Inforum's U.S. Economic Outlook

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The Short Run Overview

- Credit Crisis, now a classic liquidity trap, remains the biggest problem. How did we get here?
- Lack of credit have crippled the real economy, demand contraction is now widespread.
- So far monetary and quantitative easing are ineffective. More planned.
- Massive fiscal stimulus will be counted on to jump start demand.
- Recession: How Deep? How Long?
- Because of slow consumption growth, recovery will be very slow.
- Recession is global, solution may have to be global.

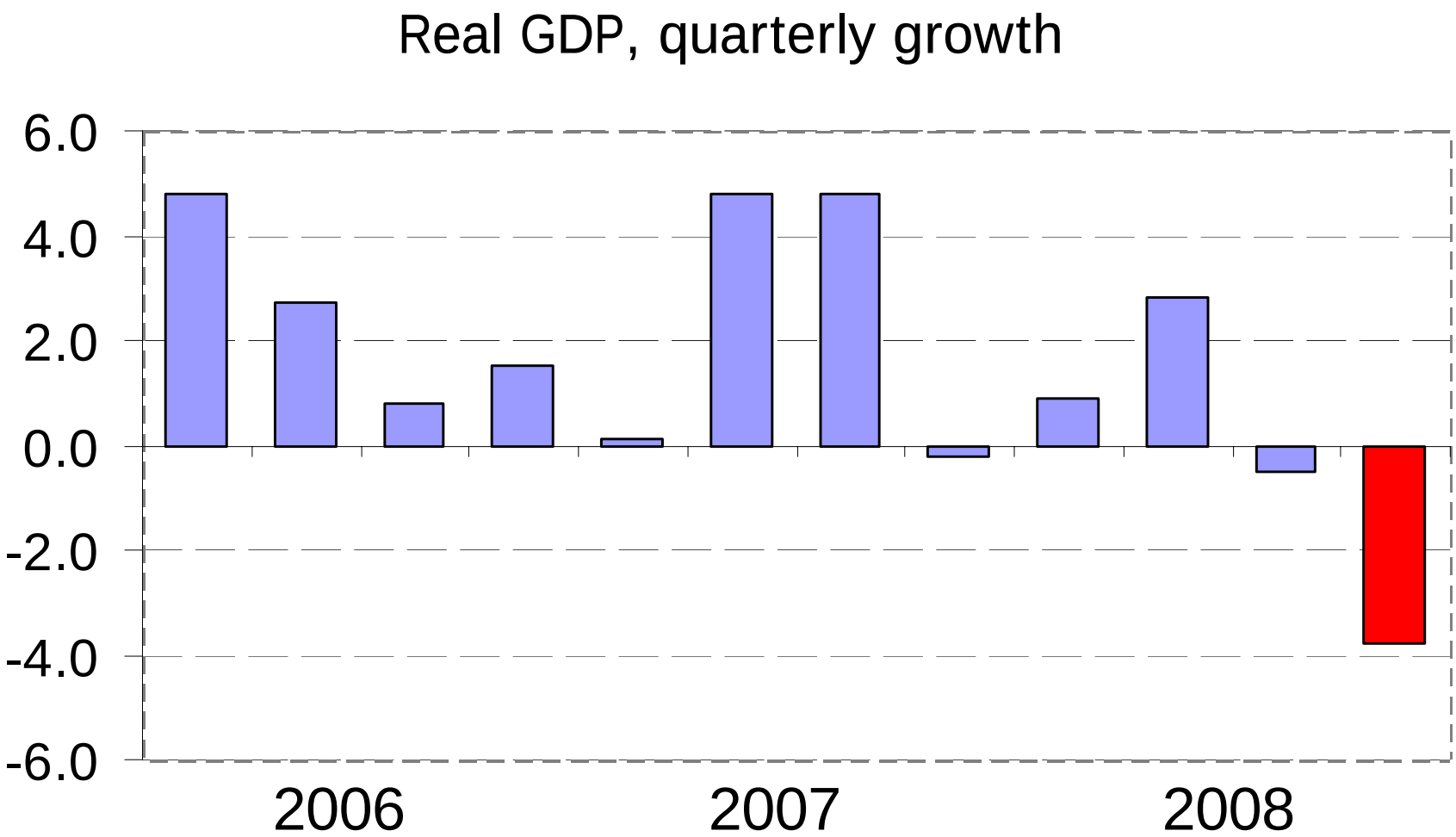
Longer term (to 2030):

We think the current crisis will greatly accelerate a transformation of growth in the economy.

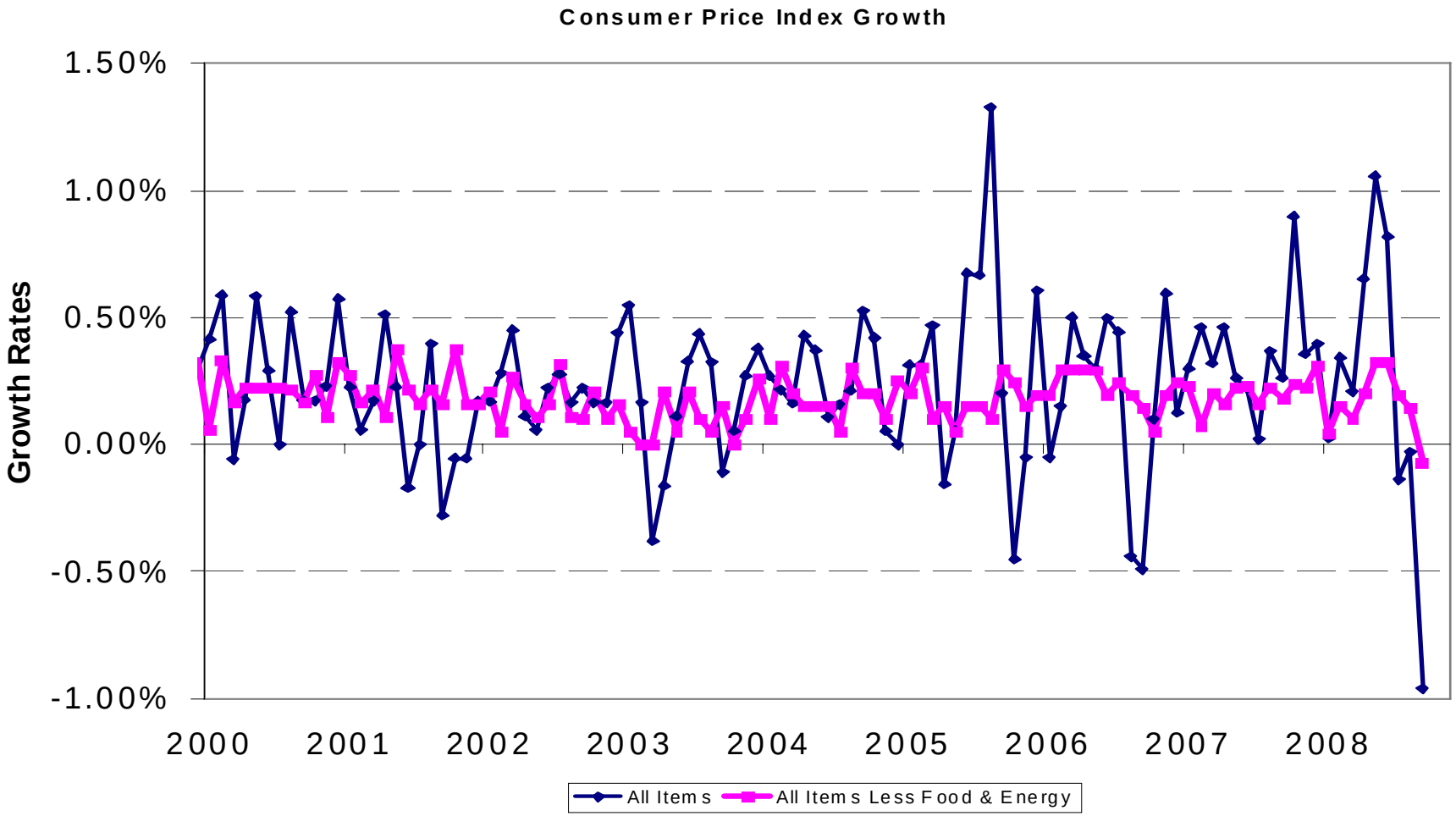
- Weaker dollar, rising savings rate changes economic structure toward exports and away from consumption.
- Lower labor force growth slows potential growth, Potential GDP growth between 2.0 – 2.5%.
- Slower inflow of foreign capital will force external and government balances towards equilibrium.
- To lower current account deficit, personal and government saving will have to rise.
- To pay for entitlements, tax rates will have to rise.

Housing recession severe, but not unprecedented

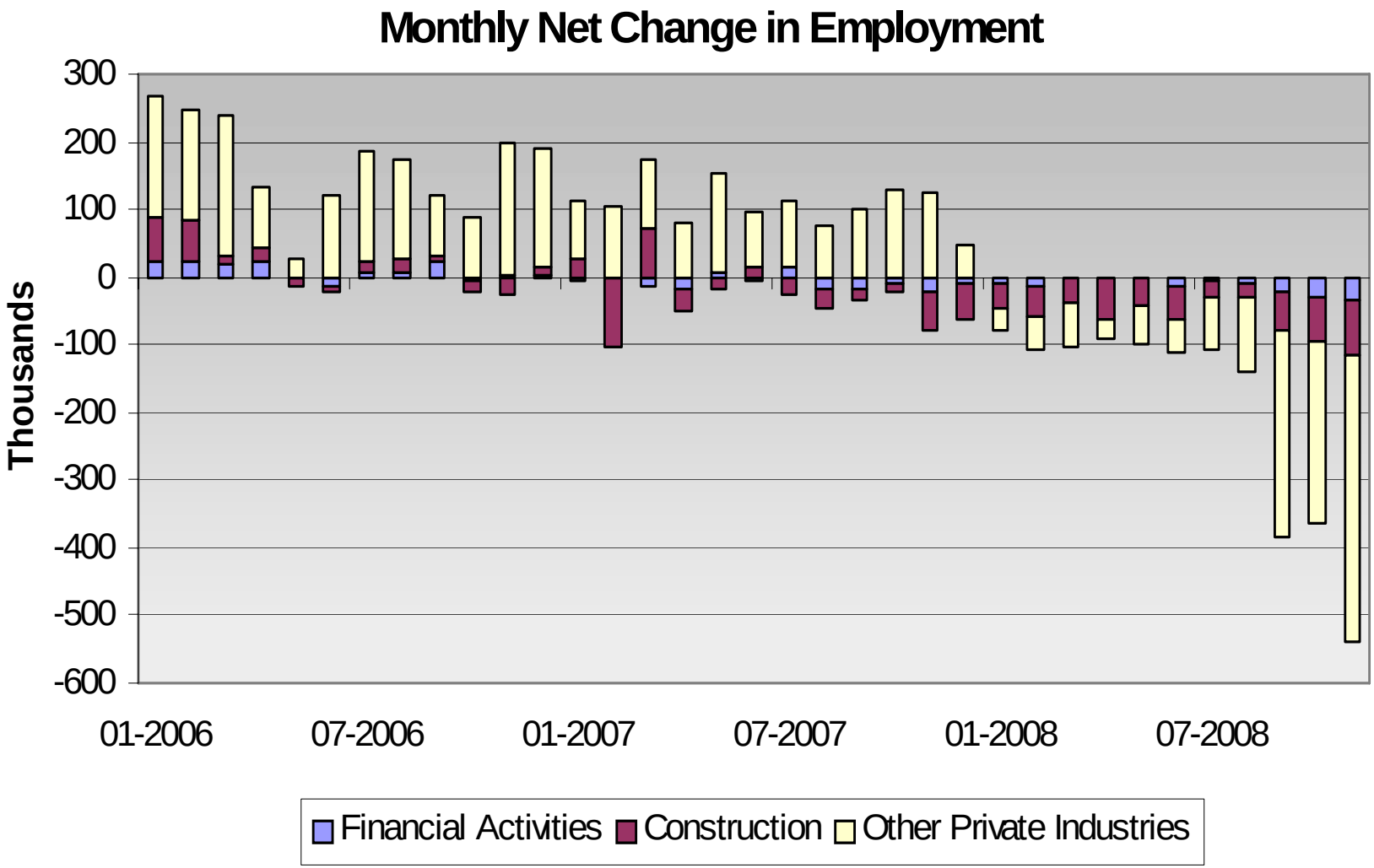
Severe contraction in 4th quarter will confirm recession



