

The Economic Outlook and the Twin Deficits

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Short-term US economic outlook

- 3.4% forecast in 2006 = IMF *WEO* (April); 3.3% in 07 = USG (*ERP*, Feb.) \approx private forecasts.
- Readily attainable. ***But***
 - Jobs still lag behind US output growth since 2001
 - *Econ. Report of President* gives up goal of raising employment/population back toward end-2000 level.
 - Today, ratio still \ll that at end of 2001 recession.
 - Real wages have stagnated too
 - \Rightarrow labor share down.
 - \Rightarrow Growth is all going to profits.
 - The American consumer may finally tire.

Global growth forecast is strong

- 4.9% in 2006 (slowing to 4.7% in 2007) - IMF *WEO*
- Recoveries at long last seem established in
 - euroland (2.0%, up to 2.2% in *OECD Ec.Outlook*, May 23)
 - & Japan (2.8%)
- Booming Asia is a newly important source of global demand, incl. China (9.5%) & India (7.3%)
- Emerging/developing countries overall (6.9%).
- ***But*** there are also substantial risks to the global outlook.

Medium-term global risks

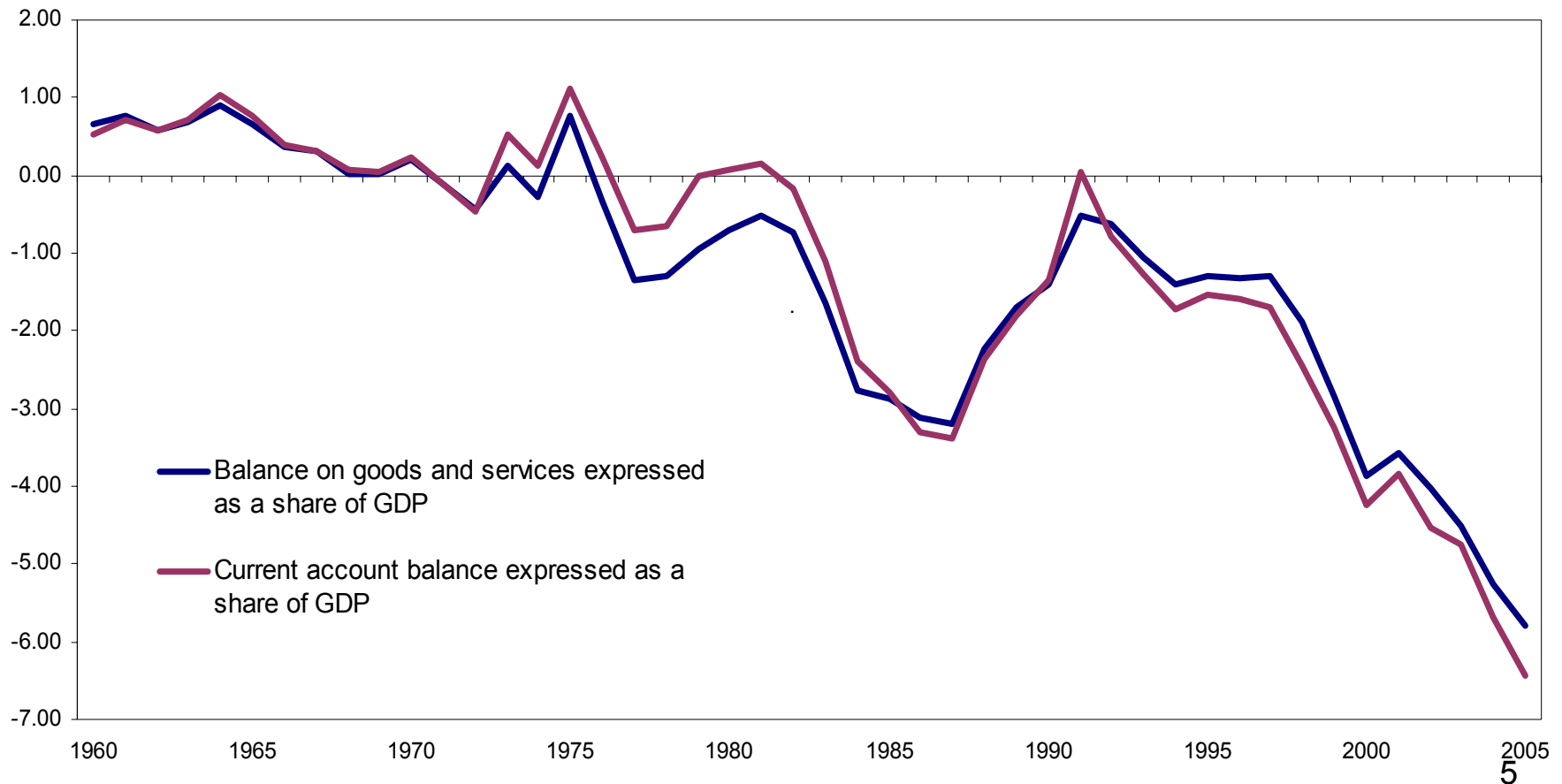
Odds of each alone small; but cumulative odds $> 1/2$

- Hard landing of \$: foreigners pull out =>
\$ ↓ & i ↑ => possible return of stagflation in US.
- Bursting bubbles => consumption would fall .
 - Bond market: conundrum of low LT rates 2004-05.
 - Housing market: valuations very high .
- New oil shocks,
 - e.g., from Russia, Venezuela, Nigeria, Iran, S.Arabia...
- New security setbacks
 - Big new terrorist attack, perhaps with WMD
 - Korea or Iran go nuclear/and or to war
 - Islamic radicals take over Pakistan, S.A. or Egypt

U.S. trade balance is deteriorating

Fig. 1: U.S. Trade Balance and Current Account Balance, 1960-2005

percent of GDP



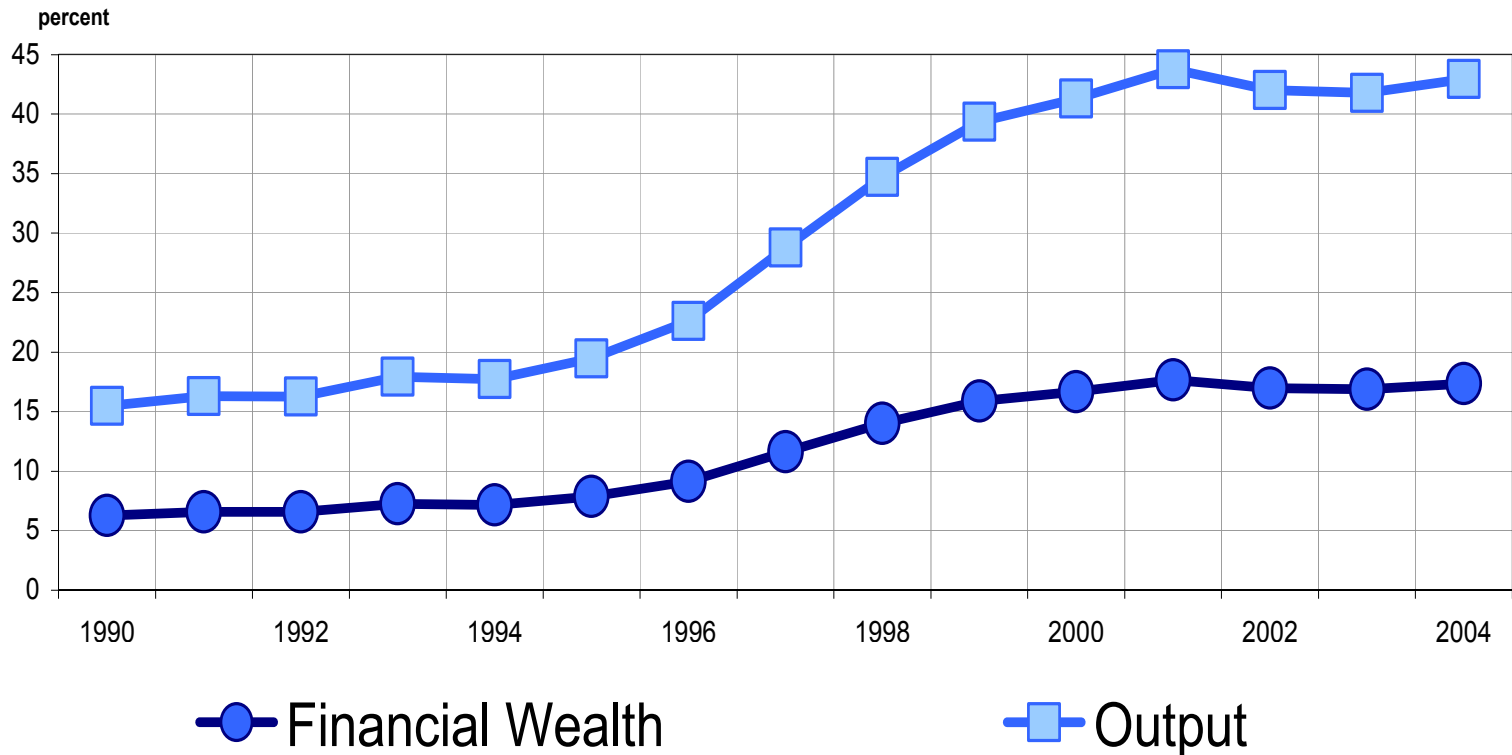
Sources: Department of Commerce (Bureau of Economic Analysis)

U.S. trade deficit

- **Deficits hit record levels in 2005:**
 - Goods & services = \$726 b = 5.8 % GDP.
 - **Current account = 6 ½ % GDP**
 - Would set off alarm bells in Brazil or Turkey
- Short-term danger:
 - Protectionist legislation, scapegoating China.
- Medium-term danger:
 - CA Deficit => US is borrowing from the rest of the world.
 - Dependence on foreign investors may => hard landing
- Long-term danger:
 - US net debt to RoW now ≈ \$3 trillion.
 - Dependence on foreign central banks may =>
loss of US global hegemony .

