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THE INTERNATIONAL INTERDEPENDENCE OF THE U.S. ECONOMY IN THE ERA OF FREE TRADE AGREEMENTS

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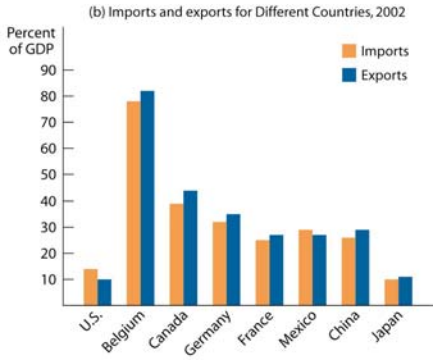
Nevada World Trade Day

May 21, 2008

The Growing Importance of International Trade



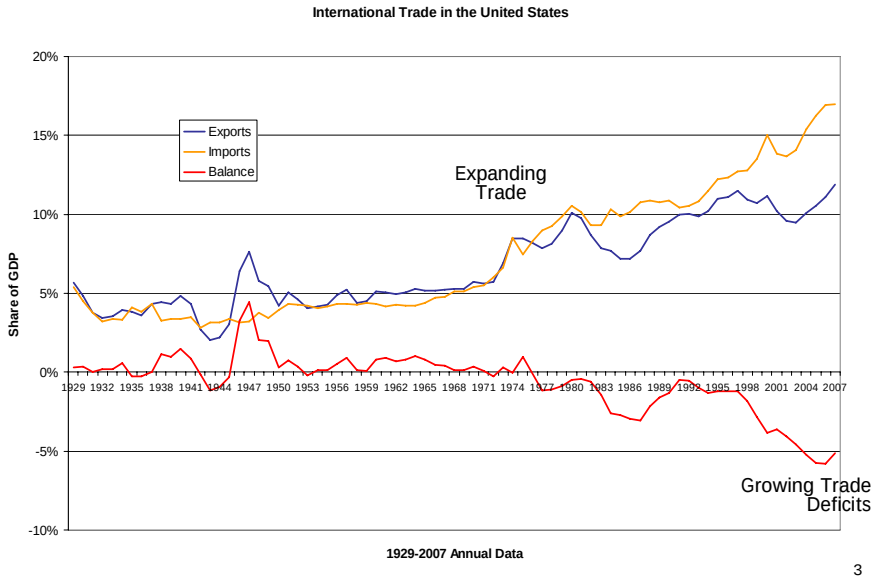
International Trade is increasingly important for the U.S.

(but we run a trade deficit)

International Trade is much more important for smaller economies

(but most of them run trade surpluses)

A Longer Look at U.S. Trade Data



U.S. Trade Policy

Pre-Civil War: *fighting over tariff rates*

- *Tariff Act of 1789* replaced state systems with a federal system of ad valorem rates of 5-15%.
- Import tariffs were the largest single source of federal revenue (through WWI).
- After War of 1812, nationalism and manufacturing growth led to rising tariffs.
- Tariff increases of 1824 and 1828 (i.e., the *Tariff of Abominations*), led to average tariff over 50%. Started nullification and secession movement in South.
- *Compromise of 1832* reduced tariff rates to uniform 20%; *Tariff of 1842*, *Walker Tariff of 1846*, *Tariff of 1857* reduced tariffs to "revenue only" purpose, 18% average.

Trade Policy from the Civil War to WWII:

- *Morrill Tariff* of 1861 tripled tariff rates. (*Morrill Act* of 1862 created land grant universities to subsidize agricultural research, which helped U.S. develop trade advantage.)
- President Cleveland attacked tariff system as inherently corrupt, but lost re-election to Harrison and tariffs were raised again in 1890. *Dingley Tariffs* under McKinley raised rates in 1897. *Payne-Aldrich Tariff Act* of 1909 under Taft made it even worse.
- Wilson attempted cuts with 1913 *Underwood Tariffs*, but war made it hard to expand trade.
- *Smoot-Hawley Tariffs* of 1930 under Hoover led to retaliation and declining world trade, making Great Depression much worse.
- FDR and Cordell Hull: 1934 *Reciprocal Trade Agreements Act* – From 1934-48, tariffs gradually reduced in allied countries by 33%.

Postwar Trade Policy: *the move to free trade*

- *Bretton Woods Treaty*, 1944: 44 allied nations negotiated new pegged exchange rate system with IMF, IBRD, and Dollar reserve standard.
- U.S. signed on to *General Agreement on Tariffs and Trade* (GATT) in 1947.
- *Trade Expansion Act*, 1962, gave President authority to negotiate lower tariffs and *Multi-Fibre Agreement*, set up *Trade Adjustment Assistance* (TAA).
- *Trade Act of 1974* created fast track authority until 1994.
  - Section 301 requires U.S. Trade Representative to take action against countries using unfair trade practices, with very broad authority.
  - Special 301 authorizes USTR to monitor property rights enforcement.
- *Trade Act of 2002* gave President authority new fast track authority to 2007.

