

Transition in China 1990s Stagnation in Japan

Chinese Transition: Why it matters

- Different path to a market economy than FSU & CEE
- China has been the fastest growing economy over the past three decades
- China managed to avoid the East Asian financial crisis
- World Bank no longer classifies it as among the poor countries of the world (medium level of human development)

A brief history of China...very brief

- At the beginning of the millennium, China likely had the highest per capita income in the world
- Developed gunpowder, clocks, printing technologies, etc.
- Developed civil service based on competitive examinations and efficient system of public finance

The Big Question

- Why did modern economic growth not originate in China?
- Centralized state not conducive to innovation but needed for large-scale hydraulic and defense projects
- Foreign incursions disrupt economy

Early Experiences under Communism

- Consolidation (1949-52): private enterprises placed under government control.
- First 5-year plan (1953-57): Low interest Soviet loans. Construction of modern factories by Soviet experts, who trained Chinese technicians to run them
- Great Leap Forward (1958-60): Make use of abundant labor. Mass mobilization. Backyard steel mills. Soviet technologies withdrawn.

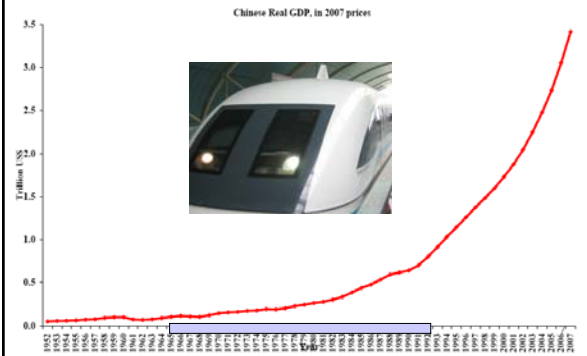
More on the planned economy

- Third 5-year Plan (1965-)
- Cultural Revolution (1966-69): Purging of moderate, revisionist views. Denigration of technical excellence. Ideological polarization.
- Post-cultural revolution period (1970-6): Turn from class struggle to modernization, emphasizing purchase of foreign technology.

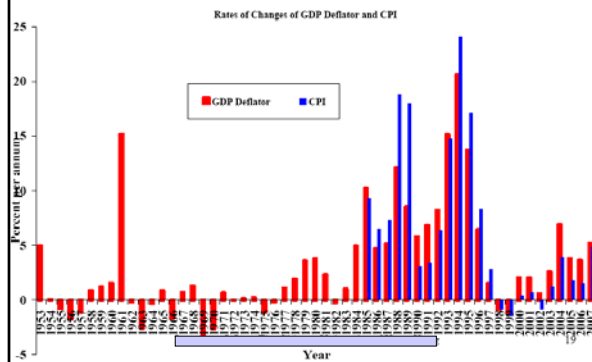
Overview of 1980s Reforms

- Rapid growth targets scaled back to realistic levels
- Government and state enterprise functions distinguished, giving latter more autonomy
- Small state enterprises transformed into private collectives
- Small private enterprises allowed
- Farmers allowed to keep surplus production
- More price differentiation allowed

Growth accelerates with reforms



Inflation rates



Economic Performance: pre- and post-reform periods

	Growth Rates percent per annum	
	Pre-Reform 1952-1978	Reform 1978-2007
Real GDP	6.15	9.79
Real GDP per Capita	4.06	8.61
Real Consumption	5.05	9.12
Real Consumption per Capita	2.99	7.95
Exports	9.99	18.11
Imports	9.14	16.68
Inflation (GDP Deflator)	0.50	5.38

