who changed from year to year, but their teachers and academic advisors) based their loyalty to AIFS on the fact that there would be no “price surprises.”

When pricing the programs, both divisions took into account their cost base, competitive pricing and also the hedging activities. Their pricing schedules were, however, different.

College Pricing The College worked on an academic planning year, from July 1 to June 30. Prices for any given year had to be set by June 30 the previous year. This meant that now in early July 2004, Archer-Lock had just finalized the prices for the College division’s “Summer 2005” and “Fall 2005/Spring 2006” catalogs. During the year, Archer-Lock met regularly with marketing and operations managers, to discuss sales forecasts and events that might affect sales. In addition, these managers put out weekly sales forecasts, on which Archer-Lock could base his hedging activities.

High School Travel Pricing Combining tours, seasons and departure gateways, the ACIS catalog contained about 35,000 prices. Tabaczynski set these on a calendar year basis, January to December. One of her main goals was to see that ACIS followed a strategy of slow, but steady price increases year by year. She explained,

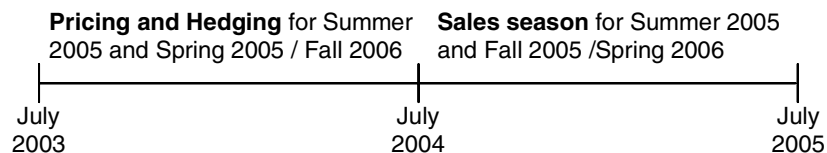
We found that if we increased our own prices \$200 from one year to another, the market reacted. So to avoid sudden price hikes, we instead raise prices in much smaller amounts, a little each year. Interestingly, if we become \$200 more expensive than the competition, our customers don't seem to care. We have a very loyal customer base: over 70% of our teachers are returning customers.

Hedging at AIFS

At AIFS, Tabaczynski and Archer-Lock used currency hedging to help them manage three types of risk. First was the bottom-line risk, or the risk that an adverse change in exchange rates could increase the cost base. Explained Tabaczynski, "Say you have costs of EUR 20 million and that we set our catalog prices at parity with the dollar. Then the dollar goes to 1.30! We're now talking 30% of EUR 20 million... It's a move that could take you out of business." Second was the volume risk, since foreign currency was bought based on projected sales volumes, which would differ from final sales volumes. Third was the competitive pricing risk, since no matter how currencies fluctuated, the AIFS price guarantee meant it could not transfer rate changes into price increases. Naturally, the competitive risk was closely link to the other risks, especially the bottom line risk.

Hedging activities normally started about six months prior to a main pricing date. For the College division, this meant that hedging normally began in earnest in January. **Figure 1** shows a sample timeline for pricing as well as hedging for the College division.

Figure 1 College Pricing and Hedging Timeline



Source: AIFS

For the High School Travel division, hedging took place throughout the year, matched with various sales deals, but company policy was to hedge at least 25% by December, 40% by the end of March and a full 100% by the pricing date in June.

To track current hedges, Archer-Lock produced a daily report of currency rates and currency purchasing. (See **Exhibit 1** for a sample daily report.) Archer-Lock explained the report,

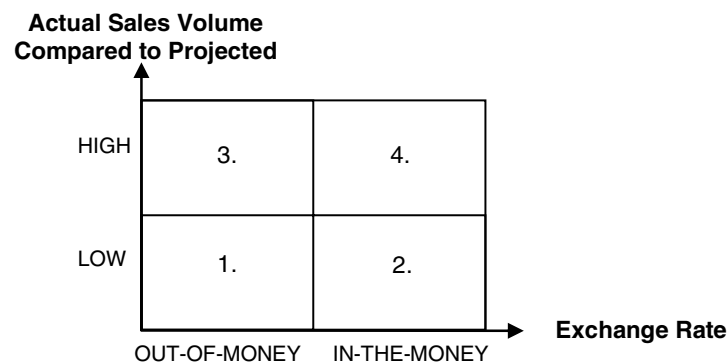
The report is circulated to a broad group of management, since currency rates and our hedging activity affect many aspects of our business and the issues are widely discussed. The report provides a snapshot of key market rates, both short and long term, alongside progress in our hedging activity. The top part of the report shows exchange rates for currencies, looking up to two years forward to match our catalog planning time scales, plus other data such as interest rates and currency policy guidelines. The lower part of the report shows forecast currency buying needs for the different sectors of the business, plus the percentage of hedging undertaken to date in contracts and options, and the rates achieved. These parameters are

monitored in the light of sales and enrollment projections, market rates, currency policy and timing within the business cycle.