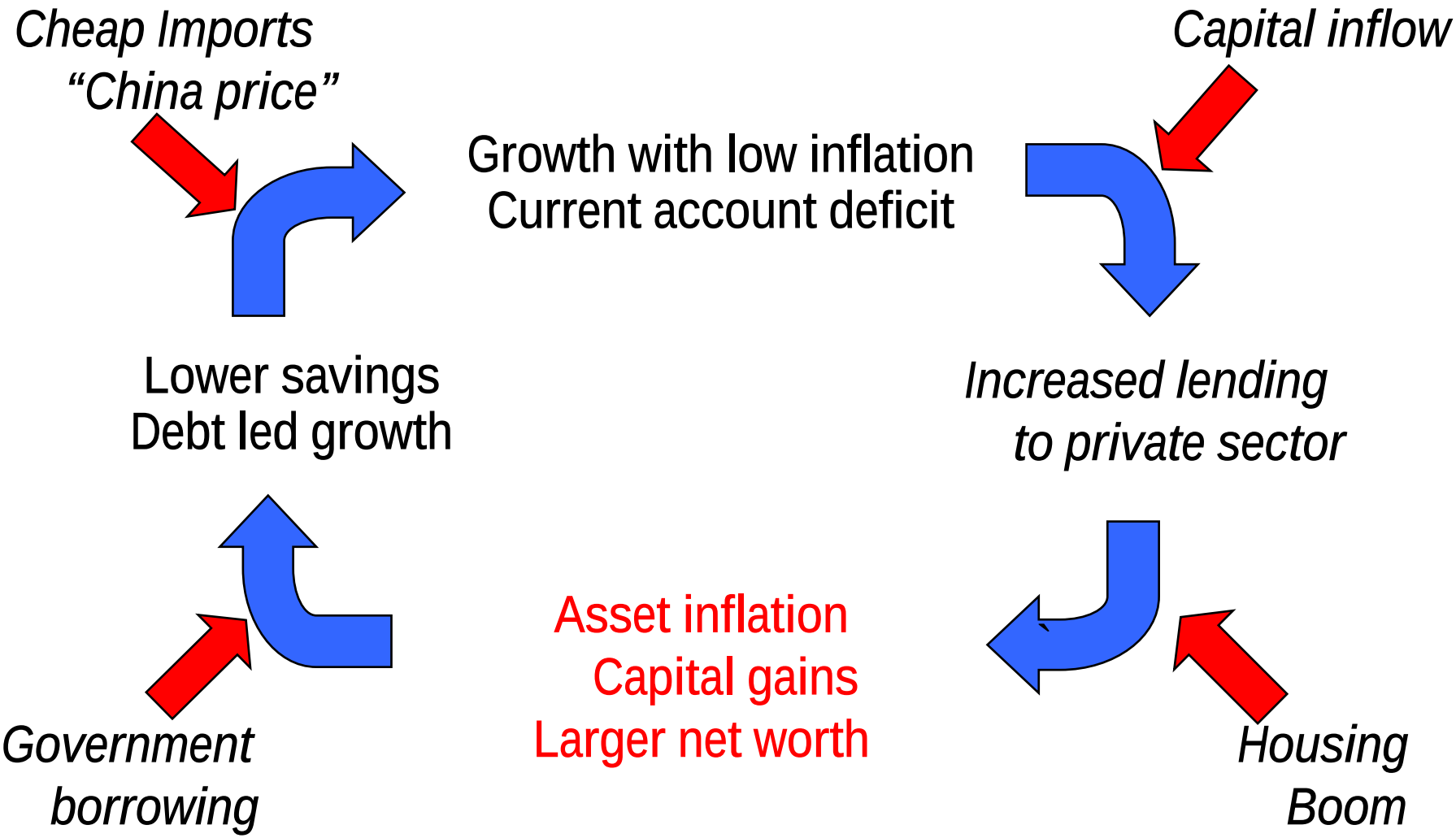
Consumer inflation: Deflation is here.



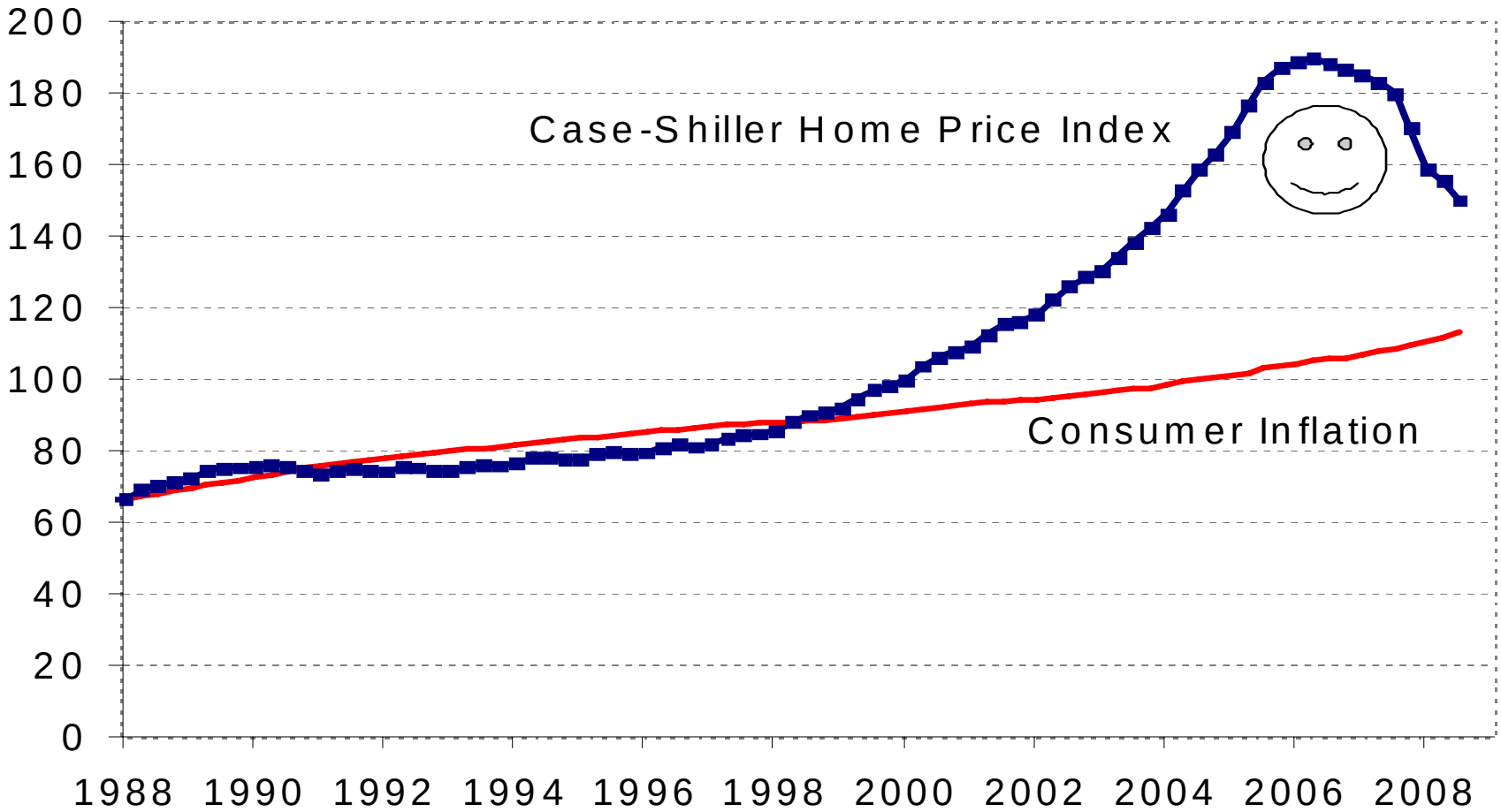
Employment losses show timing and extent of recession.



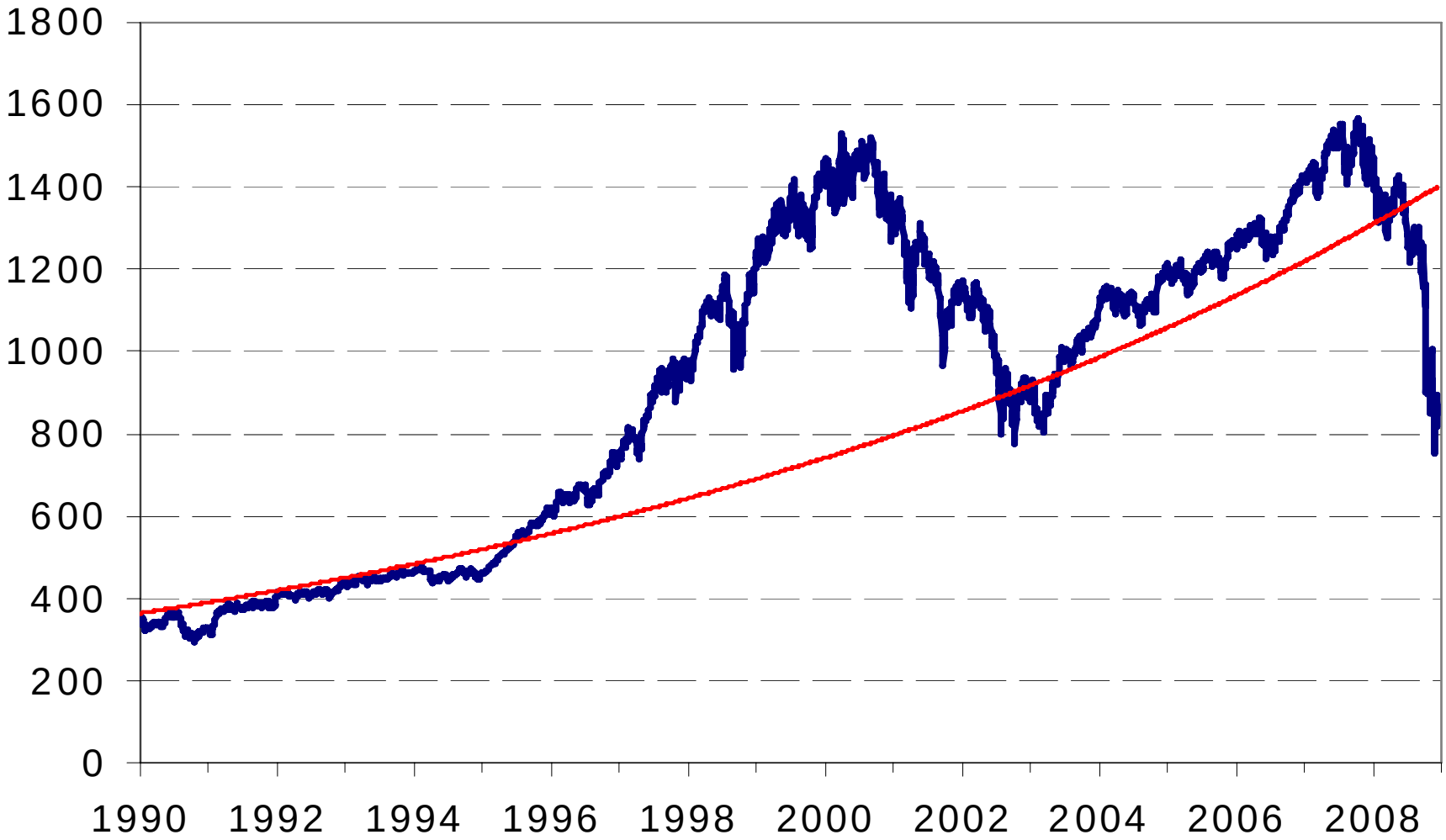
How did we get here? Financial innovation, liberalization, and globalization set in motion a "virtuous cycle"



The Housing Bubble Bursts



S&P 500: Hit hard, hit fast



Market/Government failure and regulation

Neoclassical (conventional view) view:

- Market failures/externalities occur: pollution, monopoly, information problems, moral hazard, etc. Market failure in financial markets is ubiquitous.
- Government intervention in markets limited to where it is **clearly necessary and *also effective*.**
- Best regulation adjusts market ***incentives*** to adhere to aggregate social welfare.
- Regulation (rules or institutions) must change and adapt to new technologies, incentives, and behaviors.
- Most often, the regulatory failures occur when institutions do not evolve quickly enough.

Why are financial markets different?

Classic market failures are endemic and crucial:

- Asymmetric information: Only borrower knows true use of borrowed funds.
- Adverse selection : Borrowers intending to default will borrow at any rate.
- Moral hazard: a party insulated from risk (e.g., FDIC insurance of CDS) will act more risky.
- Regulation of financial markets is inherent. More or less regulation is not the point. The *right* regulation is the key.

Ingredients of a Financial Crisis I

- Innovation by financial agents and in financial markets: securitization, derivatives, networking, information, globalization. Non-banks trading on own account.
- Distorted ***incentives***: agency problems (heads I win, tales you lose), moral hazard (incl. Fannie Mae and Freddie Mac), perverse oversight (rating agencies).
- Regulatory institutions (rules and regulators) fail to keep up with innovation. Regulation of derivatives was resisted. Inadequacy of VAR models, voluntary risk management.
- Easy money but low goods and services inflation (China effect). "Glut of savings." Led to rapid build up of debt by consumers and government (fighting a costly war).
- Excess money pours into assets, serial global speculative bubbles, first in equities, then housing, then commodities (last gasp).

