Rebalancing the U.S. Economy in a Post-Crisis World

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The Problem: Major Global Imbalances

- Large, persistent US external deficits
- Matched by surpluses in Asia and OPEC
- Gradual adjustment underway in 2007-08
- Financial Crisis erupted in late 2008
  - Severe global recession
  - Trade collapse temporarily reduced US external deficit
- Prognosis for rebalancing in recovery?

Current Account Balances as Share of World GDP

Region	1980-89	1990-99	2000-05	2006-08	2009
United States	-0.50	**-0.43**	**-1.41**	**-1.37**	-0.65
Japan	0.26	0.36	0.35	0.33	0.17
Europe	-0.01	0.09	0.23	0.15	-0.02
Emerging Asia	-0.01	**0.06**	**0.38**	**0.86**	0.86
Emerging Latin America	-0.11	-0.14	-0.02	0.04	-0.03
Middle East	0.12	**-0.04**	**0.21**	**0.51**	0.11
Other countries	-0.31	-0.21	0.00	-0.11	-0.24
Discrepancy	0.54	**0.30**	**0.27**	**-0.41**	-0.20

Outline

- Basic Identity
  - $S - I = CA \approx X - M$
  - Domestic Balance = External Balance

Rebalancing will require:

  - **Expenditure Switching (External balance)**
  - **Expenditure Reduction (Internal balance)**

- Progress to-date
- Post-crisis Outlook

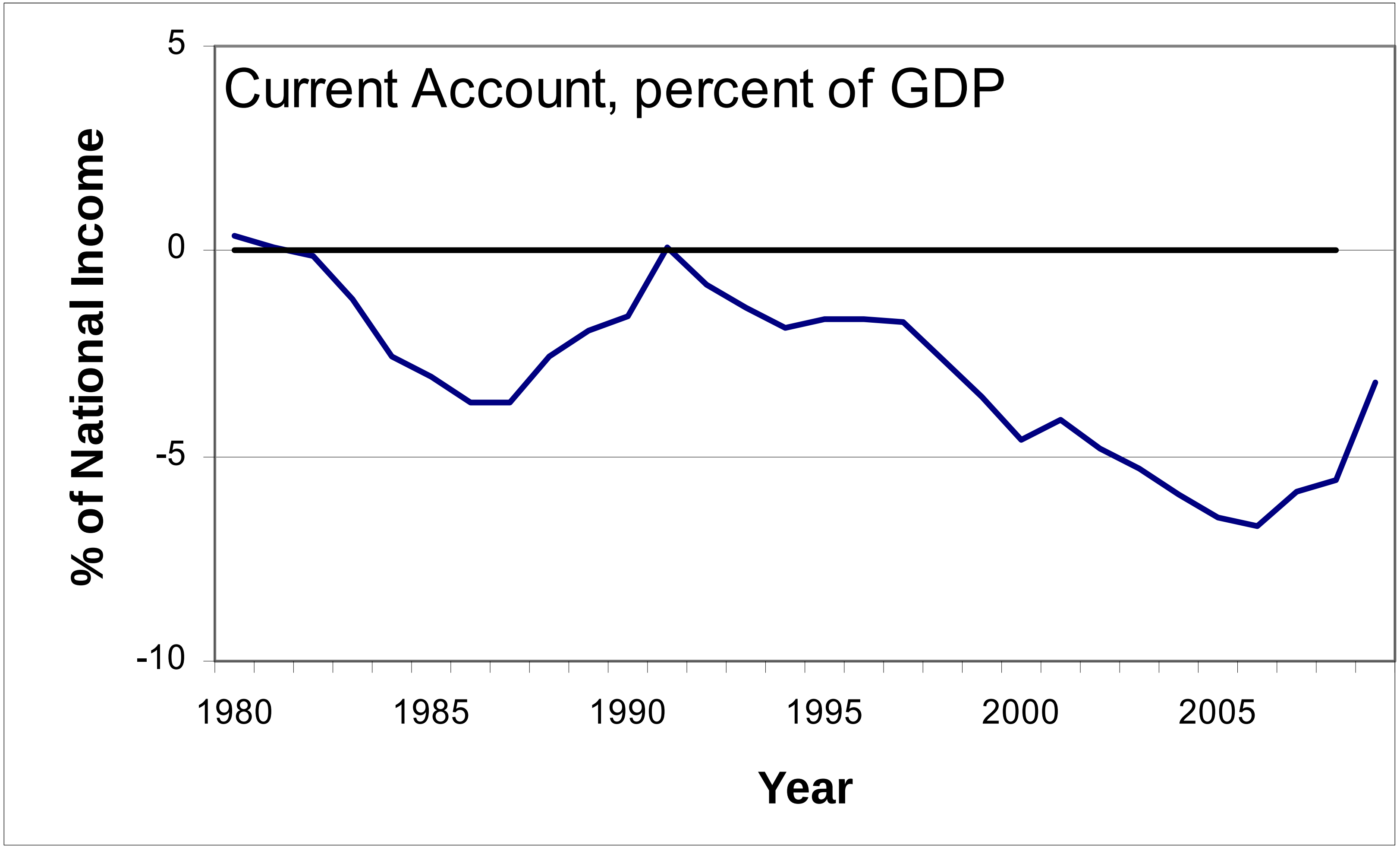
Two Perspectives

- **Expenditure Switching -**RER Depreciation
  - $CA \approx X\text{-}M = f(Y_f\ ,\ Y_d\ ,\ RER)$
  - **External Balance -** Focus on trade, exchange rates, openness
- **Expenditure Reduction -**Raise Nat'l Saving
  - $X\text{-}M = (S_{private} + S_{gov}) - I$
  - **Internal Balance -** Focus on national income vs. spending, saving vs investment