Archer-Lock also distributed a monthly report that reviewed currency purchasing and made recommendations for future hedging. (See **Exhibit 2** for a sample monthly report.) When purchasing currency, AIFS worked with six different banks, with which it had long-standing relationships. The banks had all granted AIFS lines of credit, based on their own analyses of the business. Without the credit lines, AIFS would have had to deposit funds at each bank to cover its hedging activities. Currently, credit lines came close to \$100 million USD. A similar level of deposits would have taxed AIFS considerably, compared to the company's annual turnover of \$200 million.

The ultimate success of the group's hedging activities depended on the final sales volume and the ultimate market value of USD. Archer-Lock summarized the relationship between these two variables with a two-by-two matrix, that he called the "AIFS shifting box." (See **Figure 2**.)

Figure 2 AIFS Shifting Box



Source: AIFS

Archer-Lock explained,

Square 1 means that we bought the currency but we don't need it, because our sales came in below our projections. It is a bad place, especially if we are locked into surplus forward contracts on which we would lose money. It's this box that makes us use options, and not just forward contracts. In square 2, the exchange gain hopefully compensates for the lower sales volume. The gain is larger with forward contracts than with options, since options cost roughly 5% of the nominal USD strike price. In square 3, volume came in higher than expected and so we are short foreign currency. The exchange rate moved out-of-money¹ though so we can just buy the extra volume we need, favorably, at spot rate.

Finally, we have the tricky square 4, which combines both good news bad news. Our sales came in higher than expected, which is good, but it means that we need more currency.

¹ A call option is "out-of-the-money" if the spot exchange rate is less than the option's strike price of the option (and vice versa for a put option.) An "out-of-the-money" option will have no value at expiry, and the option holder normally just lets it expire. By contrast, an "in-the-money" option has an intrinsic value, since there is money to be made from exercising the option. A call option is in-the-money if its strike price is below the spot exchange rate.

Unfortunately, the currency rate moved in-the-money, so we have to buy at a higher rate than the rate we used when we priced the catalog. This downside should be offset though by the sales increase—we just have to monitor where the breakeven is between these two.

To help inform its hedging decisions, AIFS had put in place a currency hedging policy (see **Exhibit 3**). In essence, the policy addressed two key questions. First, what percentage of the expected requirements should AIFS cover? Commented Tabaczynski,

The bottom-line risk drives this. There was a time when we only covered 80% which is quite a reasonable cover. Then came that one bad year in 1995 where we got burned. Volume came in higher than expected, we were only covered 80%, and I think we lost \$700,000 against the rate we used when we priced the catalog. So now we cover 100% of our needs

Second, within the cover, what should be the proportion of contracts versus options? Currently, the policy let the College division use up to 30% in options, and ACIS up to 50%. Said Tabaczynski,

In general, I believe that in the long run, no matter how you hedge, half the time you win, half the time you lose. You still need to hedge for the short run, though. With options, you can stabilize your earnings, your price increase. Assume we only bought contracts, at say 1.30. The dollar continues to be weak—but then just before we price the catalog, it goes to parity. Competitors who aren't hedging can buy at spot rate—but I have to price at 1.30. Now, with options I have the choice to step away—so options lead to a more stable company, with more stable infrastructure. I really like options.

In general, Archer-Lock believed the hedging policy had struck a happy balance between structure and adaptability, as well as between risk and cost. He commented,

Although one could envisage a more prescriptive or mechanistic approach, we have generally been happy with the hedging process. The policy provides a framework, which is filled out by management discussion and some discretion. The key elements of the framework are that we cover 100% of the forecast and so do not speculate by leaving needs open at the pricing date, and that we match the options percentage to the perceived volume risk. This seems logical when you think of the risk in terms of the shifting box matrix, but there is always a critical debate to be had here, which events and markets keep very much alive.