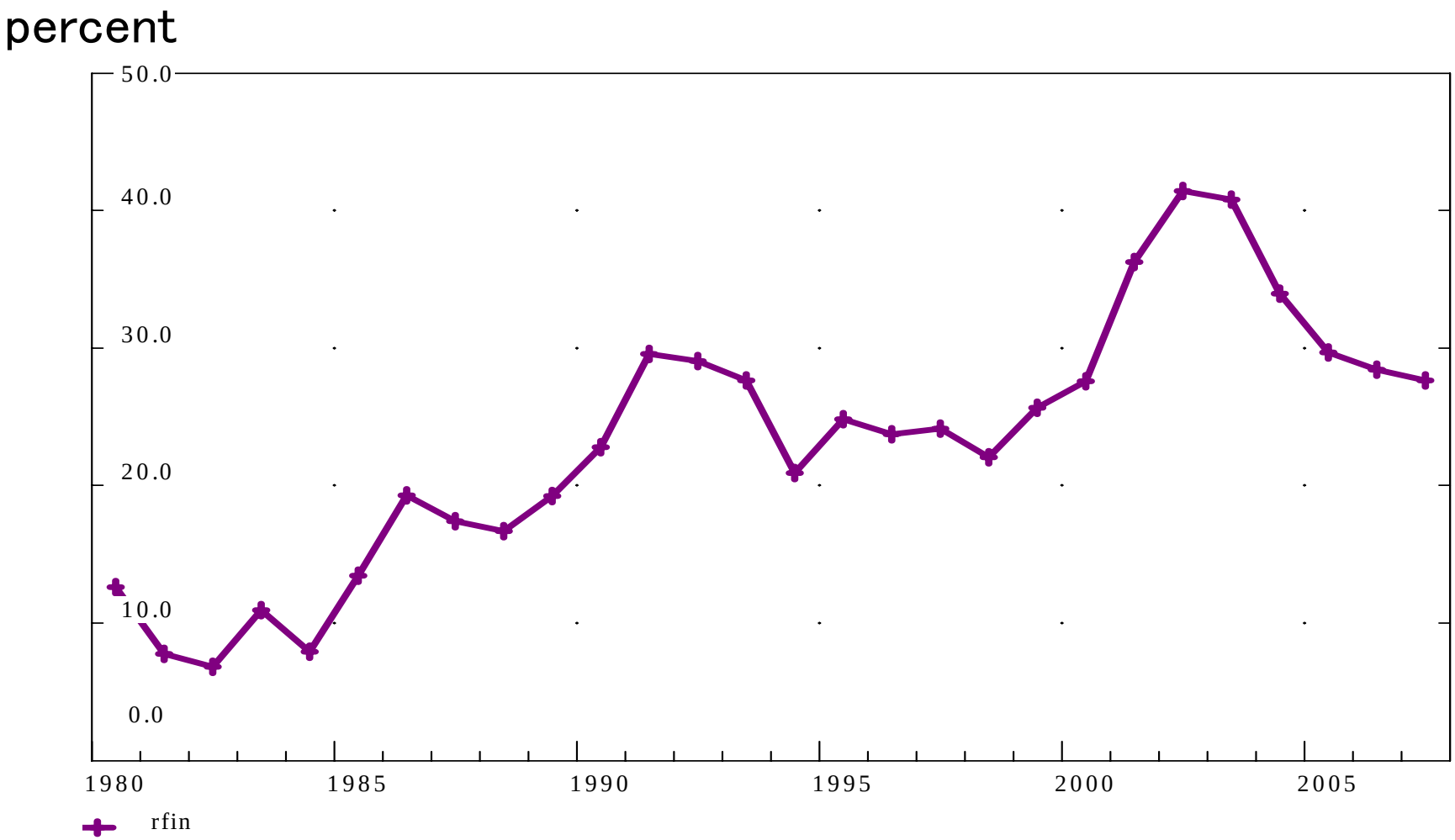
Ingredients of a Financial Crisis II

- Housing boom and misaligned ***incentives*** subprime lending were drivers of excessive debt within a vulnerable system. Complete abandonment of discipline in mortgage lending.
- Bursting of housing bubble set off financial domino effect, especially among institutions tied together with Credit Default Swaps (CDSs) and other derivatives.
- Indeed, rather than disbursing risks, derivatives seemed to have increased potential damage of financial stress.
- This is not a crisis in the system, this is a crisis of the system.
- Markets tend to change unpredictably, suddenly, and sometimes rapidly. Rules are set by slow political process. ***Is it possible for regulatory institutions ever to keep up?***

Alan Greenspan's naivety (October 23, 2008):

- For years, *The Economist* and others argued that Central Banks could and should monitor asset prices, and where necessary, prick speculative bubbles.
- Greenspan argued that rather than trying to judge the correct level of asset prices, it was better to wait and clean up later.
- "Those of us who have looked to the self-interest of lending institutions to protect shareholder's equity (myself especially) are in a state of shocked disbelief. Such counterparty surveillance is a central pillar of our financial markets' state of balance. If it fails, as occurred this year, market stability is undermined."
- "Flaw in the model that I perceived is the critical functioning structure that defines how the world works, so to speak."
- But it is a fundamental truth that that interests of managers and owners can be misaligned (Agency problem). Remember Enron.

Financial Profits as Share of Total Corp Profits



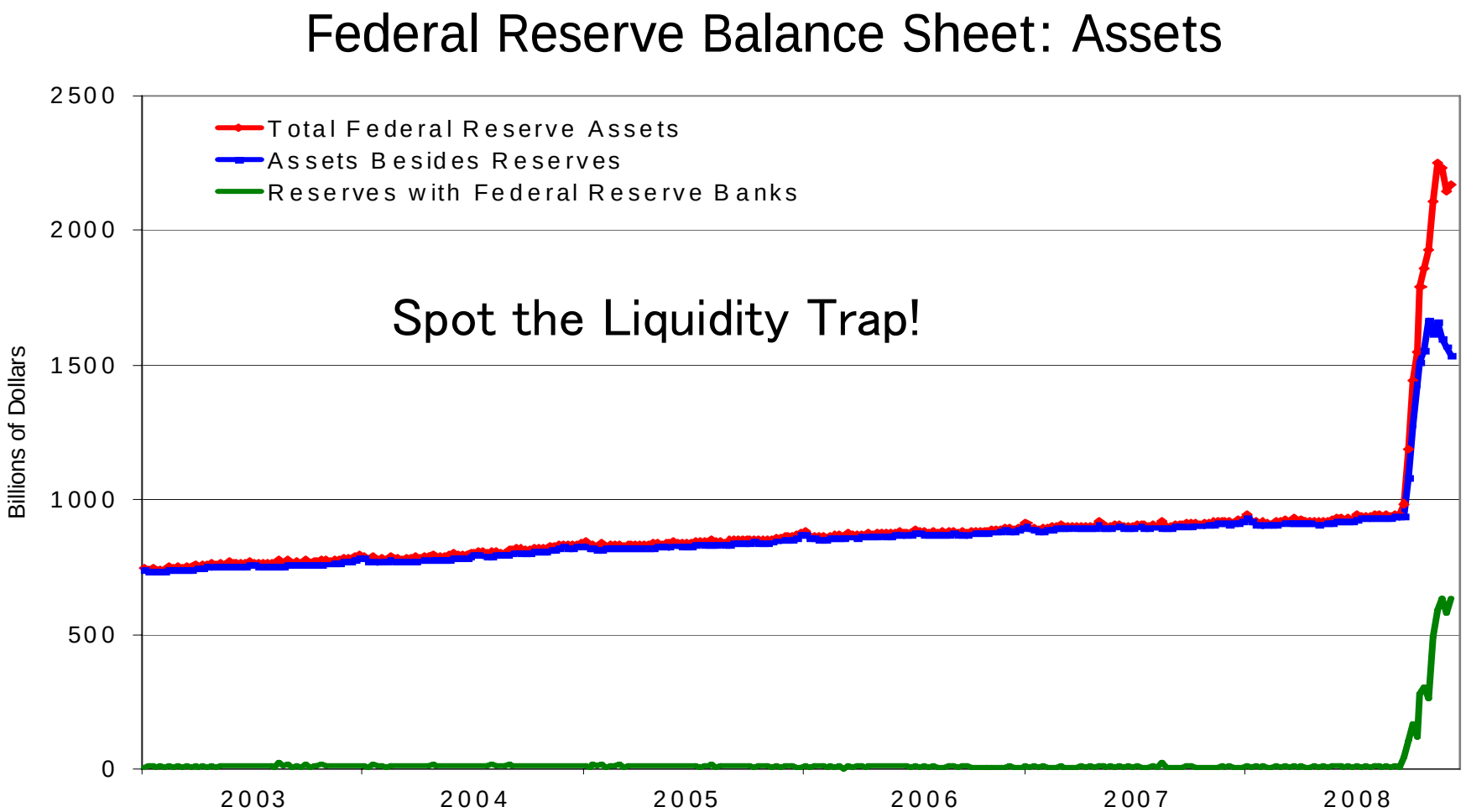
Solving the Financial Crisis

- Treasury (TARP I): buy up toxic debt “the right program” - never mind
- Treasury (TARP II): buy preferred (not common) stock of financial firms – maybe ($335 billion spent so far).
- Fed Quantitative Easing I: extraordinary purchases/guarantees of financial firm debt.
- Fed Quantitative Easing II: Buy/guarantee new commercial/consumer debt.
- Coming: Lower mortgage rates on new mortgages.
- Maybe coming: Property prices and foreclosures are the problem: Refinance/renegotiate existing mortgages, especially for consumers under water (Feldstein/ Zingales/ Zandi). Implementation is difficult.

A Tale of Two Books

- Wealth of Nations: Handbook of Economics, applies most of the time.
- Smith, however, was well aware of incentive problems and the need for government regulation.
- The “General” Theory Applies Now.
- To Keynes, the liquidity trap was a theoretic curiosity, not yet observed.

What does "Quantitative Easing" look like?



The Return of Keynes: Obama Stimulus Package (in base case) With multiplier, stimulus adds about 1.0 percent to growth in 2008 and 2009

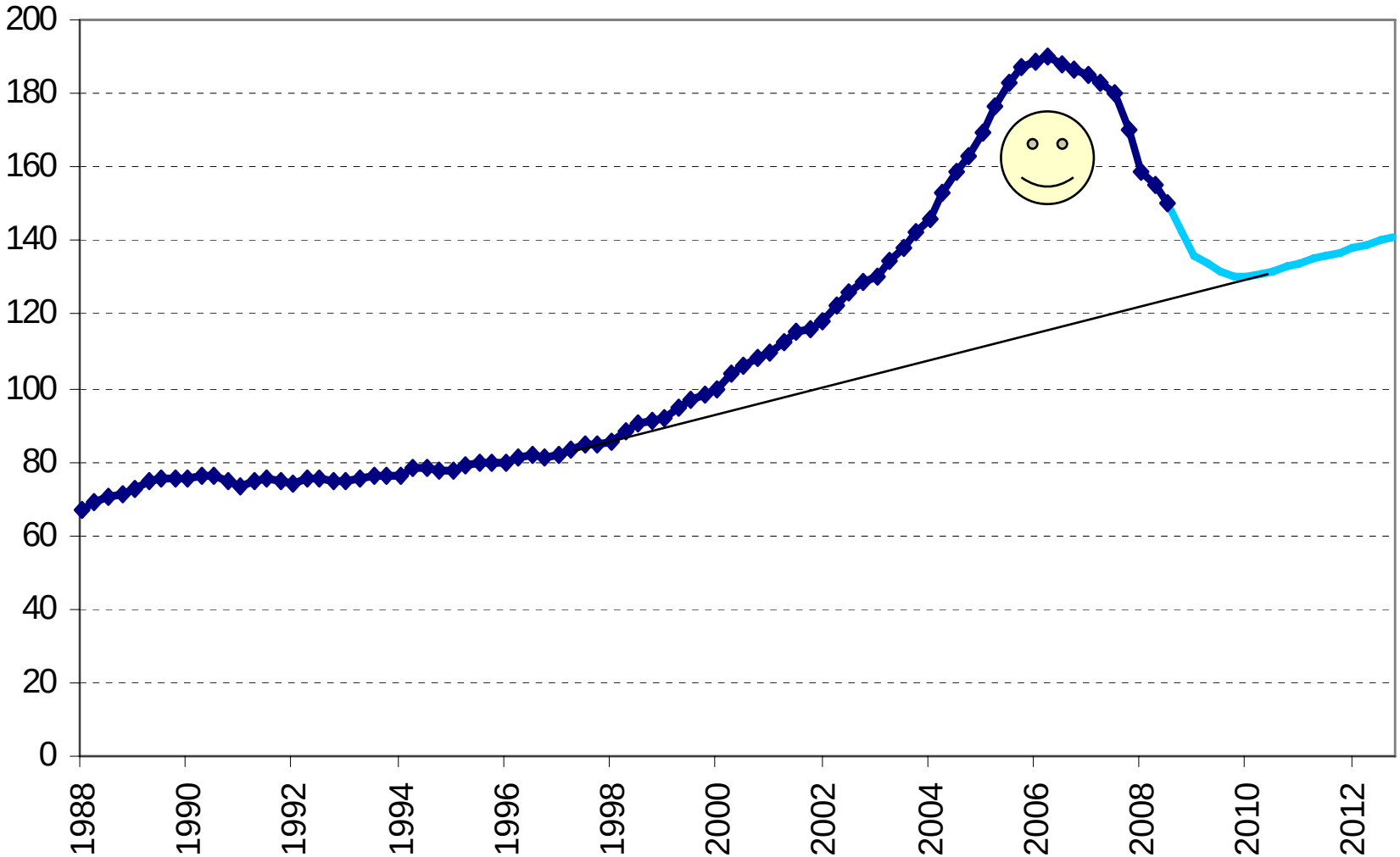
USA Stimulus Package: Billions of Dollars

	2009	2010	2011	Total	Share by Type
Tax Cuts/Rebates	90	70	60	220	0.34
Unemployment	7	7	7	21	0.03
Food Stamps	6	6	6	18	0.03
Other Transfers	10	10	10	30	0.05
Veteran Benefits	3	5	5	13	0.02
Green Subsidies	12	15	15	42	0.06
Infrastructure	70	100	100	270	0.42
Non-defense, extra	2	3	3	8	0.01
State & local extra	6	11	11	28	0.04
Total Stimulus	206	227	217	**650**	
Share by Year	0.32	0.35	0.33		