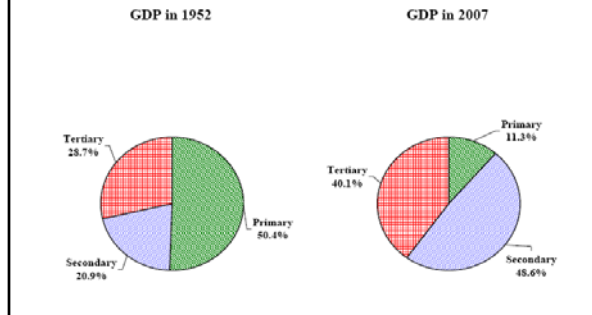
Summary of Chinese Economic Performance

- GDP Growth rate of 9.5% since reform started in 1978
- Between 1978 and 2007, Chinese real GDP grew fifteen-fold, from \$228 billion to \$3.42 trillion
- Real GDP per capita grew more than ten-fold from \$236 to \$2,571
- Improved HDI as well
 - Infant mortality rates have declined significantly
- But let's not lose our perspective; China's still a developing economy:
 - U.S. GDP 2007 ~ \$13.84 trillion -- 4 times China's
 - US GDP per capita 2007 ~\$45,671 -- 18 times China's

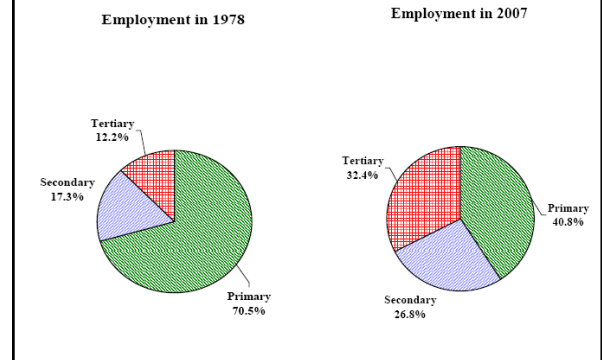
Transformation of Chinese Economy

- Structural Change
 - Laborforce in agricultural has dropped from 71 to 40 percent
 - Non-state sector today accounts for more than 75% of GDP
 - Even greater percentage of employment compared to essentially 0% in 1978.
- Broad liberalization of prices
- Increased Openness

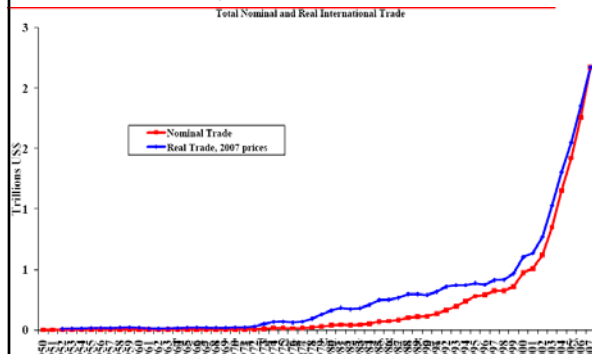
Changing Structure of Output in China



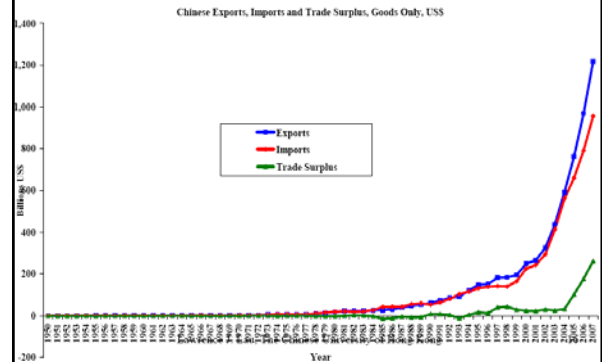
Employment by sector



Growth in Trade (China joins WTO in 2001)



Trade surpluses begin in mid-1990s (large ones ~ 2004)



So what lies behind the success?
Is there a Chinese model that others can follow?

1. Experimental Interpretation

- Groping toward a unique Chinese social market economy
- Reforms have been gradual, incremental
- Slow reform has minimized social conflict and instability
- Model is transferable to other transition economies

2. Convergence Interpretation

- China is reluctantly converging to ROW model
- Growth was fast **despite** slow pace of reform
- Slow pace of reform and repeated reversals reflect conflict within the country over its direction
- Progress has been greatest in areas (coastal regions, agriculture) where reform has gone furthest

What explains exceptional success of reforms?