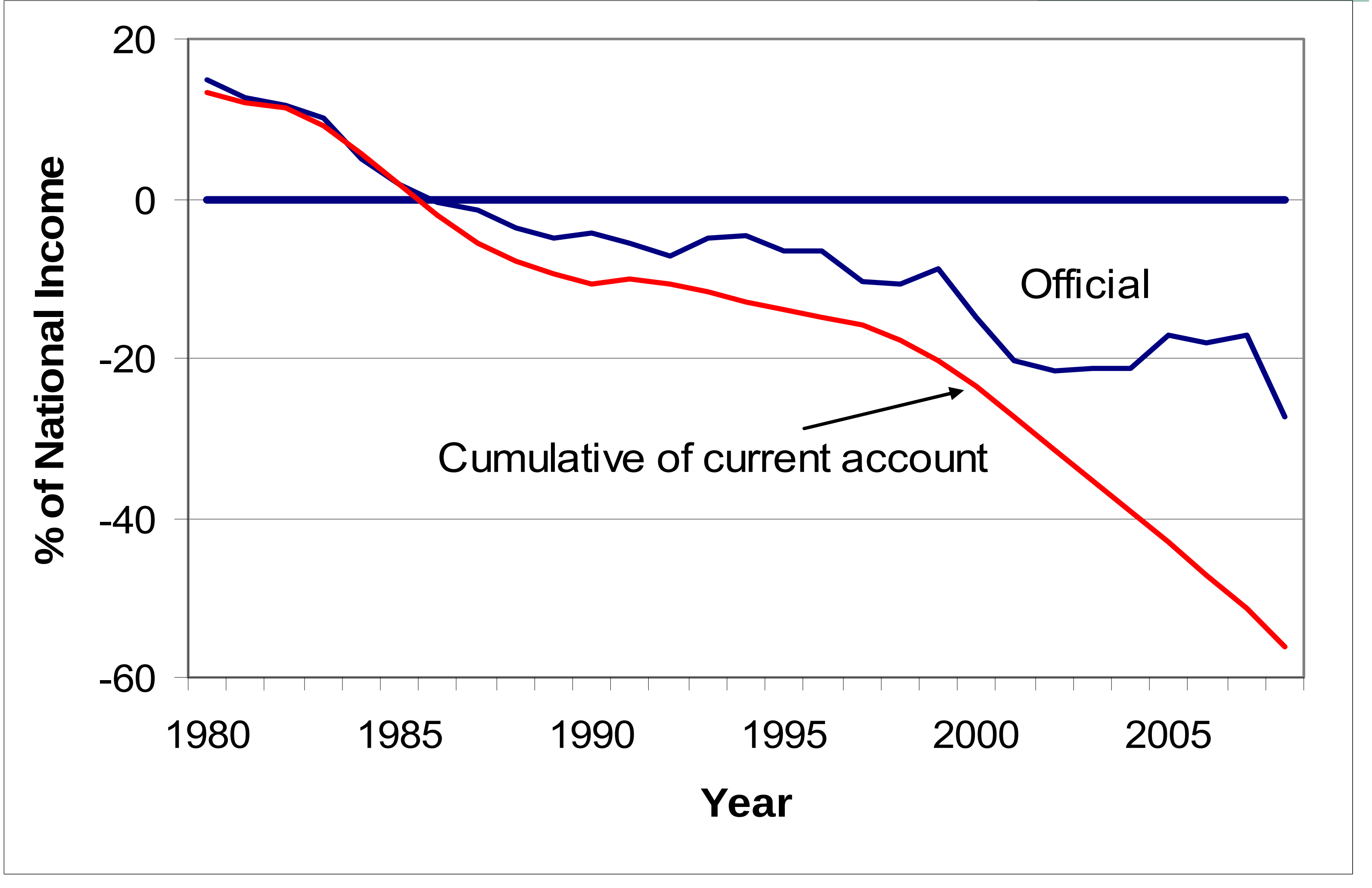
External Balance Perspective

- Large, persistent U.S. external deficits
  - Rapid increase after Asian financial crisis.
  - Current account deficit averaged 5% of national Income after 2000.
- Net international investment position
  - Shifted from large surplus in 1980 to large deficit in 2008
  - +15% of national income in 1980
  - -27% of national income in 2008

The U.S. External Balance,1980-2009



Net International Investment Position



Expenditure Switching

- RER and trade balance inversely correlated
  - Long lags in response
- Large swings in real exchange rate (RER)
  - Appreciation in periods of growing trade deficits
  - Depreciation recently – exports rising
- Traditional ‘elasticity pessimism’:
  - low price elasticity: 10-20% real depreciation for 1pp of GDP deficit decline
  - Houthakker-Magee: imports more sensitive to US income growth than exports to ROW
- GOOD NEWS more recently:
  - Price Elasticities of trade increased (need 8-15%)
  - Income Asymmetry disappeared