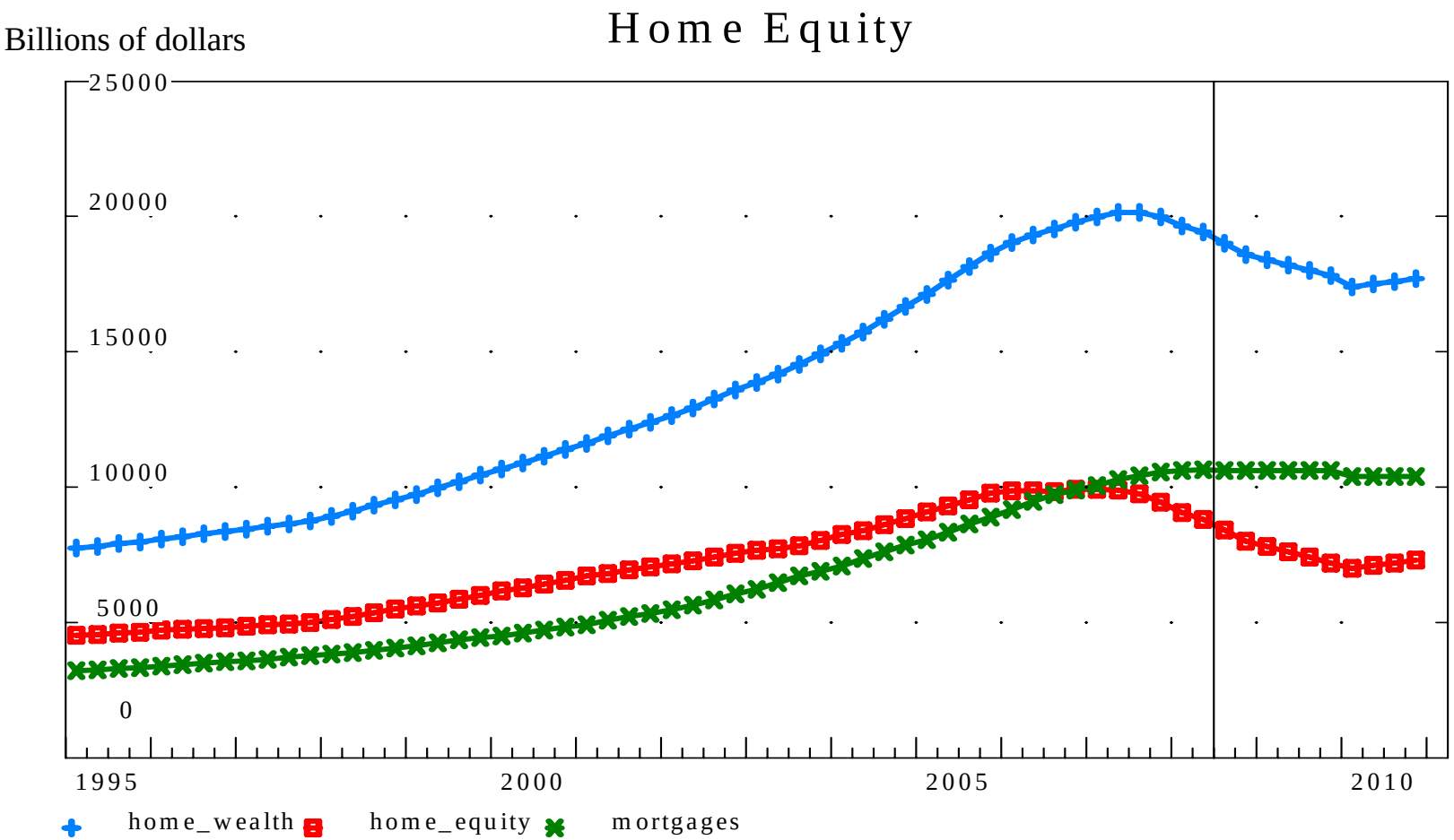
Short-term Outlook Overview

	00-05	05-06	06-07	07-08	**08-09**	09-10	10-11
Gross domestic product	2.3	2.8	2.0	1.4	**-1.3**	1.3	3.0
Personal consumption	2.9	3.0	2.8	0.3	**-1.6**	2.1	2.0
Nonresidential structures	-4.4	8.2	12.7	13.6	**-5.2**	-12.3	3.2
Equipment investment	1.5	7.2	1.7	-1.8	**-6.4**	-9.5	5.1
Residential investment	5.9	-7.1	-17.9	-21.1	**-13.2**	3.9	7.2
Exports	1.9	9.1	8.4	8.1	**-1.6**	3.7	6.7
Imports	4.3	6.0	2.2	-2.6	**-4.3**	0.6	3.3
Government	2.4	1.7	2.0	2.8	**2.1**	1.1	1.8
GDP deflator	2.5	3.2	2.7	2.2	**0.6**	1.4	0.7
Consumption deflator	2.2	2.8	2.6	2.6	**0.0**	1.8	0.6
	2000-05	2006	2007	2008	**2009**	2010	2011
Unemployment rate	5.2	4.6	4.6	5.8	**7.6**	8.0	8.1
Current account	-509.6	-757.0	-700.5	-676.5	**-469.9**	-484.4	-452.5
Federal deficit	-207.4	-248.1	-280.0	-474.0	**-806.0**	-824.2	-723.4

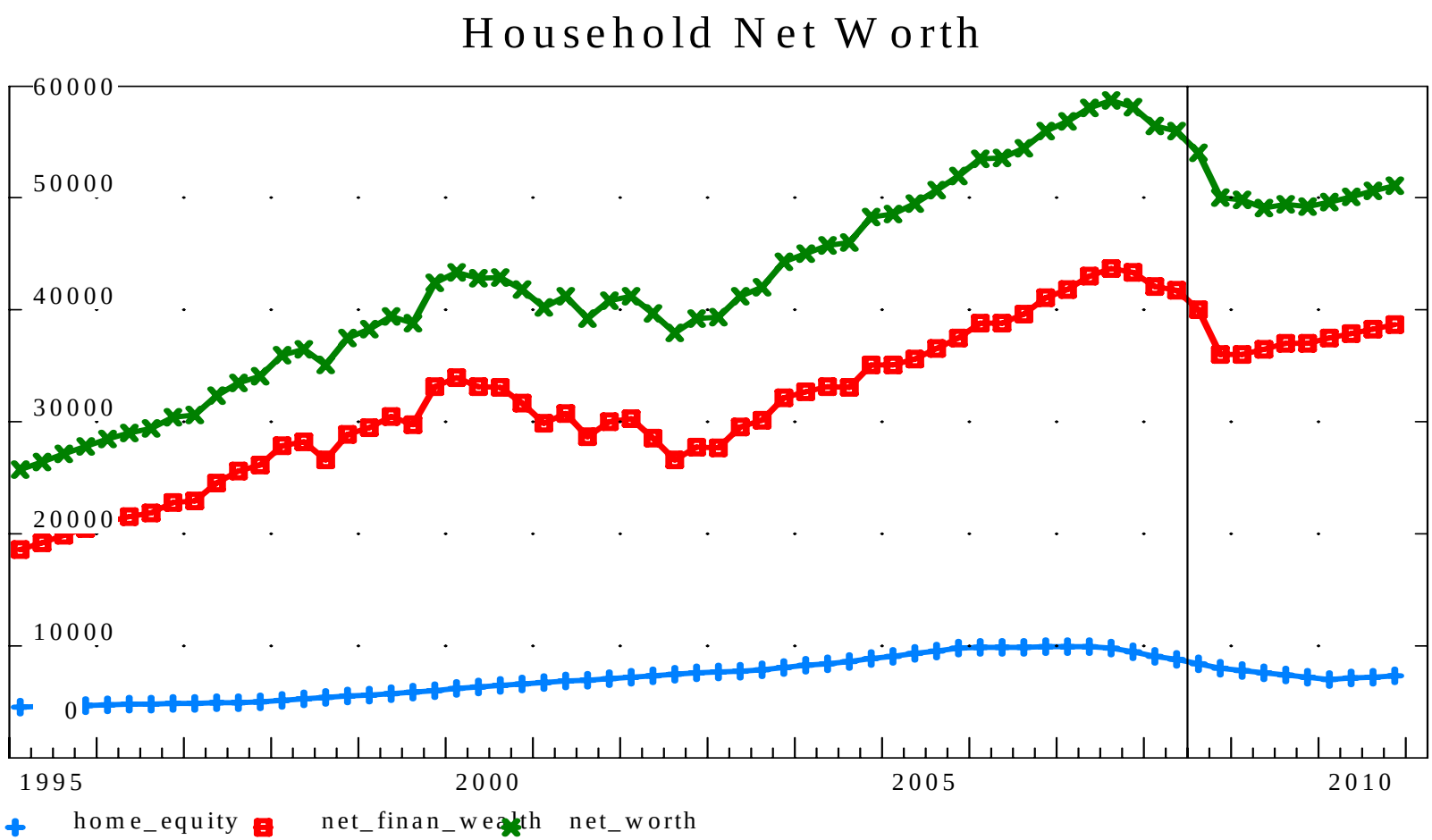
Best Case: Housing prices back to 2004 level by end 2012



