The Japanese Experience

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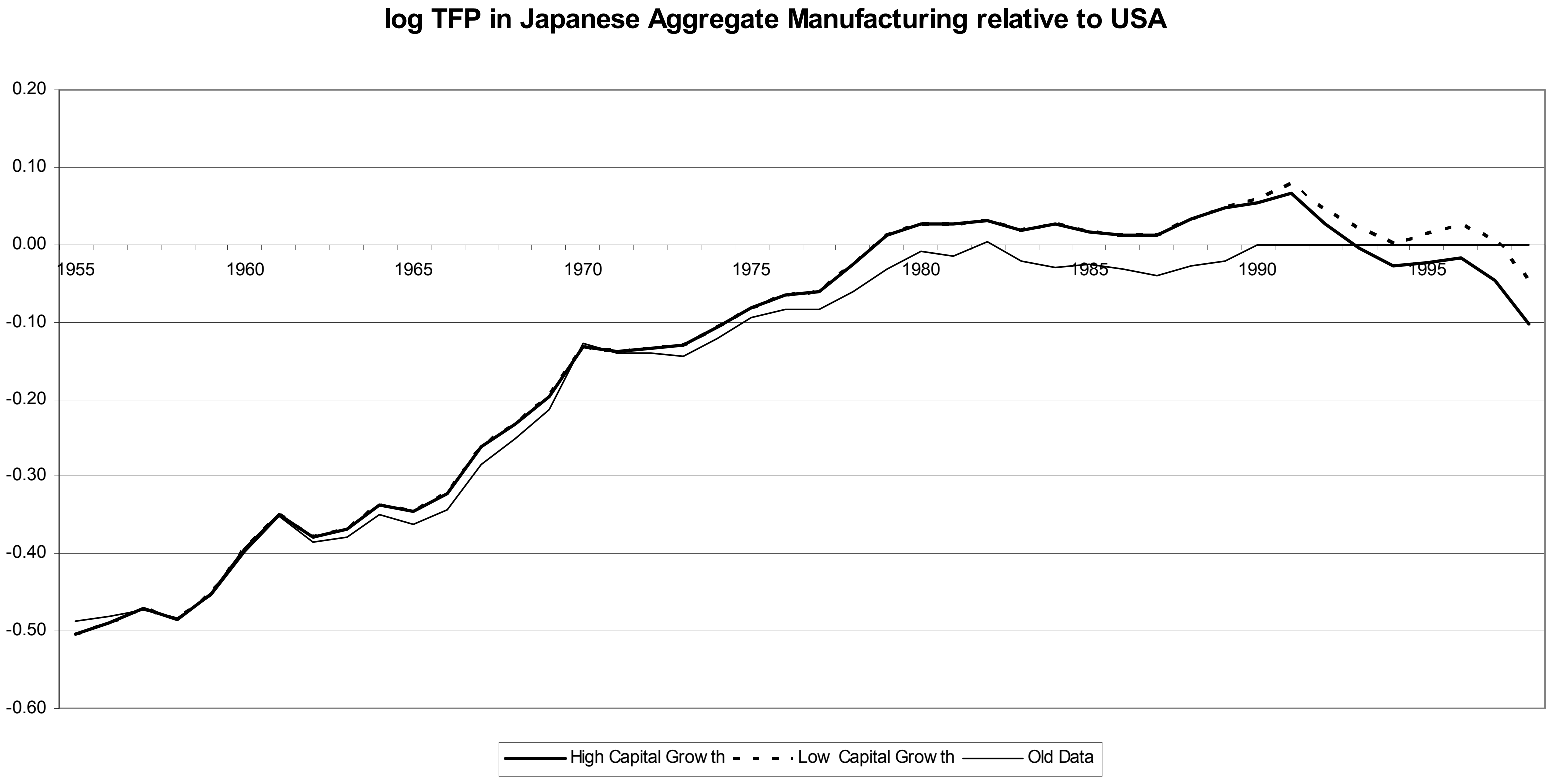
the Japanese Economy

- Rapid growth until 1980s.
- Economic “shocks” of 1980s and 1990s.
- Is this really a “recession”?
- Can policy fix it?

investment backlogs and reconstruction

- The war provided a big shock to capital: in Japan 81% of shipping, 34% of industrial machinery and 25% of dwellings were destroyed.
- With a Cobb-Douglas production function (with a labour share of 0.7), a loss of a quarter of the capital stock reduces output by 8%.
- In addition, much of the capital that withstood the war was unusable for some time due to lack of fuel, parts, labour and transport. Or because it needed to be converted from wartime to civilian uses. If we say that a quarter of the workforce was temporarily displaced and only a quarter of the capital stock could be used immediately, output would be reduced to 54% of its pre-War level.
- Therefore the rapid rises back to pre-War levels largely due to capital and labour being redeployed and brought back into use.
- Of course, that still leaves the actual loss of capital and the 'missed years' to be replaced and doesn't explained the prodigious post 1955 growth.