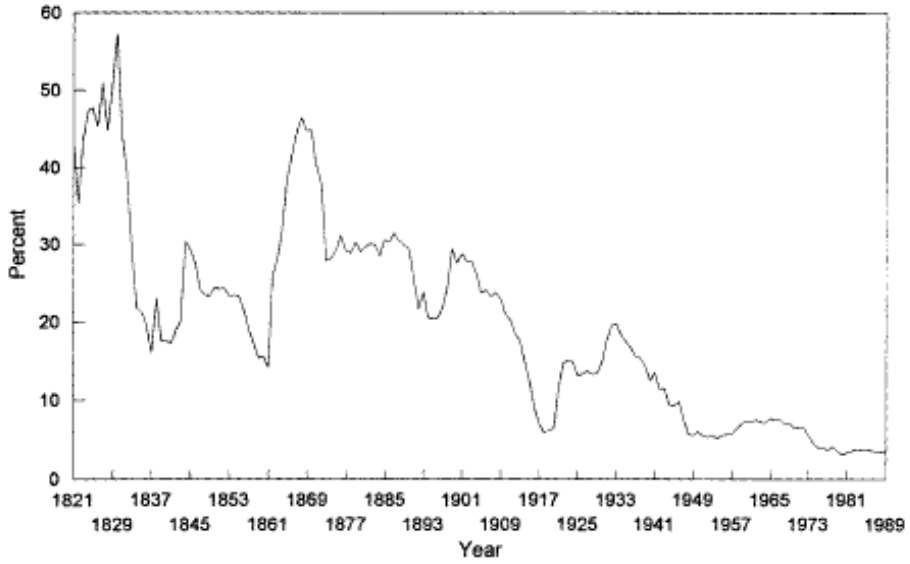


FIGURE 1. AVERAGE U.S. TARIFF RATES, 1821–1989

A caution about Average Tariffs

- Tariffs can be averaged simply or weighted by trade.
- Simple averages give equal weight to the tariffs for automobiles and the tariffs for bubble gum. This is rarely used.
- Trade-weighted tariffs are more commonly reported, but are biased downwards because higher tariffs reduce imports.
  - For example, a prohibitive tariff does not raise the average tariff.
- Tariffs are not usually uniform:
  - Tariffs on clothes and shoes are often 10-20 times higher.
  - Developed country tariffs are highest for imports from less-developed countries. Agricultural subsidies have similar effects.
- When a country imports inputs to production and the final good itself, the effective rate of protection (ERP) can be much higher:
  - EPR = (t_f –a t_i) / (1-a), where t_f is the tariff on the final good, is the tariff on the imported inputs, and (1-a) is the share of domestic value-added.
  - Tariffs tend to be lower for raw materials, higher for final goods.

U.S. Trade Institutions

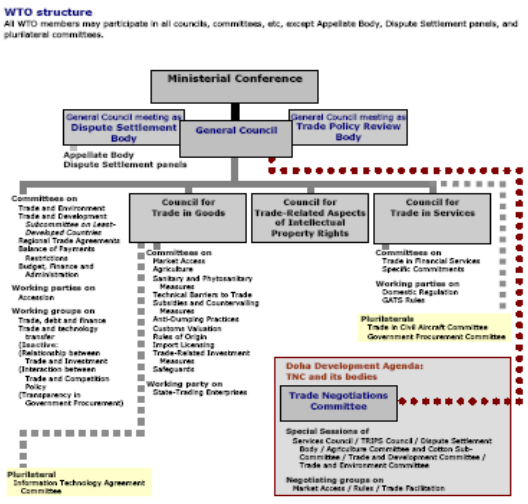
- Harmonized Tariff Schedule of the United States (HTSUS) created in 1989, 2950 pages.
- U.S. Customs and Border Protection (CBP) – focus on security, enforcement of HTSUS, reliance on 11,000 licensed customs brokers.
- U.S. Trade Representative (USTR) – Ambassador Susan Schwab, staff of 200. President's negotiator for Free Trade Agreements (FTAs), Trade Promotion Agreements (TPAs), Trade and Investment Framework Agreements (TIFAs), Bilateral Investment Treaties (BITs), et cetera.
  - WTO, NAFTA, CAFTA-PR, bilateral FTAs with 13 countries + southern Africa.
  - Initiatives for Middle East (MEFTA), ASEAN, APEC.
- International Trade Administration (ITA), under Dept. of Commerce – trade promotion, Foreign Commercial Service, Import Administration for trade complaints.
- International Trade Commission (ITC) – independent federal regulator for import injury, unfair trade practices, violation of HTSUS.

Generalized Agreement on Trade and Tariffs

- GATT was a clause of the failed Havana Charter, negotiated in parallel by 15 countries. A treaty, not an organization.
- Principles of (1) multilateralism, (2) reciprocity, and (3) nondiscrimination through most-favored nation (MFN) status. Binding average tariff rates, countervailing duties for export subsidies.
- Framework for negotiating tariff reductions included eight rounds of multilateral negotiation, 1947-1993. First three rounds resulted in average 25% tariff reduction, Kennedy Round resulted in further 36% drop, and Tokyo Round another 30%. Net decline of 70% in average rate since 1947.
- GATT had weak enforcement and many exceptions: Non-tariff barriers, escape clause, trigger price mechanism, dumping rules, free trade areas, GSP for LDCs, agriculture, multifibres, services, intellectual property.

The World Trade Organization

- Created by the Uruguay Round as successor to GATT, 1995- (U.S. Senate ratified in 1994).
- Paid staff of 550, budget of $100 million. Most work is done by 151 (current) members.
- Ministerial Conference directs General Council, the Dispute Settlement Body and Trade Policy Review Body.
- Continued of principles of multilateralism, reciprocity, non-discrimination, and allowing safety valves.
- New principles of transparency and enforceability.
- New agreements: GATS, TRIPS, plus ten-year expiration of MFA.
- Agricultural subsidies still a problem – In 2000, U.S. spent $49 billion on subsidies (0.5% of GDP), E.U. spent $93 billion (1.2%), Japan $47 billion (1.1%). Current Doha Round is stalled due to this dispute.