\$ share in world portfolios rising

Share of US Assets in Rest of the World's Output and Financial Wealth



Source: Caballero, Farhi and Gourinchas (2006)

Origins of Current Account deficits

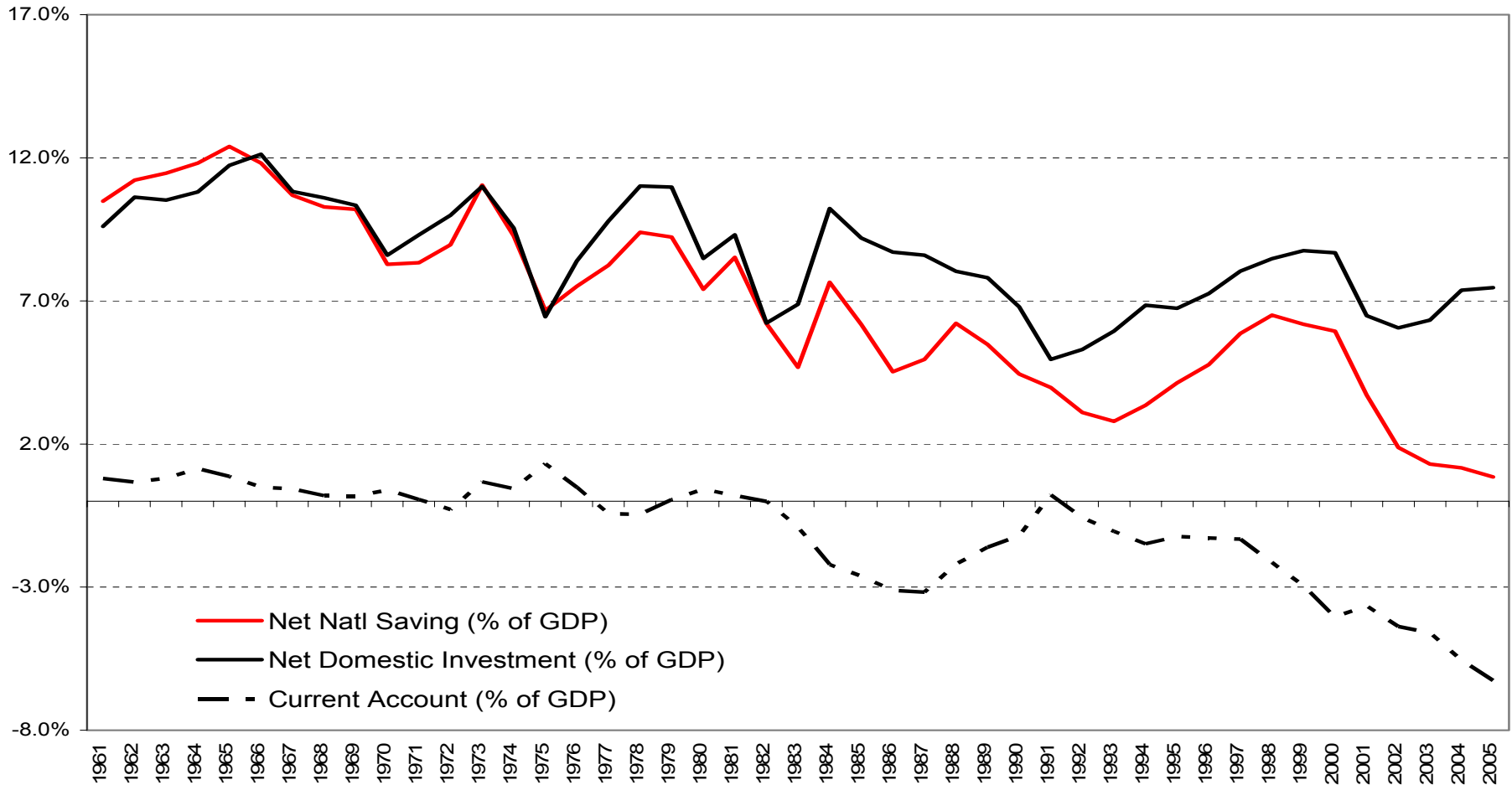
- Trade deficits are not primarily determined by trade policy (e.g., tariffs, NAFTA, WTO, etc.)
- Rather, by macroeconomics
- Deficits are affected by exchange rates and growth rates.
- But these are just the “intermediating variables”
- More fundamentally, the US trade deficit reflects a shortfall in National Saving

The decline in US National Saving

- National Saving \equiv
how much private saving is left over
after financing the budget deficit.
- US CA deficit widened rapidly in early
1980s, & more so 2001-05, because
of sharp falls in National Saving

National Savings, Investment & Current Account, as shares of GDP

(%) Figure 23.2. U.S. National Saving, Investments and Current Account

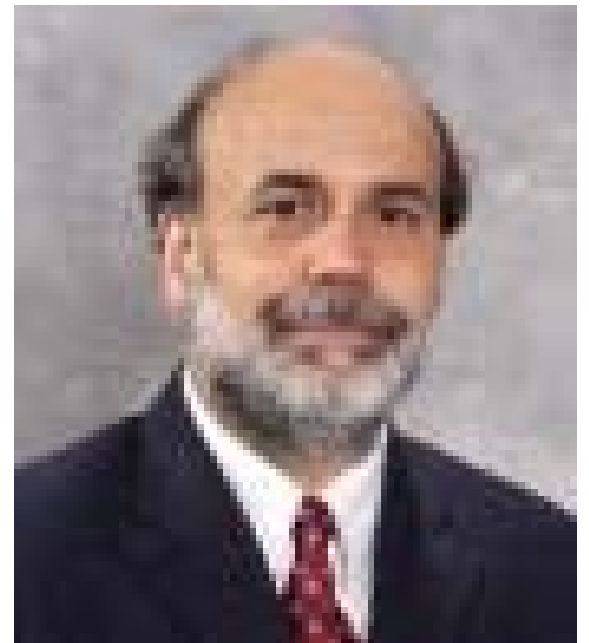


Why did National Saving fall in early 1980s, and 2001-05?

- Federal budget balance fell abruptly both times
 - From 1970s deficit = 2% of GDP, to 5% in 1983.
 - From 2000 surplus = 2% GDP, to deficits >3% now.
- According to some theories, pro-capitalist tax cuts were supposed to result in higher household saving.
- But both times, saving actually *fell* after tax cuts.
- U.S. household saving is now < 0 !
- So both components of US National Saving fell.

What gave rise to the record federal budget deficits?

- Bush Administration: Large tax cuts, together with rapid increases in government spending
- Parallels with Reagan & Johnson Administrations:
 - Big rise in defense spending
 - Rise in non-defense spending as well
 - Unwillingness of president to raise taxes to pay for it.
 - Leads to declining trade balance
 - Eventual gradual decline in global role of the \$.
 - They had ignored the advice of their CEA Chairmen.



The current bout of fiscal irresponsibility is actually worse than the 1980s

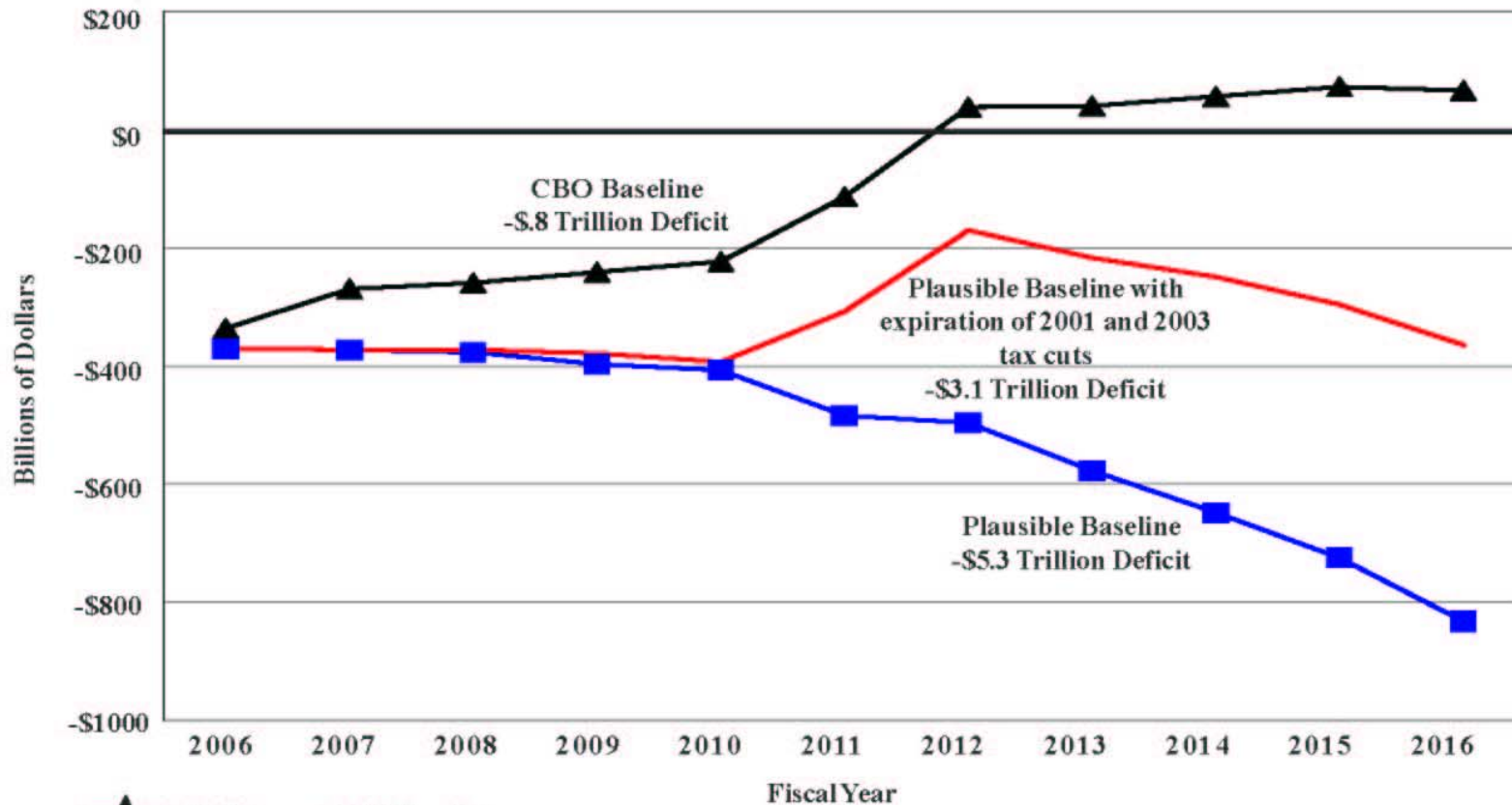
- The retirement of the baby boom generation is that much closer than it was in 1981.
- The national debt is that much higher.
- We now have other new fiscal time bombs as well, e.g., phony sun-setting of tax cuts, need to fix AMT (Alternative Minimum Tax), & exacerbated Medicare shortfall.
- The current administration seems to lack ability -- which Reagan Administration and elder Bush did have -- to perceive when reality diverges from speech-writers' script, & to respond with mid-course correction.
- To the contrary, the White House continues to propose more tax cuts