Alternative Measures of the Real Exchange Rate 1975-2009

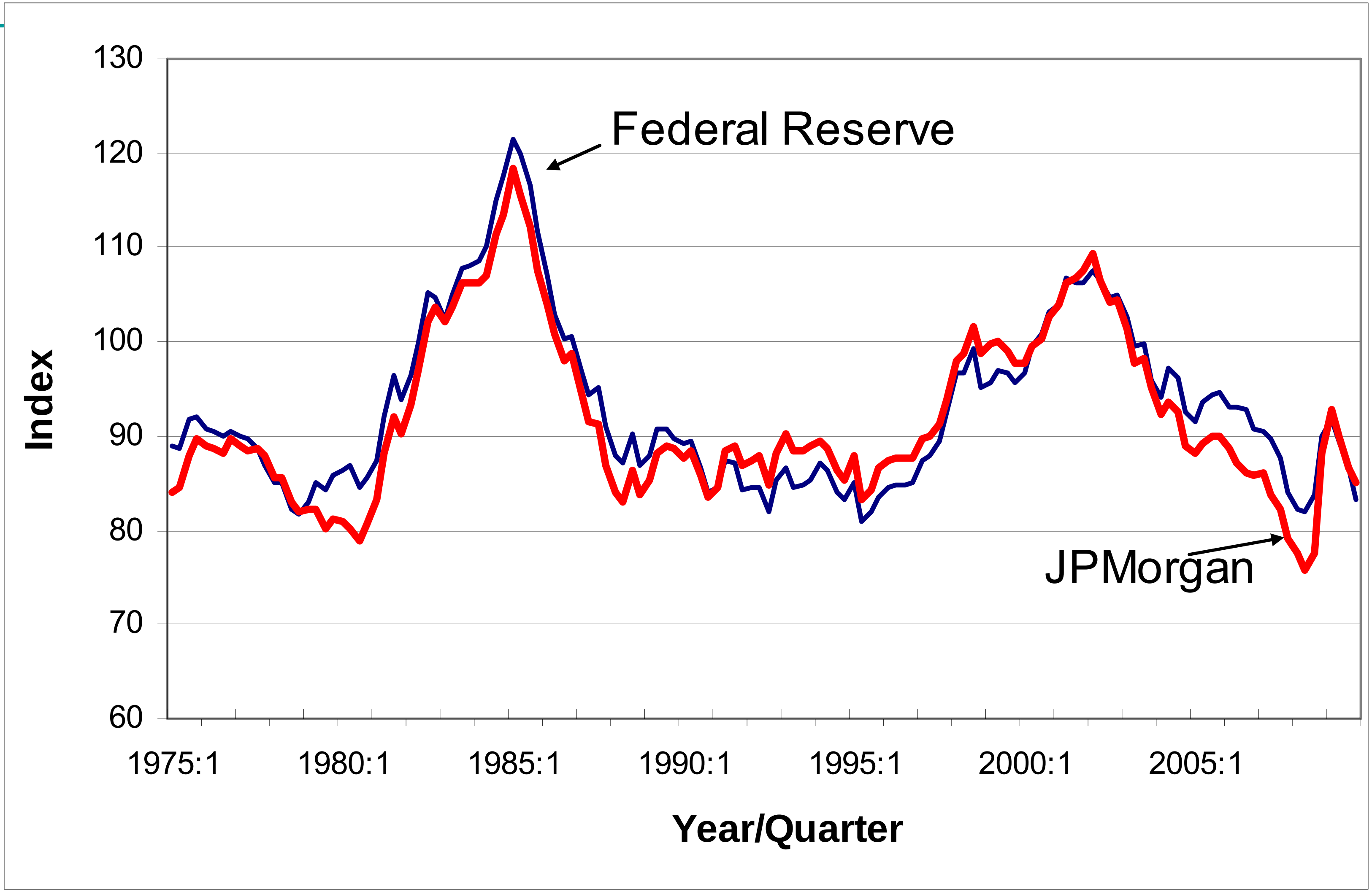
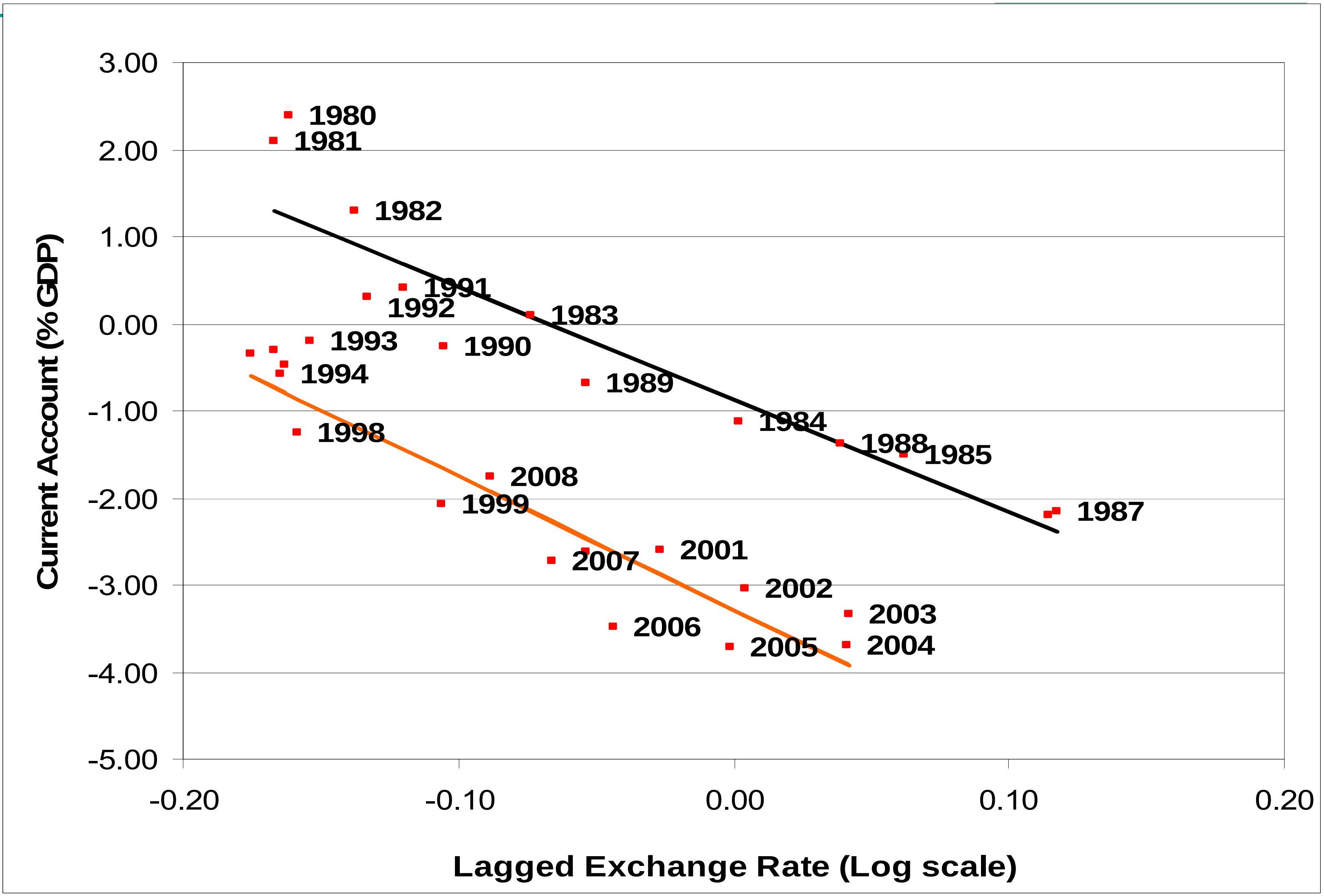


Figure 3. Correlation of the Non-oil Trade Balance and Real Exchange Rate, 1980-2008