- Experimentalists: avoiding mistaken policies and social dislocations
- Convergence School
 - Initial conditions were high population density and heavy concentration in low-wage agriculture
 - Conducive to labor-intensive export growth
 - Further advantage that large SOE sector did not have to be dismantled
 - Not necessary for SOEs to actually shed labor
- Implication: model is not transferable

Cross-Country Evidence

- In a cross-country growth model covering the last 25 years, using (1) initial per capita income, (2) favorable physical access to sea lanes, (3) export orientation, (4) proportion of labor force in low-wage agr, (5) stable monetary & fiscal policies, these factors entirely explain Chinese growth
- Implications: Distinctive Chinese institutions add (and subtract) nothing. Neither the source of country's growth, nor a barrier

Initial conditions appear to have mattered for China's success

- Followed the high domestic savings model of other Asian economies
 - S averaged 30 percent; finance I from this
 - Little reliance on foreign capital or foreign loans or privatization
- An unlimited supply of surplus labor
- Huge internal market of 1.3 billion consumers
 - Demand for transportation goods, services and consumer goods → significant scope for economies of scale in production

What would more rapid reform have done?

- We don't know, but consider Vietnam
- 1989: Big-bang reform entails radical price liberalization, harsh stabilization, returning land to family farms with long-term leases
- Rapid growth acceleration
- Output did not fall as in Eastern Europe
- Reason? 79% of labor was in agriculture. No need to close down non-viable industry (different initial conditions likely mattered a lot for success of reform)
- Implication for China seems clear

Early reforms in more detail

- Note: these were radical reforms
- 1978: rapid liberalization of agriculture.
- 1980: coastal cities allowed to accept FDI
- 1984: SOEs were given more decision-making power in response to the obvious success of agricultural liberalization
- 1984 → : Communal-owned enterprises also grew explosively

Remaining problems

- 15-year farm leases provide no incentive to engage in k improvements, i.e. irrigation
- Managers retain incentives to strip enterprise assets, overpay themselves
- Communal enterprises maximize wage bill or equivalent rather than maximizing efficiency

Why these problems have been contained so far

- Easy improvements in agricultural sufficiency were available
- Tough state oversight and heavy penalties discouraged asset stripping. Strong continuing prejudice against private property meant that there was no place to hide stripped assets

Results

- Nonstate sector has grown much faster than state sector
- Agriculture provided major impetus early on, but played less of a role subsequently
- Exports have been a leading sector of growth

Table 3: Compound Growth Rate by Sector, and by Ownership in the Industrial Sector (in percent)

	Growth in 1979-93	Growth in 1979-84	Growth in 1985-93
primary sector	5.2	7.3	3.8
industrial SOEs	5.8	6.8	5.2
industrial COEs	18.1	15.5	19.8
individual-owned industrial enterprises	na	na	73.4
other ownership forms of industrial enterprises	na	na	49.4
construction sector	10.6	10.2	10.9
tertiary sector	10.0	10.8	9.4
Memo Item: industrial non-SOEs	21.2	16.4	24.5

SOE Reform

- 1979 - : Managers could make decisions regarding bonuses, how and what to produce, market, and price
- 1979 - : prices of outputs liberalized
- 1983: Managers would sign contracts about taxes and profits to be turned over, but losses were forgiven
- 1985 -: prices of inputs liberalized
- Small SOEs collectivized
- Large SOEs productivity disappointing. Profits disappearing

Explaining SOE losses

- Experimentalists argue this reflects entry and intensifying competition
 - TVEs made competition fierce, caused losses
- Convergence view objects
 - Decline is also evident in sectors w/out much entry
- Convergence view argues decentralization in SOEs allowed managers to strip assets and give in to excessive wage demands
- Experimentalists argue that this behavior is not, in fact, widespread.
 - SOE wage bill has remained constant at 5% of GDP

The State's response

- Privatization of small SOEs
 - 175 property rights exchanges where this is done
- Turning large SOEs into joint stock companies to strengthen corporate governance
 - Shareholder oversight