Home Equity: The Best Case Scenario

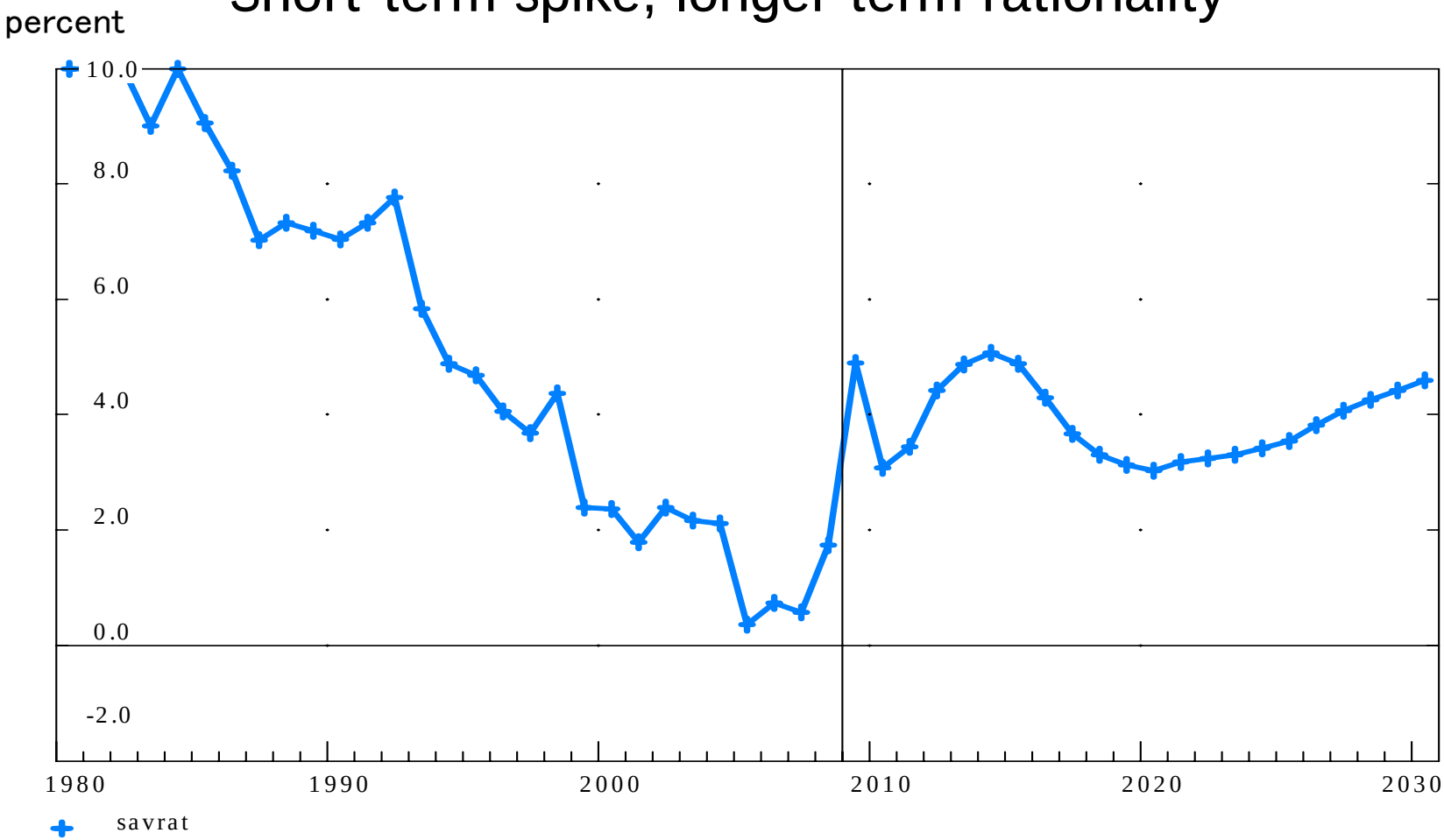


Household Net Worth: The Best Case Scenario



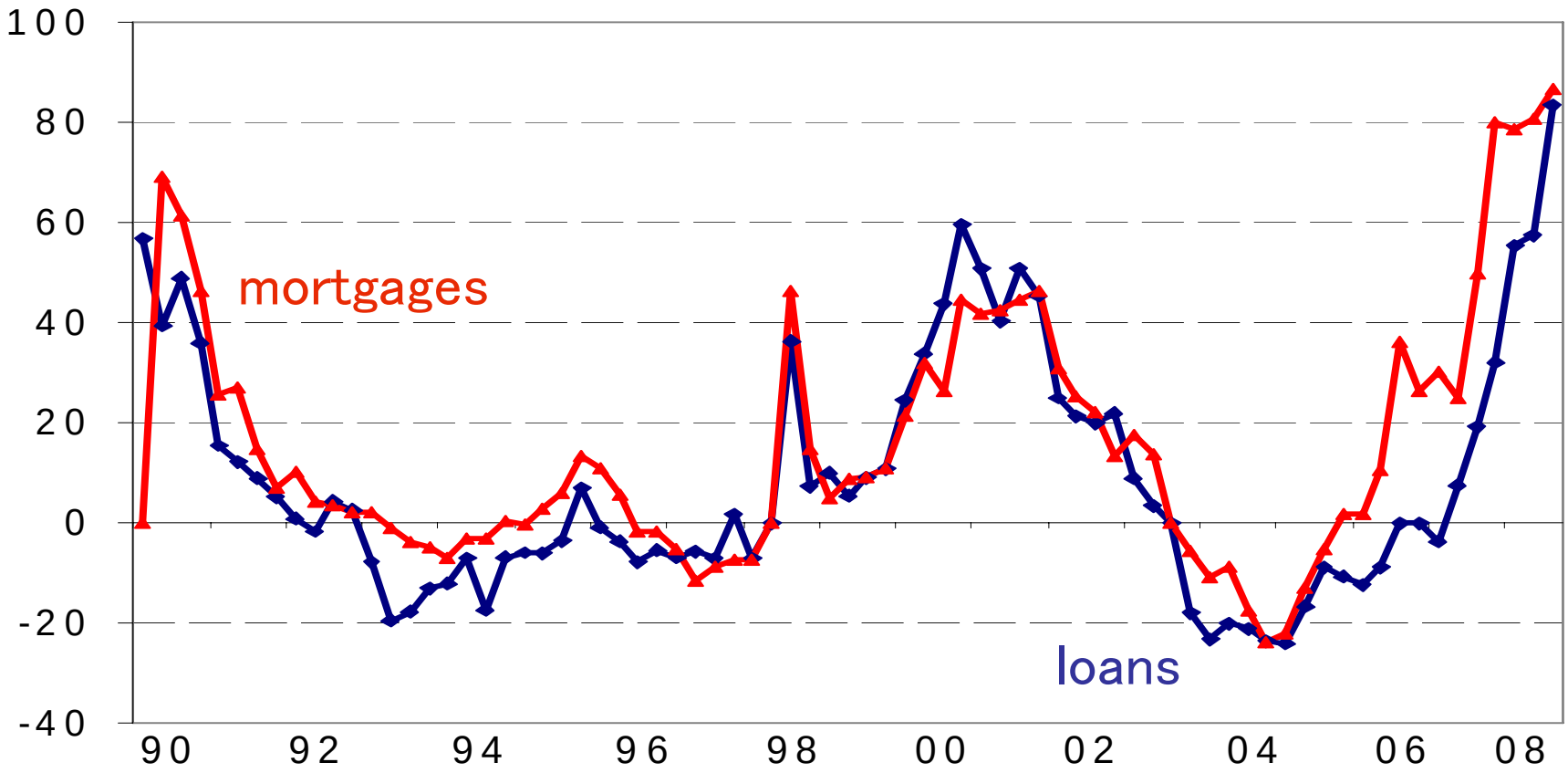
Household Savings Rate

Short-term spike, longer term rationality

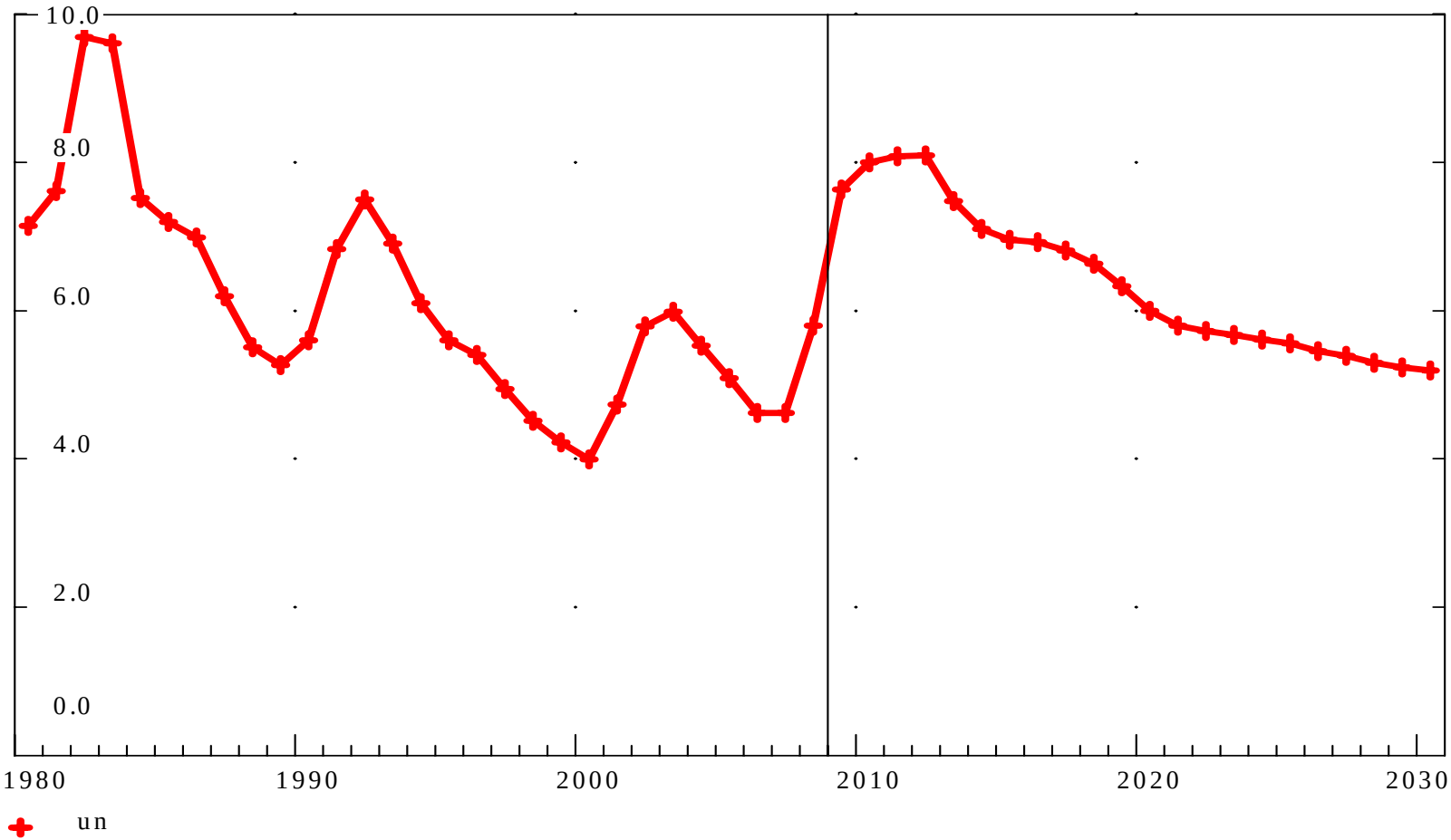


Nonresidential investment will be constrained by continuing lack of credit

FRB Survey of Sr. Loan Officers:
Net Percentage of Domestic Respondents Tightening Standards
for Commercial and Industrial Loans and Commercial Mortgages



Unemployment rate increases, takes time to subside



Bailing out the Detroit 3: Where does the 3.3 million jobs come from?

Assuming a 100% shutdown of US auto capacity is absurd.

TABLE 1

Jobs lost due to auto industry shutdowns*

	GM shutdown only	Detroit-3 shutdown	Total industry shutdown
Direct jobs	53,200	122,800	192,800
Indirect jobs	284,000	655,000	1,028,500
Respending jobs	576,700	1,329,900	2,088,400
Total employment impact	914,000	2,107,700	3,309,700

* Assumes complete shutdown of segment indicated in each scenario, including associated jobs in supplier industries.

SOURCE: EPI Analysis of Bureau of Labor Statistics data. See text for details.

How would we approach this question?

- Key parameter: What % of Detroit 3 domestic capacity would be retired under bankruptcy and/or restructuring?
- Perhaps 20%, certainly no more than 40%.

		Detroit 3 Retirement of Capacity		
Units	2007	20%	40%	60%
2007 sales	16.2	16.2	16.2	16.2
Imports	5.4	6.86	8.32	9.78
Import share	**0.33**	**0.42**	**0.51**	**0.60**
Domestic production	10.8	9.34	7.88	6.42
Foreign producers	3.5	3.5	3.5	3.5
Share	0.32	0.37	0.44	0.55
Detroit 3 production	7.3	5.84	4.38	2.92
Share	0.68	0.63	0.56	0.45

LIFT analysis on restructuring Detroit-3 manufacturing capacity

Peak Employment Losses (Thousands)			
	20% Shutdown	40% Shutdown	60% Shutdown
Direct	48	86	128
Indirect	119	229	336
ReSpend	256	478	689
Total	423	794	1152

Global recession means exports contract

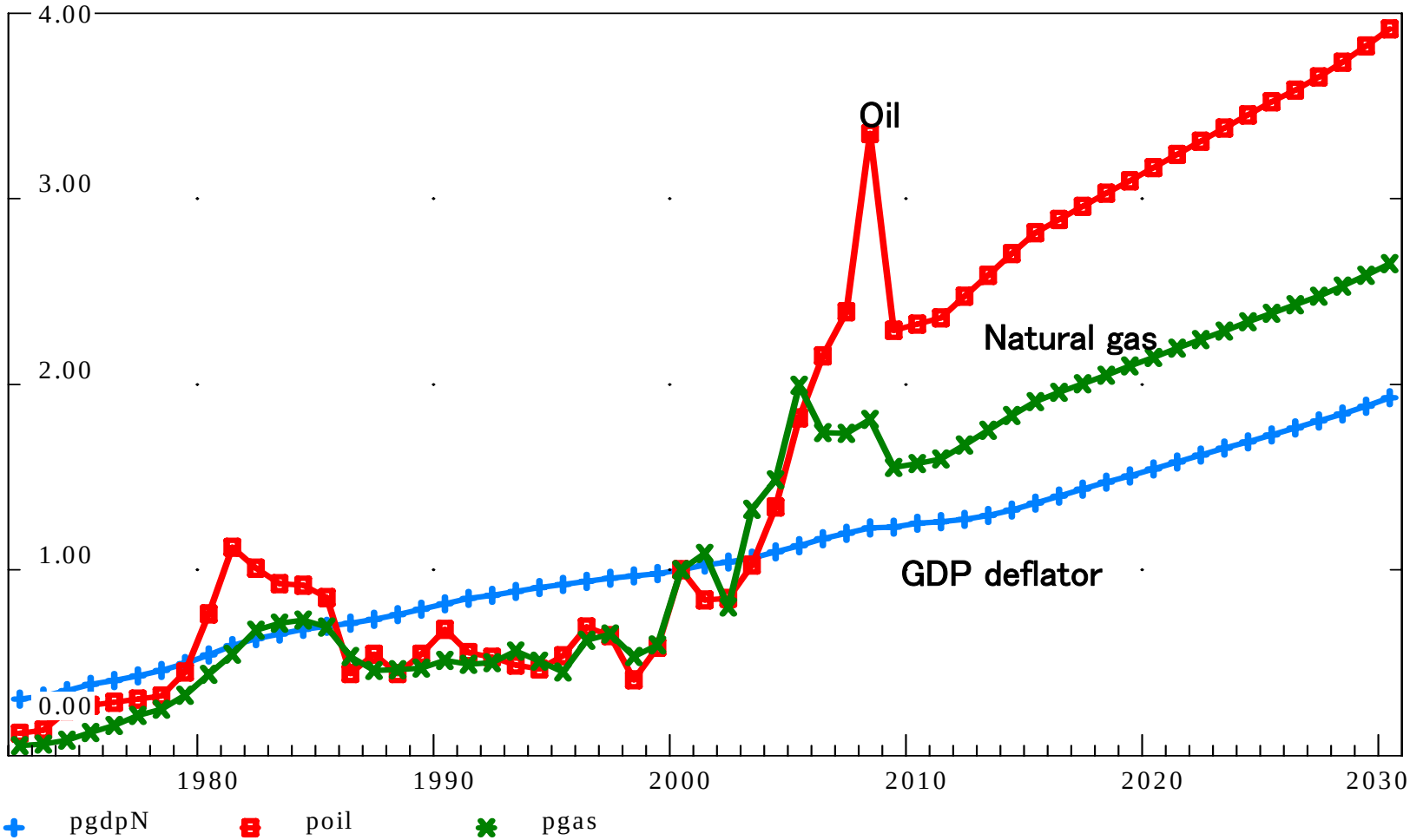
Longer term (to 2030):

We think the current crisis will greatly accelerate a transformation of growth in the economy.

- Weaker dollar, rising savings rate changes economic structure toward exports and away from consumption.
- Lower labor force growth slows potential growth, Potential GDP growth between 2.0 – 2.5%.
- Slower inflow of foreign capital will force external and government balances towards equilibrium.
- To lower current account deficit, personal and government saving will have to rise.
- To pay for entitlements, tax rates will have to rise.