White House forecast of cutting budget deficit in ½ by 2009 will not be met

- WH projections released in Feb. still do not allow for:
 - the ongoing cost of Iraq
 - Fixing the Alternative Minimum Tax
 - Making tax cuts permanent as it has asked for
 - More realistic forecasts of spending growth, e.g., in line with population. (Actual spending growth since 2001 has far exceeded even that.)
- More likely, deficits will not fall at all.

Baseline Deficit Projections: January 2006

Fiscal Years 2006-2016



-  CBO January 2006 Baseline
-  Concord Plausible Baseline with assumed scheduled expiration of 2001 and 2003 tax cuts.
-  Concord Plausible Baseline assumes that discretionary spending grows at the rate of nominal GDP minus the 2005 supplemental appropriations, that continued operations in Iraq and Afghanistan are gradually scaled back to about a third the current level, and that all expiring tax provisions are extended with AMT relief.



Further, the much more serious deterioration will start after 2009.

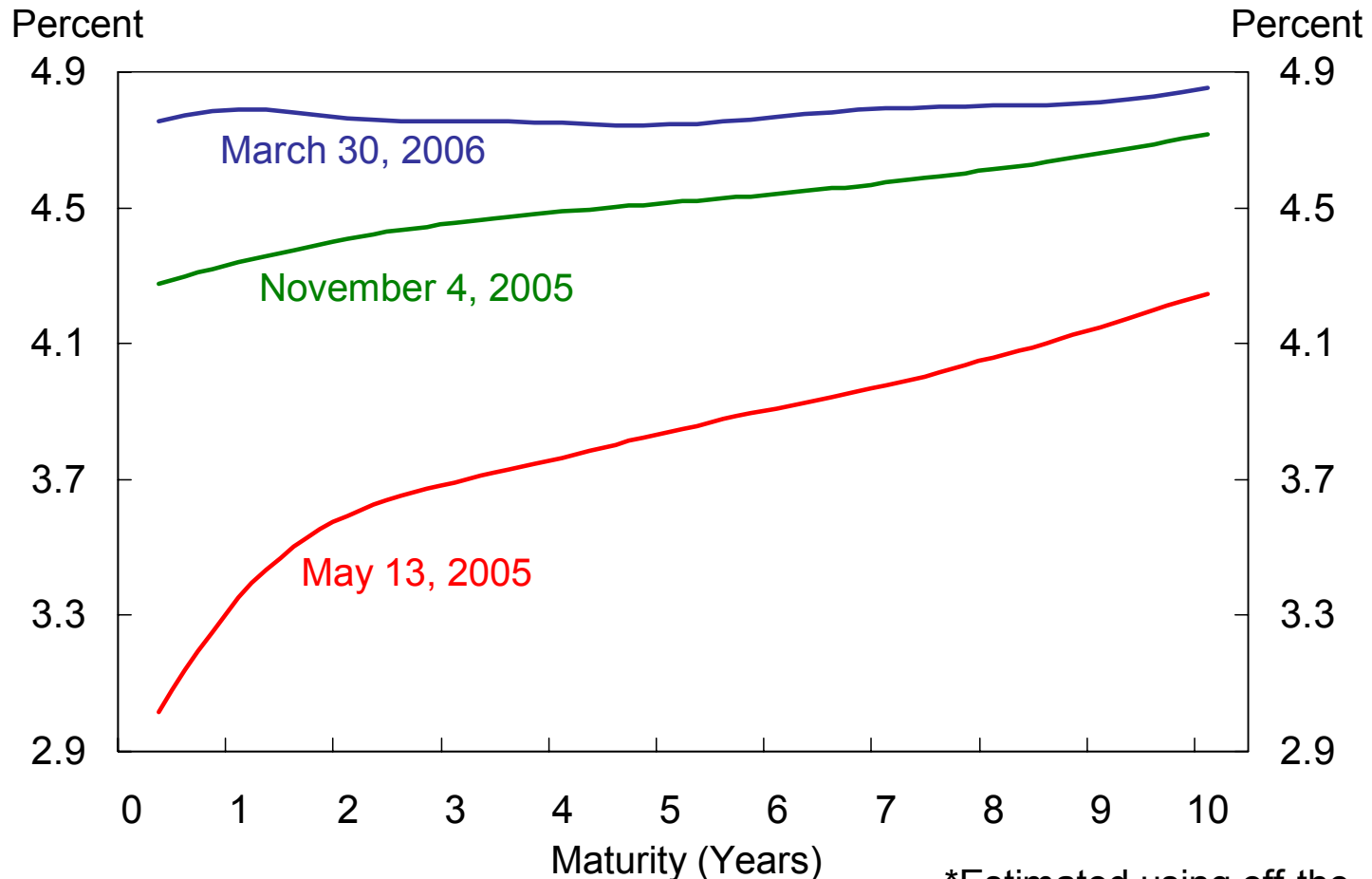
- The 10-year window is no longer reported in White House projections
- Cost of tax cuts truly explode in 2010 (if made permanent), as does the cost of fixing the AMT
- Baby boom generation starts to retire 2008
 - => soaring costs of social security and,
 - Especially, Medicare

Then what has kept long-term interest rates low?

- Easy monetary policy by FRB, ECB, BoJ & PBoC has kept short-term rates low since 2001 (Fig.5)
 - Carry trade => money has gone into bonds, stocks, real estate, emerging markets, & commodities.
 - Why no reversal since 2004? Probably bubbles in some markets.
 - Those bubbles may just have peaked – spring 2006.
- Foreign central banks buying US securities
- Investors have not yet fully understood how bad is the US fiscal outlook (as in Europe & Japan also).
- All three factors should come to an end soon.
- Prediction: long-term interest rates will rise.

The conundrum: after tightening began in 2004, long-term rates rose much less than short rates; even now the yield curve is still unusually flat.

Treasury Yield Curves* (Apr. 6, 2006)

