Replies to the One-minute Memos, 09/03/2003

Dear Students,

Here are the answers to your questions. I have grouped them into several groups, to facilitate their reading. As for the answer to my question, I think that you all managed to find it easily: the main difference between domestic finance and international finance is the presence of additional risks, such as foreign exchange risk and political risk.

I. Administrative questions

Is the final cumulative?

Yes. 80 % of it will be straight out of the quizzes, lecture notes, examples, discussions in class, & assignments. 20 % will be more advance problems to test your understanding of the concepts learned in class.

How many cases are there? One-team-one-case-study?

There 12 cases and there shall be 12 teams, so yes, one team per each case study.

What are the individual's responsibilities for each case study?

1. You will be responsible for participating in the preparation of the team presentation (15% of your final grade). That will include:
    a. Forming a team,
    b. Searching and identifying a suitable topic,
    c. Meeting w/ me (not required, but I encourage you) to discuss the appropriateness of your topic of choice,
    d. Participating in the very preparation of the presentation,
    e. Participating in the presentation itself.

2. You will be responsible for submitting one week after your team's presentation an individual analytical write-up (10% of your final grade) on the case study of your team. Your write-up may include some of what was presented in class but should focus on your own analysis and conclusions *even if that is not the same as what your group said in class*. If you disagree with what was presented, please explain why. Although I will not accept team write-ups, it is acceptable that you discuss the case with your classmates. However, once you begin putting your thoughts in writing, you must not communicate with your classmates. It is an honor code violation to view anyone else's written preparation of the case. Your write-up should not exceed 4 double-spaced pages. Your case reports should be "analytical" (i.e. explaining how concepts covered in the class apply to the situation described in the case) as opposed to "descriptive" (i.e. just a summary of segments from the case).

II. Diversification

What did you mean by difference between financial and business diversification? And internalizing the benefits of diversification – which type of diversification were you referring to?

First of all, let us step back and give a formal definition of diversification. According to www.investopedia.com , diversification is:

"…A risk management technique that mixes a wide variety of investments within a portfolio. It is designed to minimize the impact of any one security on overall portfolio performance…"

This definition begs the question why do we minimize the impact of any one security on overall portfolio – what if it is a positive, beneficial impact, e.g. the stock price of one of our member stocks is going up? Notice that diversification does not address the question why. Here is a brief rational for "why?": the primary concern of diversification is uncertainty of returns, not level of returns. Investors do care for uncertainty. At a given expected return, less uncertainty is preferred to more. Diversification is the technique to help you "buy yourself" insurance against unfavorable occurrences of uncertainty. Just think about how many risks are there for which one cannot purchase insurance, because no one is ready to offer it (e.g. insurance against unemployment, against heart attack, etc). So, in instances when no insurance is available, one is left to create an artificial insurance by diversification. If you will, you may think for diversification as synthetic, or "artificial insurance", that you can not get by calling a 1-800 number, but have to build yourself.

Diversification is a very powerful technique not only in building a portfolio, but in almost all other aspects of business. For example, why do companies invest in several lines of products as opposed to a single one? A very recent example is Phillip Morris, the largest cigarette producer and tobacco processing going concern in the world. As you know, this company has consistently moved to expand its business into new product lines. The latter example I label business (or real) diversification. Also, any company going abroad, with the intention of applying its comparative advantages in its domestic market to overseas markets, I would also label business diversification.

Now, if you, as an international investor, decide to invest funds into liquid assets abroad, such as foreign stocks and bonds, rather than physical assets, such as factories in their entirety, real estate, land, etc. then you would be conducting what I label international financial diversification.

Finally, there is a very useful short primer on risk and diversification, which I recommend you check it out @ http://www.investopedia.com/university/risk/default.asp

I don't understand what you mean by over-diversification?

