Replies to memo questions, 9/29/03

Dear Students,

thanks for asking so many interesting questions, here are the answers to them.

How did China and Japan manage not to fall into the Asian Crisis, like so many other Easter Asia did?

Well, actually, by the time of the Asian crisis, Japan was already in a recession, following the stock market bubble burst after the 1980s buoyant Japanese stock market. China, though, did not suffer since the exchange rate was fixed to the US\$. In fact, the central bank of China tried to bail out Hong Kong, and they poured a lot of money into it. However, even the Central Bank of China could not withstand the speculative pressure on the Hong Kong dollar.

Would it be a good idea to take econometrics? Even if it is really hard?

Certainly. It would be useful if you decide to go into the research departments of an investment bank (e.g. risk management), or if you wish to obtain a Ph.D. in finance ⁽²⁾. However, a caution is in order. If you wish to go for the front desk of an investment bank, this subject might be extra workload.

Could you explain overshooting and how was it worse in Brazil b/c of the country's debt.

There was a similar question on the last replies (9/25), so I will summarize my answer there. If a country has a sudden increase in its money supply (imagine Russian government printing Russian roubles to pay domestic bills, like pensions, child benefits, etc.), then, as we know from the asset pricing approach to the exchange rate determination, we would expect the Russian interest rate to decrease (the demand for money by investors is same, however, the government is offering more bonds on the market). We also know from the asset approach to exchange rate determination that if a country increases the supply of domestic bonds, that will lead to a depreciation of the currency (more bonds make it more likely that the government will default on its debt later, since it is now more leveraged). So here is a dilemma: how to make an investor buy a currency that will offer low interest rate, and will depreciate in future??? No investor will consider that a fair deal. So the demand for the currency will go down. How much down? Very much, more than what the prediction of any parity condition, like PPP, would be. Why is that? To compensate for the low interest rate, the immediate depreciation has to be huge, so that after it, the currency will actually start appreciating. Now, a foreign investor will consider holding a deposit in a low interest currency that will appreciate enough to compensate her for the interest rate differential. That is overshooting – the substantial immediate depreciation that compensates investors for the fact the currency is soft (will depreciate in future) and that it offers low interest rate.

Now, if you have a lot of foreign debt, before you started printing money, as in the case of Russia and Brazil, things get even worse. Why? Suppose the Russian rouble overshoots in its depreciation. What happens with the foreign denominated debt? It increases in value by so much more, *measured in Russian roubles*, that the assets to meet these liabilities can actual be less than the new level of the foreign debt. In this case, the country is in default, and its currency loses even more of its value.

What do you think would be the effect of a "Eurocrisis" on the world? Would the Euro survive? Is there any going back to the individual domestic currencies?

My take on it is, there is no going-back to the individual currencies in Europe. Why? As of now Europeans realize that the benefits from having a single currency are much greater than what they expected before.

Isn't it a never ending cycle that, since the US is not an export economy, it will consistently run huge BOP deficits causing its currency to depreciate? In turn, this will put upward pressure on the export currencies (i.e. China) making US exports more competitive but injuring the export economies, causing the US to appreciate the \$ and start the cycle all over again. My question is, what can be done to mitigate this cycle and keep things somewhat stable? I.e. US BOP not running such a huge deficit and export economies not taking such a large hit.

Well, one thing to do is to coordinate the monetary policies of the major industrial countries, so that they can smooth out this cyclicality in their balances of payments. And as we see, on the latest G-7 meeting, the trends in the world exchange rates were a major point of discussion.

Is buying foreign debt always a good deal? In Russia's case, they had oil as collateral, but what about other countries that do not have such means?

You are right. Some countries are not so well endowed. So shall we buy their debt? No, if you need short term liquidity. However, if you can afford to wait for a while, this is still a sweet deal. Why? You see, unlike private borrowers, governments cannot go bankrupt. Soon or later, they will repay their debts. Why? Because, even if a government has no resource endowments enough to meet its debt obligations, it has one thing no private borrower has: governments has the right to tax investors and businesses. This right itself is a good collateral that can be used eventually to repay the debts.

Is buying foreign debt always profitable when the country is in crisis?