Long-run Japanese performance



Japanese industrial performance

Table 1

Relative TFP Level of Japanese Industry (US=100)

	1955	1973	1980	1989	1998
Total	**60.5**	**87.8**	**102.6**	**104.9**	**90.2**
Food	73.5	84.4	82.1	75.9	68.3
Textiles	57.2	69.4	69.6	56.4	44.7
Paper	65.0	95.4	103.4	118.7	102.7
Chemicals	76.3	89.5	119.6	134.7	125.5
Minerals	42.2	70.8	78.1	79.3	68.8
Primary Metals	57.0	98.5	123.8	123.5	109.7
Metal Products	39.3	75.7	74.0	81.9	75.9
Machinery	40.6	86.1	107.9	91.2	n/a
Electricals	50.5	100.0	125.5	132.3	n/a
Transport	40.3	85.3	98.2	104.3	97.1
Instruments	37.4	80.1	94.3	95.2	95.3

accounting for Japanese growth

		1950-1973	1973-1987
GDP		9.27	3.73
Augmented factor input		5.44	2.95
TFP		3.83	0.78
	Structural Effect	1.22	0.15
	Technology Diffusion	0.50	0.21
	Foreign Trade	0.38	0.18
	Scale Effect	0.28	0.11
	Energy Effect	0.00	-0.12
	Natural Resources	0.00	0.00
	Total explained	2.38	0.17
Residual TFP		1.45	0.61

Note: *Data are annual compound growth rates.*

Source: *Maddison (1991) table 5.19.*

OECD macroeconomic performance

	OECD	EU	USA	JAPAN	GERMANY	FRANCE	ITALY	UK
Output Growth								
1960-1973	4.9	4.7	4.0	9.7	4.3	5.4	5.3	3.1
1973-1979	3.2	2.6	2.9	3.5	2.4	2.7	3.5	1.5
1979-1989	2.9	2.2	2.8	3.8	2.0	2.1	2.4	2.4
1989-1999	2.6	2.0	3.0	1.7	2.2	1.7	1.3	1.9
Unemployment								
1960-1973	2.9	2.6	4.8	1.2	1.0	2.6	5.7	3.3
1973-1979	5.0	4.6	6.7	1.9	3.0	4.4	6.0	4.9
1979-1989	7.3	9.4	7.3	2.5	5.8	8.8	8.2	9.8
1989-1999	7.4	9.9	5.8	3.1	7.5	11.2	10.9	8.3
Inflation								
1960-1973	3.9	4.1	3.1	6.1	3.4	4.9	4.9	4.8
1973-1979	8.8	9.6	7.8	9.5	4.6	11.1	16.7	15.6
1979-1989	5.4	6.6	5.3	2.5	2.8	7.5	11.4	7.0
1989-1999	2.7	3.4	2.4	1.0	2.4	2.1	4.6	3.8

Source: ***Economics of the OECD 2000 exam paper data tables 1, 4 and 5.***

What happened to economic growth?

- Growth fell in two "steps": 1973 and 1991.
- Since 1997 longest post-war recession: 6 quarters of negative growth.
- Four quarter recession in 2001.
- Now growing slower than other OECD.
- A large part of the decline is from productivity performance.

three major interpretations

- Succession of unfavourable shocks
  - Japan's structure hasn't changed
- Potential growth has sharply diminished
  - catch-up is over; unfavourable demography; Japan's model can't adapt
- Elements of both which interact
  - shocks plus pessimism and uncertainty