Rural Reform

- Productivity growth has slowed since 1980s
- Reforms uncertain: some farm operations have been re-collectivized to reap scale economies
- State has reduced spending on irrigation, etc.
- Budgetary stringencies have led to particular reductions in state spending on schooling and health in rural regions, reducing human capital formation
 - Note: this problem has intensified during the current financial crisis

Township Village Enterprises TVEs

- Owned by local gov'n't or collectively. Hence they face hard budget constraints
 - 3rd way: halfway between SOEs & privatization
- Share in total employment has risen from 7% in 1978 to 25% today
- Their share of exports has risen from 9% in 1986 to 40% today
- Experimentalists: collective ownership is a way of raising capital and shortening supervision distance
- Convergence view: curb markets and better supervision modes are available (viz. Taiwan); TVEs an unstable halfway house
 - Incentives of managers are not well aligned: max employment rather than profits

Problems of TVEs

- Invites local gov interference in operation of enterprises
- Limits opportunities for risk diversification
- Limits scale of operation of enterprise
- Limits opportunities for entrepreneurship
 - This mode provides few opportunities for raising funds to start a new business or buy out an existing business
- Migration challenge: are migrants owners?
- Implications: TVEs will wither away

Conclusions

- What do we make of the convergence versus gradualist views?
- Growth has not been without problems
- However, few want to return to central planning days

Conclusions

- It will probably take another 20-25 years for China to reach the ranks of developed economies (in terms of income per capita)
- And another 25-30 years to equal U.S. standards of living
- ...and this assumes no political shocks

The Chinese Real GDP and Real GDP per Capita: Past, Present and Projected Future

	1978	2007	2020
Real GDP (\$ trillions)	0.228	3.42	8.00
Real GDP/capita	236	2,571	5,500

Challenges

- Mass migration
- Political voice
- Social safety nets
- Access to healthcare and education
- Environmental degradation
- Internal open markets
- Protection of intellectual property
- Weakness of banking system
- Growing capital mobility
- Instability of TVE model
- Continued losses of SOEs
- Barriers to winding down SOEs, which are suppliers of local services

Heisei Malaise

Japan's stagnation in the 1990s

End of Japanese Miracle

- After 1970 growth in Japan decelerates more dramatically than in any other country
- Annual average growth rate of real GDP fell:
- Country 1960-69 1970-73 1974-85
- Japan 12.1% 7.5% 3.8%
- US 4.1% 3.2% 2.2%
- What does this imply for other Asian countries that followed the Japanese model?

Proximate Explanations

- Scope for "catch up" growth exhausted
- Labor market grew less accommodating
 - Demands for higher living standards
- Diversification of social goals
 - Spending on housing & pollution abatement (the latter exceeds that in any other country)
- Savings rate declined as population aged
- Higher energy costs disproportionately impact Japan (but only short-run effect)

Less Obvious Explanations

- MITI-led system less suitable when task is innovation rather than extensive growth
 - Bureaucrats do less well than markets in picking future winners
- Bank-based financial system less suitable to a world of technological uncertainty
- In 1980s, Japan deregulated financial system, but this only increased competitive pressure and led to financial crises
- Bottom line: institutions developed for a world of extensive growth hinder continued growth when they become locked in

Japan's Slowdown in the 1990s

Why it matters

- Japan is the world's second largest economy & major US trading partner
- Unexpected?
 - Platinum growth preceded the dismal 1990s
 - In late 1980s, many commentators viewed Japan as poised to surpass the US economy: "Japanese Model"
- Developed countries have problems too
- Are problems uniquely Japanese or do we see ominous shadows in the US today?
- Implications for effectiveness of macro policy?
- Deflation: It's baaaack.....
- Links between macroeconomy & banks...once again

Some initial signs of trouble

- Growth 1950-72: 10% p.a.
- Stock market peaks in 1989
- Property market values peak in 1990
- Fall in net wealth equals 200% of GDP
- Recession begins in 1991
- Officially ends in 1993