Tabaczynski added,

I believe another reason we do a good job of hedging is because we have a good working relationship across the board. In some companies, hedging is considered a financial decision, independent of the business needs. Here, we're trying to match the business needs.

Tabaczynski's Spreadsheet

Although the company's hedging policy gave guidelines on how much to cover, and how to split the cover between contracts and options, the exact parameters could always be discussed. In the end, it was the two unknowns—final sales volume and final dollar exchange rate—that determined what economic impact the hedging activities had on the company. For the currency component, Archer-Lock followed rate movements for the key currencies. Specifically, he tracked the long term dollar movement against the Euro (see **Exhibit 4**) and the British Pound (see **Exhibit 5**), as well as the short and medium term movements of the Euro and the GBP against the dollar (see **Exhibit 6** for short term currency movements and **Exhibit 7** for medium term currency movements). This involved

technical analysis of the charts, where trends and key market levels were identified, as well as fundamental economic analysis. For the economic analysis, Archer-Lock followed in particular the development of the US trade deficit against US Gross Domestic Product (see **Exhibit 8**). At the moment, developments had experts arguing that a sharp USD movement might be imminent.

Archer-Lock and Tabaczynski had often discussed how to best prepare for these volatilities. Taking the high school division as an example, Archer-Lock told Tabaczynski in their phone call, “It looks like ACIS will get around 25,000 participants this year. The dollar is hovering around 1.22 EUR. But that can all change. How should we prepare? This seems a critical year given the weaker dollar. We should plan carefully so we know for which levels we are ready to commit.” Tabaczynski picked up on the challenge,

OK, how about I put together a spreadsheet that models this? It’ll look at the contract and option balance, and the overall level of our coverage. It’ll take into account how much we achieve of our projected sales volume. In the end, it will show the additional benefit or loss we get, given coverage, USD exchange rate levels and sales volume results.

Tabaczynski recognized that a comprehensive model that covered different scenarios could be very useful in identifying the consequences of different hedging strategies. Such a model, though, would also generate a wide range of outcomes that could prove overwhelming. She therefore decided to focus first on the expected final sales volume of 25,000 and to analyze three simple hedging strategies. Mindful of AIFS’s 100% hedging policy and the ongoing debate on the use of forwards versus options, Tabaczynski defined three alternative strategies:

- Do nothing (no hedge)
- 100% hedge with forwards
- 100% hedge with options

Next, in consultation with Archer-Locke, Tabaczynski defined the range of exchange rates that would be included in the model. The two agreed that the model should include three exchange rate levels for the dollar to the euro:

- stable dollar (1.22 USD/EUR)
- strong dollar (1.01 USD / EUR)
- weak dollar (1.48 USD/EUR)

Tabaczynski also had to decide how to measure the impact of each of the hedging strategies under different exchange rate scenarios. She decided that it would be most straightforward to quantify the impact on dollar costs. AIFS calculated that its average cost per participant was €1000. At the current exchange rate of 1.22 USD/EUR, dollar costs per participant would be \$1220, or a total of \$30.5 million for the projected sales volume of 25,000. Tabaczynski defined this level of dollar costs as the ‘zero impact’ scenario; in other words, costs of \$1220 per participant would have ‘zero impact’, because they were the same as projected costs. If actual dollar costs were above this level, then there would be a negative impact. Similarly, if actual dollar costs were lower than expected, the impact would be positive.

Finally, Tabaczynski had to incorporate the price of each hedging strategy into her model. The Do Nothing strategy or a hedge using forwards incurred no additional expense. For the option strategy, AIFS would have to pay an option premium of 5% of the USD notional value. For example, if AIFS

decided to use options to hedge projected costs of one million euros at the current exchange rate of \$1.22/euro, it would pay an option premium of \$61,000. Tabaczynski's analysis had to include the option premium since she wanted to measure the impact of different hedging strategies under different exchange rate scenarios on AIFS's costs.

Using the projected sales volume of 25,000 participants, Tabaczynski worked out a quick template to show the output of the model, as shown in **Exhibit 9**. First, she planned to analyze the three basic hedging policies she had defined. Then, she would complete the spreadsheet, analyzing different mixes of forwards and options, and then different levels of coverage

Archer-Lock was eager to see the finished spreadsheet and to continue the discussion with Tabaczynski. He expected the model to be useful in defining alternative strategies for the expected final sales volume of 25,000. He also wanted to use the model to evaluate hedging strategies for a high final sales volume of 30,000 and a worst case scenario of a 10,000 final sales volume. Given AIFS's experiences in the aftermath of 9/11, such alternative volume outcomes were critical to consider when implementing hedging strategies.