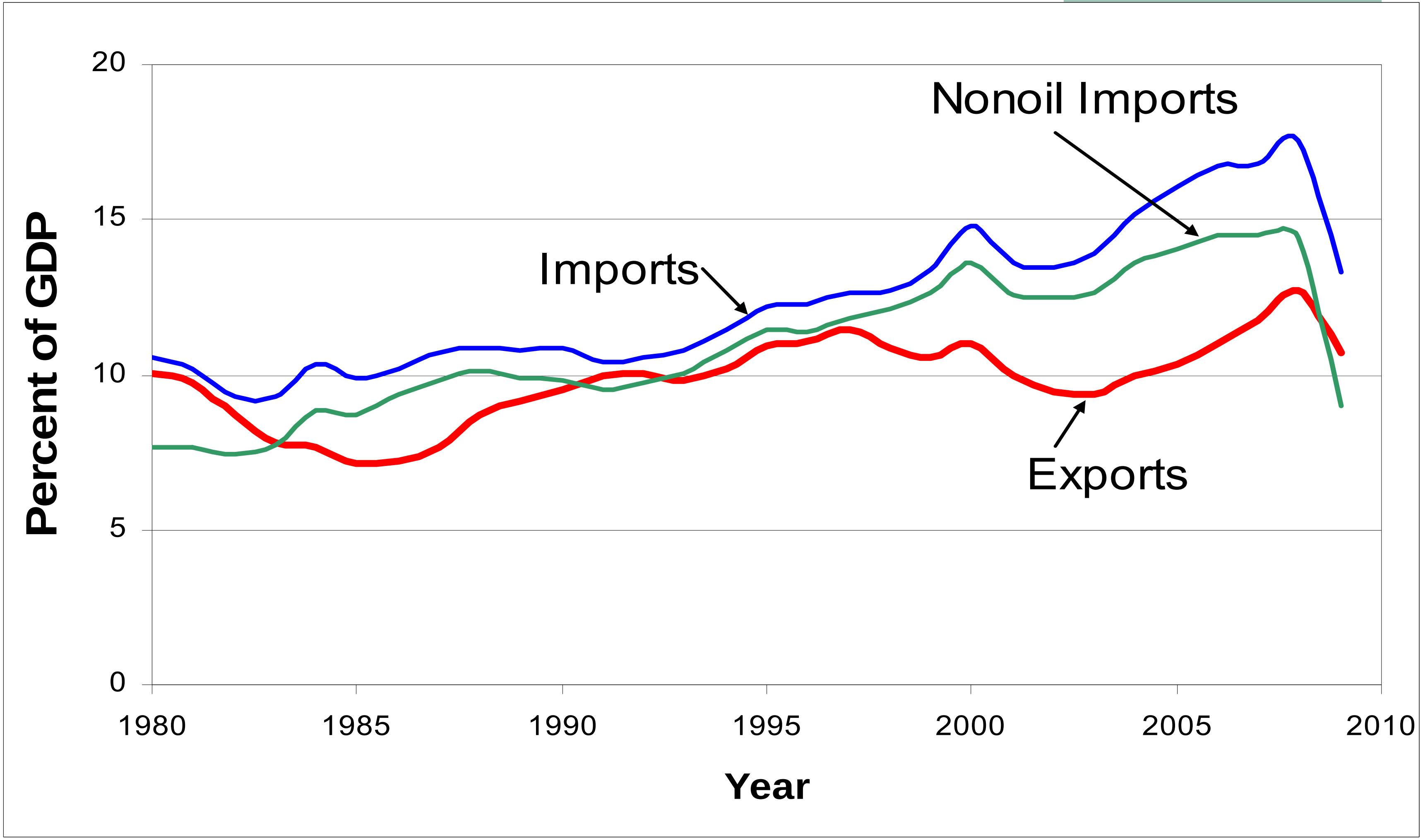


US Trade Deficit- Why So Persistent?

(External Balance Perspective)

- ⇧ US Openness – Mainly ⇧ Imports
- While Trade Does Respond to Δ RER, the relationship seems to have shifted in early 90s
  - Primarily related to exports
  - Emerging Market growth and increased international competitiveness?
- ‘Export Pessimism’?
  - Given trade balance now requires a weaker $
  - US ‘under-performs’ as an exporter
- Main reason for TB deterioration was strong $
- Exports began to rise (05-08) pre-crisis

Exports and Imports, 1980-2009



US an Export Under-Performer?
Gravity Trade Models for US Japan & EU

	Exports/GDP	Imports /GDP
Weighted Distance	-1.123	-1.007
	(-63.4)	(-38.6)
United States	-0.609	0.012
	(-25.1)	(0.3)
Log Avg. RER	-1.119	0.586
	(-8.7)	(3.1)
adj_R2	0.849	0.762
# Observations	10570	10433

regressions also control for population, GDP per Capita, etc)

Internal Balance Perspective

- Strong US performance pre-crisis
  - Job growth, productivity, low inflation
- CA deficits reflect: AD > Y ; S < I
  - Driven by large increase in private consumption (%GDP)
  - Recent decline in CA deficit is the result of collapse of investment

Composition of U.S. Aggregate Demand, 1980-2009

Percent of GDP

	1980-1984	1985-1989	1990-1994	1995-1999	2000-2004	2005-2007	2008	2009
Consumption	80.4	82.2	83.1	82.0	84.8	85.4	86.7	87.6
Private	**63.4**	**65.2**	**66.7**	**67.3**	**69.6**	**69.7**	**70.1**	**70.7**
Government	17.0	16.9	16.4	14.7	15.2	15.7	16.5	16.9
Investment	20.7	**20.3**	**17.8**	19.6	19.5	**20.1**	**18.2**	**14.9**
Private	17.2	16.6	14.3	16.5	16.3	16.9	14.8	11.3
Government	3.5	3.8	3.4	3.1	3.2	3.2	3.4	3.6
Net Exports	-1.1	-2.5	-0.9	-1.7	-4.2	-5.5	-4.9	-2.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Saving – Investment Balance

- Consumption boom is reflected in large decline in household saving
- Very little evidence of “twin deficits” linkage of government and external deficits
- Investment was stable, but collapsed during financial crisis
- Government deficit has increased recently as offset to investment decline
- Note significant variation in statistical discrepancy

U.S. Net Saving and Investment by Sector

Percent of National Income

	1960-1979	1980-1989	1990-1999	2000-2007	2008	2009
Saving	10.9	6.5	5.4	3.6	-0.2	-3.4
Private	10.9	10.0	6.9	5.3	5.3	7.4
Government	0.0	-3.6	-2.4	-1.7	-5.4	-10.8
Investment	11.1	9.4	7.9	8.4	6.2	2.0
S-I	-0.2	-2.9	-2.5	-4.8	-6.4	-5.4
Current Account	0.4	-1.8	-1.7	-5.5	-5.6	-3.2
Statistical Discrepancy	0.7	1.1	0.8	-0.7	0.8	1.8