Facts about trade:

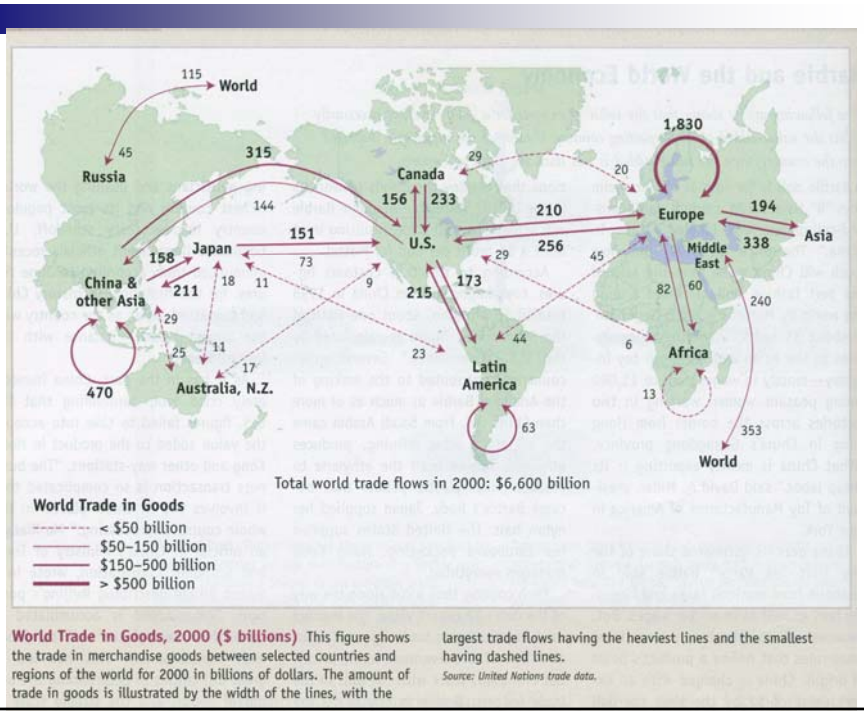
- About a fourth of all goods and services produced in the world are exported to another country. Merchandise accounts for almost 90 percent of trade.
- Of the merchandise traded in 2005, 9% was agricultural, 14% was fuels or mining, and 74% was manufactures.
- The six largest economies, which together account for more than 60% of world output, are also the world's leading traders, accounting for over 40% of merchandise exports and imports. Germany and U.S. trade the lead as the top exporter, the U.S. is the top importer by far.
- On average, smaller economies trade more as a share of their GDP, while larger economies trade more within their own borders.

More Facts:

- The European Union currently accounts for 43% of all merchandise exports (2/3 of which is intra-EU, and 1/3 is trade with other countries).
- Asia accounts for 27% of merchandise exports, and 23% of imports.
- South America, Africa, the former USSR, and the Middle East combined account for only 13% of exports and 10% of imports.

Share of World Exports

Origin	North America	South and Central America	Europe	Russia and CIS	Africa	Middle East	Asia	World
North America	**8.1**	0.9	2.3	0.1	0.2	0.3	2.7	14.5
South and Central America	1.2	0.8	0.7	0.1	0.1	0.1	0.5	3.5
Europe	3.9	0.6	**31.5**	1.1	1.1	1.2	3.3	43.0
Commonwealth of Independent States (CIS)	0.2	0.1	1.8	0.6	0.0	0.1	0.4	3.3
Africa	0.6	0.1	1.3	0.0	0.3	0.1	0.5	2.9
Middle East	0.7	0.0	0.9	0.0	0.2	0.5	2.8	5.3
Asia	**6.0**	0.5	4.9	0.4	0.5	0.9	**14.0**	27.4
World	20.6	3.0	43.3	2.2	2.4	3.2	24.0	100.0



World Trade in Goods, 2000 ($ billions) This figure shows the trade in merchandise goods between selected countries and regions of the world for 2000 in billions of dollars. The amount of trade in goods is illustrated by the width of the lines, with the largest trade flows having the heaviest lines and the smallest having dashed lines.

Source: United Nations trade data.

Major World Exporters and Importers

SHARE of Leading exporters and importers in world merchandise trade (excluding intra-EU (25) trade), 2005

	Exporters	Share		Importers	Share
1	Extra-EU (25) exports	17.1	**1**	**United States**	21.4
2	**United States**	**11.7**	2	Extra-EU (25) imports	18.0
3	China	9.8	3	China	8.1
4	Japan	7.7	4	Japan	6.3
5	Canada	4.6	5	Canada	3.9
6	Hong Kong, China	3.8	6	Hong Kong, China	3.7
7	South Korea	3.7	7	South Korea	3.2
8	Russian Federation	3.1	8	Mexico	2.9
9	Singapore	3.0	9	Singapore	2.5
10	Mexico	2.8	10	Taiwan	2.3
11	Taiwan	2.5	11	India	1.7
12	Saudi Arabia	2.3	12	Switzerland	1.6

Facts about U.S. Trade:

- The U.S.A.'s largest export markets are, in order, Canada, the EU, Mexico, Japan, South Korea, Taipei, Singapore, and Hong Kong.
- We import most from, in order, the EU, Canada, China, Mexico, Japan, Korea, Taipei, Malaysia, and Saudi Arabia.
- In commercial services, the U.S.A. is by far the largest exporter and runs a substantial surplus.

