Demography & International Capital Flows*

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1. Overview. David asked me to speak about capital flows, so I'll do my best to give you some perspective on them. I'm sure you all know that one of the hot button issues in the world these days is the US current account deficit and the Chinese surplus — prominent examples of what some people refer to as "global imbalances." I'm not sure "imbalances" in the right word, but it's certainly true that capital is flowing from China to the US. They're not the only countries in the world, but they're an important part of the picture.

Lots of people think that it should go the other way: that capital should flow from rich countries, like to the US, to poor countries, like China. There's some logic to this, but like lots of sensible ideas in economics it has the misfortune not to be true. We saw capital flows like this in the 19th century, when the British financed canals in the US, railroads in India, and a subway system in Argentina. But in recent times, there's no evident connection between the level of development and the direction of capital flows. Which leaves us with the question: Why <u>is</u> capital flowing from China to the US?

There are lots of possible reasons, but I'll focus on one: demography. China right now has a lot of people at the peak age for saving, so it's plausible that this would lead to capital outflows. It's not the only thing going on, but we think it's an interesting one.

2. China. Let's start with some macroeconomic facts about China to give us context. [Figures in slides.]
(a) One fact is that China has a large economy. Current estimates make it the second largest economy in the world, after the US.
(b) Another fact is that China remains a relatively poor country, with GDP per capita about two-thirds of Mexico and one-fifth the US. This puts it at about the same level as the US in 1920. There's no question China has been a huge success story, but it has a long way to go before its citizens enjoy the living standards of (say) the G8. GDP per capita is typically associated with measures of institutional quality, including the sophistication of the financial system. You don't need me to tell you that China's financial system isn't as well developed as those in the US, Australia, Singapore, and so on.
(c) A third fact is that China is making rapid progress. Growth rates in China are, if not unprecedented, extremely unusual. At this pace, China's economy will be larger than the US's in about twenty years, and approach our living standards by the end of the century.

3. Capital flows. Let's go back to capital flows. We know a lot about capital flows: cyclical variation in most countries, political risk in Mexico 1994, oil prices in Saudi Arabia and Norway, and so on. Let's look at the evidence.
(a) In 2009, the largest capital importer in the world was the US and the largest exporter was China. You may also notice rich and poor countries on both sides of the ledger, and

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oil exporters as significant sources of capital.
(b) Capital flows of the magnitudes we see in the US and China are not all that unusual. They're also relatively persistent. People were complaining about the US current account deficit in 1985, and they're still complaining today. Is it a problem? I don't know, but the US current account deficit is obviously a persistent fact of modern life.
(c) The same holds for net foreign asset positions, the result of accumulating surpluses or deficits over many years.

We find their persistence the most intriguing. It's relatively easy to explain why Norway is exporting capital: it's an explicit decision by the Norwegian government to give future generations some of the benefits of current oil revenues. They do this by investing the money — by law — outside the country, so it's necessarily a capital outflow. What we see in the US, Japan, and even China is harder to explain. How do we explain the slow "adjustment" of these "imbalances"?

4. Demography. Demography strikes us as an interesting possibility. For one thing, the age distribution changes slowly. For another, we know people in their 40s and 50s save more than people in their 20s and 70s. Could that lead to capital flows? Let's look at how the age distribution is evolving.
(a) Worldwide the average age is rising as, first, mortality fell and, second, birth rates followed.
(b) That's particularly true in Japan, less so in the US, and looming in China, as the one-child policy works its way through the system. As a result, we should see the large capital outflows in Japan moderate as the population ages. In China, we should see high saving and continued capital outflows for a couple decades more.

5. China again. One of the curious features of Chinese capital flows is that they mostly go through the central bank. In the US, private investors borrow and lend all over the world. In China, investors buy sterilization bonds from the central bank, which invests the proceeds abroad.

6. Last thoughts. Many ask whether capital flows are "imbalances," a sign that the global economy is misbehaving. We ask instead what the root causes are. Certainly many factors are at play here, including (notably) oil prices, as oil exporters invest some of their revenues abroad. But we think differences in the evolving age distribution could also be part of the story, particularly for the low-frequency movements evident in the data.