From Soft Landing To CRISIS

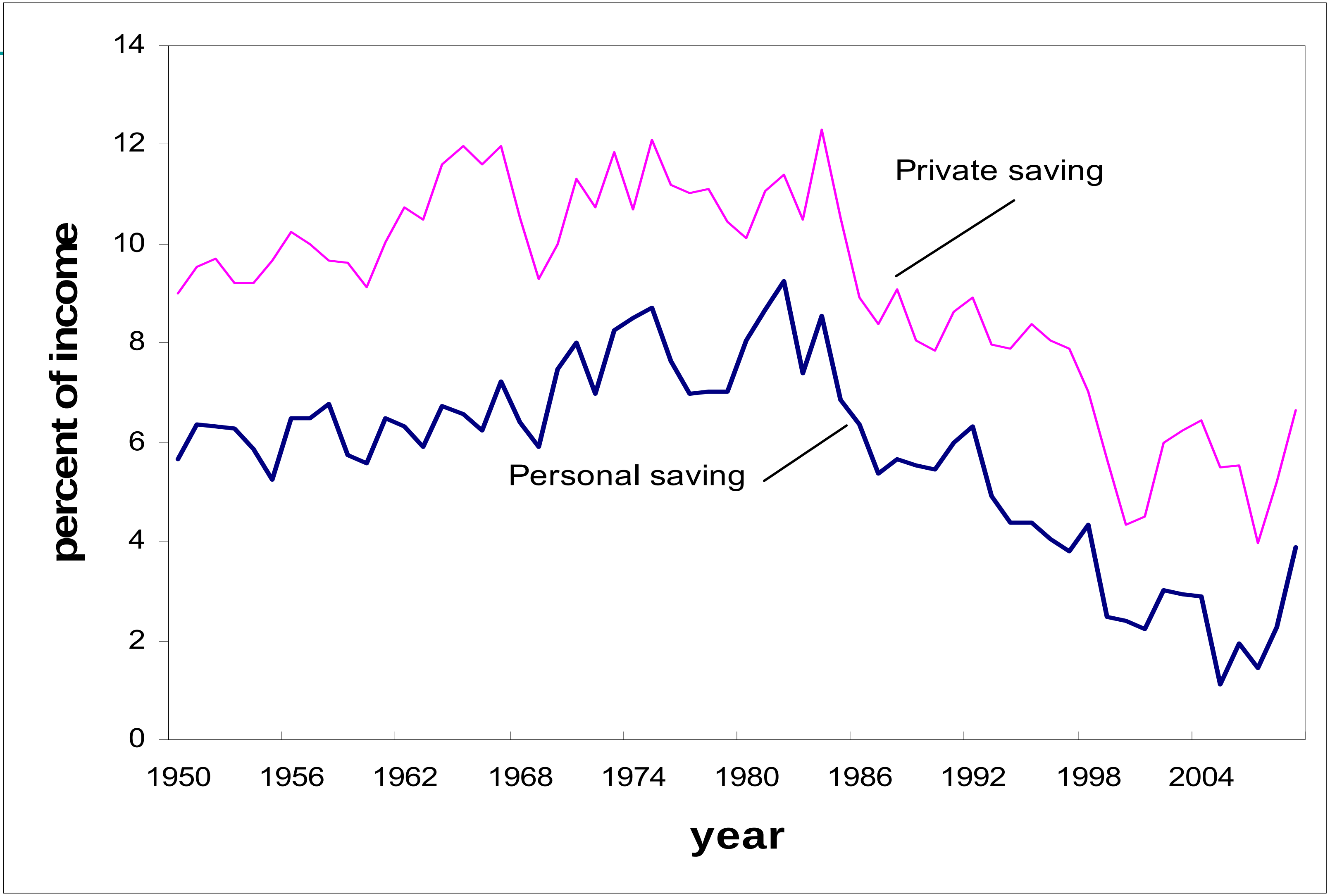
- A gradual CA decline underway 2006-07
  - Lagged response to RER depreciation
  - Some US export growth
  - But little or no Internal rebalancing
- Crisis Hit in 2008:
  - Financial crisis centered in the United States
  - NOT capital inflow reversal (as feared)
  - Global trade collapse – US deficit cut in half
  - Focus on reviving growth & employment
  - Surge in fiscal deficits; monetary expansion

Why Did Private Saving Fall?

- Secular decline in saving is primary factor behind external imbalance
  - Extends over quarter century from mid-1980s
  - Concentrated in household sector
- Wealth-income ratio rose despite fall in saving.
  - Major surge in capital gains
  - Corporate equities and residential real estate