Diversification, just like other strategies in finance, has its costs and benefits. Clearly, the benefit is that for a given level of expected outcome (return), you will lower your volatility (or risk) around it. On their turn, the costs of diversification are:

1. you can not take the benefit of timing the upside and downside of the market, and
2. you have to pay transaction costs that are involved in actively trading assets in order to achieve diversification (in case of financial diversification) or in paying the initial settlement costs of acquiring a business abroad with the purpose of taking advantage of the business opportunities abroad.

So, what is over-diversification? If the cost of diversification is higher than the benefit, and you still go ahead and undertake it that will be an example of over-diversification. Simply put, you should have stopped with the diversification the moment the cost of diversification came equal to the benefit of it.

If international financial diversification is overrated, so to speak, why is it often so highly praised?

Great question. You see, it depends on which country you view it from. Perhaps the benefits of international financial diversification are small for US investors, and would result in gains, on average, of around 0.2%-0.5%, because most of the US companies, whose assets you buy on the US stock market, are already quite diversified themselves. However, this might not be the case for Japanese investors. Why? Because they are subject to different domestic risks, as opposed to the US investors (think about the Japanese bubble economy, the Japanese real estate bubble, and the sequence of bad bank loans throughout the 90s in Japan). Thus, overall, international financial diversification is a very important tool in finance.

Did the Asian crisis and other frictions, such as bank crises, bring down the reportedly 0.2 % average benefit from international diversification?

Actually, the Asian crisis would have raised that average expected benefit (remember, as I said in class, this figure applies for the 80s only). Why? You see, from the point of view of the domestic investors, the crisis was a very bad think, and could they predict it, they would have made everything possible to avoid the downside. How could they do that? By diversifying their assets, through investments overseas. Because, these overseas assets could have had positive return, while there domestic counterparts have had negative return. So to speak, domestic investors learned their lessons during this crisis, and now they would be more willing to "buy insurance" through diversification, raising their benefits to diversify abroad.

Its like this: if your house burns & you had no insurance, next time you buy a house, you sure will buy plenty of fire insurance too, no matter what the price of it is.

I didn't completely understand your conclusion on diversification?

Here is the gist of the argument I made in class. Suppose that you consider investing in the stock markets of two countries: Mexico and Canada. You know, that when in one particular year the Mexican market is <u>down</u> by 1 %, the Canadian stock market is up +1 % (this of course is a bit unrealistic, but bear with me for the moment).

Now, if you invest $1,000 in the Mexican market & $1,000 in the Canadian market, you can always get $1000 flat for the year, i.e. you want make/ lose any money. That is diversification. You take away all the risk of investing in only one of the two markets.

Why does diversification make sense in the above case? Because movements in both stock markets are exactly opposite.

However, when more and more multinational companies start moving in the two countries and listing on their stock markets, this will not be the case anymore – the two markets will star to <u>commove</u> (that is, to move together in the same direction). Sort to speak, when Canadian market is down by 1%, so will be the Mexican one, and vice versa. What is then the benefit of diversification? It has been substantially reduced, to almost zero.

III. The difference between Chinese A- and B-shares

Why is there an arbitrage opportunity between Chinese A- and B- shares? If foreigners are only allowed to trade B-shares and local are allowed to trade A-shares how can arbitrage be possible?

Till February 2001 A-shares could be purchased only by domestic investors, while B-shares could be purchased only by foreigners. However, starting February 2001, **domestic investors** were allowed to purchase A-shares too. Thus a domestic investor could short-sell A-shares and purchase B-shares. Notice that this strategy is feasible, only if the domestic investor is able to short–sell (i.e. first to find some other foreign investor who has B-shares, to borrow these share from him/her, and then to sell them, with a promise & obligation to deliver them back) A-shares.

This strategy is an arbitrage opportunity, because the two classes of shares (A and B) have identical payoffs.

Figure 1: Shanghai A and B Share Price Indices

Source: Mei, J., J. Scheinkman, W. Xiong, "Speculative Trading and Stock Prices: An Analysis of the Chinese A-B share premia", 2003.