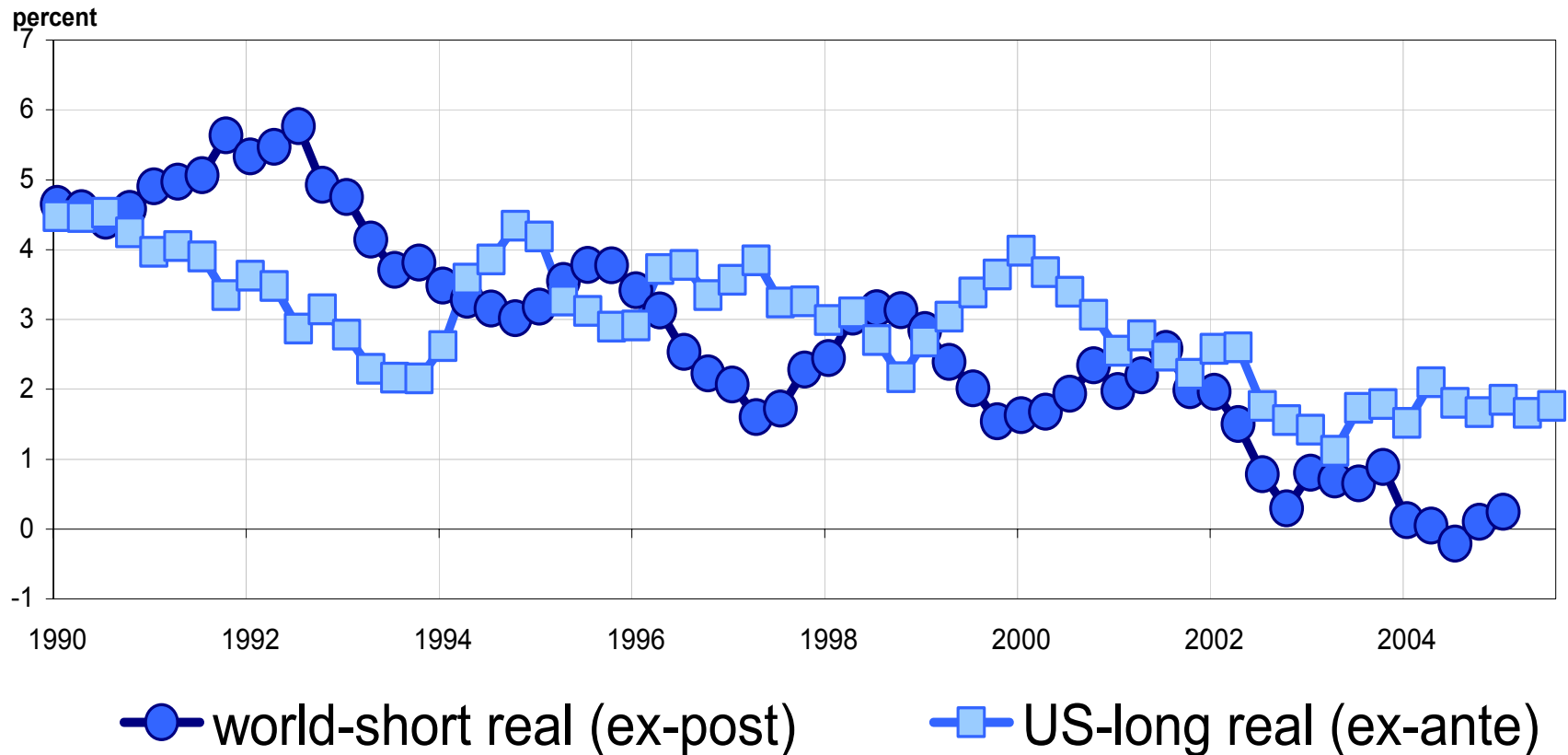


Source: 8:40AM quotes and FRBNY Calculations

*Estimated using off-the-run Treasury securities

Fig. 5: Monetary policy since 2001 has been easy everywhere

World and US real interest rates, 1990-2005



Source: Caballero, Farhi and Gourinchas (2006)

Many economists have come up with ingenious counter-arguments to the concerns over the US Twin Deficits.

- But I don't buy them.
- I.e., the low national saving that faces us now and in the future should indeed be a source of concern

7 alternative views that challenge the “twin deficits” worry

1. The siblings are not twins
2. Alleged Investment boom
3. Low US private savings
4. Global savings glut
5. It's a big world
6. Valuation effects will pay for it
7. China's development strategy entails accumulating unlimited \$

1. “The ‘**twin** deficits’ view is wrong, because the budget and current account deficits do not always move in lockstep” [1]

- This is a “straw man.”
- The term “twin deficits” does not mean current account & budget deficits *always* move together.
 - Nobody pretends that they do.
 - Of course BD & CAD can move in opposite directions, as in US investment boom of 1990s.
- *But in 1980s & the current decade, U.S. fiscal expansion led to BD and CAD.*

[1] Bernanke (2005) is one of many making this point.

2. Capital flows to US due to favorable investment climate & high return to capital .

- But

- US business investment < in 1990s IT boom.
- Foreign Direct Investment is flowing *out* of the United States not in.
- The money coming in is largely purchases of short-term portfolio assets, esp. acquisition of \$ forex reserves.

3. “Fall in **US private saving** has been as big a part of the fall in national saving as has been the budget deficit.”

- True
- But recall that Bush tax cuts were supposedly designed to be pro-saving (abolition of the estate tax, near-abolition of taxes on dividends & capital gains, etc.).
- That was the excuse for their regressivity.
- As the private saving rate has not subsequently risen, this is a further indictment of our current fiscal policy.
- The same characterization applies to the Reagan tax cuts of 1981: were supposed to boost saving but were instead followed by a fall in US private saving rates.

4. “The problem is a global savings glut, not a US saving shortfall.” [1]

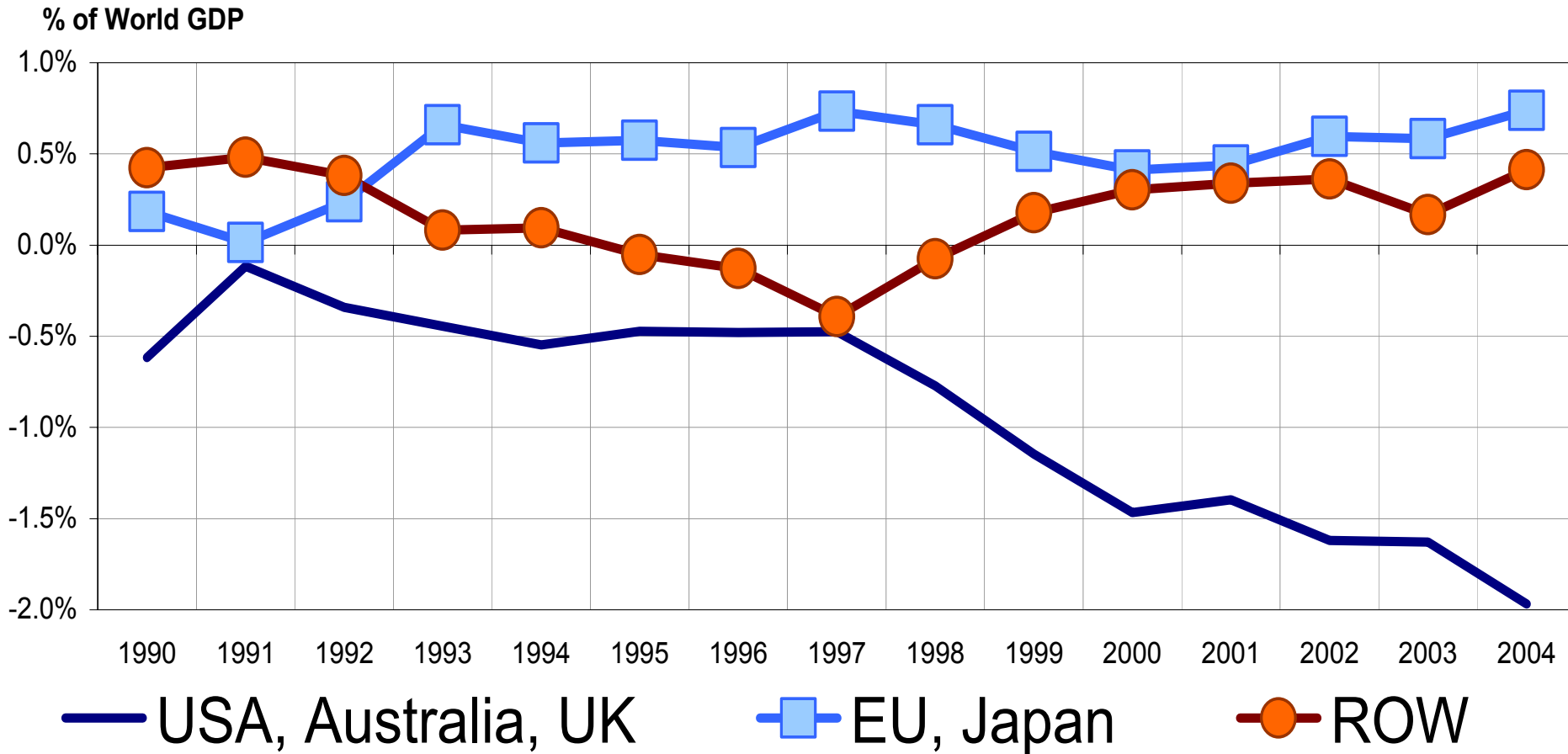
- True, foreign net lending to US is determined by conditions among foreign lenders as much as in US.
- “Savings glut” misleading: Global saving & investment not up.
 - Rather, global investment is way down.
 - Japan’s household saving rate = 7% of disp.income, vs. 23% in 1975. [2]
- This pattern is inconsistent with the hypothesis that the exogenous change is an increase in saving abroad: that would have shown up as a rise in investment.
- The pattern is consistent, rather, with the hypothesis that the US shortfall is sucking in capital from rest of world.

[1] Again, Bernanke (2005)

[2] By 2004, saving/GDP outside US had climbed to a level slightly > that of 990s (while still < 1980s).

True, Current Account surpluses in partner countries are half the story.

Current Accounts



5. “It’s a big world.”

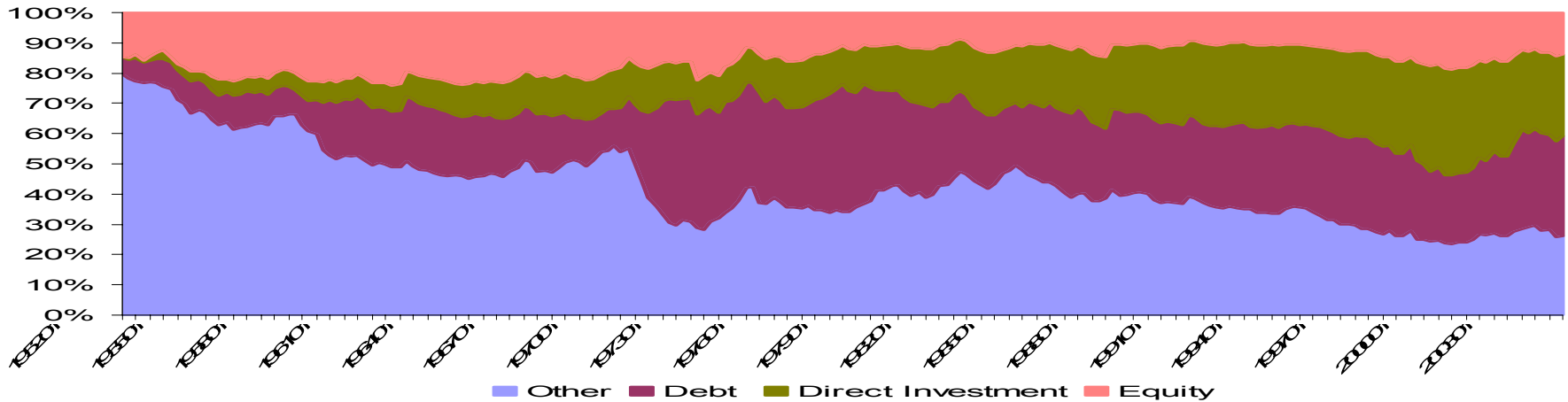
- Richard Cooper, Alan Greenspan, & others:
- world financial markets are big, relative even to the \$3 trillion of US debt, & increasingly integrated.
- => Foreign investors can bail us out for decades to come.
- After all, some have been warning about a hard landing since the early 1980s.
- If foreign investors keep moving, even slowly, toward fully diversified international portfolios (away from “home country bias” in their investments), they can absorb US current account deficits for a very long time.
- True. **But**
 - it is unlikely that portfolios of investors will fully converge.
 - When it comes to default or country risk, GDP or exports are more relevant denominators for debt than is global portfolio size.
 - Exports are the relevant denominator for crises -- Cavallo & Frankel (2005).
 - Unfortunate, in light of low US X/GDP ratio -- Obstfeld & Rogoff (2001, 05) .
- Debt dynamics => US Debt/Export ratio on explosive path.