U.S. Merchandise Trade, 2006 (percentage of U.S. trade, by region)

Region	U.S. Export Share	U.S Import Share
Canada & Mexico	37	31
Asia:	28	34
Japan	7	9
China	4	11
Other Asia	17	14
Europe	23	22
Latin America	7	6
Middle East	3	4
Africa	2	3
CIS (former USSR)	1	2

Effects of Reduced Tariffs?

For the United States:

- Average GDP per-capita growth rate *rose* in postwar era:
  - 1.2% from 1820-1850, 1.6% from 1850-1900, 1.7% from 1900-1950, and 2.2% from 1950-2000.
  - However, average growth was the same in 1950-1975 as it was 1975-2000, even though tariffs were lower in second half.
- U.S. trade grew substantially:
  - 1929-1970, exports & imports averaged 4.6% & 4.0% of GDP (surpluses).
  - 1971-2000, these averaged 8.9% & 10.2% (deficits).
  - 2001-2006, these averaged 10.2% & 15.0% (unsustainable deficits).
- There is good theoretical reason to believe that trade may have widened the income distribution between rich and poor, but most economists give much more weight to the effects of technology and even government tax policy.

The Global Effect of International Trade

- From 1950-2003, world exports rose 117 times, after adjusting for inflation, an average annual growth rate of 9.4%.
- After 1950, economic growth rates doubled. From 1750-1950, world per-capita GDP grew at about 1% per year, and population also grew by 1%. From 1950-2003, world GDP rose by a factor of 7, an average annual rate of almost 4% (half was population growth).
- However, the world's GDP per-capita growth grew faster (2.9%) from 1950-1973 than from 1973-2000 (1.3%).
- Real per-capita income was 10 times higher in 2000 than in 1870. For Japan, 20 times higher; 5 times for the rest of Asia; only 3 for Africa.
- Exports fell from 1913-50, then doubled by 1973, doubled again by 2000.
- Many once-poor countries that adopted policies promoting international trade subsequently grew at much faster rates, especially in Asia: Japan, South Korea, Taipei (Taiwan), Singapore were first, then Malaysia and Thailand, and now China, Brazil, India, Poland, Ireland, et cetera.

- **There is strong statistical correlation** between international trade, growth, and per-capita income, over time and across countries.
- **But** it is one thing to have correlation but still another to demonstrate causality.
- According to Rodriguez & Rodrik (2001), trade and openness are correlated with geography and other policies that affect growth, such as government interference (taxes, regulation, corruption), viable property rights, education, and investment.

Three basic possibilities for the correlation between trade and growth:

1) Trade causes income to be higher, and/or growth to be faster;
2) Higher income causes trade to be higher; or
3) Other factors could cause both more trade and higher income growth.

A number of economists have put a lot of effort in trying to sort through these possibilities.

Frankel & Romer (1999) find four observable links for possibility #3:

A. Countries that adopt free trade policies are more likely to adopt other policies that raise income;
B. Countries that are wealthy for other reasons than trade are more likely to have better infrastructure and transportation networks;
C. Countries that are poor for other reasons tend to have more difficulty collecting taxes, and must rely more on tariffs for government revenue; and
D. Countries that are wealthy for other reasons tend to demand lighter-weight processed products that are more economical to ship (i.e., the value/weight ratio is higher, so shipping costs are relatively less).

Frankel & Romer's findings:

- They estimate that a 1% increase in the international trade ratio increases income per capita by 0.5%.
- Domestic trade also raises income, just like international trade.
- Trade leads to more accumulation of physical and human capital, and more productive use of capital.

- Rodriguez & Rodrik (2001) criticized this study. They agree that protectionism is not good for growth, but they argue that it has yet to be proved conclusively that more international trade significantly causes higher income.

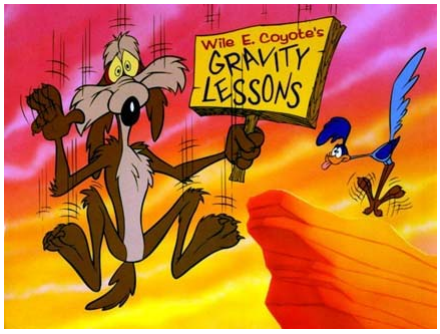
What else does the literature say?