Tabaczynski and Archer-Locke anticipated that the exercise would give them a comprehensive view of different hedging strategies under different assumptions. It might even give them arguments to assess AIFS's policy of 100% coverage, as well as the often debated questions of the options percentage. An exercise that had begun as a simple spreadsheet had morphed into something that enabled them to reevaluate the critical uncertainties AIFS faced and the goals of their hedging program.

Exhibit 1 AIFS Daily Foreign Currency Status Report

This document is authorized for use only in Enrico Biffis's Accounting & Corporate Finance at Imperial College London from Feb 2020 to Aug 2020.

CURRENT EXCHANGE RATES¹

	Spot	Six Months	One Year	Two Years	Discount/ (Premium) 1 Yr %
EUR	1.2273	1.2245	1.2258	1.2344	0.12
GBP	1.8458	1.8169	1.7930	1.7637	2.86
CHF	1.2434	1.2309	1.2258	1.2023	-1.42
AUD	0.7055	0.6919	0.6829		3.20
ZAR	6.3987	6.6057	6.7962		6.21
JPY	110.59	109.67	108.24		-2.13
CAD	1.3641	1.3681	1.3693		0.38

OTHER INFORMATION

Interest rate	US	UK	EUR
Last change	1.00% 25 Jun 03	4.25% 6 May 04	2.00% 5 Jun 03
	0.5 % rise in EUR spot this month		
	0.7 % rise in GBP spot this month		

AIFS option purchasing guidelines -

ACIS :	up to 50% of requirement in Options
College :	up to 30% of requirement in Options

DEALING SUMMARY (EUR & GBP)

	ACIS	ACIS	ACIS	College	College	College	College	College
	2003	2004	2005	Sum/Fall 03	Spring 04	Sum/Fall 04	Spring 05	Sum/Fall 05
Date of pricing	June 2002	June 2003	June 2004	June 2002	June 2002	June 2003	June 2003	July 2004
Enrolment	18,000	22,000	25,000	2,990	2,015	3,480	2,250	3,500

EUR

Required	16,000	20,100	23,500	4,500	3,300	5,400	3,800	5,600	4,000
Cover in place	50.9%	51.3%	51.1%	70.0%	71.2%	70.4%	71.1%	71.4%	62.5%
contracts %	49.1%	48.7%	48.9%	30.0%	28.8%	29.6%	28.9%	28.6%	29.4%
options %	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	91.9%
Total %	0.9633	1.0774	1.2155	0.9590	0.9832	1.0503	1.0921	1.2012	1.2215
Rate (including option costs)									
Current year contracts matured %		59.7%			100.0%	9.3%			

GBP

Required	3,000	3,800	4,400	2,150	1,950	2,600	2,200	2,700	2,300
Cover in place	51.7%	50.0%	51.1%	69.8%	71.8%	70.2%	70.5%	70.4%	54.3%
contracts %	48.3%	50.0%	48.9%	30.2%	28.2%	29.8%	29.5%	29.6%	29.5%
options %	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	83.8%
Total %	1.4715	1.5820	1.7070	1.4610	1.4791	1.5908	1.6050	1.7273	1.7442
Rate (including option costs)									
Current year contracts matured %		63.2%			100.0%	15.4%			

¹ Exchange rate conventions vary; here, the euro exchange rate is in the form of USD/EUR while the Japanese yen rate is cited as JPY / USD

Source: AIFS. Numbers and levels have been disguised for confidentiality.