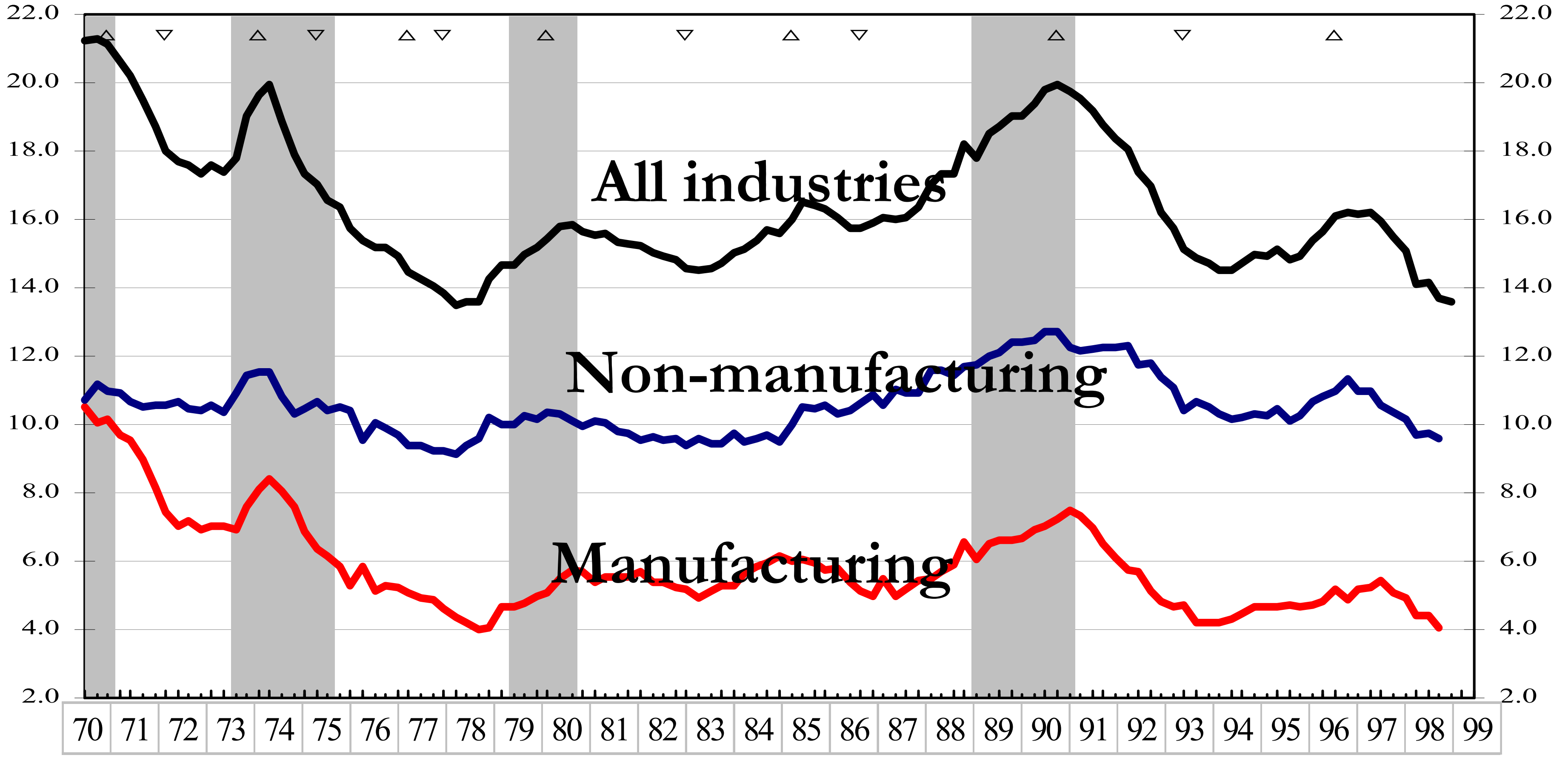
1980s economic shocks

- 1985-1989 the “bubble” economy.
  - investment boom (excess capacity?)
  - land and asset prices
  - policy stance - loose money, tight fiscal (low interest rates, capital outflow)
- Persistent trade surpluses; tension with the US.