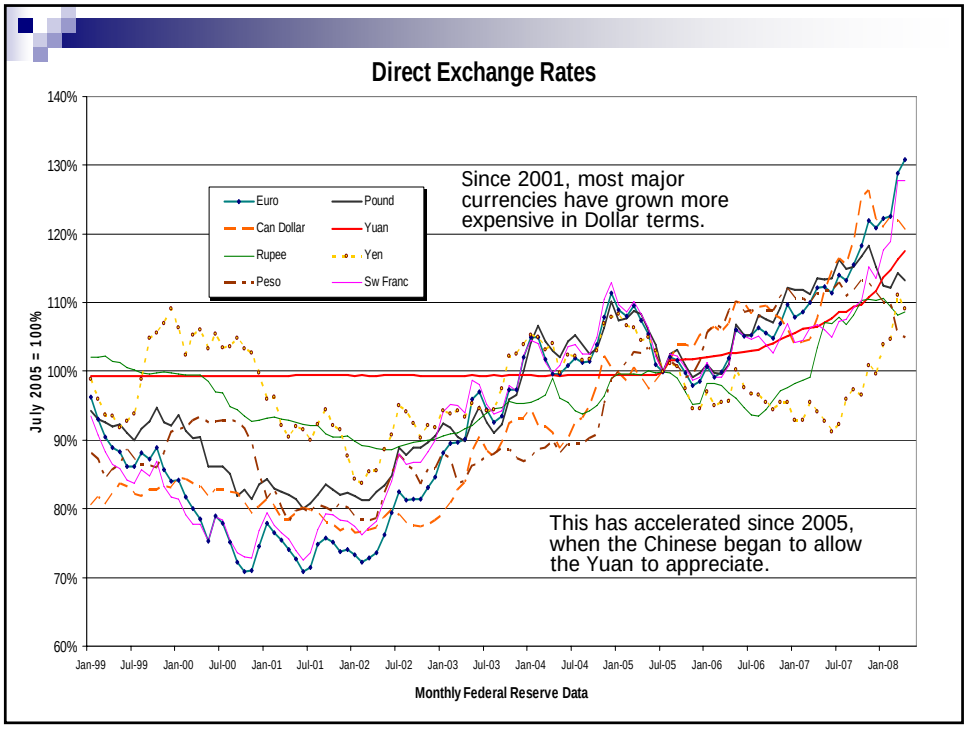
Lewer & Van den Berg (2003) examined hundreds of estimations from many dozens of other studies, and they focus on the dynamic effects of how trade growth affects economic growth. The theory is that trade improves the incentive to increase productivity, to invest, and to improve your skills, all of which take time but have long-term effects.

- Many different studies have predominantly positive and statistically significant results. The average estimated effect is that 1% higher growth in trade leads to a 0.25% increase in economic growth.
- Thus, a typical East Asian country with trade growing at 12% per year will grow 2.5% more per year than a typical country in Sub-Saharan Africa where trade grows by 2% per year.

Enough about the effects of trade. What is going on now?

- The U.S. has been running a large trade deficit, and financing it with foreign borrowing.
- The Dollar seems lately to have reached a "Wile E. Coyote" moment, when foreign currency traders think the Dollar's value is unsustainable.



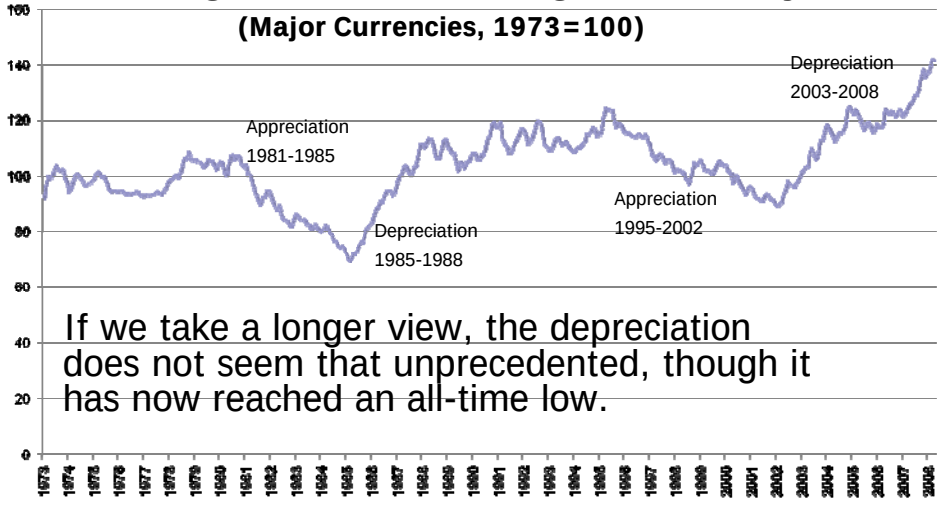


How much has the Dollar depreciated?

- Since 2001:
  - the Euro has risen by 85%,
  - the Canadian Dollar by 50%,
  - the Swiss Franc by 75%,
  - and the Mexican Peso by 15%.
- Since 2005:
  - the Euro has risen by 22%,
  - the CD by 22%,
  - and the SwF by 18%.
  - Also, the Yuan has risen by 18%, the Yen by 6%, the Won by 6%, the Pound by 5%, and the Indian Rupee by 9%.

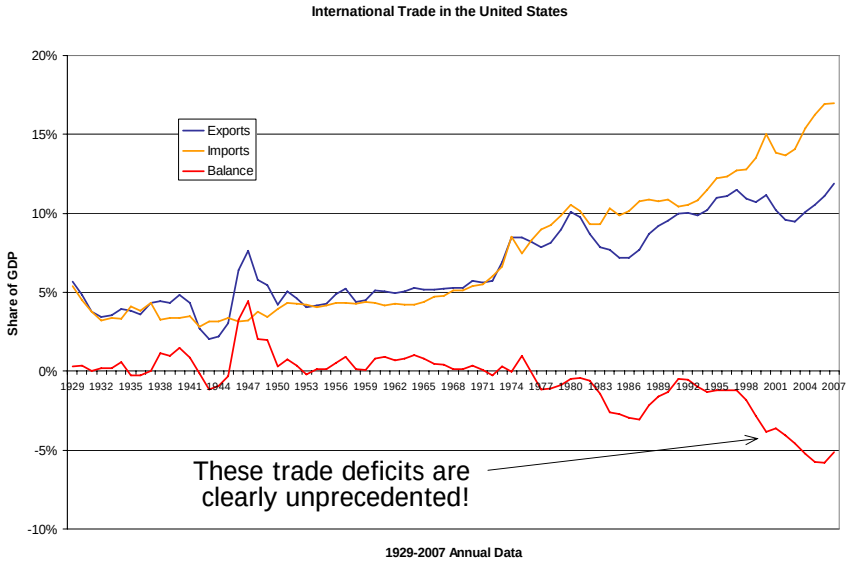
As with the stock market, there seems to be a bit of a madness to it…

Average Price of Foreign Currency



If we take a longer view, the depreciation does not seem that unprecedented, though it has now reached an all-time low.