6. “ US current account deficit need not imply rising debt & debt-service; despite years of deficits, net investment income is still in surplus”

- Lane & Milesi-Feretti (2005) compute valuation effects. Gains in \$ value of assets held abroad, particularly via \$ depreciation => US net debt has risen “only” to \$3 trillion, despite much larger increase in liabilities to foreigners.
- US earns a higher rate of return on its assets abroad (especially FDI) than it pays on its obligations (especially treasury bills).
 - In 1960s, Kindleberger said US was World Banker, taking short-term deposits & investing long-term.
 - Gourinchas & Rey (2005) call US global “venture capitalist.”
- Hausmann & Sturzenegger (2006) speak of “dark matter,” by which they mean US hidden assets of know-how that are not properly reflected in service export numbers.
- Cline (2005) calls the US an *economic* net creditor, though a net international debtor in an accounting sense.

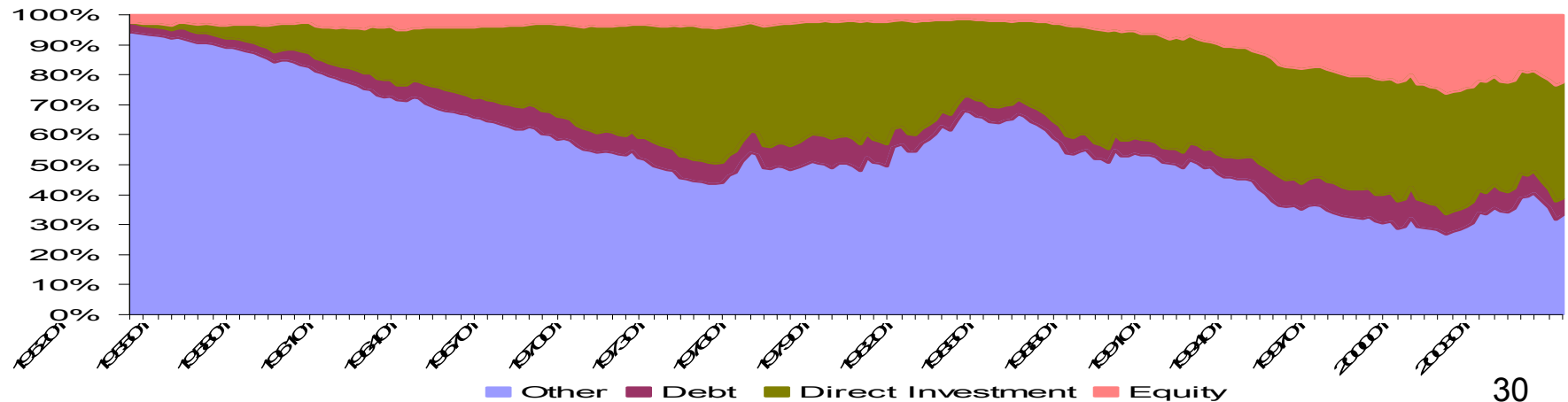
Composition: US assets give more weight to high-return equity & FDI than do US liabilities

**Composition of U.S. Gross External Liabilities
1952:1-2004:1**



Source: Gourinchas and Rey (forthcoming, 2006)

**Composition of U.S. Gross External Assets
1952:1-2004:1**



Source: Gourinchas and Rey (forthcoming, 2006)

These arguments rely on \$ retaining its unique role in world monetary system forever

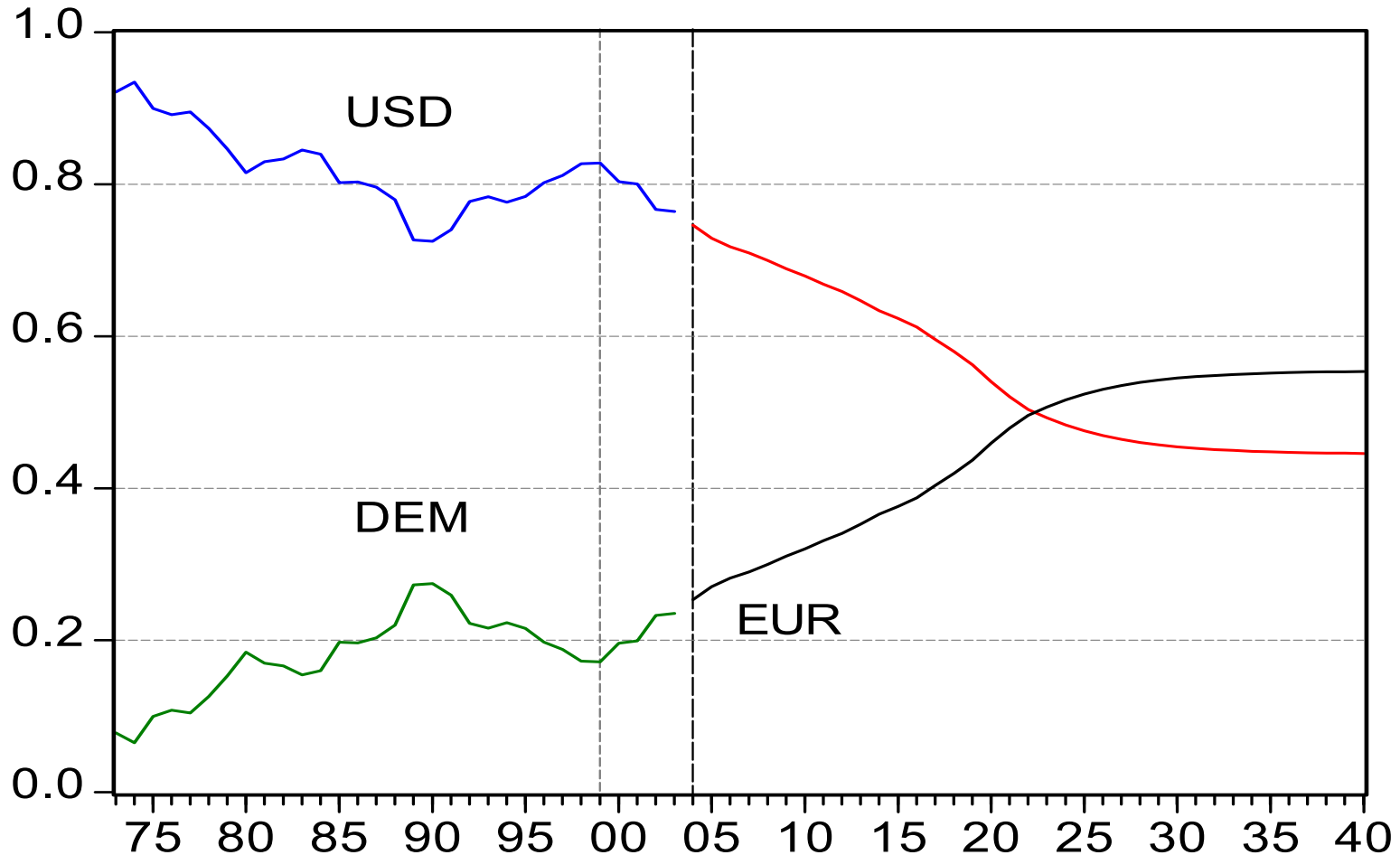
- The French in the 1960s called it the “exorbitant privilege”: the rest of the world gives up real goods and companies in exchange for pieces of paper (\$).
- Arguments assume that the \$ stays premier international reserve currency held by central banks, and that the US treasury security market will continue to be the preferred liquid asset for private investors as well.
- Has been true since World War II, but one can no longer assume that it will necessarily always be true: € now exists as a plausible rival for the longer term.
- US could lose hegemony.

Chinn & Frankel (2006)

Simulation of shares in central bank reserve holdings

Case 2, Scenario D:

Assumes no entry of UK, Sweden, or Denmark into € ;
& continued depreciation of \$ at 2001-04 rate.



7. “China’s development strategy entails accumulating unlimited dollars.”

- The Deutschebank view
(Dooley, Folkerts-Landau, and Garber, 2005)
- Today’s system is a new Bretton Woods, with Asia playing role that Europe played in 1960s.
- I think that much is right.
- DFL ideas ingenious: China is piling up \$ not because of myopic mercantilism, but as part of an export-led development strategy that is rational given China’s need to import workable systems of finance & corporate governance.

But it is not sustainable.