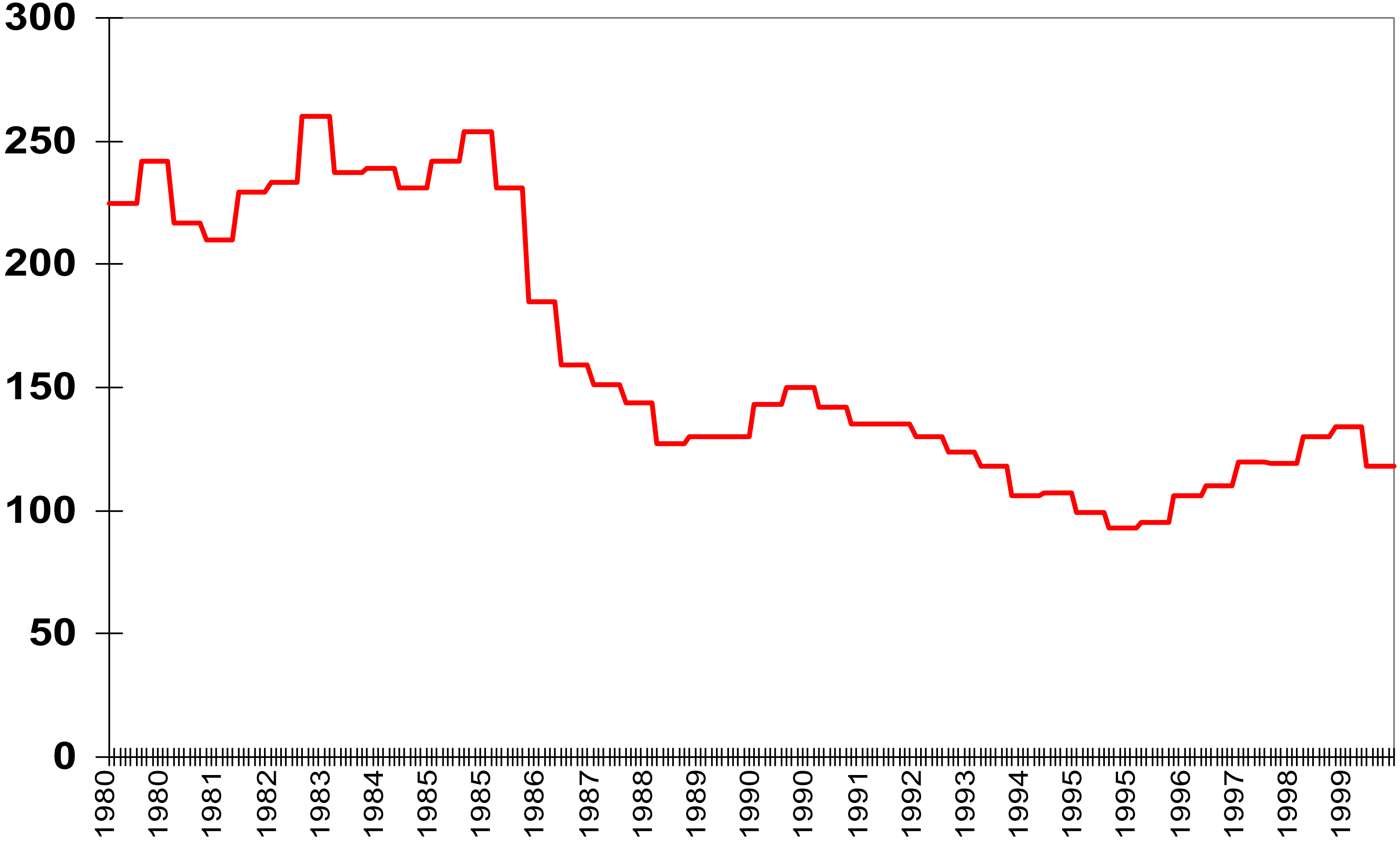
reverse shocks in 1990s

- Yen appreciation from Plaza (1985) to 1996.
- Monetary policy burst the bubble in 1991 - deliberate.
- Massive loss of wealth.
- Policy induced double-dip recession in 1991-95 and 1997-99.