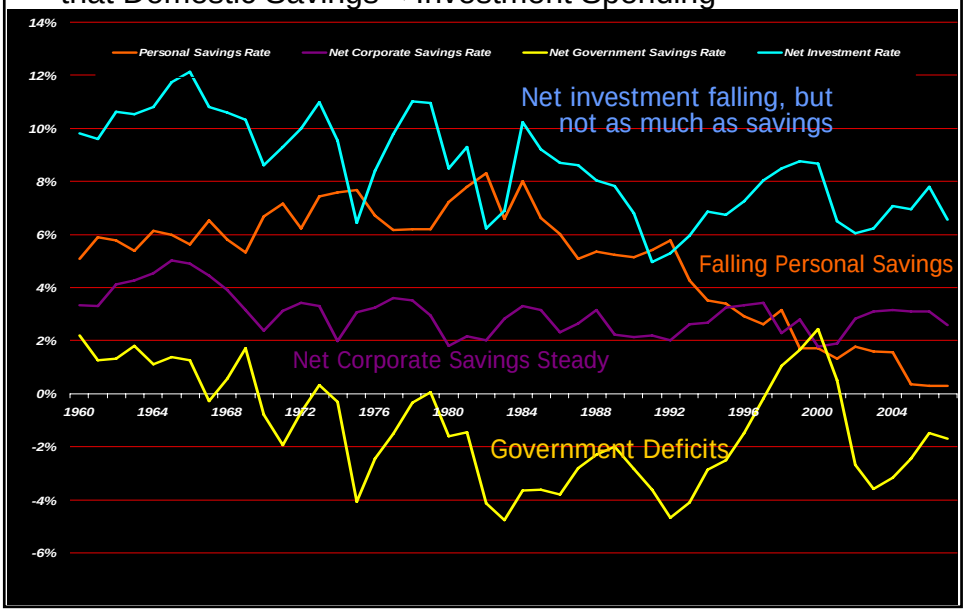
First, what about our trade deficits?



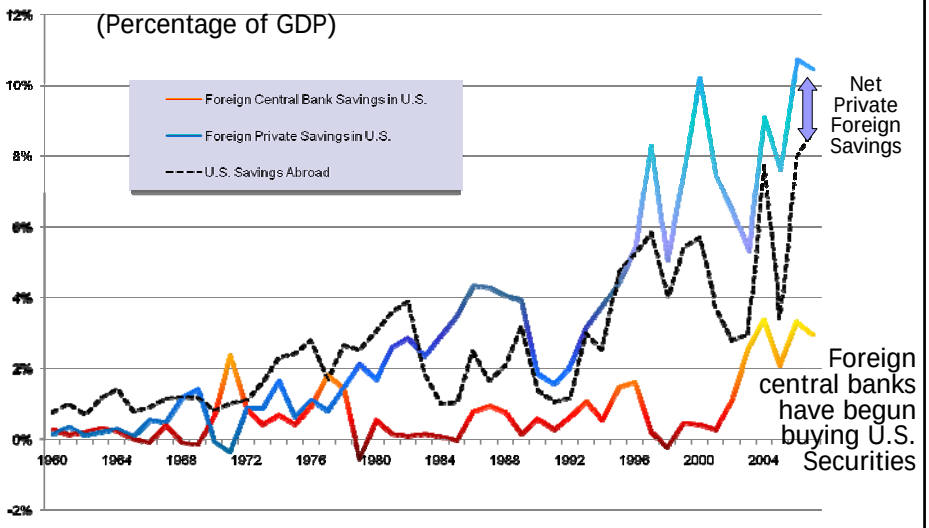
What causes Trade Deficits?

- Bilateral trade deficits can be caused by triangular trade, and are not important indicators. Only multilateral trade deficits matter.
- Merchandise imports are usually overstated because they include insurance and freight, and exports are understated because they exclude profits from directly-invested enterprises. So the current account balance matters more.
- Protectionism reduces imports, but it also reduces exports – so it does not really change the trade balance.
- The essential cause is simply net foreign savings inflows or outflows. This results when domestic savings is not equal to domestic investment.
- Higher interest and profit rates, plus more stable financial markets, will attract foreign savings. More saving inflows will make foreign currency cheaper, causing exports to fall.
- Countries that save more than they invest have trade surpluses. Countries that save less have trade deficits.
- In essence, every Dollar that a country saves in our country (i.e., lending it to us) is a Dollar they do not spend on our exports.