What is the benefit of separating shares in China into two different classes? Why aren't foreign investors allowed to buy A-shares?

I would imaging that China's government is concerned that if foreigners are allowed to buy A-shares, that might result in uncontrollable volatility of the price of the A-shares. Notice that there are other countries that also impose restrictions on buying domestic shares by foreign investors. For example, the Russian Federation does not allow that one of its biggest companies, and also the biggest natural gas distributor in the world, Gazprom, be traded by foreigners directly. Instead, you have to go through an intermediary, such as Bank of New York, and they will handle Gazprom's shares on your behalf and at your account.

IV. General Questions

Aren't the political and country risks basically the same?

Yes, they are. Notice that the slide on political risk is an extension of the slide on country risk.

How big an impact does corruption have on international financial decisions?

For a company, corruption is an expense that has no apparent corresponding benefit. Clearly, a company has to adjust its risk premium it requires on a given investment abroad for the fact that the country where the investment is to be undertaken has reportedly being a source of corruption. Thus, corruption per se will increase the rate of return, which the company requries in order to cover its costs & profit margins. So, if this required rate of return is higher than the rate of return the company thinks is reasonable to get in reality (notice that these are two different things, just like the difference between what we want to achieve and what we can achieve), this may turn down an investment in an emerging market with reportedly high corruption.

Do we specifically focus on certain countries while learning international business? Like Japan, China, France…

Nope, the more the number of examples from different foreign countries & the financial practices thereof, the merrier. ☺

Could be that the reason company goes into international business is because of demand & supply?

Yes. Discrepancies b/n demand and supply will change prices of goods across borders, thus offering profitable arbitrage opportunities. The latter actually make companies undertake business enterprises abroad.

What area is the most important to look when moving into a foreign market?

The most important concern when entering a foreign market is the risk exposure(s). Of these, my take on it is, that the most important ones are the political risk and the foreign exchange risk.

Can you be more specific as to what exactly the lecture will cover and the goal of it is?

The goal of the first lecture was to present the general outline of the course, the syllabus, the timeline, and the topic-line. In the second half of the lecture, the goal was to illustrate the increased importance of globalization & integration. These are important reasons to study international finance.

Could you please explain more about integration?

Integration is a process in which countries mutual agree to allow free movement among themselves of people, capital, and goods.

There many types of integration, the most important ones are:

1. Economic,
2. Monetary,
3. Political.

Of these, the most advanced stage of integration is the political union. Usually, a political union implies an economic and a monetary union too. A good example of a very significant political union is the European Union. Countries participating in the Union have little if any restrictions on movement of people, capital, and goods.

How does multinational corporations benefit from arbitrage that arises from engaging in business abroad?