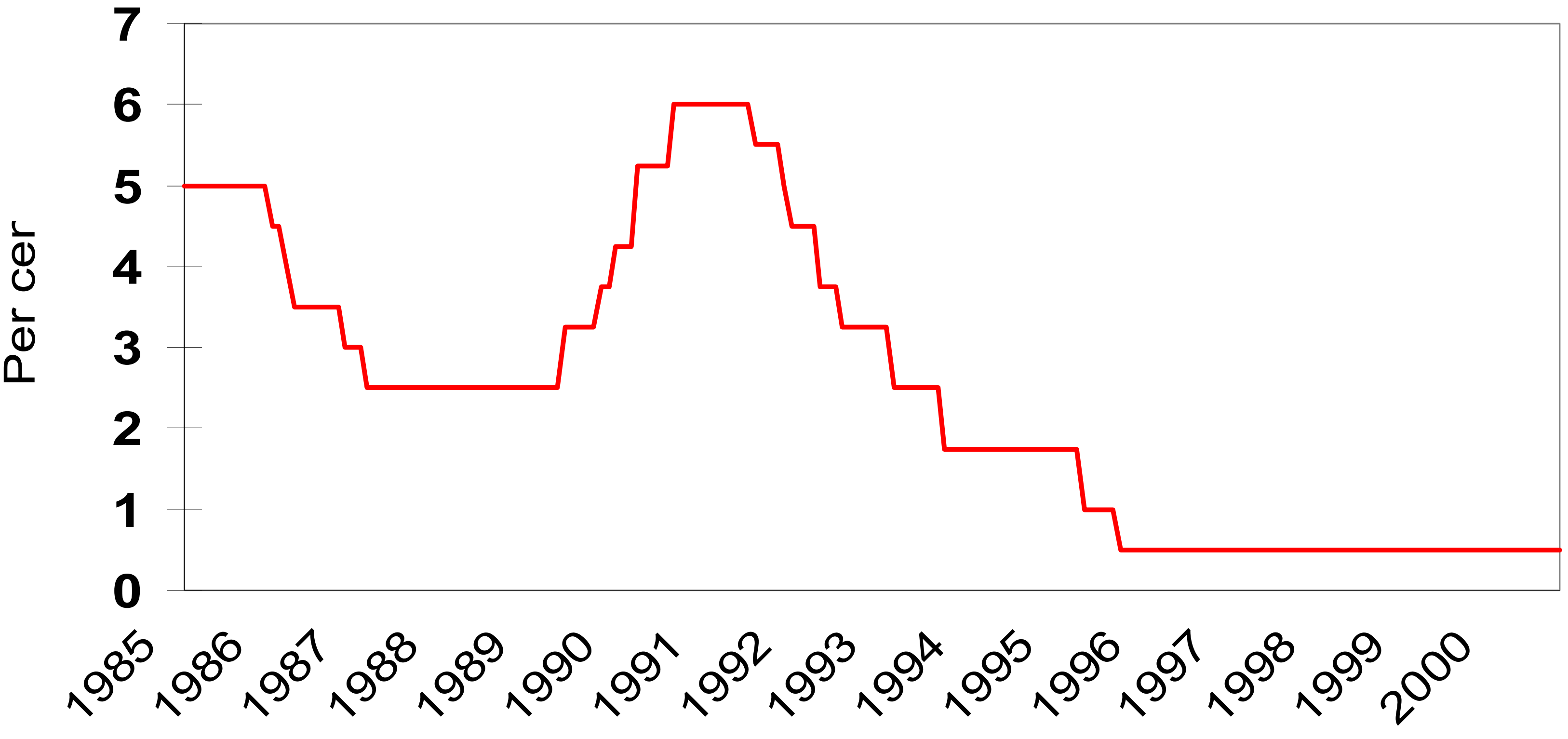
fixed investment as % share GDP



Yen-Dollar Exchange Rate



Japanese Official Discount Rate



more shocks in the 1990s

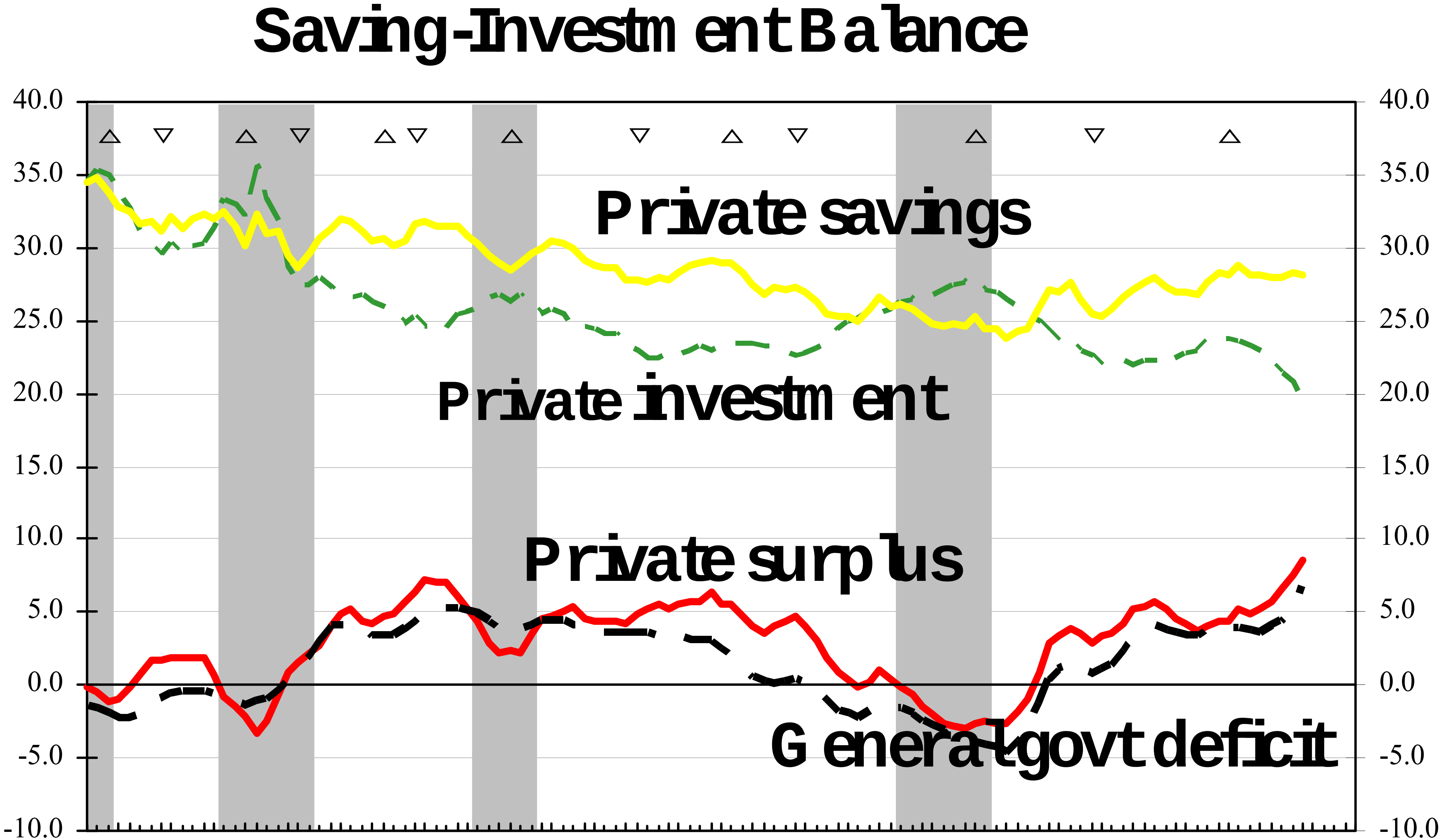
- Large and rising government deficits and debt.
- Ageing population - pension problems.
- Financial market deregulation and demands for further deregulation.
- Banking “crisis”, bad loans and “credit crunch”.
- Asian crisis of 1997-98.

but is this really a recession?

- Where is potential growth, how bad is the recession?
- Neoclassical, "supply-siders": it's a natural adjustment.
- OECD and IMF: potential has fallen to 1.5%, output "gap" about 5%.
- Krugman: potential is much higher 3% so "gap" is much bigger.