Spending more on new goods than we produced implies that Domestic Savings < Investment Spending

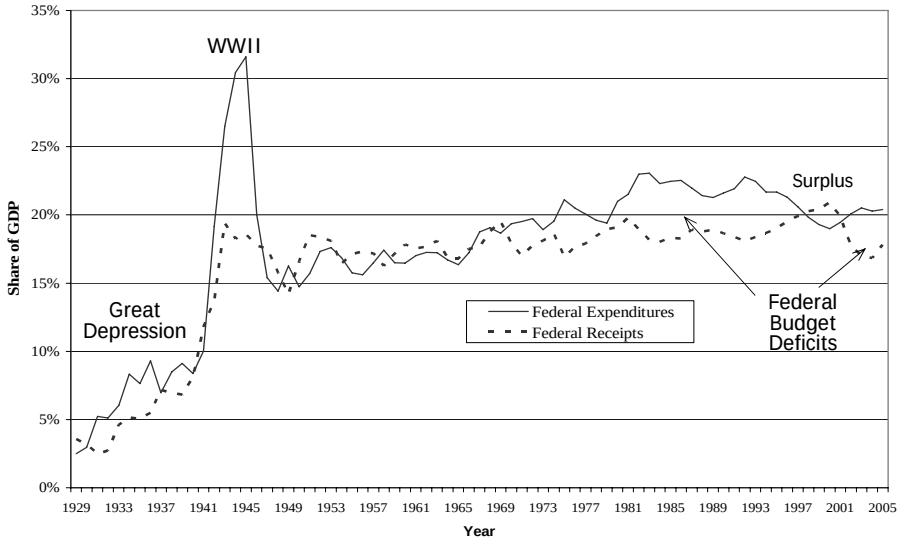


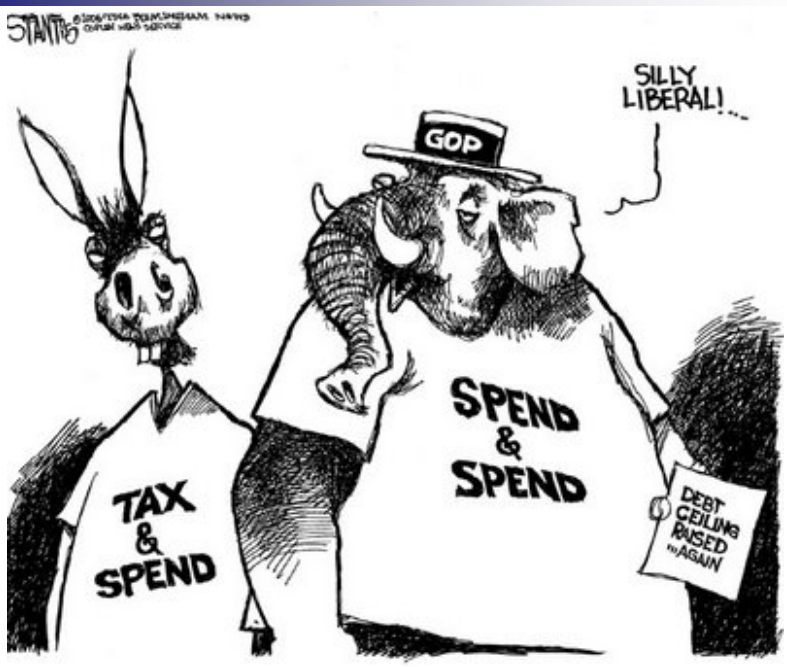
Net foreign savings must therefore be making up the difference



Growth of the federal government

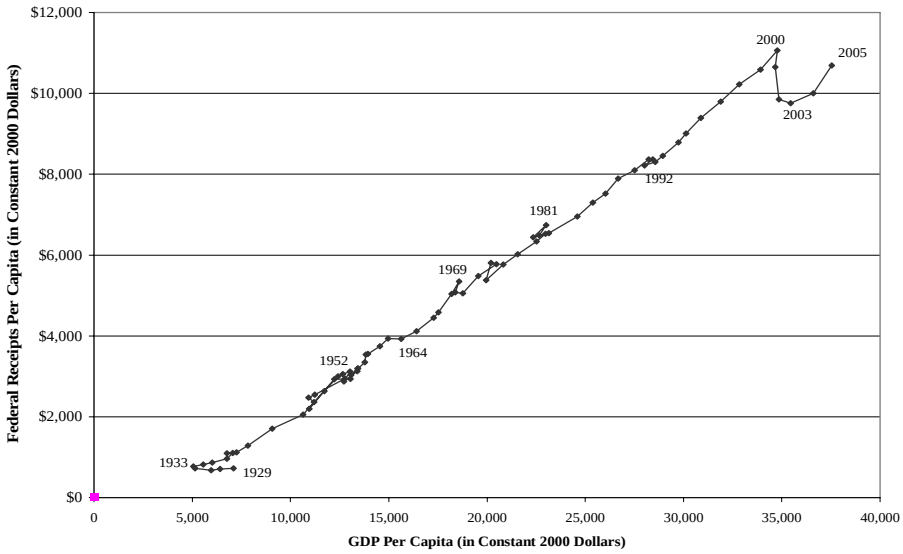
Figure 1: Federal Government's Share of the Economy





Taxes have risen with income (until just recently)

Figure 2: The Relationship between Income and Taxes



Why has the Dollar been Falling?

- In the past, the exchange rate was low (i.e., the Dollar was high) because foreign savings were flowing into the U.S., because our financial markets were seen as safer, with higher returns.
- Our government gave tax cuts, increased spending, and borrowed the difference. Consumers also spent more than they earned, borrowing from their equity. This is not sustainable forever.
- In the future, we will have to repay what we borrowed, and the exchange rate will have to rise.
- Foreign exchange is a forward-looking market. If we all expect the Dollar to fall, it will fall.
- We appear to be in the transition between the past and the future, between borrowing and repaying.

