The term “international finance” traditionally distinguishes the field from international trade and does not refer to finance as we know it – it simply means macro. Here it will mean both: I want to give you a quick overview of the whole field, with a focus on international capital markets. I plan to review facts, which in most cases means pictures: properties of stocks and flows of international assets and liabilities, and their returns. Additional information about most of these topics (and some others) is listed on my [PhD course page]. This and other URLs show up as links in the pdf version of this document.

Ground rules: Ask questions or make comments at any time about terminology, data, theory, and anything else that crosses your mind.

1 Accounting

1.1 Balance of payments

*Buzz words*: trade balance, merchandise trade, net exports, current account, capital and financial account, capital flows.

*Comments:*

- Trade in macroeconomics is intertemporal. Roughly speaking, net exports is balanced by capital flows. If we have a trade deficit, we also have a net capital inflow (foreign purchases of domestic assets). (Think: if goods go one way, IOU’s go the other way.)

- Example: Daimler’s purchase of Chrysler. I think it was a stock-swap, in which owners of Chrysler shares exchanged them for shares in the new company, DaimlerChrysler. DaimlerChrysler is registered in Germany, so it’s foreign stock. The transaction would show up in the balance of payments as (i) foreign direct investment in the US (a capital inflow) and (ii) an equal increase in US ownership of foreign equity, with no net effect on the financial account. Over time, as I and other Americans dumped DaimlerChrysler stock, there was a capital inflow. Not clear what the compensating outflow was.

- Historically, trade data has been among the best available because it was a natural outgrowth of collecting tariffs. Today it’s less clear. We see some categories in which (say) US exports to Canada are less than Canadian imports from the US. Or interest payments abroad exceed interest receipts. Across the world, the balances for 2001 were: goods (+9.1b), services (−23.7b), income (−76.2b), current transfers (−26.6b), and the overall current account (−117.4b). These should all be zero, so there is clearly measurement error somewhere. See IMF Committee on BOP Statistics, [Annual Report 2002](http://www.imf.org/external/pubs/ft/ar2002/), Table 1.
Sources:


- US data is available online from the Bureau of Economic Analysis.

- International data is available online from a number of sources through NYU’s eLibrary. The best single source is the IMF’s *International Financial Statistics* (IFS), available directly and via Datastream. The OECD has quarterly NIPA data, including net exports, for 20+ rich countries.

1.2 International investment position

_Buzz words:_ sovereign debt, foreign direct investment, portfolio investment.

_Comments:_

- International claims come in a number of forms, including bank loans, debt and equity securities, financial derivatives, and direct investment. They also differ in whether they are claims on the private sector or on sovereign governments. File away for later the idea that all of these measurements raises tricky questions about nationality: Are bonds issued by Sony USA American liabilities or Japanese? GNP or GDP? Etc.

_Sources:_

- For the US, the BEA is again the easiest place to look.

- For international data, the IMF’s IFS reports summary measures for many countries. Its Balance of Payments Yearbook reports greater detail that does not seem to be available in electronic form.

- The portfolio investment data reported in these sources is based on the CPIS (Coordinated Portfolio Investment Survey), a joint venture of the BIS, IMF, OECD, and World Bank.

- Information on debt liabilities is available in the world debt tables, an outgrowth of a similar venture.

- There is very little directly measured “stock” data for emerging markets, but Lane and Milesi-Ferretti (JIE, 2001) have constructed estimates from flows. See Lane’s home page.
2 “Facts”

I’ll run through some facts that I find interesting. There’s a nice overview by some people at the IMF: Prasad, Rogoff, Wei, and Kose, Financial Globalization, 2003. It’s purely empirical, in the Kydland sense, and has lots of references to related work.

2.1 Growth

_Growth is associated more with TFP growth than capital accumulation._

- Consensus?

_Growth is correlated with quality of financial system._

- Economic growth is associated with a well-functioning financial system, a banking system and/or capital markets. Among colleagues, Sylla likes the capital markets story, and credits Hamilton for US success, and Wachtel has done extensive work documenting the connection to banking. Levine (“Finance and growth,” NBER 10766) is a recent survey.

- This is part of a broader debate about the root causes of growth: human capital (Glaeser, La Porta, Lopez-de-Silane, and Shleifer, NBER 10568), institutions (Acemoglu, Johnson, and Robinson, NBER 10481), geography (Diamond; Engerman and Sokoloff, NBER 9989), and so on. Easterly and Levine (2003) give a nice overview.