- It may be a Bretton Woods system, but we are closer to 1971 (date of collapse)
 - than to 1944 (date of BW agreement)
 - or 1958 (when convertibility first restored).
- (1) Capital mobility is much higher now than in 1960s.
- (2) The US can no longer necessarily rely on support of foreign central banks, either economically or politically.
- (3) China eventually will have to develop a workable domestic system of finance and corporate governance, or else suffer a domestic banking crisis.
 - The latter is perhaps the more likely outcome;
 - but either => an end to excess liquidity pouring from China to US

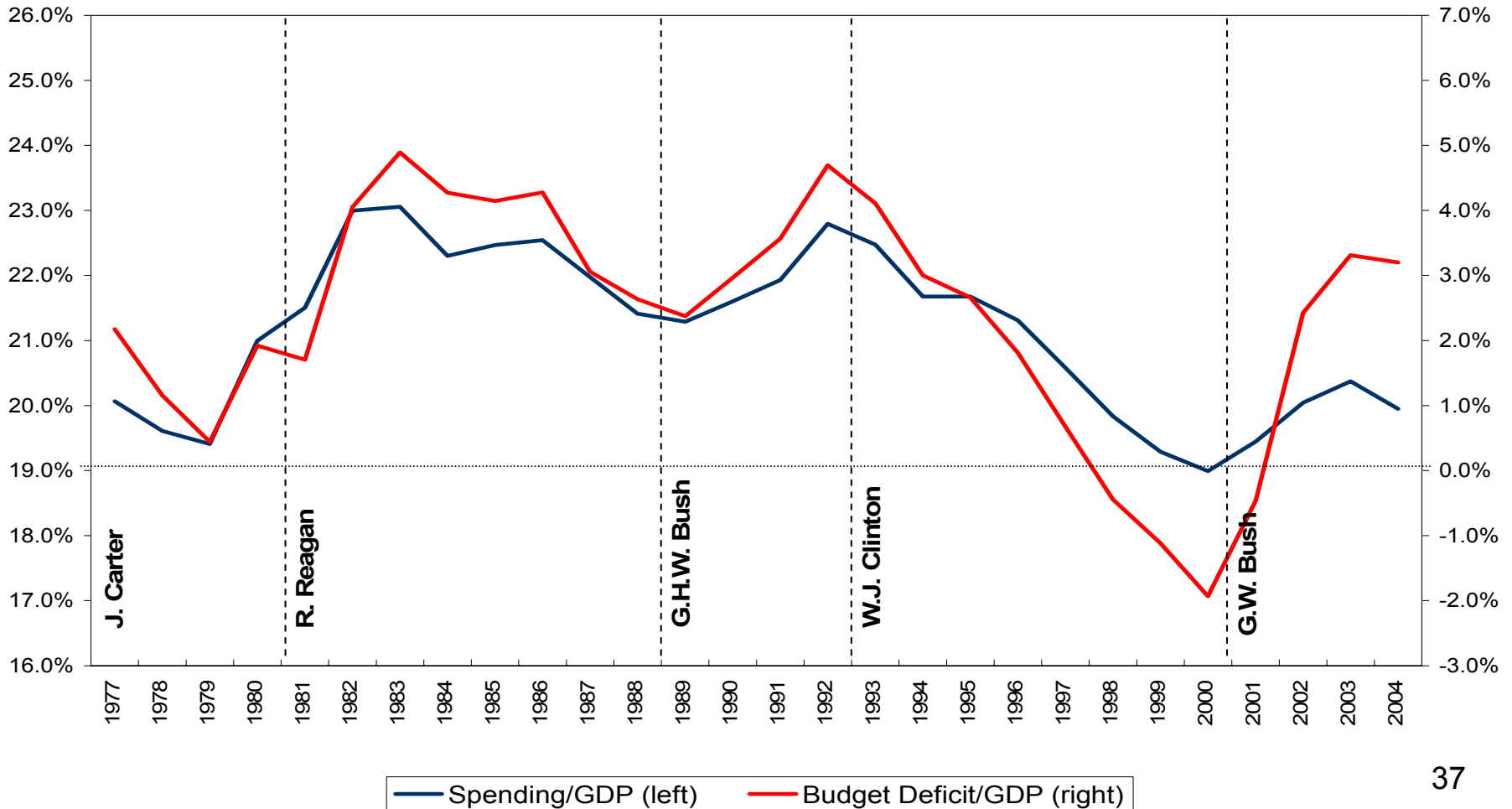
Addenda

- Addendum 1:
The “Starve the Beast” hypothesis and mis-forecasting US budget deficits
- Addendum 2:
Commodity prices & the “carry trade”
- Addendum 3:
Possible loss of US hegemony
- Addendum 4: The RMB

What about the “Starve the Beast” hypothesis?

- Starve the Beast claim: tax revenue↓ => spending↓.
“Congress can’t spend money it doesn’t have” (!)
- History shows that the claim does not describe actual spending behavior. The pattern:
- Spending is only cut under a regime of “shared sacrifice” that simultaneously raises tax revenue (regime of caps & PAYGO in effect throughout 1990s).
- Spending is not cut under a tax-cutting regime (1980s & current decade).
- See Figure 2.

Fig. 2: US Federal Budget Deficit and Spending as % of GDP.



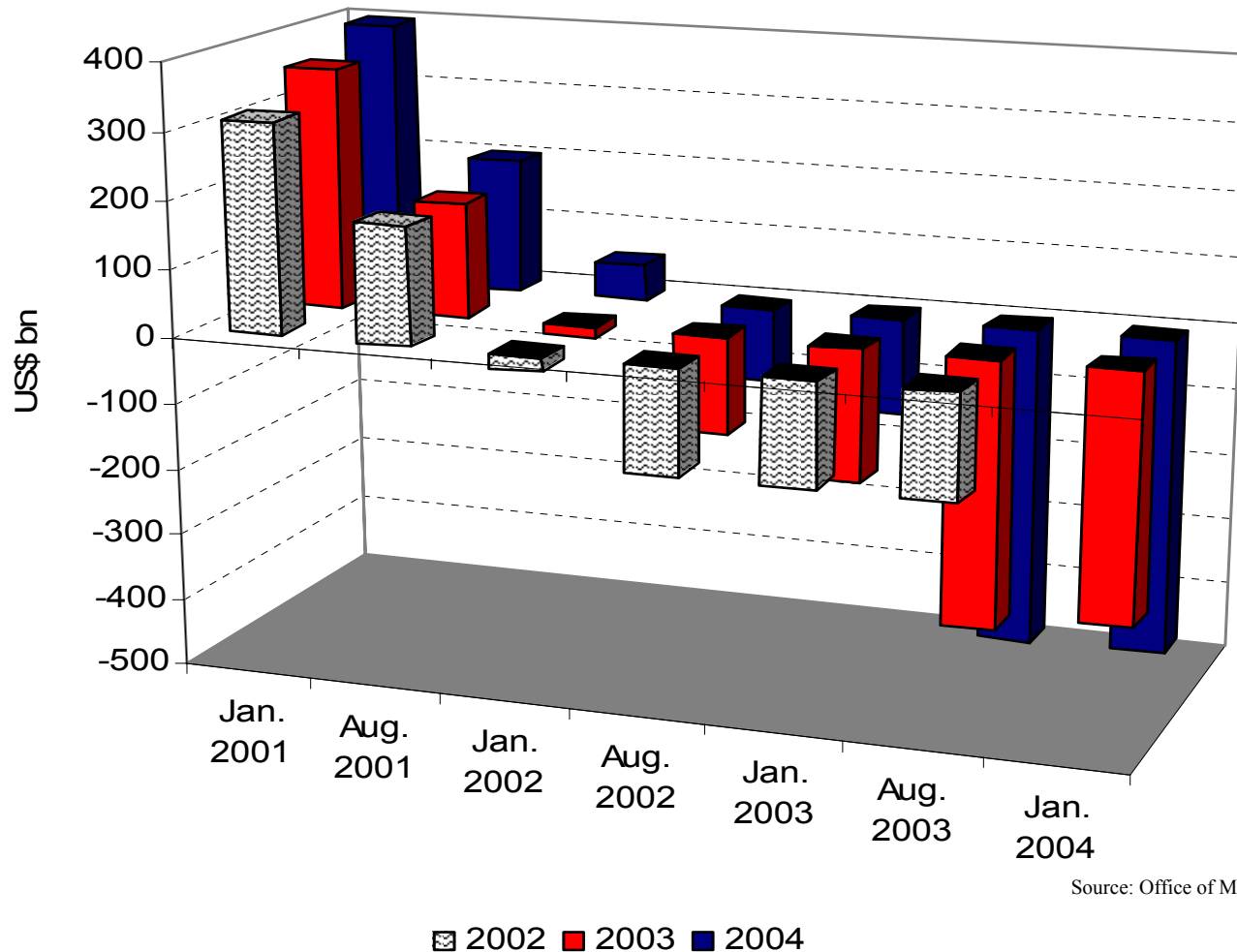
Further, even if the Starve the Beast hypothesis *did* describe actual behavior...

- It would contradict the original rationale for the tax cuts: the Lafferite hypothesis that “*tax rate cuts produce more tax revenue.*”
- “Starve the Beast” would then predict *more* government spending not less.
- Is Laffer a straw man?
 - President George W. Bush, July 24, 2003
 - OMB Director Joshua Bolten, press conference July 2003; & *WSJ*, Dec. 10, 2003
 - Treasury Secy. John Snow, Congr. testimony, Feb. 7, 2006: “Lower tax rates are good for the economy and a growing economy is good for Treasury receipts.”

Just as the budget forecasts were predictably overoptimistic during the first Bush term.

- Unrealistic surplus of \$5 trillion+ was forecasted in Jan. 2001 over 10 years.
- Official forecasts were repeatedly proven wrong.
- Reality has since become a 10-year *deficit* of \$5 trillion+ .