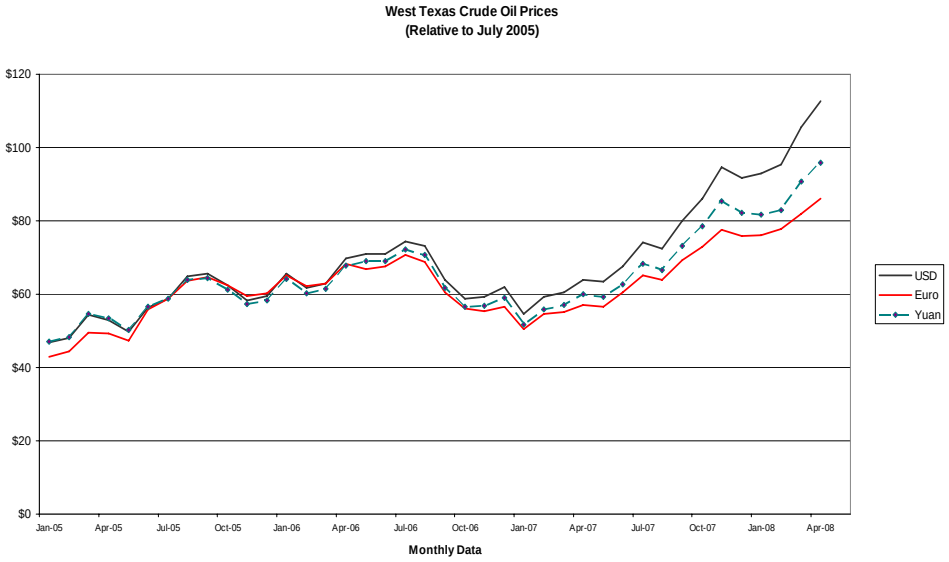
Why is this a Problem?

- Foreigners now own over half of U.S. Federal Debt. China's central bank alone hold $1.2 trillion.
- Americans consumption is high, so imports are high.
- Foreign savings keeps Dollar high → fewer exports.
- Looming retirement problem:

  "Baby boom" retires, federal government treats current FICA surplus as government revenue, so "true" federal budget deficit is much higher.
- Speculative bubbles in stock market, then real estate. Bubbles often burst.
- Markets currently still expect future depreciation of Dollar (oil futures rising in part due to expected cheaper Dollar).

The Retirement Problem is only part of a bigger Federal Debt problem…

One effect is that oil is becoming more expensive for us, relative to the rest of the world.



Scary Scenario

For the last several years, I have been telling my students about the following possibility:

- Trade deficits, other concerns → depreciation of Dollar → slowing foreign savings inflows → rising interest rates → rising government interest expenditures, decline in private asset values → popping bubble, declining private wealth and consumption, rising government deficits, loss of faith in ability of federal government to repay, further depreciation of Dollar, inability to meet Social Security and Medicare commitments, et cetera.

I told my students the probability was less than 50%, but some of these seem to be happening now.

One additional possibility is that the U.S. Dollar could lose its position as the world's vehicle currency. If people start holding Euros instead of Dollars then one of my graduate students estimates that this could conservatively cost us between $14 and $40 billion annually in interest on government bonds.

Positive consequences?

The falling Dollar makes imports dearer and exports cheaper. How would this affect the trade deficit?

- Since 2005 alone, the Dollar has depreciated by 20%.
- In the short-run, we spend more on imports. Deficit may rise. Assuming a short-run price elasticity of 0.4 for both exports and imports, the trade deficit could rise from 5% to 6% of GDP.
- In the long-run, we export more and buy fewer imports. The trade deficit should fall. Assuming a long-run price elasticity of 1.5 for both exports and imports, the same 20% appreciation would cause the trade deficit to become a surplus of 2% of GDP. This would enable us to start repaying our foreign debt.
- The current recession is also likely to reduce our imports. Estimates of the income elasticity of imports are generally greater than one, so the effect is relatively large.
- If these things happen, however, it will require households to substantially increase their savings rates, unless investment falls dramatically and/or the government stops running budget deficits.

How far can the Dollar fall?

- In purchasing power terms, the U.S. Dollar is still expensive relative to the Yuan and the Hong Kong Dollar, but cheap compared to the Euro, the Swiss Franc, and even the British Pound and the Canadian Dollar.
- The interest rate differential predicts only a few percent depreciation per year.
- Enough foreigners hold enough Dollars that there is significant economic interest abroad in preventing too much more depreciation. The 20% appreciation of the Yuan, for example, has already cost China about $200 billion in equivalent asset value.

Big Mac Index – July 2007

Country	Local Price	in USD	1 USD =	Over(+) / Under(-) Valuation
United States	$3.41	$ 3.41	1.00	
Canada	C$ 3.88	$ 3.89	1.00	+13%
China	RMB 11	$ 1.57	6.99	-51%
Euro area	€ 3.06	$ 4.76	0.64	+41%
Hong Kong	HK$ 12	$ 1.54	7.80	-52%
Japan	¥ 280	$ 2.69	104.2	-16%
Mexico	Peso 29	$ 2.79	10.40	-13%
Saudi Arabia	Riyal 9	$ 2.40	3.76	-25%
South Korea	Won 2900	$ 2.78	1043	-14%
Switzerland	SFr 6.3	$ 6.01	1.05	+87%
United Kingdom	£ 1.99	$ 3.89	0.51	+21%

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Thank you.