_Growth is not correlated with openness of capital markets._

- None of this work is definitive, but I find the story attractive: you need good finance to allocate resources effectively. If you don’t have it, foreign capital won’t help. A recent example of the empirical literature is Lee, Ricci, and Rigobon (NBER 10749).

_Conjecture: the combination of openness and poor financial system can lead to disaster._

- This appeals to the contrarian in me. I can’t say it’s a fact, but I’d still like to see a model in which this is at least possible.

2.2 Globalization

_Barring international capital flows have fallen dramatically in rich countries, and modestly in developing countries._

- Capital controls, ownership restrictions, and so on. For example, in the US it’s not possible for a non-American to have a controlling interest in an airline, television station, etc.
2.3 Capital flows

Net capital flows are small.

- Feldstein-Horioka (EJ, 1980): for OECD countries, compute 15-year averages of $i/y$ and $s/y = (y - c - g)/y$ (nominal!) and plot one against the other. You find that the points are close to the 45-degree line, suggesting that average $nx/y$ is small relative to the other two variables. In that sense, most investment is financed domestically (net). Recent work suggests this was less true prior to WW II (Jones-Obstfeld, NBER 6103, esp Fig 3) and may be less true of the recent times as well (reference??).

- Lucas (AER, 1990) and Kehoe (1995 chapter): if you do Solow growth accounting with the Penn World Tables, implied marginal products of capital are typically much higher in poor countries. In this sense, less capital has flowed to them than theory suggests.

Net exports are countercyclical (capital inflows procyclical).

- Various papers with Kehoe and Kydland: correlations of HP-filtered real GDP and the ratio of nominal net exports to nominal GDP are negative for most countries in the postwar period and for other periods when data are available. Rich countries only.

- Neumeyer and Perri (NBER 10387): very countercyclical in emerging markets (“sudden stops”).

Capital flows are primarily North-North, not North-South.

- Lane and Milesi-Ferretti (JIE, 2001), probably others. Counterintuitive if you figure emerging markets offer opportunity (Lucas-Kehoe) and diversification, but ties in with evidence that they are still less open and have poorer investor protection.

2.4 Components of capital flows

Portfolio investment is more volatile than direct investment.

- Prasad et al, Table 1. There’s been some concern that the volatility of flows makes open capital markets a bad idea, and that portfolio flows and loans are particularly volatile. Chile is often pointed out for its tax in short-term investment flows.

FDI connected to trade, intangibles, credit rating, corruption.

Countries with higher levels of corruption have less FDI, more bank loans.


Question: what primitives explain the forms we see of international contracting?

2.5 Portfolio composition

Countries are not diversified internationally (“home bias”).

- Prominent references: several papers by Tesar and Werner (eg, JIMF, 1995), Lewis (JEL, 1999), and Ahearne, Griever, and Warnock (JIE, 2004).

2.6 Relative prices

Real exchange rates are volatile and persistent.

Fluctuations in real exchange rates uncorrelated with fundamentals (“disconnect”).

- Flood and Rose (JME, 1995): exchange rates at high and medium frequencies uncorrelated with pretty much anything you’d consider a fundamental. More puzzling than (say) the stock market, which is strongly correlated with GDP growth over a period as short as a year.

- Baxter and Stockman (JME, 1989): Take countries with fixed and flexible exchange rates. There’s no discernable difference in the behavior of macroeconomic quantities, although the real exchange rate behavior is very different.


Real exchange rates correlated with internal relative prices.

- There’s starting to be a realization that there are relative price movements within countries that are reflected in real exchange rates based on broad baskets of goods. Examples include: Betts and Kehoe (various, see Tim’s home page); Burstein, Neves, and Rebelo (NBER 10238) and related work on the nontraded component of prices.
2.7 Asset returns

*Interest rates differ across countries.*

- Short-term “off-shore” rates: lots of work on “interest parity” anomaly.
- Real interest rates: ditto.
- Spreads on sovereign debt: Neumeyer and Perri, others. Typically approached as a default spread.

*Equity returns more highly correlated than GDP growth.*

- Dumas, Harvey, and Ruiz (JIMF, 2003). Are low-frequency movements in output more highly correlated?

2.8 Crises

*Poor countries are more volatile.*

- Rich countries in 19th century.
- Poor countries today.

*Crises marked by sharp depreciations, reversal of current account.*

2.9 US current account deficit

*US current account deficit big.*

- Yes, but not relative to pre-WW I data or poor countries today. Has increased economic integration led to greater volatility in current accounts?
- Connection to LL cointegrating relation? (In other words: what’s happening to consumption?)