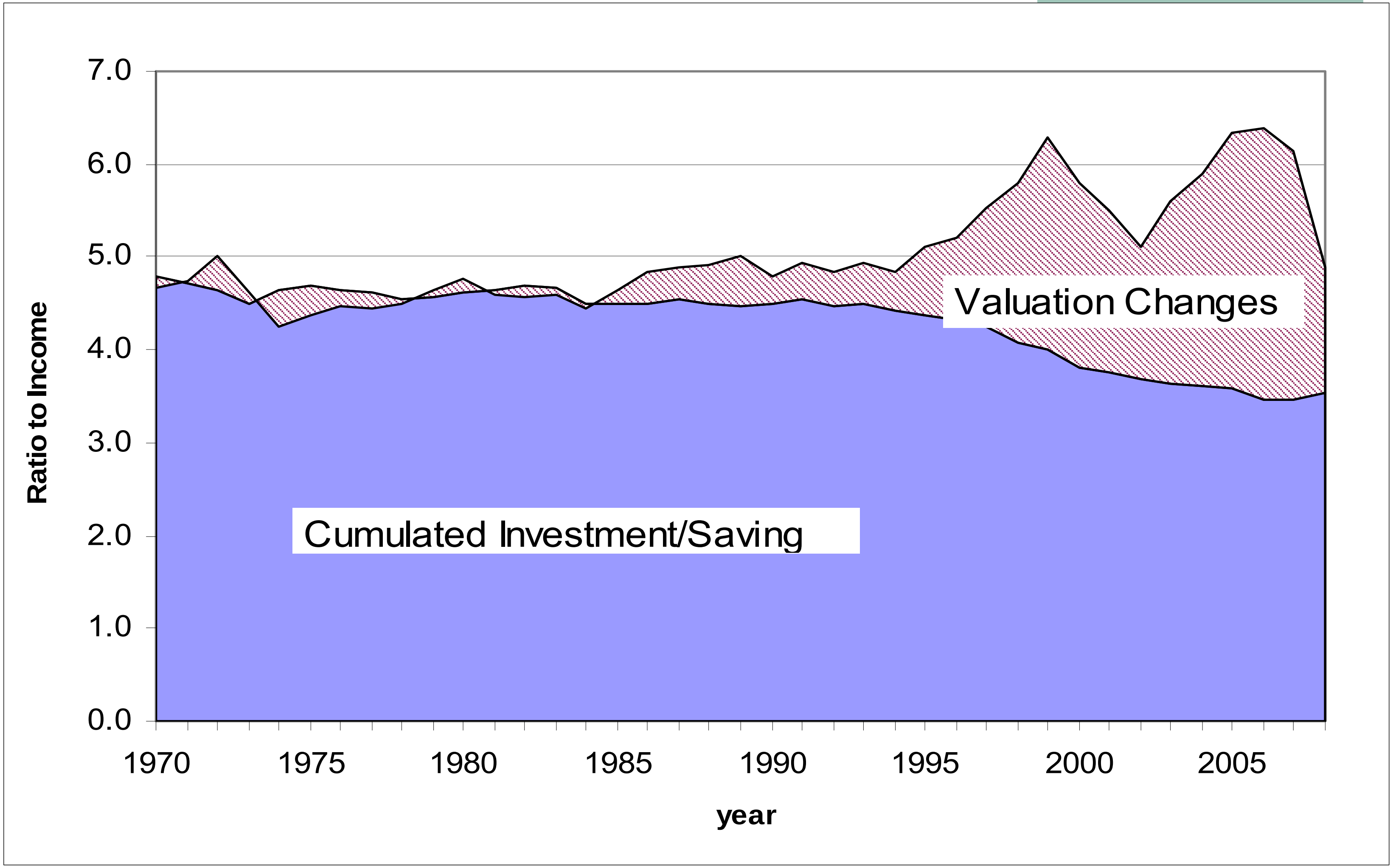
Private and Personal Saving, 1950-2009

Percent of National Income



Household Wealth as a Ratio to Income, 1970-2008

Ratio to Disposable Income



Private Saving Decline (2)

- Rise in wealth may have contributed to consumption boom
  - Wealth-income ratio rose from 4.5 in 1980s to 6 by 2000s.
  - Wealth effect ≈ 0.05
  - Saving rate would have declined by 5-7 percentage points
- Innovations in housing market made it easier to refinance and withdraw home equity

Private Saving Decline (3)

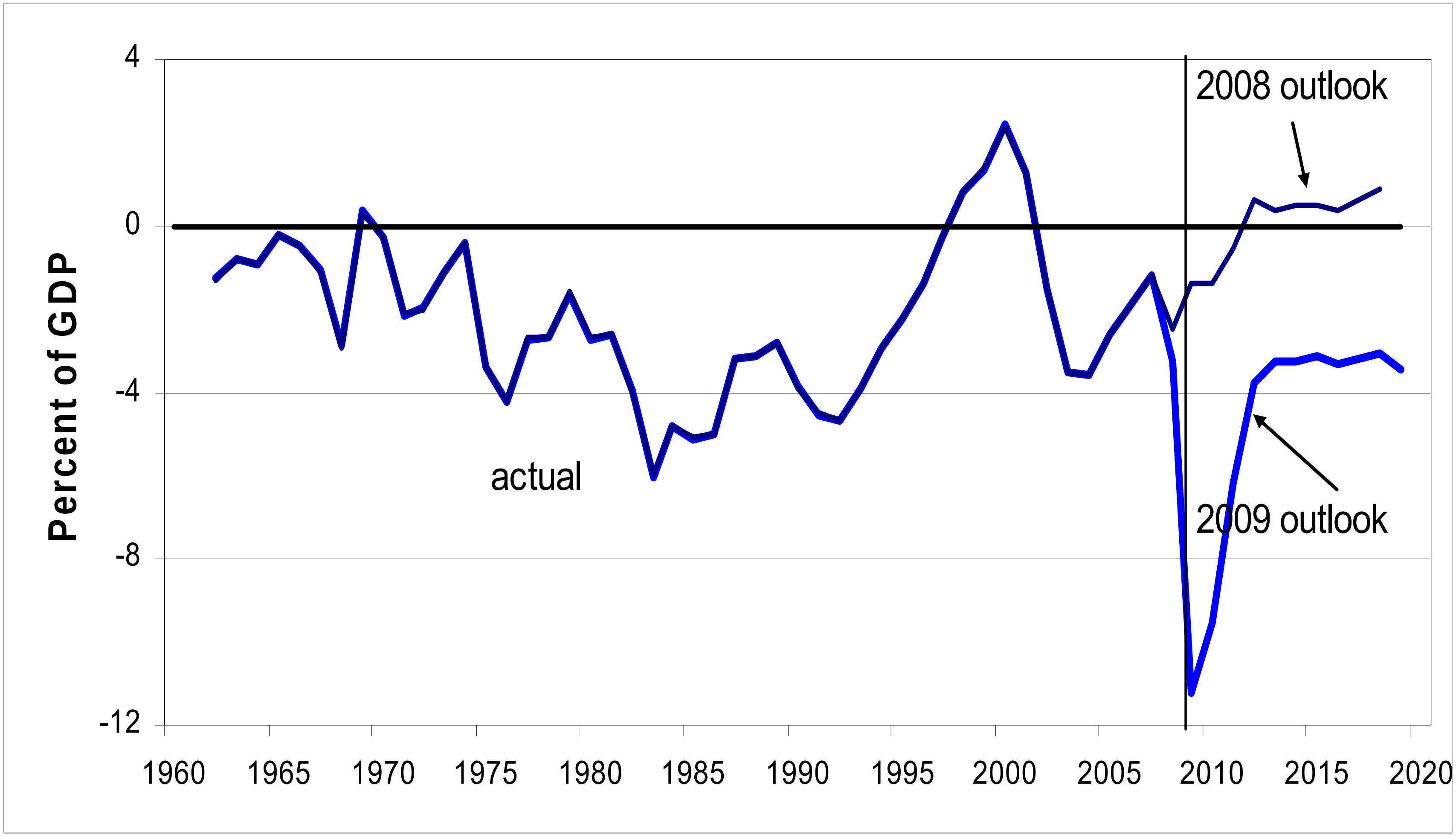
- Demographic factors
  - Large baby-boom generation should have raised saving in prior decades
  - Will be a depressing factor in future years as baby boomers begin to retire
- 2 Earner families + ability to borrow may have reduced perceived need to save (precautionary)
- Retirement accounts
- *Prognosis Uncertain*: Significant reversal in private saving decline appears unlikely