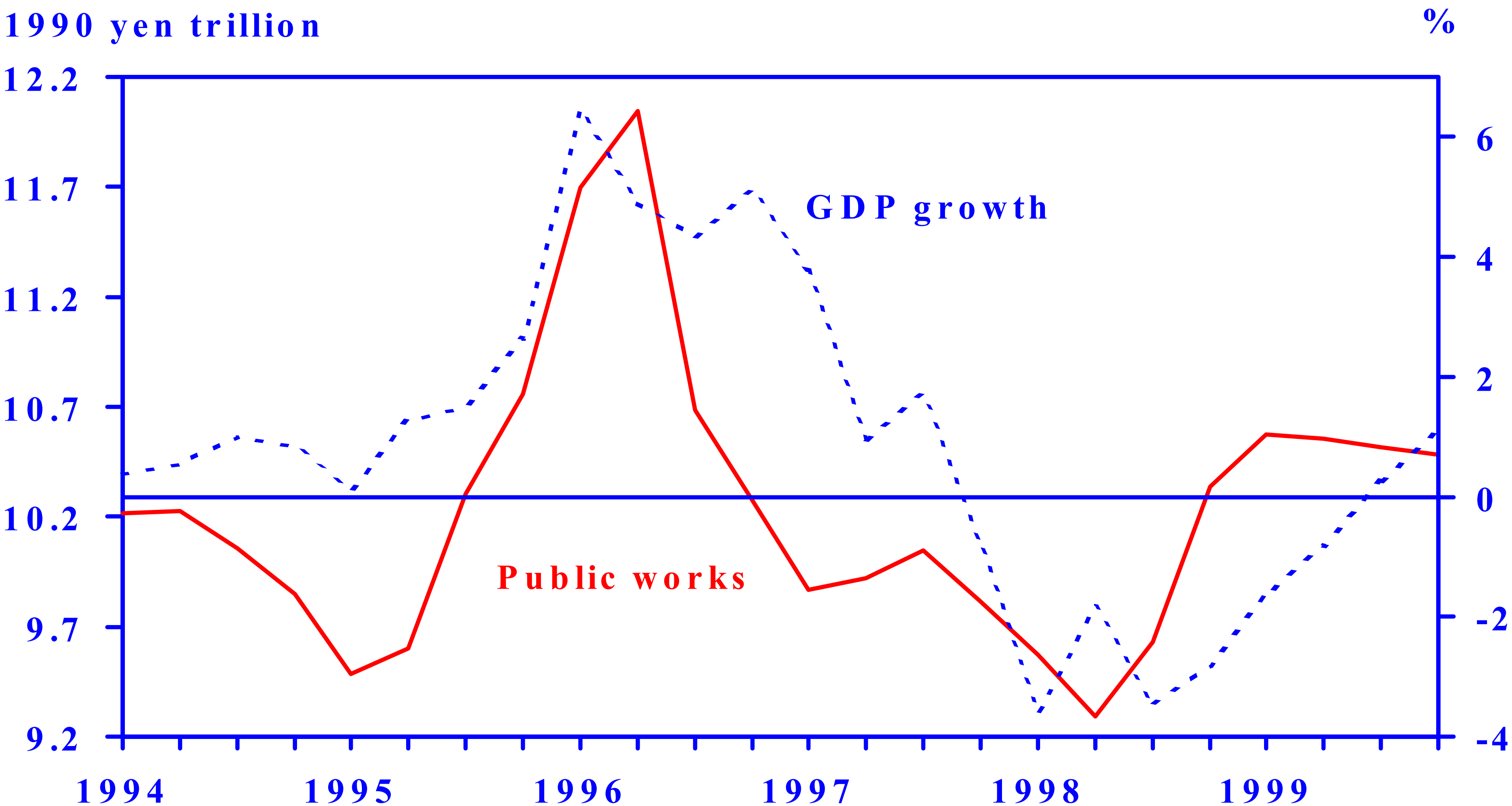
What should be done?

- First decide what the problem is
  - Supply side: an economy with low potential?
  - Or demand side?
- If supply side…
  - main policy tool is deregulation
  - flexibility, restructuring, corporate governance
  - these are happening… slowly.
- If demand side…
  - Savings rate high, for last 10 years higher than domestic investment.
  - Keynesian economy with insufficient demand.
  - Macro policy is the conventional remedy. Can it work?



Saving-Investment Balance
Private savings
Private investment
Private surplus
General govt deficit
40.0
35.0
30.0
25.0
20.0
15.0
10.0
5.0
0.0
-5.0
-10.0

Public works and GDP growth cycle



Source: OEF

What about monetary policy?

- Nominal interest rates close to zero: what more?
- Japan may be in "liquidity trap"
- And worse, real interest rates are still positive
- Crazy suggestions?
  - Krugman wants positive inflation targets;
  - McKinnon wants Yen depreciation;
  - Bank of Japan has tried raising interest rates to stimulate (i.e. to make banks lend money they need to be able to make profits on loans);
  - Taxpayers pay for bailout of banking system.

the credit channel

- In traditional models, asset prices do not matter for the real economy.
- But in markets with informational asymmetries, firms prefer to finance investments from internal rather than external funds due to the external finance premium.
- Why might investment be sensitive to the source of finance?
- The Cash Flow Channel
  - A positive (negative) monetary shock raises (reduces) current output and cash flow and hence reduces (increases) the proportion of investment that must be externally financed. This lowers (raises) the cost of capital and raises (reduces) investment
- The Asset Price Collateral Channel
  - A positive (negative) monetary shock raises (reduces) asset prices and hence raises (reduces) the value of collateral. The rise (fall) in the value of collateral reduces (raises) the external finance premium and hence raises (reduces) investment.

recent policy measures

- In October 2002, BOJ announced that it would start to purchase JGBs in order to raise liquidity in the money market – liquidity has doubled since then.
- Excess reserves held at the BOJ are running at about 30 trillion yen, up from their average of 5 trillion yen in 2000.
- Government adopted “policies” to resolve the non-performing loan (NPL) problem aimed at halving ratio of NPLs to total loans.
- In practice, since there is little new money to liquidate the NPLs, the policy is focussed on hastening the resolution of NPLs and has had little effect (except for a 2 trillion yen bailout of the former Daiwa bank).