Exhibit 2 AIFS Monthly Currency Status Report (Abridged Sample from 6 July 2004)

The following currency purchasing was arranged in June:

Division	Period	Instrument	Currency amount	Rate
ACIS	2005	Contract	EUR 750,000	1.2318
ACIS	2005	Contract	EUR 250,000	1.2335
ACIS	2005	Option	EUR 500,000	1.2320
ACIS	2005	Contract	GBP 100,000	1.7825
College	Sum/Fall 2005	Contract	EUR 350,000	1.2311
College	Spring 2006	Contract	EUR 600,000	1.2272

The dollar has continued to show a somewhat weaker tone in the past month, without breaking decisively out of previous ranges. Some of the main themes have been the record US current account deficit (\$144.88bn for Qtr 1, vs. \$127bn for Qtr 4 2003), weaker than expected US payrolls data, and in spite of the first US interest rate rise for a year, more caution about the pace of further rises. More positive factors have been seen improving US consumer confidence data, and speculation about the possible effect, if passed, of the US Homeland Investment bill, which may allow US companies to repatriate profits at a rate of 5.25% instead of 35% for a limited period. The purchases made in the month were mainly to complete buying for the June catalog deadlines.

ACIS

Cover for 2005 was completed based on projections of 25,000 participants. The Euro rate is 1.2155 (including option costs) and the sterling rate is 1.7070. Current market rates are worse than the 2005 hedged rates (especially since there is now a forward premium for Euros 2 years ahead), but consideration is being given to some early 2006 hedging (c. 10% of needs, as a contribution to protecting the sneak deal²), although the policy deadline is to cover 25% by the end of December. Recent range trading has been contained below 1.24 EUR and 1.85 GBP, so a move through these levels may signify further upward momentum and justify defensive option purchasing. As target spot levels, 1.21 and 1.1950 EUR and 1.79 GBP were set recently for buying opportunities at this stage.

College

Following additional purchases to top up catalogue needs, average rates for 2005/06 are at 1.2097 for the Euro and 1.7351 for sterling (including option costs.) Catalogue pricing has been agreed following a separate memo, and is also set out in the July meeting book notes. Cover for Spring 2006 is 92% of projected Euro needs and 84% of projected sterling. The remainder is the uncovered balance of Partnership needs at this stage, the decision having been taken to leave this to a later point in the year when Spring 2006 Partnerships pricing is being formulated.

In spite of concerns about the dollar, it seems early to be moving into 2006/07 AYS/CSS purchasing at this stage, a year ahead of catalogue pricing. It would be consistent with policy to make a small early move if the dollar strengthened within current technical channels to give some advantage over current pricing, e.g. to 1.19 vs. EUR.

Chris Archer-Lock, 6 July 2004.

Source: Adapted by casewriters from AIFS. Numbers have been disguised for confidentiality.

² The "sneak deal" was a sales offer to ACIS customers. Those customers who signed up by March 31 would receive a significant discount to the price printed in the sales catalog.

Exhibit 3 AIFS Currency Hedging Policy (Abridged from July 2003 revision.)*General principles*

1. Cash flow hedging. Currency hedging will take place in the context of a phased currency cash flow forecast (aggregating cash flows from all sources including foreign currency earnings).
2. Hedge accounting. As far as possible, currency deals will be designated against the forecast, to enable cash flow hedge accounting to be used. This is usually consistent with the economic purpose of the currency transactions. However in some circumstances, e.g. adjustments to forecast volume, economic hedging decisions may override hedge accounting requirements, resulting in hedging purchases having to be “marked to market”.
3. Proportions. Generally 100% of forecast foreign currency exposure will be hedged by the time prices are set with a combination of options and contracts. When currency is purchased, the proportion of options will not exceed 20% of forecast requirement for Overhead, 30% for College programs, and 50% for ACIS.
4. Instruments. The portion hedged through “options” will be hedged by buying vanilla options, priced at the money forward or out of the money, for which AIFS will pay an option premium. In a situation where volume is at risk of declining, “put” options (options to sell currency) may be used to manage this form of volume risk. The portion of needs which is hedged through “contracts” will be hedged either (i) by outright forward contracts, or (ii) through structured instruments for which no initial premium is paid, but for which a worst case exchange rate is clearly identified, together with conditions upon which a more favorable exchange rate may apply on maturity (e.g. cylinders, forward plus contracts, bonus forwards, participating forwards). The majority of contract cover should be through outright forward contracts.
5. Pricing date. In general, this is the date by which prices have to be set for catalogue publication. Flexibility may be retained if the catalogue states that prices may change, or if another mechanism is used for communicating prices to the customer. A reasonable balance should be struck between obtaining protection in advance, and addressing the actual timing, competitive position, and certainty of commitments in these areas.
6. Timing of purchase. All things being equal, purchasing should begin more than six months prior to a main pricing date, and should build up to that date, but be phased so that rates combine being reasonably up to date at deadlines (and thus responsiveness to evolving circumstances, changing volumes, etc.) with the advantages of averaging. When current exchange rates permit the formulation of good business plans, e.g. a good net margin with minimal price increases, some currency purchases should be made early in the buying cycle. Where rates are adverse, or the external environment makes business volume uncertain, purchases may be later in the cycle in order to assess requirements and competitive position. Generally, purchasing should progress so that no more than 25% should be left to be covered in the month prior to pricing. Purchasing should make use of stop loss and target buying levels where circumstances permit.
7. Reports. Chris Archer-Lock will produce a daily status of currency rates and purchasing in place by division. A periodic report will be prepared by Chris Archer-Lock reviewing foreign currency purchasing and making recommendations for forthcoming hedging.
8. Dealing controls. Deals will be arranged with banks by telephone. Hardcopy confirmations from the banks will be signed off by an authorized individual separate from the dealer. Periodic checks of banks’ outstanding deal listings will also be carried out by an independent individual.