US Fiscal Balance

- Financial crisis has had a dramatic effect on fiscal outlook
  - Prior deficits were small, but
  - Baseline budget assumes repeal of Bush tax cuts (politically unlikely)
  - Growing future costs of health care for elderly
- Huge fiscal stimulus assumed to be temporary
  - Obama initiatives are comparable to second stimulus

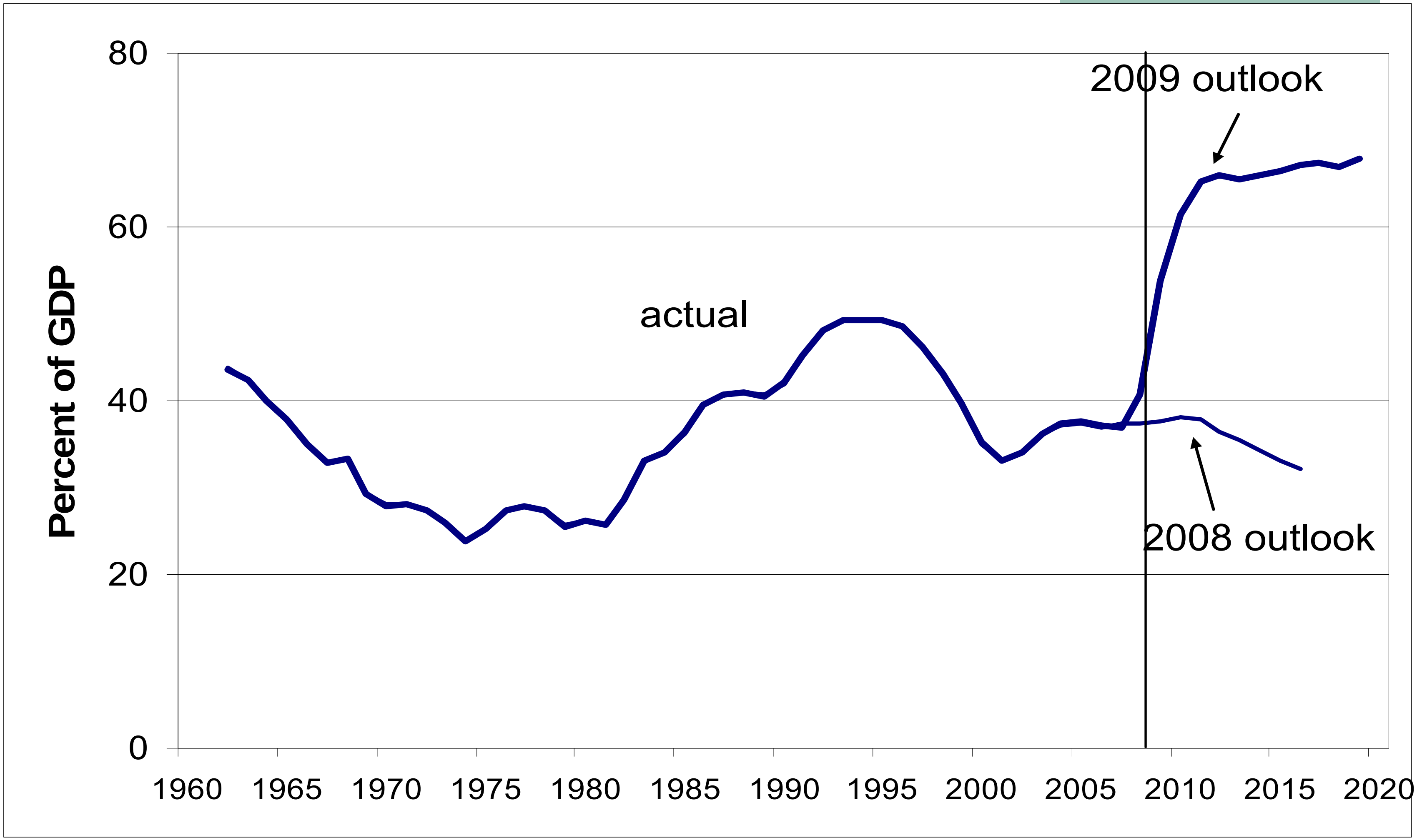
Federal Budget Balance

Percent of GDP



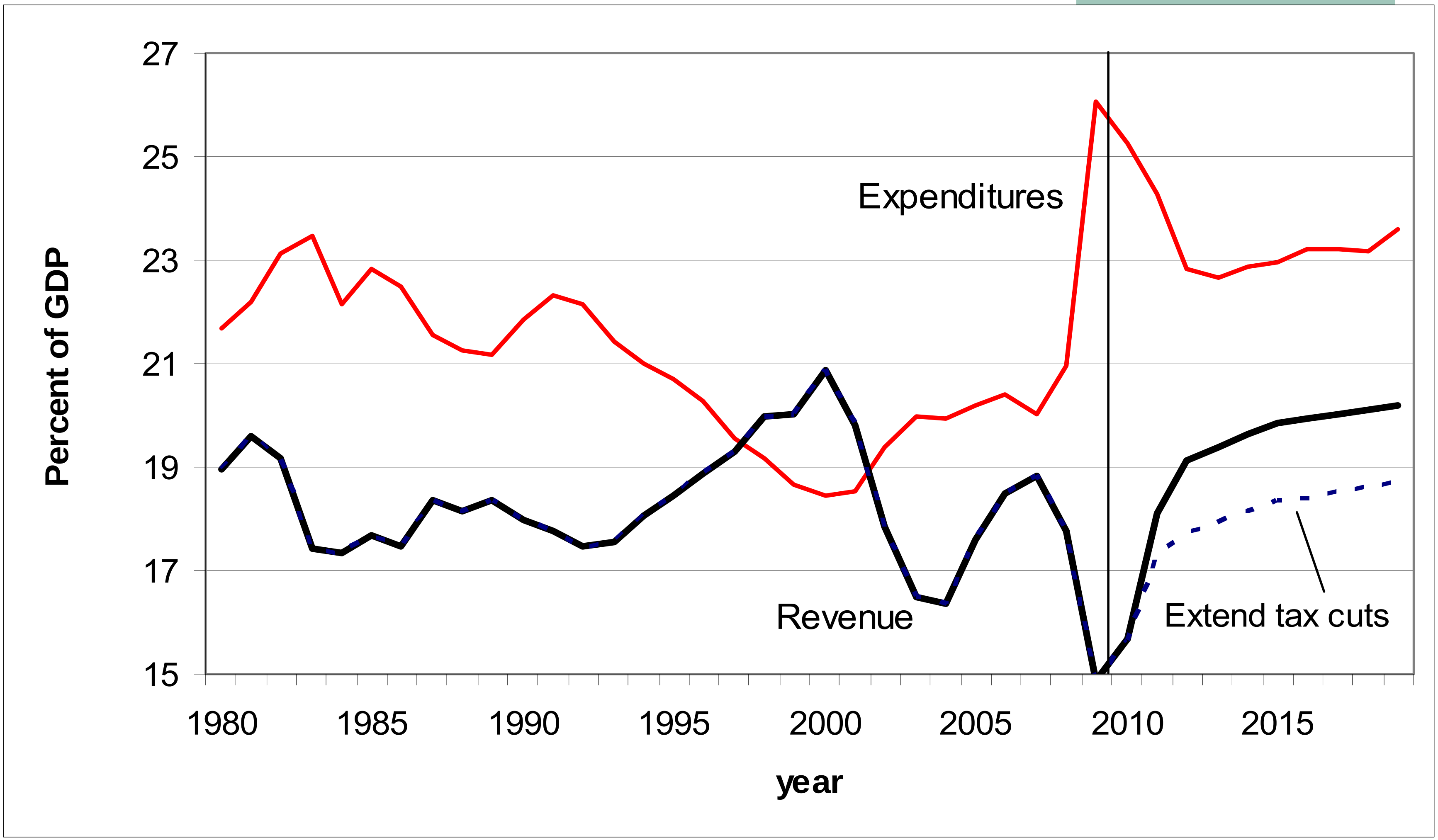
Federal Debt, Held by Public

Percent of GDP



Federal Revenues and Expenditures, 1980-2019

Percent of GDP

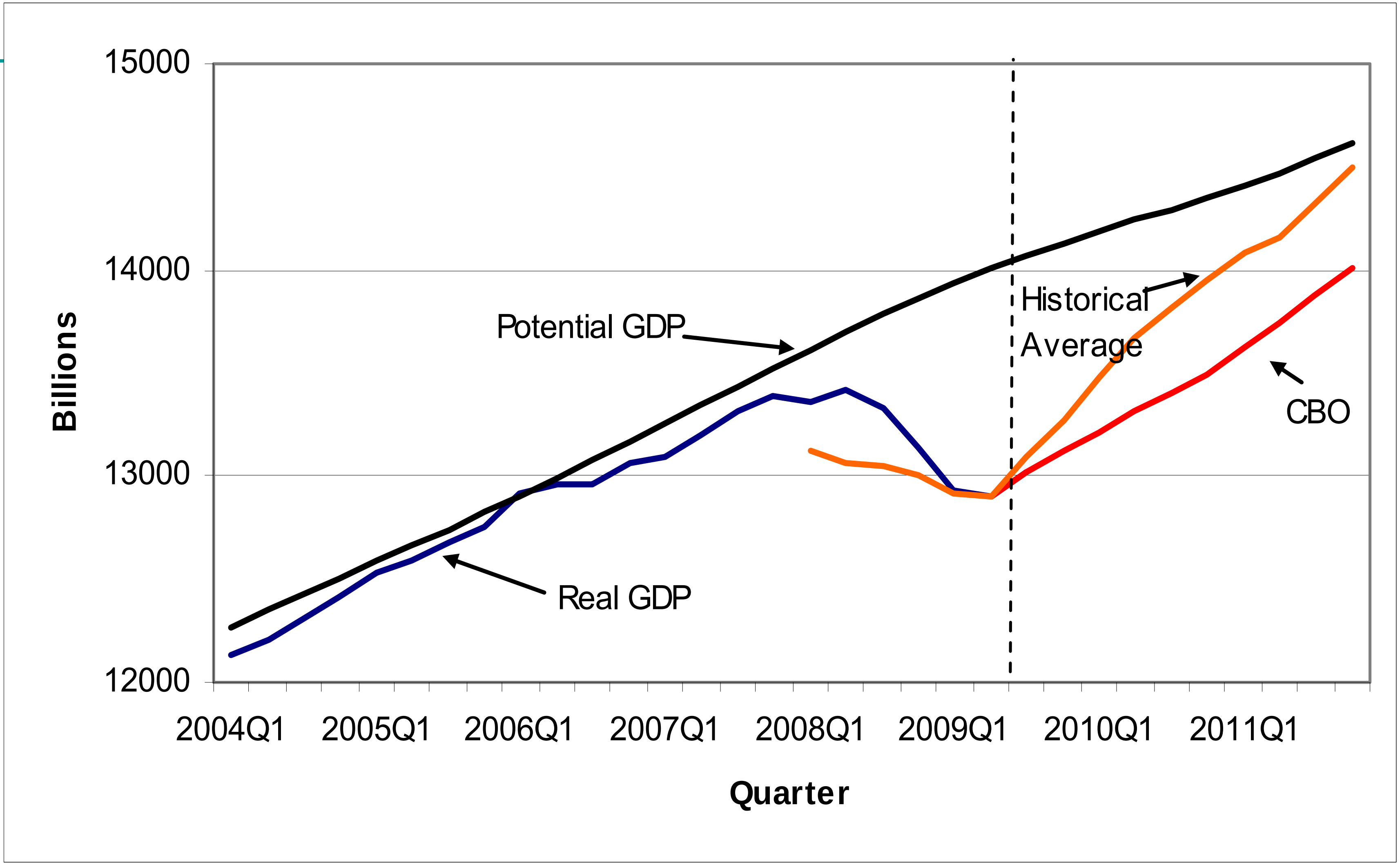


Post Crisis Outlook

- Expectations of a slow recovery
  - Financial crises tend to last longer than normal recessions
    - Damage to financial system
    - Limited lending capacity
  - Weak investment outlook
  - Employment expected to lag recovery

Figure 9. Projected Levels of U.S. GDP, 2004-2011

Billions of Dollars



Post-Crisis Outlook

- Crisis Distorted Internal & External Balance
  - Little S & I rebalance: Fiscal Deficits Exploded; HH Saving revival unclear; Weak Investment
- Trade Likely to rebound quickly with recovery
- Prospect for CA Deficits of 3-4% BUT
  - Inconsistent with domestic S-I balance
  - Weak US growth containing imports
  - Need $ Depreciation for Export Growth
- Risks:
  - Global competition for markets – trade frictions
  - Challenging US fiscal transition
- End of Era: Strong US Markets, Strong $??