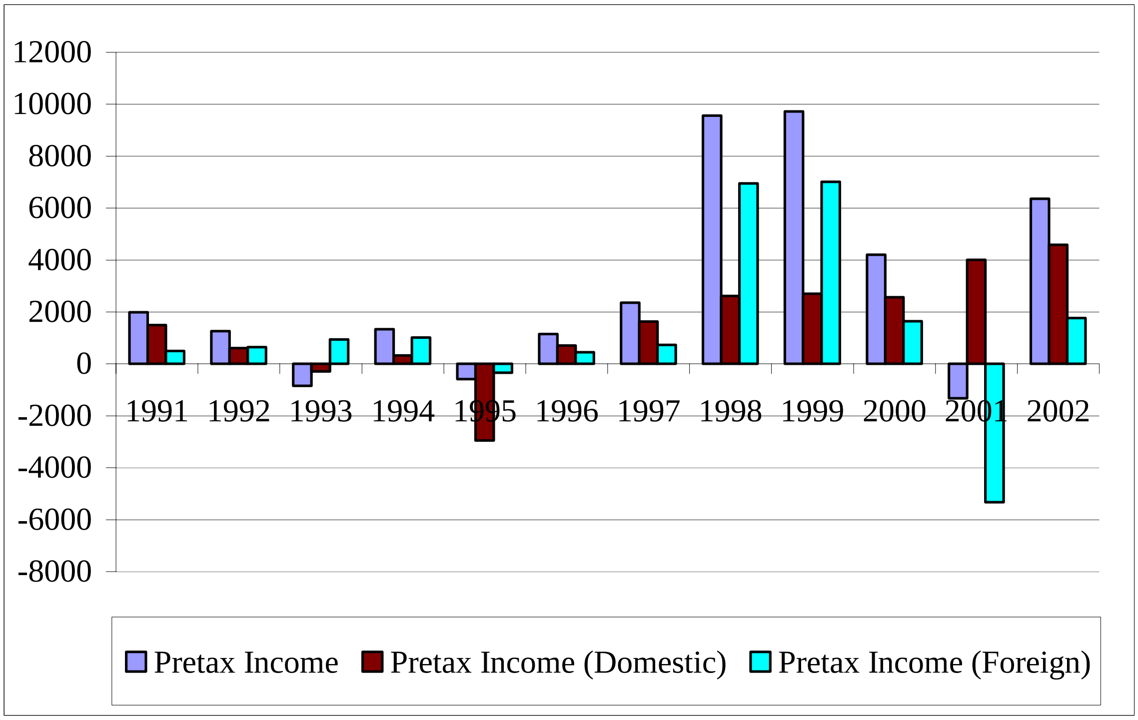
Let’s answer this question by providing an example. Consider Dell Computer. Dell Computer employs Indian engineers for its customer service in the US. Why? The cost of highly qualified computer specialists in India is lower, as compared to the one in the US.

Now, if these computer experts from India were to be let to come to work & live in the US at any time, then they would perhaps do so to benefit from the higher salaries in the US. However, the flow of people across borders is subject to the sovereign right of each country to allow, limit it, or simply disallow it. This creates a friction that results in different wages for highly qualified workers across the two countries. And thus, companies like Dell, Citigroup, Bank of New York, etc. could benefit from outsourcing some of their operations abroad and take advantage of the low cost of labor overseas. This would represent a good arbitrage opportunity.

How would you explain the 45 % (I think it was 45 %, it was a very high amount) share of Daimler-Chrysler profit due to forex trading?

Yes indeed, it is a large percentage value, just to illustrate the point, in 2002 fiscal year, the percentage of pretax income for Daimler-Chrysler (DC) from foreign operations was 28% (see exhibit 1 for more details). Notice however, that DC is taking not only the upsides of its global presence but also the downsides – in 2001 fiscal year DC realized overall loss in pretax income terms, while its domestic unit realized profit!

Exhibit 1. Daimler Chrysler Pretax Income from Foreign and Domestic Sources



Source: Compustat, a service of S&P. All figures in $m.

How can one explain this phenomenon? DC is the leader in world auto industry. As such, the company enjoys substantial <u>competitive</u> as well as <u>comparative advantages</u>. These, I believe are the explanation of the high percentage of income coming from operations overseas.

A secondary reason for the phenomenon above is the fact that auto industry has shifted from the phase of exporting cars to the phase where car production is re-located as close as possible to the market(s) for which it is targeted, due to multiple legislatory and trade reasons (e.g. imposition of quotas & tariffs). For example, the US is the single biggest foreign market for DC and substantial part of company's revenue would come from the US.

I'd like to know more of your history in teaching/ research?

I have never taught finance before. This is my first time.
As for research, my work lies in several fields of finance: mis-valuation driven international mergers and acquisitions; pricing exotic options; stock market manipulation; corporate finance & investor protection; mutual fund performance evaluation; financial

history; corporate governance in emerging markets, and many others to come ☺. These are all exciting topics. For example, in my research I answer questions like this: do you think that more investor protection will make CEOs and corporate insider teams more or less prone to take risk? Try to answer this one on your own, the answer (& its explanation) are so exciting!