Table 3
Monetary and Financial Developments in the 1990s
 (Annual percentage change)

	GDP Deflator	CPI	WPI	Real yen/\$	Land Price	Stock Price
1991	2.89	2.3	-1.29	72.2	0.55	2.38
1992	0.94	2.08	-1.69	67.4	-5.11	-32.03
1993	0.44	0.91	-4.07	62.4	-5.13	16.91
1994	-0.62	0.5	1.25	58.5	-3.82	0.47
1995	-0.38	0.07	-0.06	61.5	-4.3	-4.9
1996	-2.23	0.3	-0.33	71.2	-4.43	5.47
1997	1	2.23	1.42	79.4	-3.62	-20.85
1998	0.17	-0.32	-3.64	76.8	-4.38	-15.37
1999	-0.79	0	-4.12	76.9	-5.67	23

Things get worse

- Government pursues procyclical fiscal and monetary policy
- Bad debts of banks mount
- Consumption tax and rise in bad loans stalls recovery in 1996
- 1997-99: breakdown in financial markets

Nature of the Slowdown

- Decade long slump
- Little productivity growth
- Recession or slow GDP growth
- Falling prices or deflation
 - First dramatic example since Great Depression for developed economy
- Rising unemployment
 - Likely double the official rate
- Decreasing satisfaction with political system
 - Eroding of power of Liberal Democratic Party

Size of the 1990s slump

- Cumulative lost output 15% of GDP
- By 2004, 10% below trend growth in GDP & trendline (potential GDP) growth has slowed
- Public bailout (thus far) of banks 15% of GDP
- Unemployment rates at postwar highs

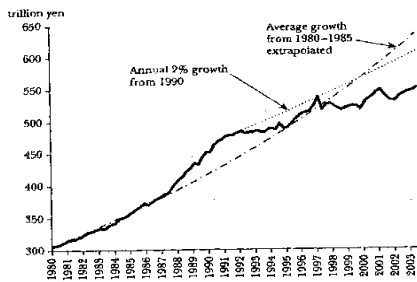
Unemployment has increased

Table 10
Labor Statistics 1985-99

	1985	1990	1995	1996	1997	1998	1999
Unemployment rate	2.6	2.1	3.2	3.4	3.4	4.1	4.7
Age 20-24	4.1	3.7	5.7	6.1	6.2	7.1	8.4
Men 60-64	7	5.1	7.5	8.5	8.3	10	10.2
Employ. rate (male)	81	81.1	81.9	82.1	82.4	81.6	81
Employ. rate (female)	53	55.7	56.5	56.8	57.5	57.2	56.7
Real wage index	89.9	100	103.2	104.9	105.3	103.1	102.4

Growth has slowed below trend

Figure 1
Real GDP: 1980-2002



Source: Japanese SNA (System of National Accounting); (<http://www.esri.cao.go.jp/en/sna/menu.html>).

Table 1
Contribution of Demand Components (% of GDP)