9. Bookkeeping. A central company-wide bookkeeping rate will be set, which averages all forward contracts and takes account of period end cash balances. Book adjustments will provide businesses with appropriate individual exchange rates. The impact of spot deals and rolling contracts will be charged to divisions. Option costs will be charged to and budgeted by divisions. FAS 133 valuations and accounting entries will be carried out quarterly.

The above principles apply generally. Additional guidance for specific divisions is set out below.

ACIS Division

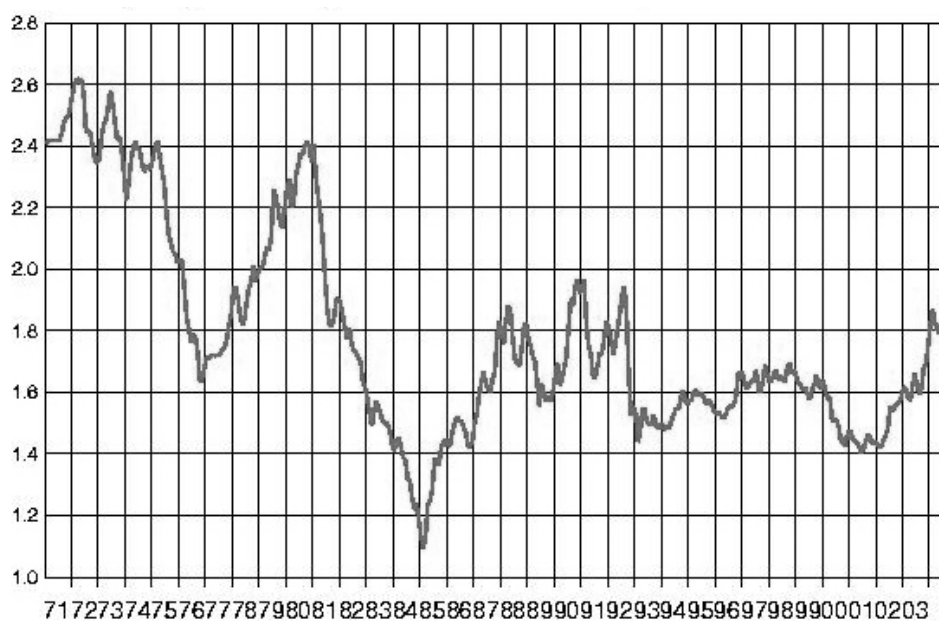
1. Instruments. In order to allow for volume fluctuations, needs for a particular year will usually be covered by a combination of up to 50% of forecast needs in options and the remainder in forward contracts (or structured products with a set worst case rate and no initial option premium). An option premium budget will be set for each financial year.
2. Timing. Estimated currency needs for the next year will be covered by the time of pricing, typically the previous June. The timing of the marketing program requires the following stage deadlines:

	<u>Amount</u>	<u>Cumulative</u>	<u>Timing</u>
At least	25 %	25%	By the end of December
At least	15%	40%	By the end of March
At least	60%	100%	By the pricing date in June

College Division

1. College Division (AYS and CSS). Estimated needs should generally be hedged 100% through options and forward contracts (or zero premium instruments) against the cash flow forecast by the time pricing decisions are taken in June. This applies to the extent that fees are fixed in June.
2. Proportion. Needs for an academic year will be covered by up to 30% of forecast needs in options and the remainder in contracts (or structured products with a set worst case rate and no initial option premium).
3. Phasing. Cover will be designated to mature in the spring, summer or fall of the relevant year, in order to provide an effective cash flow hedge.