White House Budget Balance forecasts had to be revised down every year



Addendum 2: High commodity prices & the “carry trade” 2002-05

- Agricultural & mineral commodity prices are very high, some at record levels in nominal terms.
- One neglected reason: Low real interest rates
- The theory is the same as Rudiger Dornbusch's famous theory of exchange rate overshooting
 - with price of commodities substituted for price of foreign exchange,
 - and storage costs substituted for foreign interest rate.
 - My "Expectations and Commodity Price Dynamics: The Overshooting Model," *Amer.J.of Agric.Econ.* (86).
Reprinted in Frankel, *Financial Markets and Monetary Policy*, MIT Press, 1995.

The mechanisms:

High interest rates reduce demand for storable commodities, or increase supply, through a variety of channels:

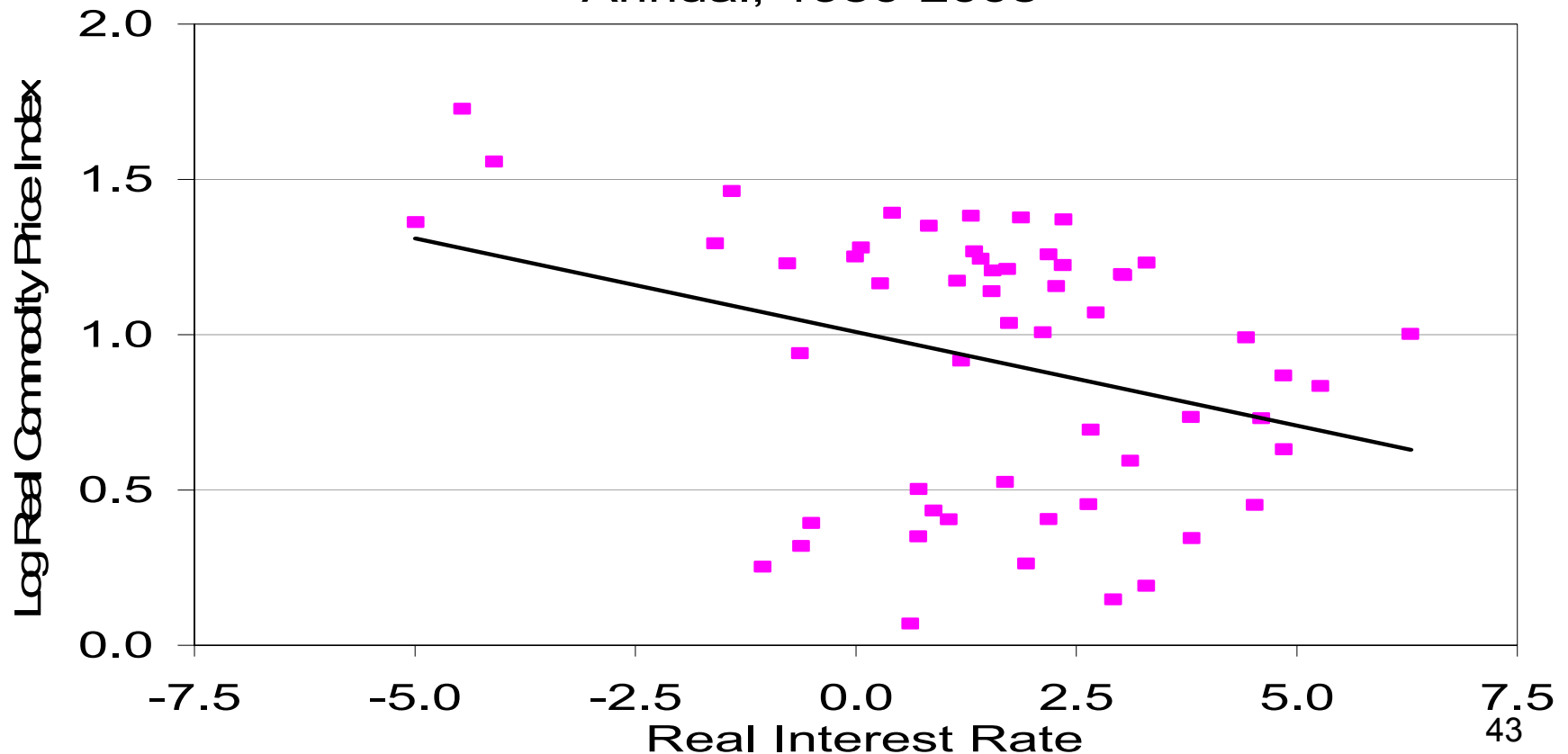
- by increasing the incentive for extraction today rather than tomorrow (think of the rates at which oil is pumped, copper mined, forests logged, or livestock herds culled)
- by decreasing firms' desire to carry inventories (think of oil inventories held in tanks)
- by encouraging speculators to shift out of spot commodity contracts, and into treasury bills.

Testable implication:

the real commodity price [relative to LR] is proportional to r [measured relative to a constant term that depends on convenience yield].

CRB Commodity Price Index vs. Real Interest Rate

Annual, 1950-2005



Source: Global Financial Data Inc.

Of course, a lot of other things beyond real interest rates influence commodity prices.

- There are bound to be fluctuations both in the long-run equilibrium q , & in c , which includes convenience yield, storage costs, & risk premium
- These fluctuations are not readily measurable.
- Such factors as weather, political vicissitudes in producing countries, and so forth, are important when looking at individual commodities.
- Indeed analysts of oil or coffee or copper pay rather little attention to macro influences, and most of their time to micro determinants.

Oil prices have been high in 2004-05 due to

- booming demand from China
- feared supply disruptions in MidEast, Russia, & Venezuela.
- a premium now built in to the convenience yield arising from possibilities of supply disruption related to terrorism, Mideast uncertainty, & related risks.
- the idea that the world oil supply may peak in this decade, as new discoveries lag behind consumption (Hubbert's Peak).
 - => the world long run equilibrium real oil price has shifted upward.

Other factors apply to other commodities.

- The entry of Vietnam into the coffee market has lowered prices in recent years.
- Corn, sugar, & cotton are heavily influenced by protectionist measures & subsidies in many countries. Etc.
- Such effects in individual commodities partially average out when looking at a basket average =
One reason to use aggregate indices in tests.

Summary of regression results

“Commodity Prices, Monetary Policy, and Currency Regimes,” NBER Conference on *Asset Prices and Monetary Policy*, May 5-6, 2006. Forthcoming, U.of Chicago Press, ed., John Campbell.

- Table 1 reports commodity price regressions for 1950-2005.
- Results are statistically significant at 5% level for all 3 major price indices available since 1950 -- from Dow Jones, Commodity Resources Board, & Moody's -- and significant for one of two with a shorter history (Goldman Sachs).
- All are of hypothesized negative sign.
- The estimated coefficient for the CRB index, $-.06$, is typical.
=> when the real interest rate goes up 1 % point (100 basis pts.), real commodity price falls by $.06$, i.e., 6 %.
- => estimate for $1/\theta = 6$, so $\theta \approx .16$.
i.e., the expected speed of adjustment $\approx 16\%/yr$.
=> The expected half-life ≈ 3 years ($\leq .84^3 = .53$).

**Regression of log real commodity prices on real interest rates.
Aggregate Results**

| Log Real Commodity Prices and Interest Rates (in %) | | | |
|--|--------------------|------------------|----------------|
| sample: 1950-2005 (56 annual observations) | | | |
| Index | Coefficient | Std error | sig. 5% |
| Goldman Sachs (1969-) | -0.080 | 0.029 | * |
| Dow Jones | -0.070 | 0.023 | * |
| CRB | -0.060 | 0.024 | * |
| Moody's | -0.058 | 0.014 | * |
| Reuters (1959-) | -0.009 | 0.024 | |
| PANEL (fixed effect) | -0.046 | 0.006 | * |

Addendum 3:

Possible loss of US economic hegemony.

- US \$ can no longer necessarily rely on the support of foreign authorities.
- China may allow appreciation of RMB, as US politicians demand.
- Even if China keeps RMB undervalued, it can diversify its currency basket out of \$
 - There now exists a credible rival for international reserve currency, the € .
 - Chinn & Frankel (2005): under certain scenarios, the € could pass the \$ as leading international currency.
 - US would lose, not just seignorage, but the exorbitant privilege of playing “banker to the world “

Possible loss of US political hegemony.

- In the 1960s, foreign authorities supported \$ in part on geopolitical grounds.
- Germany & Japan offset expenses of stationing U.S. troops on bases there, so as to save the US from balance of payments deficit.
- In 1991, Saudi Arabia, Kuwait, & others paid for the financial cost of the war against Iraq.
- Repeatedly the Bank of Japan bought \$ to prevent it from depreciating (e.g., late 80s)
- Next time will foreign governments be so willing to bail out the U.S.?