Oil/natural gas prices peak in 2008

Nominal Price indices: 2000 = 1



Long Term Overview

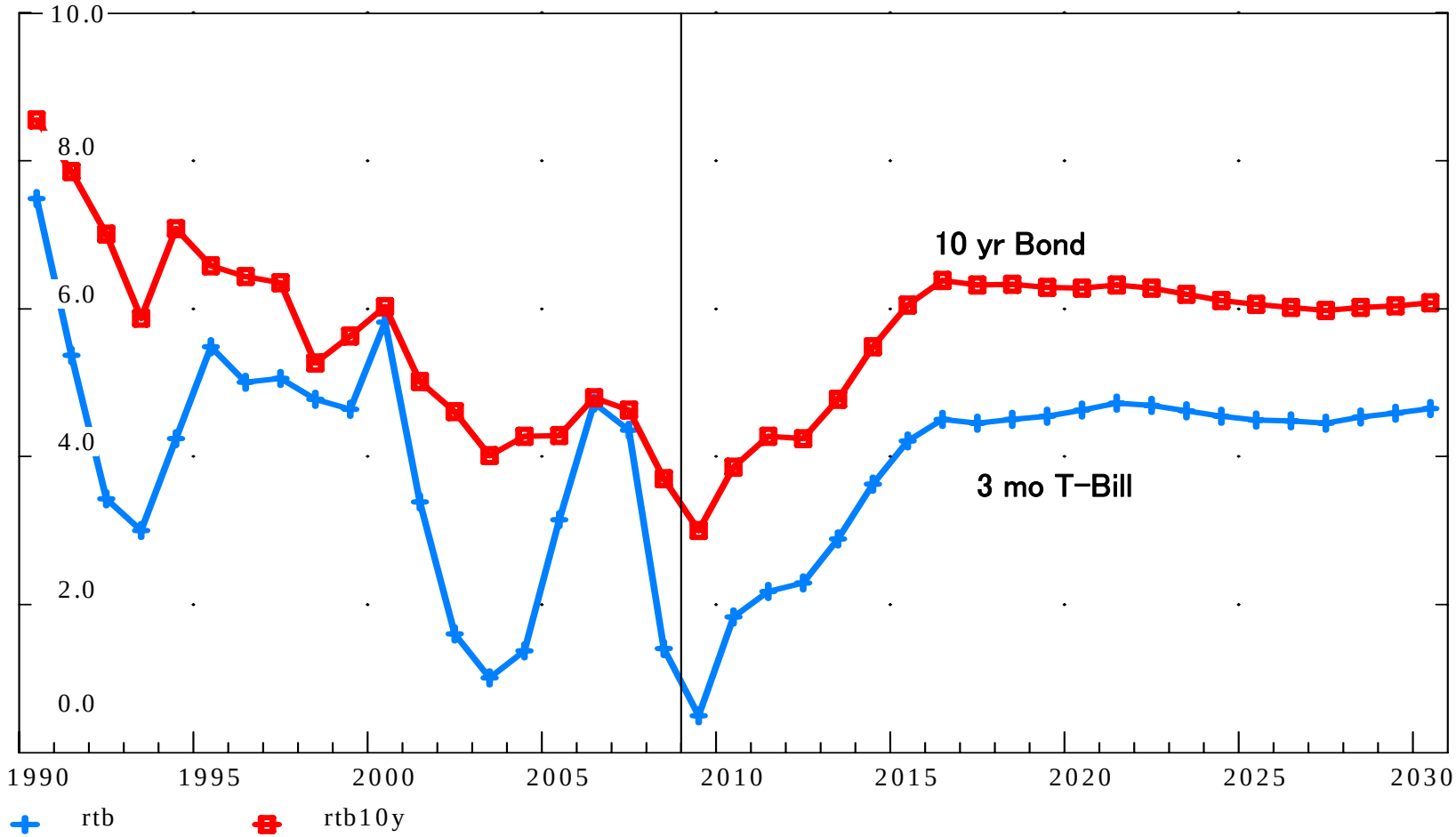
Real (inflation-adjusted) Quantities
Average Annual Growth Rates, Percent

	11-15	15-20	20-30
Gross domestic product	2.8	2.3	2.3
Personal consumption	2.0	2.0	1.8
Nonresidential structures	4.7	0.3	0.9
Equipment investment	6.6	2.4	3.3
Residential investment	11.3	3.9	2.9
Exports	6.2	4.8	4.5
Imports	3.8	2.7	2.7
Government	0.8	1.7	1.9
GDP deflator	2.0	2.6	2.2
Consumption deflator	2.3	2.8	2.4
Population	0.8	0.8	0.8
Labor force	0.7	0.5	0.4
Employment	1.0	0.7	0.5
Labor productivity	1.7	1.6	1.7
Potential GDP	2.3	2.3	2.2

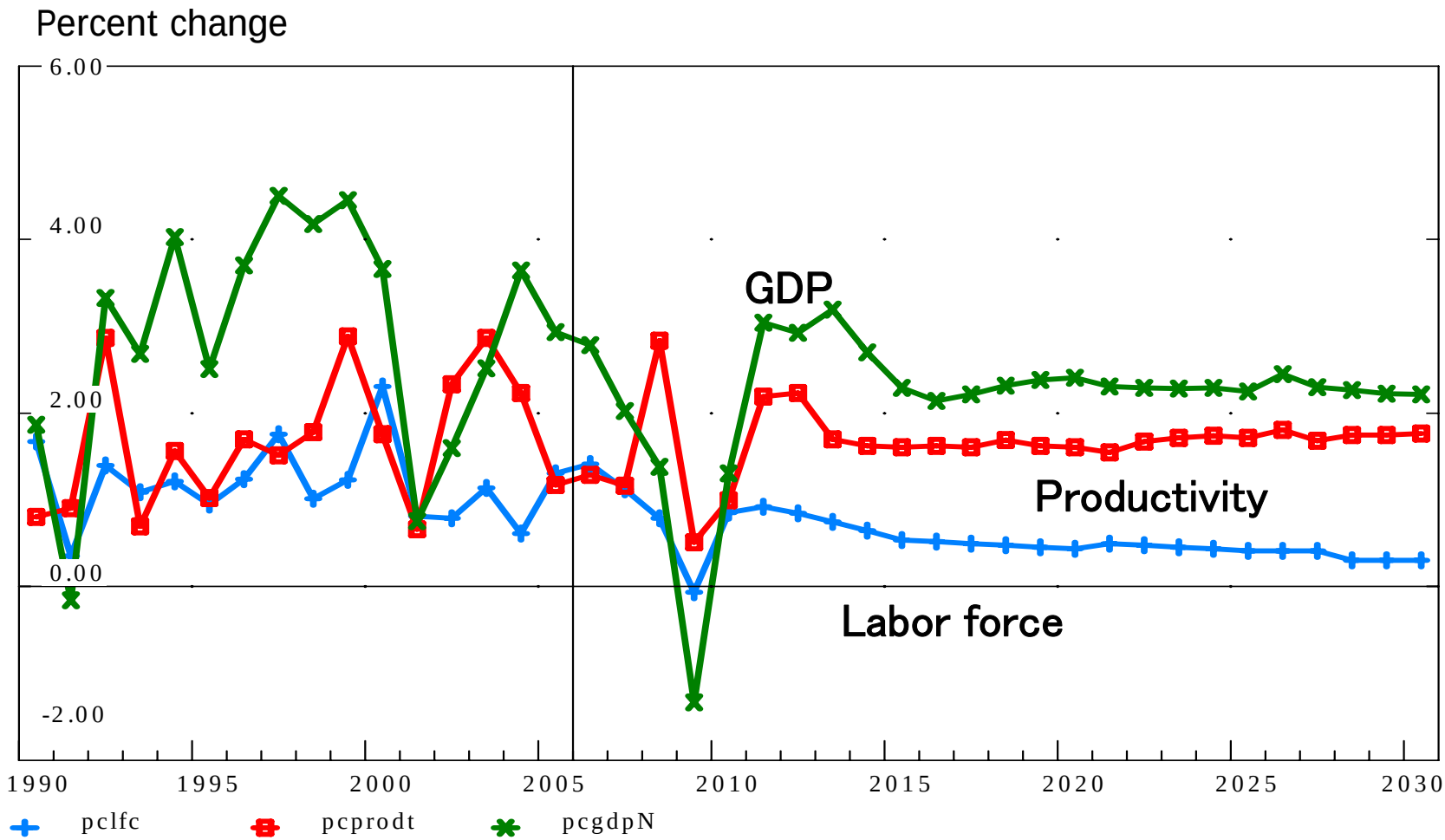
Nominal Quantities, Billions of Dollars

	2015	2020	2030
Current account	-631.9	-768.4	-224.4
(% of GDP)	-3.5	-3.3	-0.6
Federal net borrowing	-668.9	-551.9	-119.0
(% of GDP)	-3.7	-2.4	-0.3

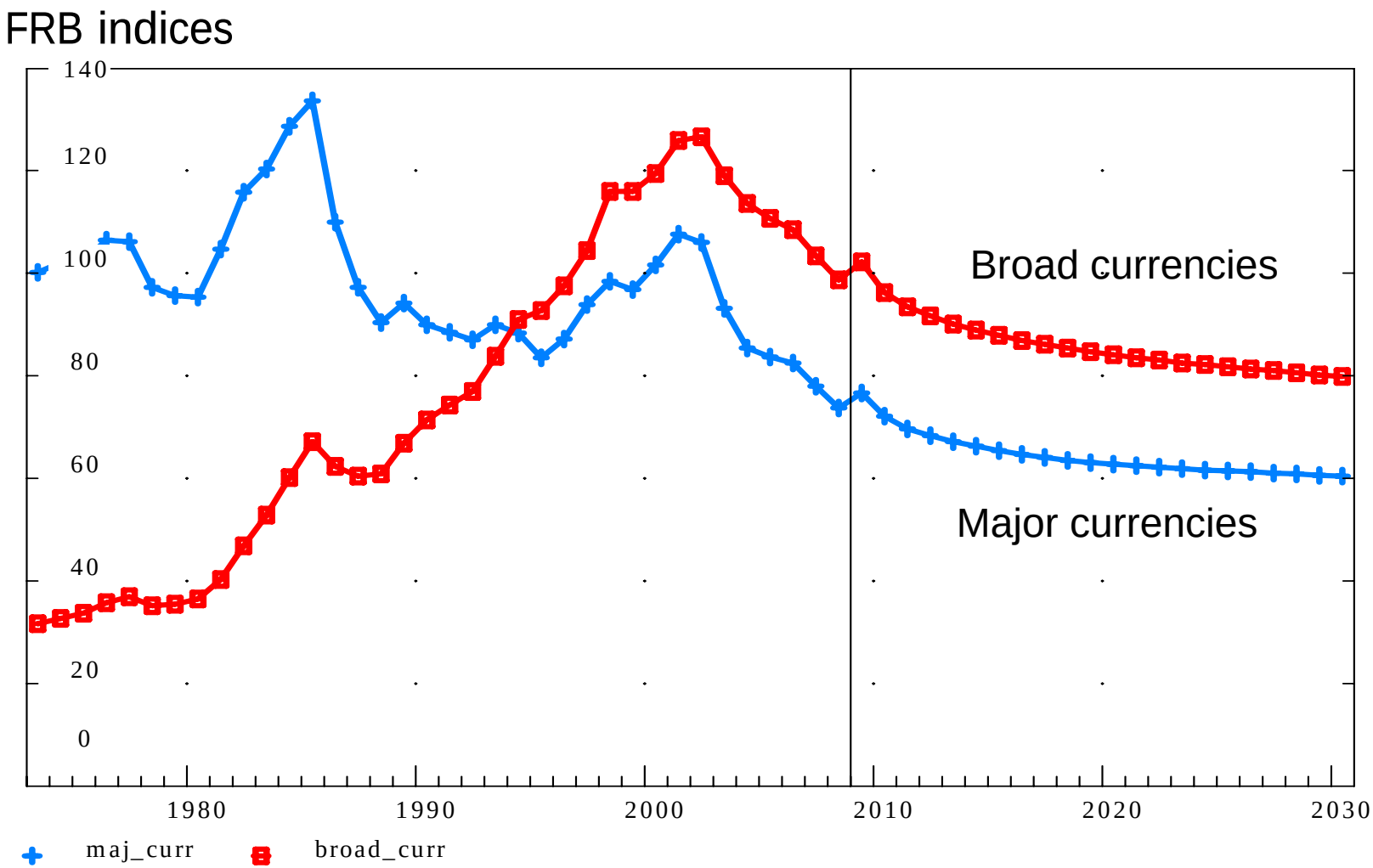
Long Term Interest Rates turn up (slightly)