Source: Adapted by casewriters from AIFS. Numbers have been disguised for confidentiality.

Exhibit 4 Monthly Average Exchange Rates, USD/GBP (1971 – 2004, Q2)

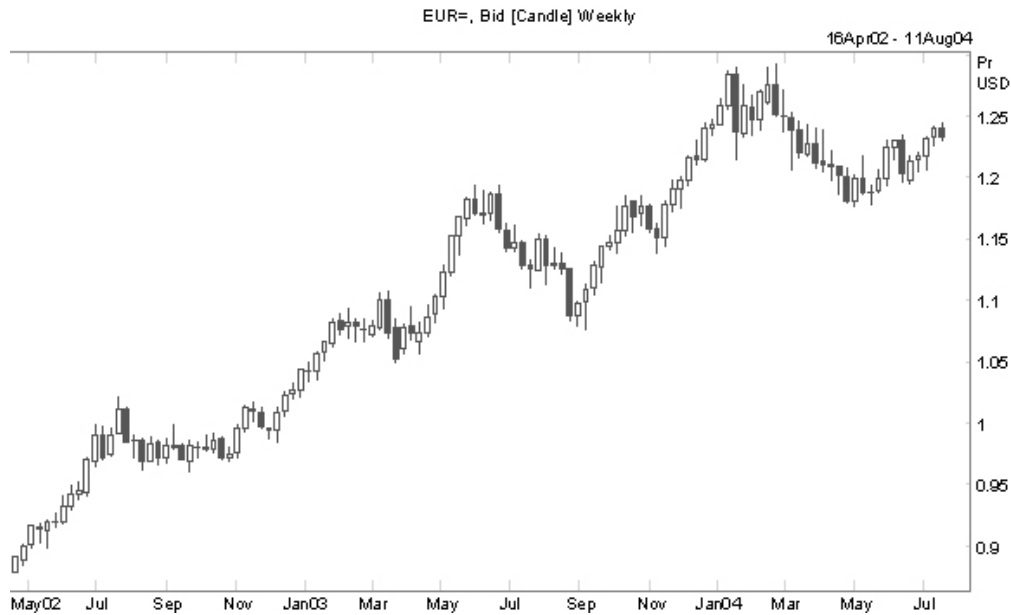
Source: AIFS, taken from HIFX Risk Management Inc.

Exhibit 5 Monthly Average Exchange Rates, USD/EUR (1993 – 2004, Q2)

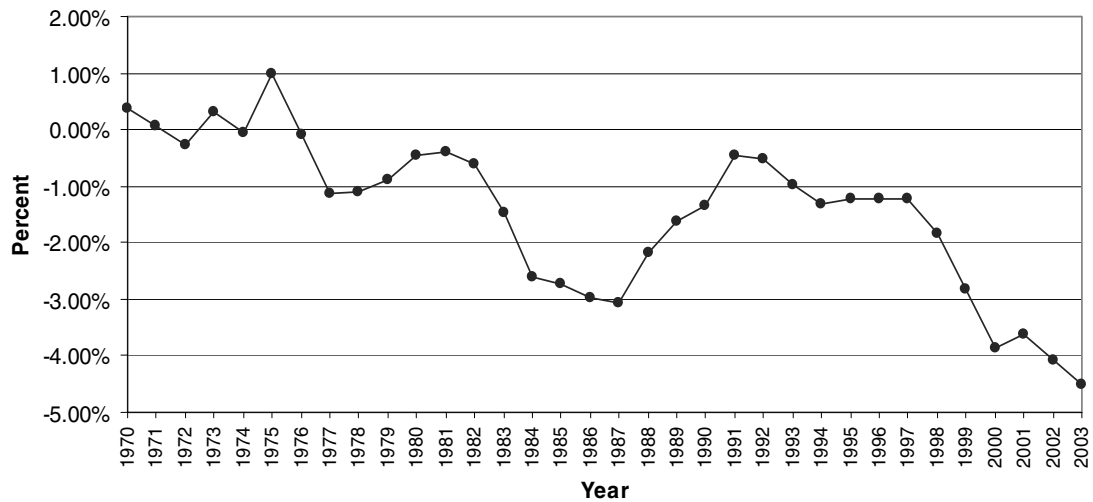
Source: AIFS, taken from HIFX Risk Management Inc