Buying foreign debt is usually profitable. However, the payoffs are usually realized after a certain time period and require that the buyer of the defaulted debt be able to afford waiting for longer periods of time until an exit from that investment is realized. Alternatively, oftentimes, buying debt in default at very low prices is useful if a company is considering entering the market of a foreign country through an acquisition of an existing facility, paying w/ debt (the so called <u>debt for equity swaps</u>). In the debt crises of

the 80s, this was a very popular way to recover debt. For example, Folkswagen entered Mexican auto market through a purchase of existing factory in Mexico. However, the outright expense that was required for that factory was \$260 million. Volkswagen however paid only \$ 170 million. How? They bought Mexican debt and then they used it to pay to the Mexican government for the purchase of the factory.

I understand that you kept the macroeconomic shocks separate from each other, but each effect should indirectly or even directly affect the others. Why don't we take this into account?

You are right, for example the increase in the home supply of bonds (the example I gave in class), will eventually affect interest rates. Clearly the assumption that interest rates will not change in this case is an oversimplification. Why we do not take this change into consideration? Because we want to see what will be the <u>direct</u> effect on the exchange rate of the separate macroeconomic shocks.

If traders use technical approach so much why doesn't academia take the time to examine and possibly accept this method?

It has been taken into academia, up to the point where techniques for forecasting has been perfected. However, it is the real business that has to develop it fully.

If Thailand was getting foreign investments to grow, isn't there a deficit in the capital account? Why did you say there was a deficit in the current account?

Well, you see if Thailand gets foreign capitals inflows to support domestic investments, this would actually imply that it will have surplus (rather than deficit), on its capital account. And that is what we witness in the graph we saw in class on last Thursday. In particular, notice that pre-crisis (i.e. pre-1997) there was a consistent pattern of more than US\$ 10billion each year of net inflow on the capital/financial account of Thailand.



Now, why is there a deficit in the current account in the pre-crisis period? Even though Thailand was a major world exporter at the time, and as such it needed supplies of raw materials. However, that by itself would unlikely lead to the deficit on the trade account. The country was importing not only raw materials, but also investment goods, such as new equipment, spare parts, etc. That's why there was a deficit on the current account, not on the capital account.

Because US under a free floating regime, wouldn't it be correct logic to assume that since the CA is in deficit and therefore the currency depreciating – other countries will begin to demand US exports (b/c they are cheaper) and then consequently the US dollar will begin to appreciate?

Yes.

Is it possible to explain concepts on appreciation/ depreciation of currency through examples (on the board) in the future? I find it hard to understand merely talking about it.

Examples, examples, examples [©]. I apologize for not giving enough of them in class on the theories, this will not happen again. Since we have the replies, let's give examples here! So, in class we considered the following cases, as part of describing the predictions of the asset market model (portfolio approach):

1. Increase in the home country supply of bonds will lead to depreciation of home currency.

Think of Russia issuing more and more bonds. Since that will raise the possibility of default, the Russian rouble will have to depreciate.

2. Increase in the supply of foreign country bonds will lead to an appreciation of home currency.

Same as the above but viewed from outside of Russia (i.e. Russia is now the foreign country). The foreign country is not more indebted, and more likely to

default, so its currency will lose value (i.e. will depreciate). Alternatively, the home country will gain value.

3. Increase in the domestic interest rates will lead to an appreciation of home currency.

Think of Frankfurt financial market offering higher interest rates to attract more investors to Euro deposits. The higher interest rates (please take a look at the graph I gave you in the last replies), implies that the currency (the Euro) will appreciate, as it actually does. However, remember that this is exactly the opposite prediction to the one coming from the PPP ©! Why is that? Because here we consider the foreign exchange itself as an asset, as a <u>store of value</u>.

4. Increase in the foreign interest rate will lead to a depreciation of home currency.

Same as 3 above, but this time Europe is the foreign country.

5. Increase in the expected depreciation of home currency will lead to a depreciation of home currency.

Think of news coming the market that the US\$ will continue to depreciate in future. The effect of such news is to contribute to the US\$ depreciation even today. Why? Because the value of the currency (as the value of every other financial asset) is its discounted future value.

6. Increase in home wealth will lead to an appreciation of home currency (preferred habitat theory).

During the 70s, 80s, & 90s Japan has traditionally been a major exporting country. So Japanese businesses & investors became gradually wealthier. The result of that is they started investing more of their wealth in the local asset markets (such as real estate, pension funds, bank deposits, etc), which raised the demand for the yen and thus raised its value (price). In other words, this lead to the appreciation of the yen.

