Managing Foreign Currency Exposure at 3M

3M is one of America's oldest and most venerable diversified industrial corporations. The company is known for its strong con-sumer brands, such as Scotch, Scotchgard, Post-it, Scotch-Brite, and ACE Bandages, but in truth its consumer business only constitutes a small part of its activities. The company also has many product offerings with applications in industrial areas such as automotive, health care, electronics, and energy, as well as safety and graphics. 3M has a well-earned reputation for being an innovation machine, plowing 6 percent of its annual revenues back into R&D. A long history of innovation has given 3M a port-folio of 55,000 products, many of which command high margins. Some 30 percent of its sales come from products introduced in the last five years.

In addition to being an innovation machine, 3M is also one of the most international of all U.S. companies. The company gen-erates around 60 percent of its $32 billion in annual revenues from sales outside of the United States. This large global business has sales in 200 countries and operations in 70. The company has 200 plants around the world: manufactures many of its own inputs in addition to final products; and has built up networks of regional supply chains to better manage inventory, improve customer responsiveness, achieve economies of scale, and realize the productivity gains that come from manufacturing products in the optimal location.

Dealing with this vast array of international sales. as well as intra-company transactions, creates a problem for 3M. Specifically, changes in the value of currencies against each other can significantly affect its earnings and revenues when translated back into U.S. dollars, affect the value of intracompany transactions, and alter the attractiveness of different nations as possible locations for manufacturing activities. 3M estimates that adverse movements in currencies decreased the company's pretax profits by $42 million in 2018 and $111 million in 2017. (As an American company, 3M reports its financial results in U.S. dollars.) These estimates include the effect of translating profits from local currencies back into U.S. dollars, the impact of currency fluctuations on the transfer of products between 3M operations located in different nations. and transaction gains and losses including those on derivative instruments designed to reduce foreign currency exchange rate risk. For example, in 2018, an increase in the value of the U.S. dollar against the currencies of many other countries reduced 3M's foreign sales (when they were translated back into U.S. dollars) by some 2.3 percent. Of course, the opposite can also occur.

Foreign currency risk arises because the value of currencies will fluctuate against each other over time, and it is not easy to forecast how they will move against each other. In 2018, for example. the U.S. dollar increased in value by 5.2 percent against a trade-weighted basket of other currencies, which included the euro, yen, British pound, Swiss franc, and Australian dollar. The implication is that foreign sales. when translated back into U.S. dollars, will have fallen, on average, by 5.2 percent over the year.

Like many companies, 3M tries to reduce its exposure to such adverse effects by hedging its foreign exchange risk. The company enters into what are known as foreign exchange forward contracts, in advance of a foreign transaction, to “lock in” the exchange rate. The company may lock in exchange rates as much as 36 months in advance. For example, if 3M is exporting a product to the euro zone with payment in euros expected in three months, and it thinks that the U.S. dollar might appreciate against the euro over the next three months but it's not sure about this, 3M might purchase a three-month forward contract that locks in a certain dollar-euro exchange rate. By doing this, 3M knows what revenue it will get from the sale at that time in terms of dollars, and dollar sales are not reduced by a rise in the value of the dollar against the euro over the next three months. Of course, such forward contracts are not free, nor are they perfect. In the face of uncertainty, the company may bet incorrectly and lose out. If the dollar falls against the euro over the next three months. instead of rising as 3M expected, 3M would have been better off not hedging because the unhedged dollar value of its euro sales would have increased.

As circumstances warrant, 3M also uses foreign currency forward contracts and foreign currency debt as hedging instruments to protect the value of portions of the company's net investments in foreign operations. For example, in 2018, its European oper-ations were partly financed by €4.1 billion in euro-denominated debt. If that debt were denominated in U.S. dollars, but had to be serviced by 3M's European operations, then the cost of servicing that debt in euros for the European subsidiaries would go up if the euro declined in value against the dollar, thereby reducing JM's euro-zone profits when denominated in U.S. dollars. It is by actions such as these that 3M reduces its exposure to the unpredictable movements in currency exchange rates over time.

Case Discussion Questions

1. If the dollar *appreciates* in value against most other countries over the next year, what will the impact of this be on 3M?
2. If the dollar *depreciates* in value against most other countries over the next year, what will the impact be on 3M?
3. Should 3M hedge against adverse movements on foreign exchange rates? How should it do this?
4. Should it hedge all of its foreign exchange transactions, or just a subset?

1. the foreign goods become cheaper and the exports raise; the exports are not as easily transferred into your currency because you pay more for transferring currency

2. the reflection of exports will be much higher, because if you sell a product abroad and then transfer your exports to the us you get more us dollars for 1 value of the foreign currency

3. depends on the stability of the currency:
if the currency is rather stable, you should probably not hedge because the value of the currency will be roughly the same in three years as it is now; if the currency is rather unstable you should probably hedge to get a little bit of stability
value of the currency depends on political (stability) and economics variables (inflation)
the objective of hedging is buying an insurance (protect part of your income so that you'll get at least a percentage of your in the future)

4. no because if the value goes against your hedge (if you bet up and it goes down) you lost and have to pay the entire financial fees

options trading:
you have options on stocks and that you can trade
futures : rights to future stocks