	GDP Growth	Consumpt.	Housing Investment	Fixed Investment	Inventory Investment	Public Consumpt.	Public Investment	Exports	Imports
1980	2.8	0.6	-0.6	1	0	0.3	-0.5	1.4	0.7
1981	3.2	0.9	-0.1	0.5	0	0.5	0.3	1.2	0
1982	3.1	2.6	0	0.2	0	0.3	-0.2	0.1	0.2
1983	2.3	2	-0.3	0.2	-0.3	0.3	-0.2	0.5	0.2
1984	3.9	1.6	-0.1	1.5	0	0.2	-0.3	1.5	-0.6
1985	4.4	2	0.1	1.7	0.3	0	-0.5	0.6	0.1
1986	2.9	2	0.4	0.7	-0.2	0.5	0.2	-0.7	-0.1
1987	4.2	2.5	1.1	0.9	-0.1	0.2	0.5	-0.1	-0.7
1988	6.2	3.1	0.7	2.3	0.6	0.2	0.3	0.6	-1.6
1989	4.8	2.8	0.1	2.4	0.1	0.2	0	0.9	-1.6
1990	5.1	2.6	0.3	2	-0.2	0.1	0.3	0.7	-0.8
1991	3.8	1.5	-0.5	1.2	0.3	0.2	0.3	0.6	0.3
1992	1	1.2	-0.3	-1.1	-0.5	0.2	1	0.5	0.1
1993	0.3	0.7	0.1	-1.9	-0.1	0.2	1.2	0.2	0
1994	0.6	1.1	0.4	-0.9	-0.3	0.2	0.2	0.5	-0.8
1995	1.5	1.2	-0.3	0.8	0.2	0.3	0.1	0.6	-1.4
1996	5.1	1.7	0.7	1.8	0.4	0.2	0.8	0.8	-1.3
1997	1.4	0.6	-0.9	1.2	-0.1	0.1	-0.9	1.4	-0.1
1998	-2.8	-0.6	-0.6	-2.1	-0.1	0.1	0	-0.3	0.9
1999	0.6								
2000	1.9								

Table 2
Long-term Performance of the Japanese Economy
Average annual real growth rate (%)

	1961-70	1971-80	1981-90	1991-97
GDP	10.2	4.5	4	1.7
Private Consumption	9	4.7	3.7	2
Public Consumption	4.8	4.8	2.5	1.9
Resid. Investment	16.8	3.2	3.9	-1.8
Bus. Fixed Invest.	16.6	2.8	8.1	0.6
Public Investment	14.4	5.9	0.8	4.9
Exports	16.1	9.7	5.4	5.1
Imports	14.7	5.9	6.3	4.3
Employee Comp.	11.1	5.8	3.7	2.1
Disposable Income	9.5	4.8	3	2.2

Causes of the slump

- Equity & Property market bubbles?
- Overinvestment?
- Slow technical change?
- Banking system not financing new projects
- End of the social contract?

Productivity growth has slowed

Comparative annual growth rate

computed from OECD InterSectoral Data Base 1997

		1973-79	1979-89	1989-1994
Japan	GDP	3.33	4	2.11
	TFP	0.72	1.79	0.91
	Labor Pr.	3.35	3.45	2.81
US	GDP	2.28	2.68	1.82
	TFP	-0.21	0.47	0.57
	Labor Pr.	0.12	0.68	0.98
Germany	GDP	2.45	1.87	2.47
	TFP	2.24	1.19	1.66
	Labor Pr.	3.72	2.1	2.77

Labor Productivity growth has been slow in the 1990s

Comparative Labor Productivity Growth

(average % annual change in output/employee)

	1980-90	1990-95	1995-98
Japan	2.8	0.9	0.9
US	1.2	1.2	2.1
Germany	1.9	2.4	1.9

Problems: 1990-2004

- Political crisis?
 - Bold Japanese leadership lacking
 - Disapproval ratings > approval ratings for Koizumi

More problems

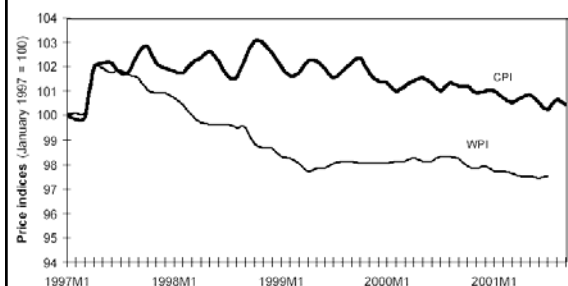
- Sustained deflation & debt deflation since 1994
 - Declining consumer demand
 - Real debt burdens are rising
 - Increases debt defaults
- Banking crisis
 - Bad loans estimated around \$1 trillion, rising at unsustainable rate
 - Not cleared from books: “evergreening”
 - Fear of significant job loss

More on banking crisis

- No new loans for I
- Credit crunch: Supply of loans shrinking
- Domestic savers pulling out of weak, small and medium-sized banks
- Capital adequacy standards not enforced
 - → bad banks not being shut down