Long term potential growth: strong productivity growth, low labor force growth

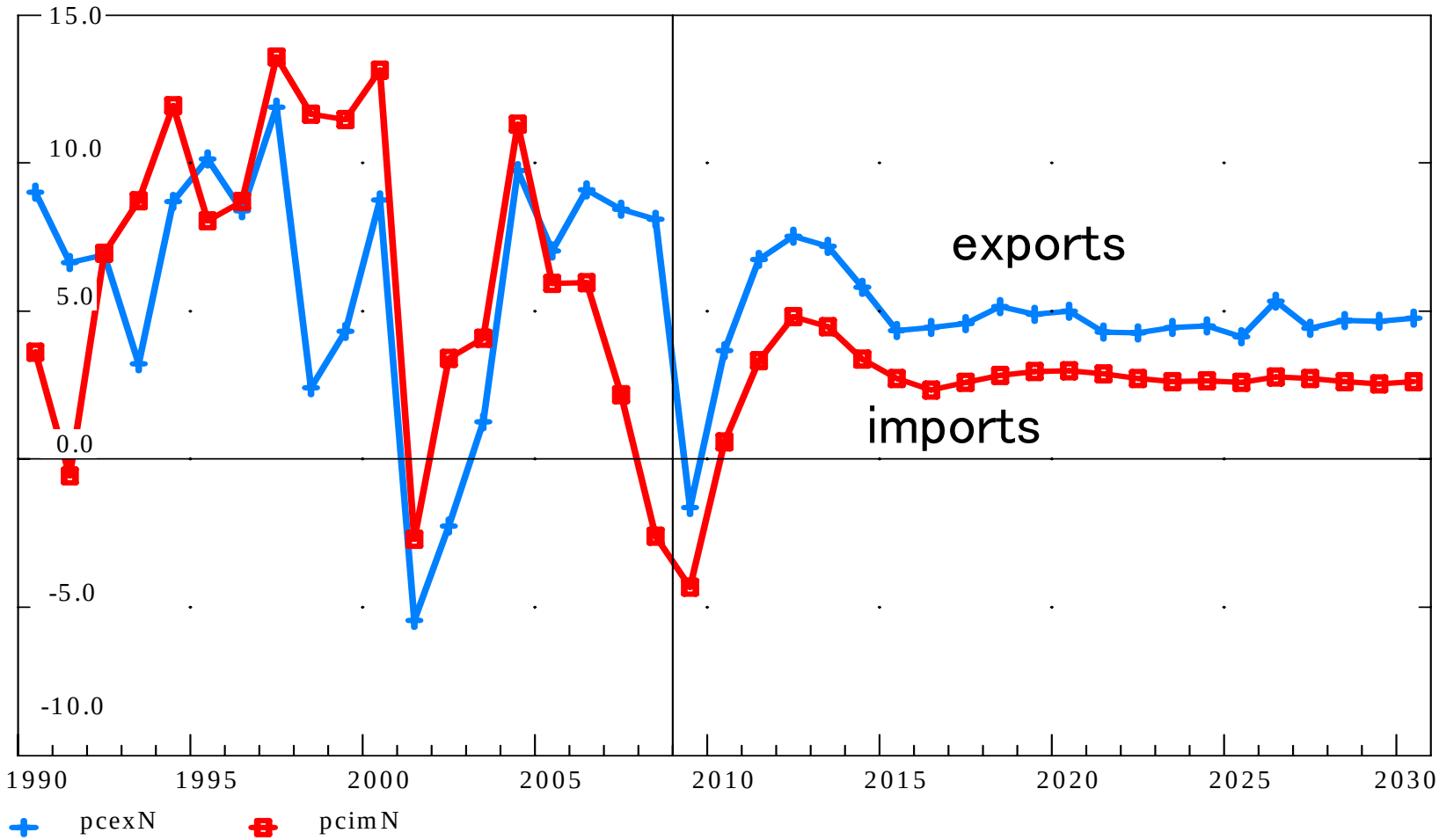


Exchange rate index



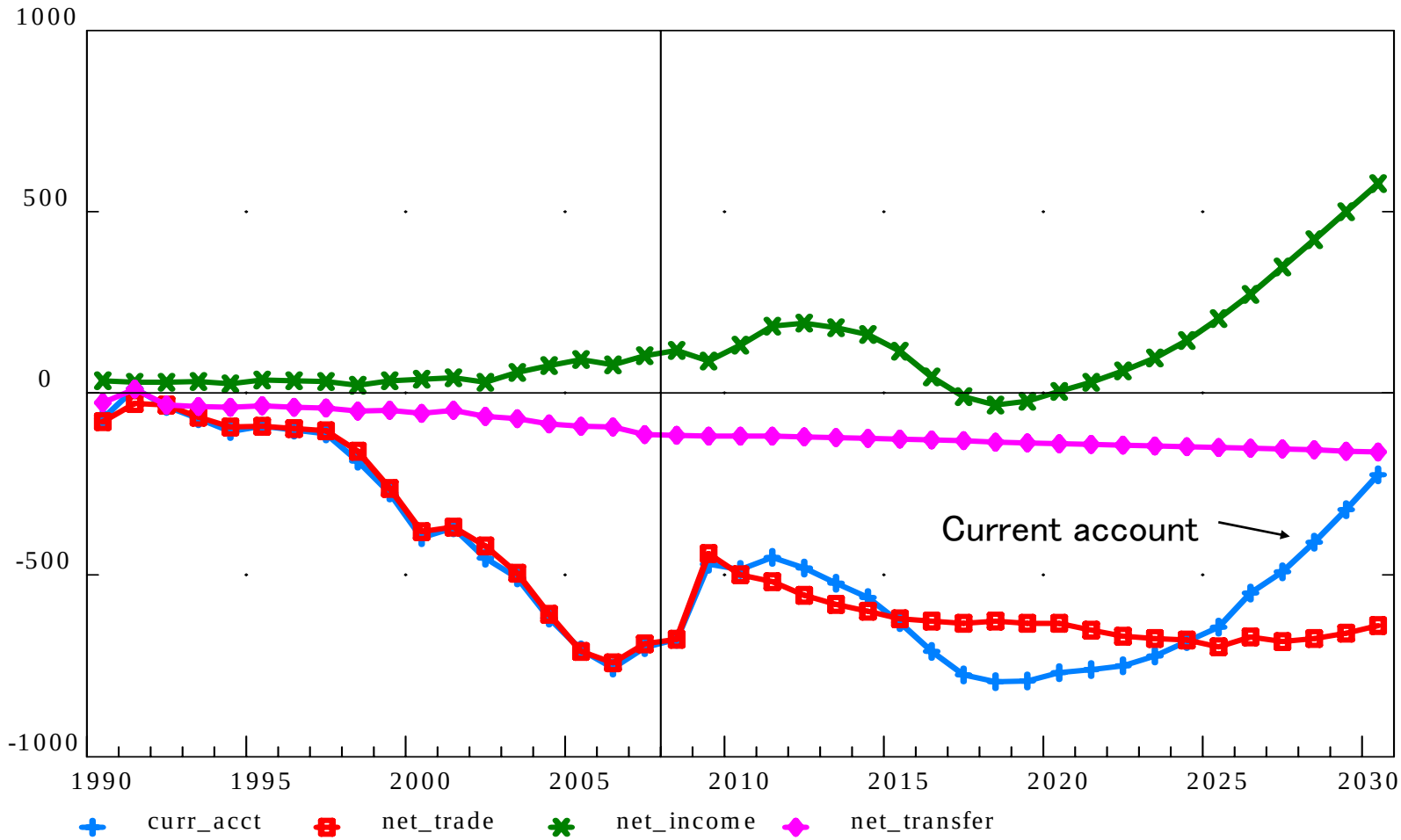
Real import and export growth

Percentage growth

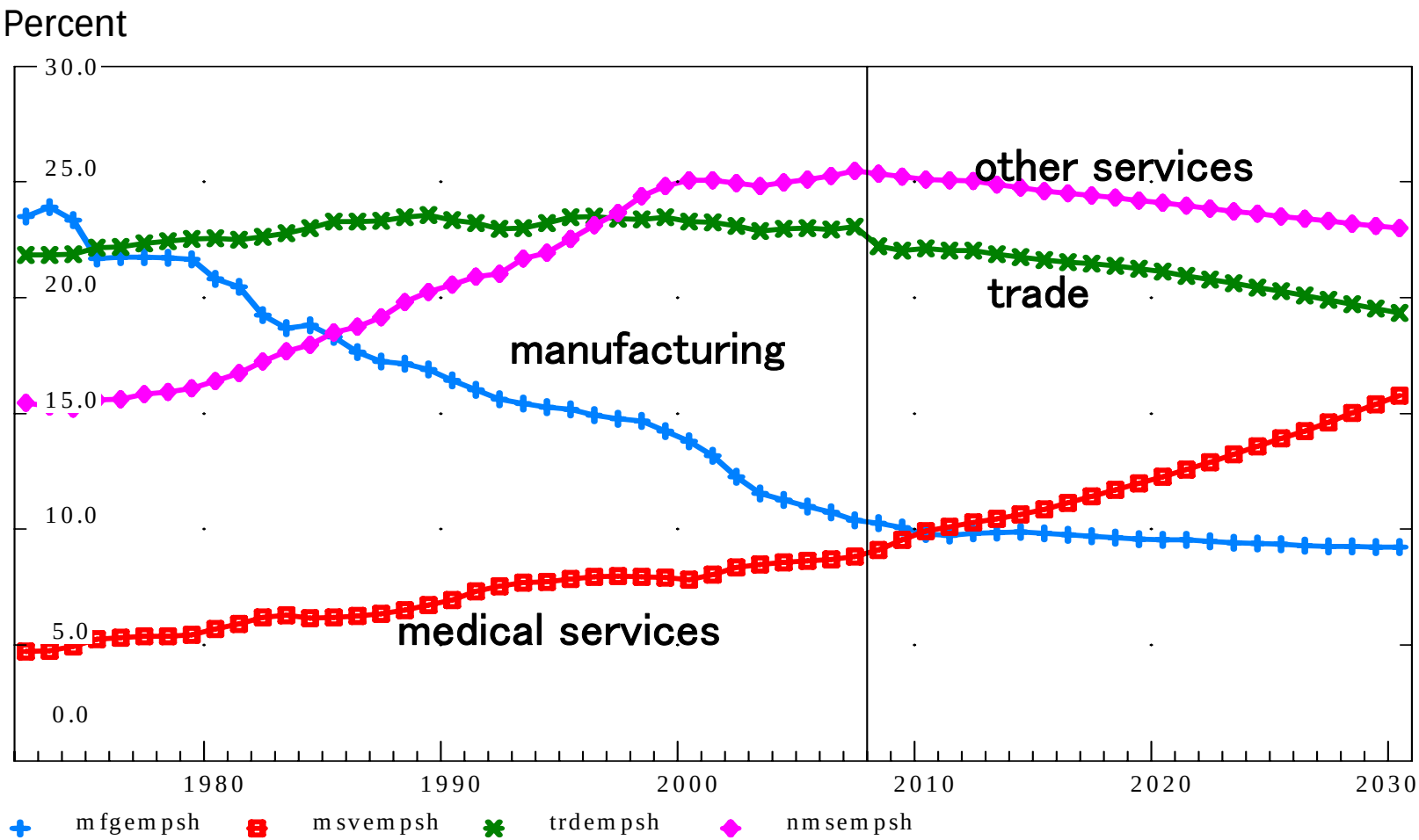


Current account deficit: soft landing

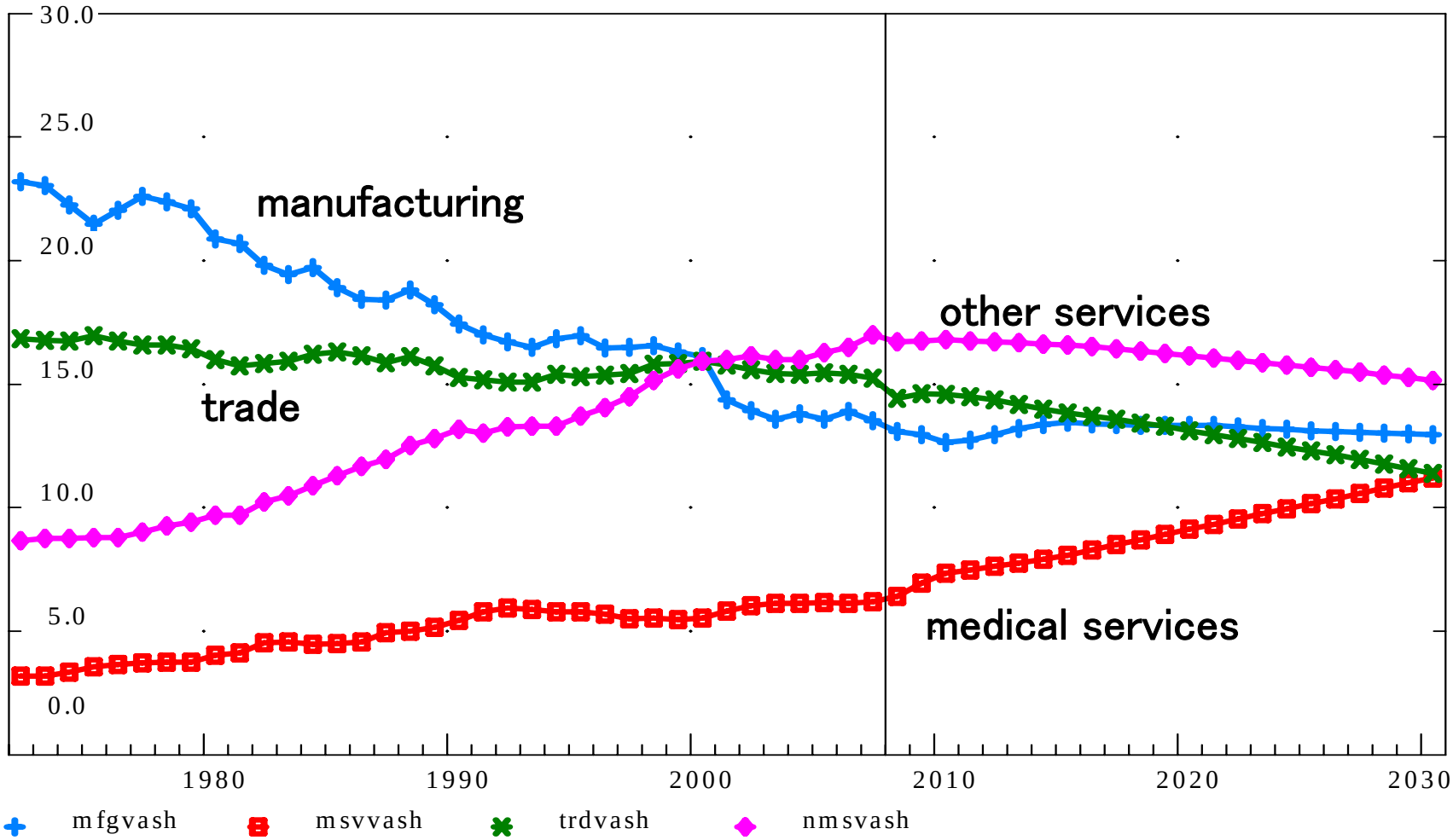
Billions of dollars



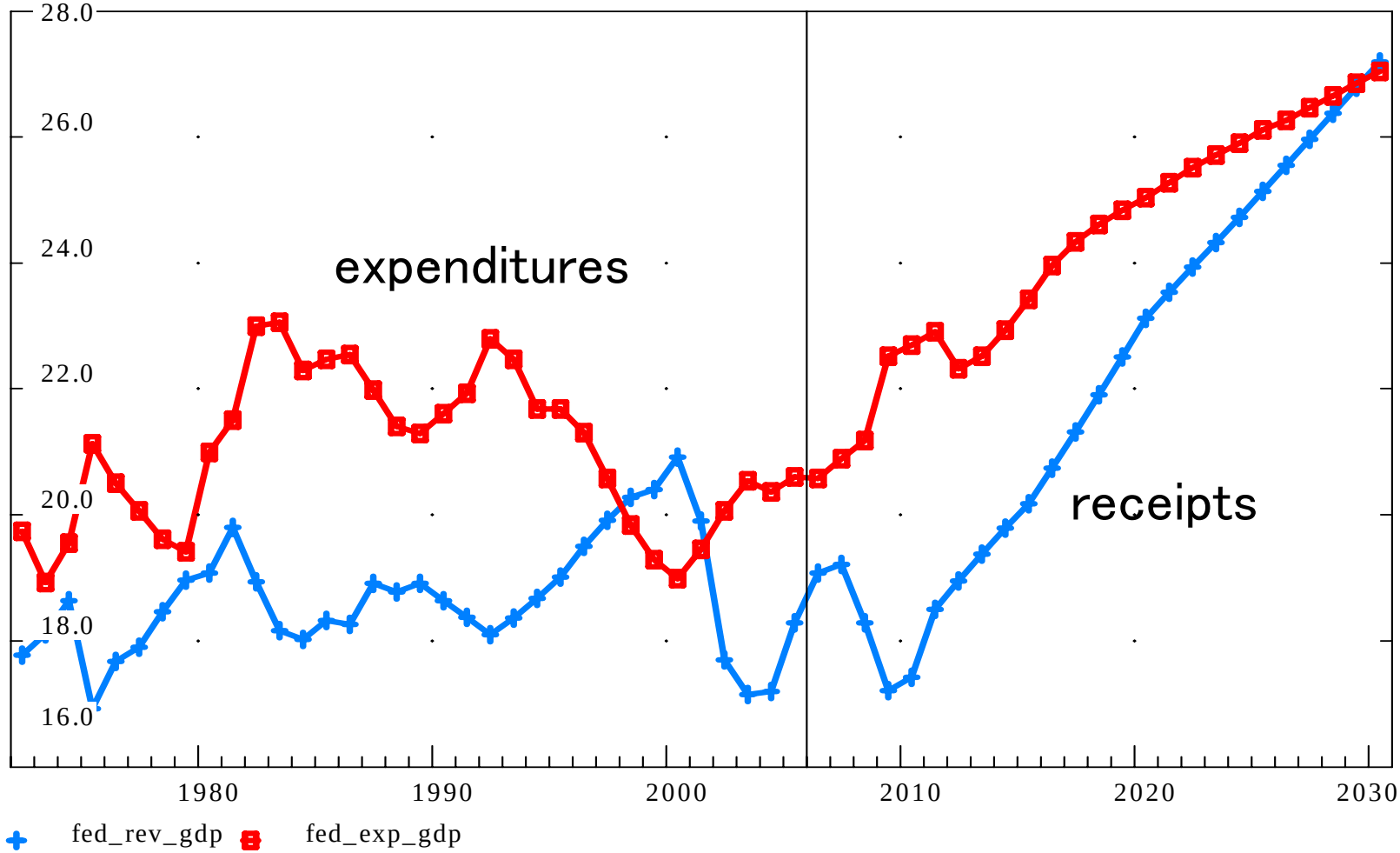
Industry employment shares: Productivity growth must come from all sectors



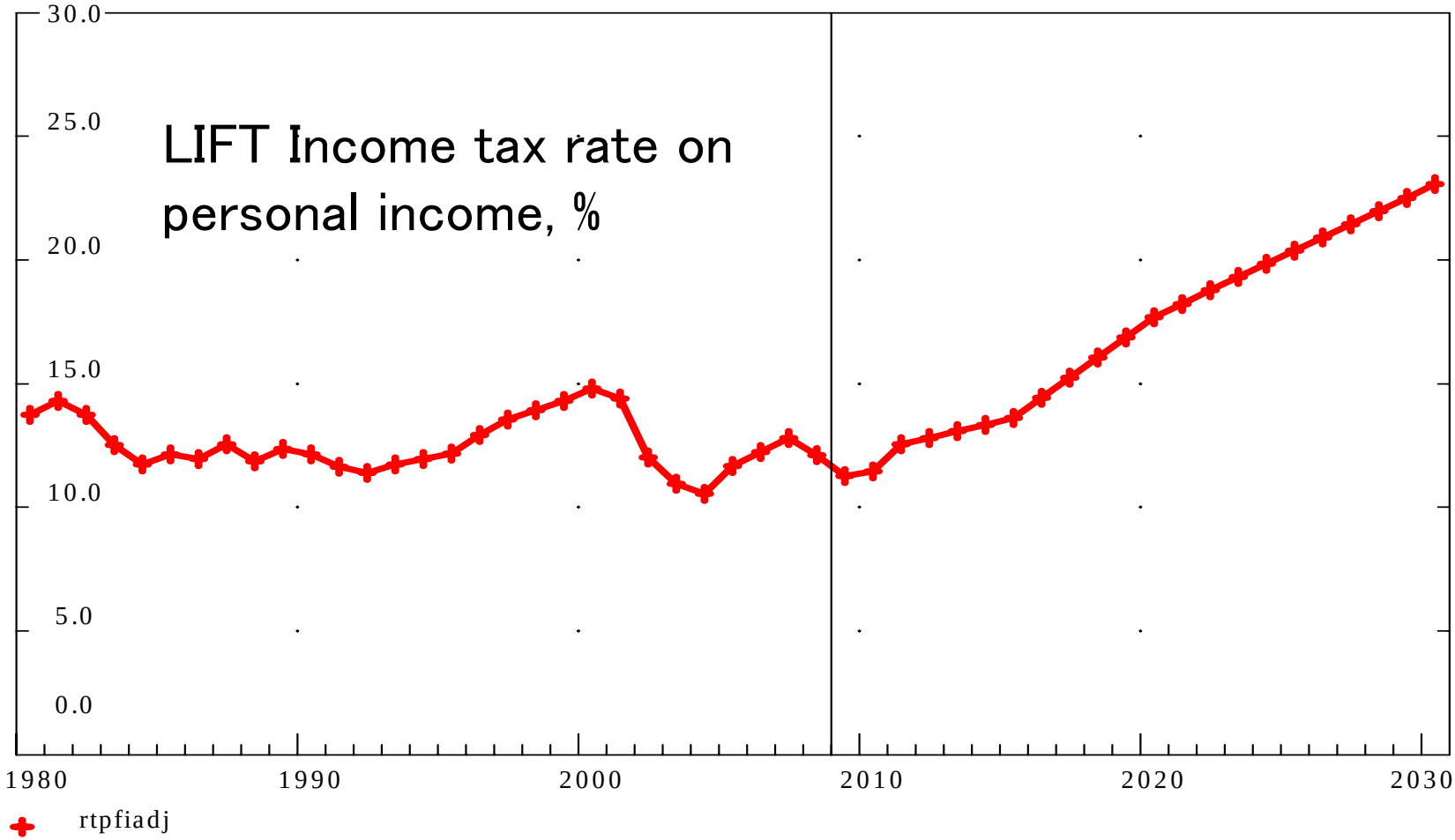
Industry value added shares



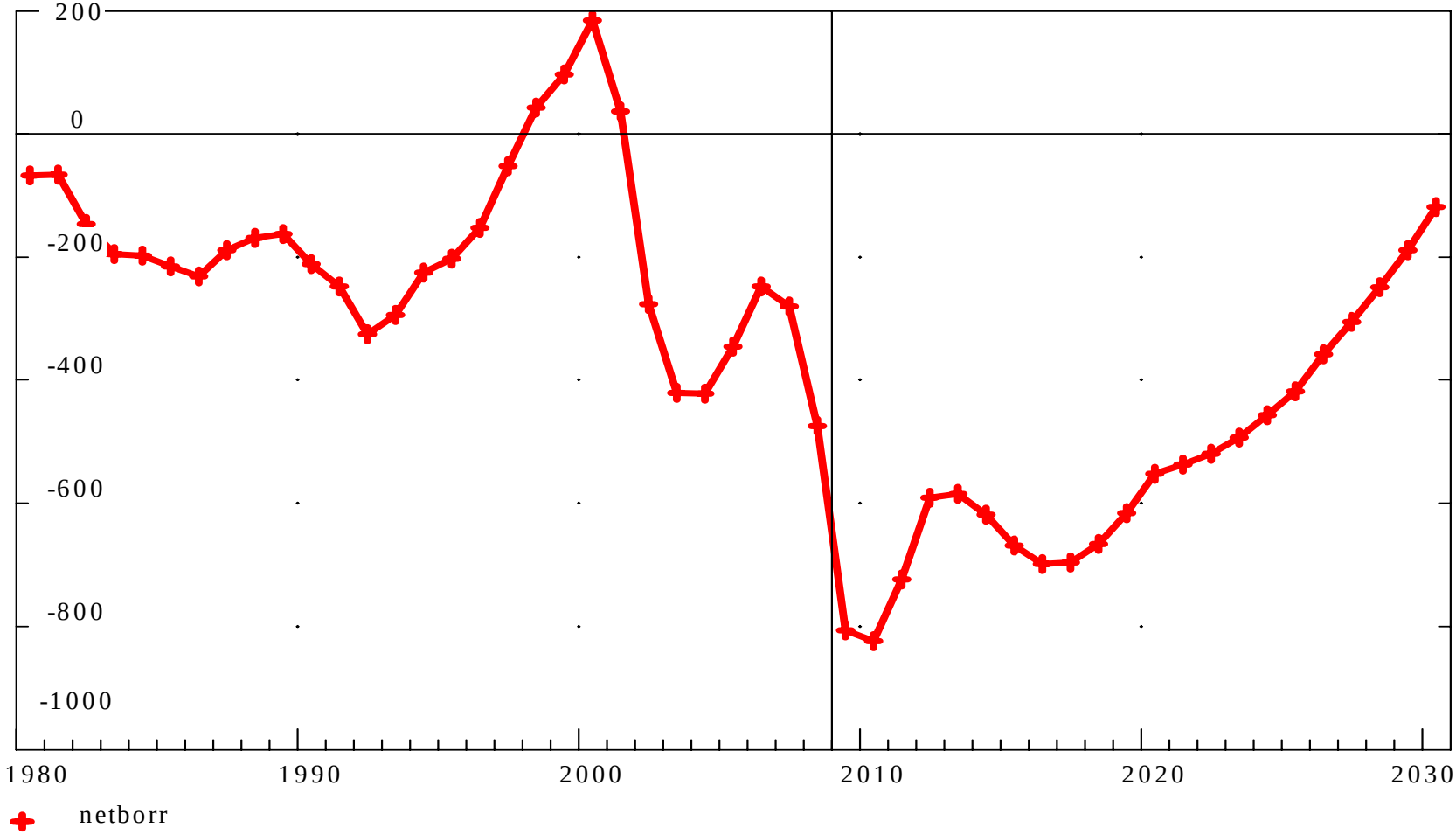
Federal receipts and expenditures as percent of GDP



Higher taxes ahead



Federal deficit: eventually reaches zero.



Conclusions

- Financial System crisis had many ingredients, solution will take more quantitative easing and massive fiscal stimulus.

- Recession:
  - Credit crunch (liquidity trap) remains biggest problem.
  - Even if credit flow resumes, consumers net worth is badly damaged, and saving rates will rise.
  - Recovery will be very slow.

- Long term:
  - Lower labor force growth slows potential growth.
  - Weaker dollar, rising savings rate changes economic structure toward exports and away from consumption. Current account balance stabilizes.
  - Increased taxes close federal deficit by 2030.