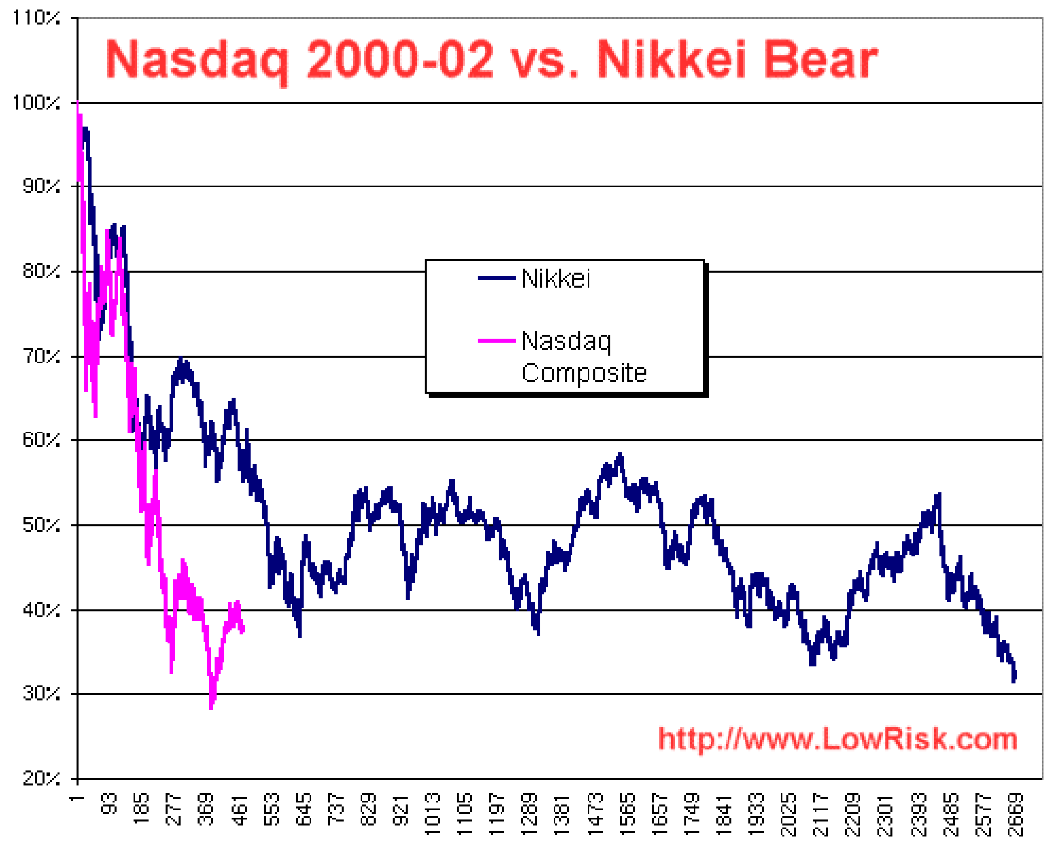
summary

- The traditional Japanese model had advantages.
- But may have slowed down adjustment.
- Labour system and corporate governance are particularly slow to change.
- This is not a coincidence.
- And lack of dynamism in a major economy has effects:
  - confidence
  - fear of policy impotence
- Could it happen to the US?

oecd forecasts

	2000	2001	2002	2003f	2004f
Private consumption	0.5	1.4	0.8	0.5	0.8
Government consumption	4.4	2.9	2.4	1.9	1.7
Gross fixed investment	4.1	-2.3	-5.5	-2.1	-0.7
Exports	12.5	-7	5.5	7.6	6.2
Imports	9.4	-0.8	-1.2	3.9	4.5
GDP at market prices	2.6	-0.3	-0.7	0.8	0.9

what next?



Nasdaq 2000-02 vs. Nikkei Bear
110%
100%
90%
80%
70%
60%
50%
40%
30%
20%
Nikkei
Nasdaq Composite
http://www.LowRisk.com
1
93
185
277
369
461
553
645
737
829
921
1013
1105
1197
1289
1381
1473
1565
1657
1749
1841
1933
2025
2117
2209
2301
2393
2485
2577
2669

syndicate topics

- How did Japan grow so fast between 1945 and 1990? Assess the contributions of high domestic saving, technology transfer, and the Japanese labour market and system of corporate governance.
- Is the Japanese recession a necessary correction to the bubble years of 1985 to 1990?
- What is a liquidity trap? What is a Ricardian debt trap? Is Japan trapped?
- Why are the Japanese such prodigious savers?
- How can the Japanese banking crisis be resolved?