7. Increase in the home country currency account surplus will lead to an appreciation of home currency.

The increase in the home country CA surplus implies an increase in the financial wealth of the local investors. So, the same example as in 6 above will apply.

I didn't quite understand why the domestic currency will appreciate if the current account of the country increases (has surplus).

I assume that your question relates to the prediction of the local habitat theory on the changes in the exchange rate, right? The increase in the current account will imply that the domestic country is exporting a lot of goods, and receiving payments for it. So, the domestic country becomes richer. When domestic investors become richer they will demand more of the financial instruments available. Since they have preference for

investments in local financial assets, like bonds or money, they will demand more local currency and in this way make its price in terms of foreign currency higher, i.e. the domestic currency will appreciate.

Is there a way to hedge against the currency crises that happened in Asia and Russia?

It is not possible to buy insurance directly, however, MNEs can attempt many strategies to hedge against the forex risks of a crisis: they could use options to lock in currency rates, or they could offset revenues in the local currency with corresponding expenses in it, etc.

Since it seems that there are a few leading causes to crises, have there been any cases where countries saw signs of a potential crisis and were able to fight it off?

If you refer to currency crises, surprisingly, even though there are so many examples, governments seem not to learn their lessons, and we see the same history repeating itselg again and again. However, if we speak about financial market crises, then the answer is yes. The example I know of is US, itself. Back in the internet bubble of the 2000-2001, analysts expected that US might experience the same crisis as Japan. However, as you can see, under the chairmanship of Alan Greenspan, the Fed managed successfully to lead out the US of the recession.

Do you think it would be better for US to follow the example of Japan and Europeans in their approach to foreign capital investment? Should US be more proprietary about its capital assets?

Perhaps it will be better if Europeans and Japanese follow the example of the US \textcircled . If the US becomes as proprietary as Japan or Europe, that might have impact not only on the US economy but also on the world economy.

When a country gets into a crisis, how is it so that sometimes certain neighbor countries & their currencies don't get affected? What makes these unaffected currencies immune to the crises contagion effect?

Strong and stable fundamental performance, that is the reason why you will not see neighboring countries suffer from contagion. For example, back in the time of the Turkish currency crisis, 2001, some of its neighbors, like Bulgaria, actually experienced a steady growth, instead of suffering from the crisis in Turkey. At the time Bulgaria had a currency board which provided for the stability of the local currency.

When a country experiences a crisis, they default on their own debts. What happens when the currencies recover? Do they go back on their debt... or is it that once they default, they are free from that debt.

They still have to repay their debts. However, oftentimes they are able to negotiate a reduction in the value of debt to be repaid.

Could you explain the hedging strategy that Russia used in the Avto-Vaz Case?

Let us ask our presenters to address this question first. In essence there are three ways to address this transaction (economic) exposure, and we will discuss them in great detail in chapter 8. These are money market hedge, forward market hedge, and option market hedge.

Can you explain the graph on technical analysis? When would there be an extra supply of the currency in point and where would we want to buy and sell the currency? How do you make money?



You can make money from the contrarian's strategy: buy when the currency is cheap, sell when its price is high. For example, in the technical graph from class, if you sell (or even short-sell) at the peak, marked w/ the blue circle, and buy at the through, marked w/ the red circle, you can end up with a profit.

What triggered the massive currency losses during the 1997 Asia crisis?

Among the main reasons were the following: the weak domestic financial system, the high levels of foreign debt, the increasing current account deficit, the liberalized capital account (i.e. free international capital flows), the inconsistent monetary and economic policies & incomplete disclosure thereof.

Is there any empirical evidence that the technical approach provides good forecasts?

I am not aware of empirical evidence on this, banks & other financial institutions will not disclose their proprietary trading strategies so estimating their accuracy would be difficult. My take on it, if technical forecasting was not providing accurate forecasts then it would not make money. However, we see that banks consider it very seriously, so it must be the case technical analysis provides good forecasts?

How has the Asian financial crisis affected the US trade balance? In short term? In long term?

In the short term, the US trade balance worsened upon the emergence of the Asian crisis. It did even more so two years on the road. You can see that from the graph below which shows the current and financial/capital account balances for the US, 1992 – 1999.



Current account

BTW, I found a cool site to check the latest BOP figures for US, <u>http://www.bea.doc.gov/bea/di/home/bop.htm</u>. Thanks google!