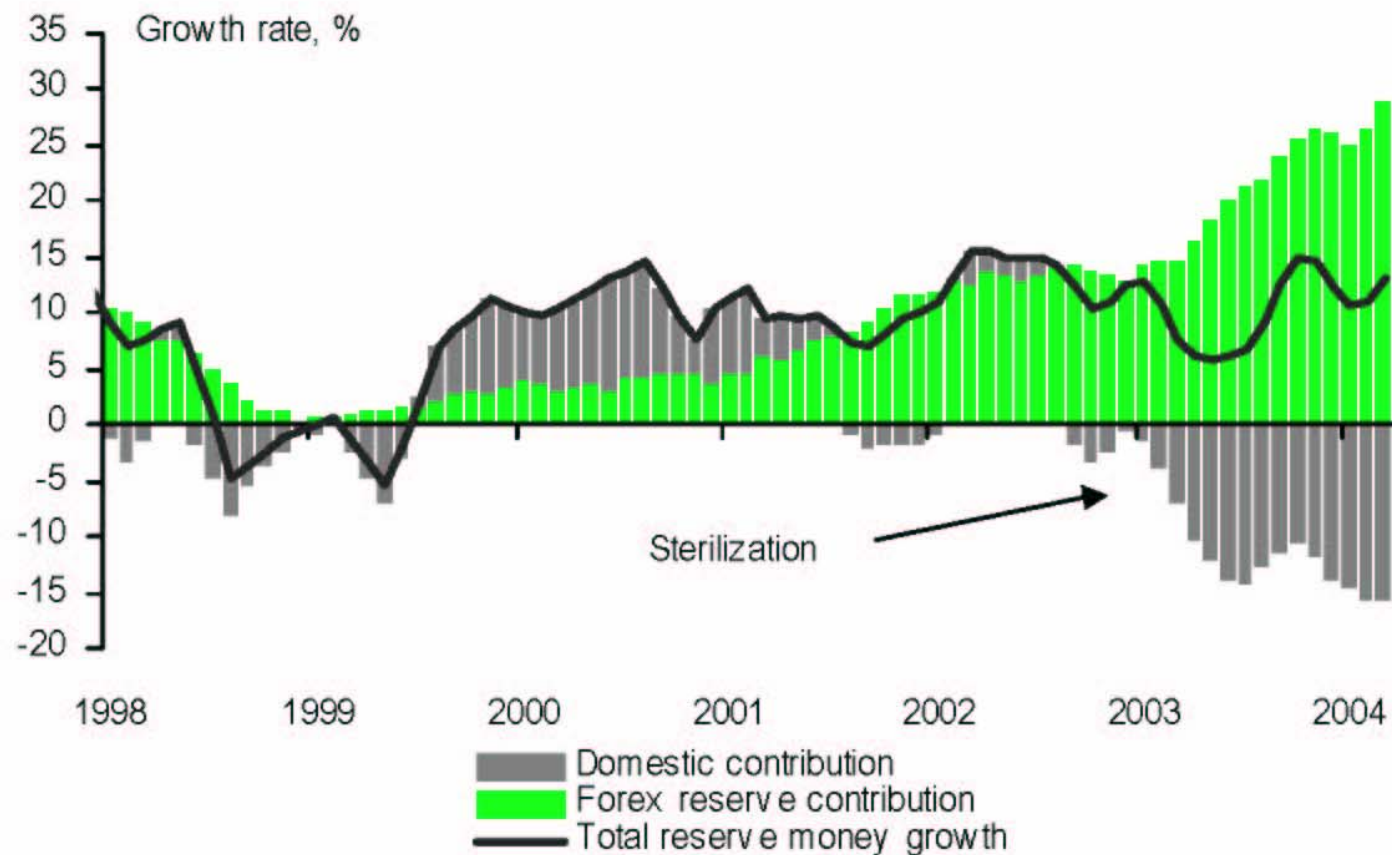
Historical precedent: £ (1914-1956)

- With a lag after US-UK reversal of ec. size & net debt, \$ passed £ as #1 international currency.
- “Imperial over-reach:” the British Empire’s widening budget deficits and overly ambitious military adventures in the Muslim world.
- Suez crisis of 1956 is often recalled as occasion when US forced UK to abandon its remaining pretensions to an independent foreign policy;
- Important role played by simultaneous run on £.

Addendum 4: Five reasons China should let RMB appreciate, in its own interest

- Excessive reserves (> Japan's)
 - Although a useful shield against currency crises, by now China has enough, and US treasury securities do not pay a high return.
 - It becomes harder to sterilize the inflow over time.
- True, can attain external balance with just spending policy, but 2nd goal is internal balance; to attain both, need 2 policy instruments.
- Avoiding crisis:
 - Experience suggests it is better to exit from a peg when times are good and the currency is strong, than to wait until the currency is under attack.
- RMB undervalued by Balassa-Samuelson.

DOMESTIC STERILIZATION POLICY -- China 1998-2004



Source: UBS estimates

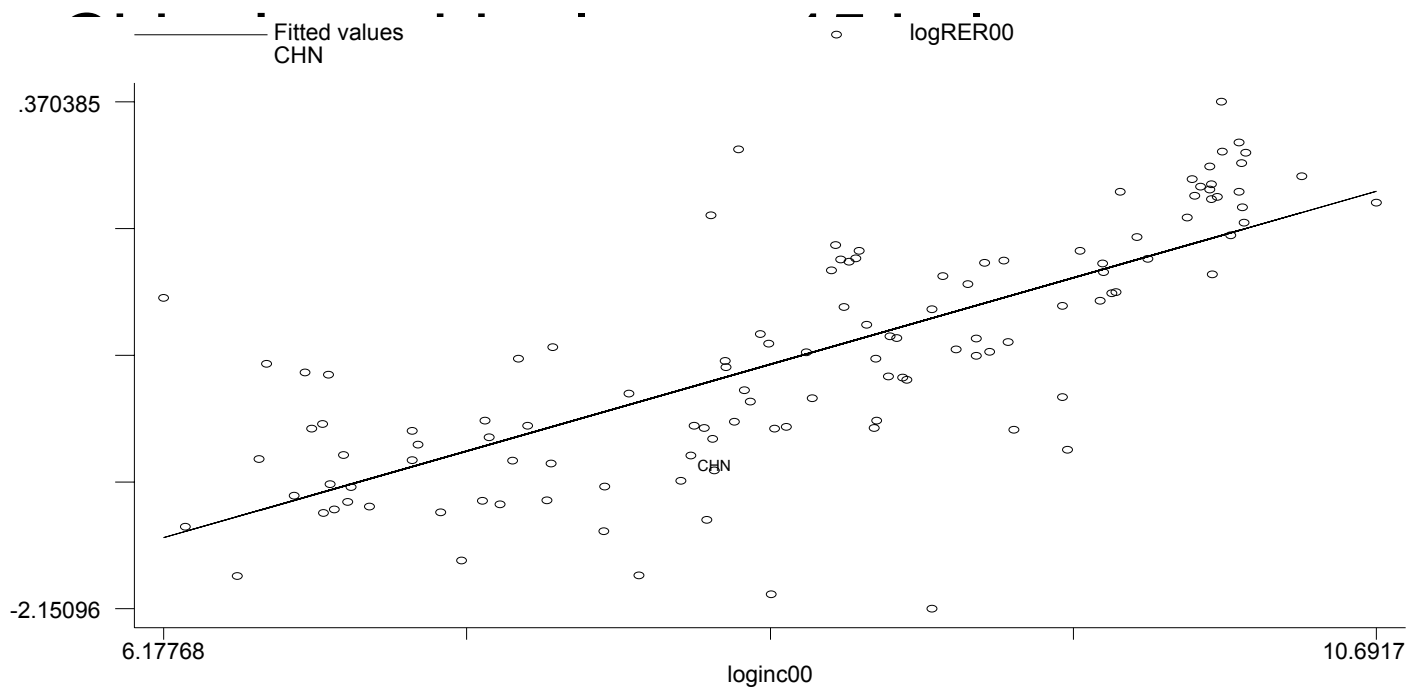


Longer-run perspective: Balassa-Samuelson relationship

- Prices of goods & services in China are low
 - not just low relative to the United States (.23)
 - but also low by standards of Balassa-Samuelson relationship estimated across countries (which predicts .36).
- In this specific sense, the yuan was undervalued by approx. 35% in 2000
 - and is by at least as much today.
 - But doesn't imply need for sudden change of this size

Estimation of B-S relationship for 2000 (118 countries, PWT)

- For every 1% increase in real income/capita (relative to US), prices increase .38% (relative)



Does B-S relationship have predictive power?

- Typically across countries, gaps are corrected halfway, on average, over subsequent decade. => 2.2% /yr. for China
- => 4 % real appreciation per year, including effect of further growth differential of 6%
- Correction could take the form of either inflation or nominal appreciation, but the latter is preferable.

How should changes in real exchange rate, when necessary, be achieved?

- For a very small, open economy
 - advantages of keeping E fixed are large.
 - Adjustment may take place via prices instead
 - Example: Hong Kong
- For a large economy like China, it makes more sense to adjust E than to adjust prices

What should new regime be?

- No need for pure float.
- China is an example of why the Corners Hypothesis is wrong
- Band or target zone may be best
- With what as anchor?
 - Advantage of dollar: simple and transparent
 - Advantage of basket: better diversification
 - Asia currently lacks a good anchor currency.

What about the currency reform announced in July 2005?

- Tactically well-timed to head off Schumer
- The 2 ½% appreciation against \$ is trivial, vs. 2005 appreciation of \$ against € & ¥.
- China did not in 2005 do what it said:
 - basket peg (with cumulatable +/- .3% band)
 - De facto weight on \$ still 100% (estimates by Wei & others)
 - It's a good time to switch to true basket peg, before \$ resumes its depreciation against € & ¥.
- China will take further gradual steps, before long
 - It's just a matter of Hu and Wen.
 - If China ever gave us what we say we want we'd regret it.
 - esp. if it included reserve shift to match switch in basket wts.
 - US TB & employment wouldn't rise, but US interest rates would.

The post-July-2005 de facto regime for the RMB

(1) What is estimated weight on \$, vs. other 11 currencies?

| 7/22-10/31/05 | 11/1/05-1/31/06 | 2/1-4/26/06. |
|---------------|-----------------|--------------|
| 0.99 | 0.97 | 0.67 |

(2) How much variability is allowed around the central peg?

| | 7/22-10/31/05 | 11/1/05-1/31/06 | 2/1-4/26/06 |
|---------|---------------|-----------------|-------------|
| SER RMB | 0.0003 | 0.0002 | 0.0004 |

For comparison, over the whole sample,

SER yen (a known floater) 0.0036

SER HK \$(a known pegger) 0.0002 .

I.e., the RMB is still as tightly pegged as the HK \$, even if it has started to give less weight to the \$ since January.