Exhibit 6 Currency Developments, Short-Term (May - July 2004)**a. USD per EUR****b. USD per GBP**

Source: AIFS, taken from HIFX Risk Management Inc

Exhibit 7 Currency Developments, Medium Term (April 2002 – July 2004)**a. EUR/USD****b. GBP/USD**

Source: AIFS, taken from HIFX Risk Management Inc

Exhibit 8 US trade deficit as percentage of US Gross Domestic Product, 1970-2003

Source: International Monetary Fund, International Financial Statistics CD-ROM, June 2004

Exhibit 9 Template for Analyzing Hedging Options

The three simple hedging policies (no hedging, 100% hedging with forward contracts, and 100% hedging with options) are shown in the boxes. The empty cells should show the positive or negative impact of different hedging strategies at various USD exchange rate levels, measured relative to the scenario with 'zero impact.' One cell has been completed in the table below, for the 'no hedge' scenario. The zero indicates that if there were no hedge and the exchange rate remained stable at \$1.22/euro, there would be no impact on AIFS's costs.

Final volume: 25,000			USD Exchange Rate (USD/EUR)		
% Cover	Contracts	Options	1.01	1.22	1.48
100%	0%	100%			
100%	25%	75%			
100%	50%	50%			
100%	75%	25%			
100%	100%	0%			
75%	0%	100%			
75%	25%	75%			
75%	50%	50%			
75%	75%	25%			
75%	100%	0%			
50%	0%	100%			
50%	25%	75%			
50%	50%	50%			
50%	75%	25%			
50%	100%	0%			
25%	0%	100%			
25%	25%	75%			
25%	50%	50%			
25%	75%	25%			
25%	100%	0%			
0%	-	-		0	

Source: Adapted by casewriters from AIFS. Numbers and levels have been disguised for confidentiality.

Appendix 1

Basic Hedging Techniques for Managing Foreign Exchange Risk

All companies active on the international market have to consider the effect of movements in foreign exchange rates on their activities. For companies that work with more than one currency, several hedging techniques are available to guard against foreign exchange fluctuations.

- **Currency Accounts and Currency Loans:**
As a simple hedging tool, currency accounts (bank accounts set up in a foreign currency) work well for companies with a regular flow of both money out (payments) and (money in (receipts) in a particular foreign currency. The matched in- and out-flows help the company avoid having to buy or sell currency for each transaction. Currency loans (borrowing money in a foreign currency) work similarly, in that the company can use future income streams in that currency to pay off the loan.
- **Spot Trading**
Trading on the spot market is the most common foreign exchange transaction. The company simply converts foreign currency at today's market foreign exchange rate. Spot transactions are most commonly used for immediate payments in a foreign currency.
- **Forward Contracts**
Forward contracts are the purchase (or sale) of a foreign currency at a specific date (the settlement date) in the future. Forward contracts allow companies to fix the exchange rate today for future payments or receipts of foreign currency. It gives the company certainty of how much operating currency it would need to pay (or would receive.)
- **Currency Options**
The fixed rate in the forward contract protects the company from any unfavorable move in exchange rates. It, however, also stops the company from taking advantage of any *favorable* move. Currency options balance this situation. With currency options, the company has the right, but *not* the obligation, to purchase (a call option) or sell (a put option) a currency at an agreed exchange rate (the strike price). For this right without obligation, the buyer of the option pays a premium, making currency options a more expensive alternative to forward contracts. If there was an adverse movement in the exchange rate compared to the strike price, the holder of a currency would allow the option to lapse. The holder could then instead buy or sell directly from the spot market.

Source: Casewriters