Deflation was a reality

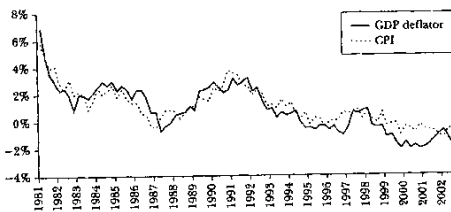
Figure 1 Deflation in Japan



Deflation

Figure 2

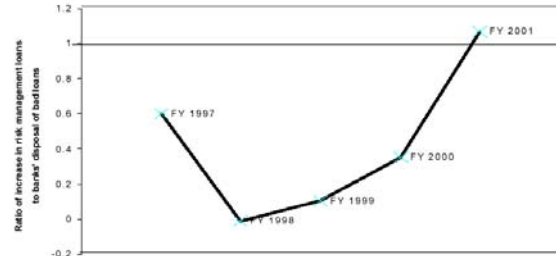
Inflation Rate



Source: GDP deflator is from Japanese SNA (<http://www.esri.co.jp/en/sna/menu.html>). CPI (consumer price index) is the series modified by Arai and Hoshi (2003) to remove the effects of consumption tax changes in 1989 and 1997. The original series for CPI is available at (<http://www.stat.go.jp/data/cpi>).

Bad loans are rising too unsustainable levels

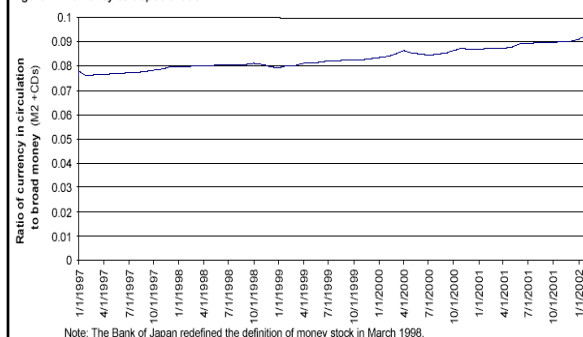
Figure 2 Growth of bad loan burden



Source: Annual data from Financial Services Agency, Classification IV ("Risk Management") loans, "Loss to Banks on Disposal of Bad Loans." FY 2001 is computed from an official projection. <http://www.fsa.go.jp/news/420022001-2e.html>.

Money supply contracted

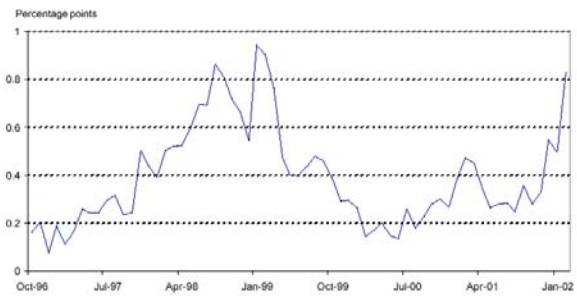
Figure 4 Currency-to-deposit ratio



Note: The Bank of Japan redefined the definition of money stock in March 1998

Credit crunch occurred

Figure 5 Credit spread between 5-year industrial Bank of Japan bonds and 5-year Japanese government bonds



Zombie Firms

- Bad firms continue to receive new loans
 - Implicit subsidies from government
 - Crowding out profitable firms
- Banks won't lend to viable enterprises
- Banks won't clean up bad loans
- Lack of adequate restructuring of industry
- Helps explain slowdown in productivity
- Neither fiscal or monetary policy has focused on this problem

Other areas of financial sector distress

- Several major insurance companies on verge of default
 - Double gearing between banks & insurance co.'s
 - Lending to each other inflates reported capital
- Govnt's FILP (Fiscal Investment & Loan Program) is bleeding cash → cost taxpayers another 78 trillion yen
- With banking sector added in, taxpayers are looking at 100 trillion yen or 20% of GDP in future costs

And more problems

- Fiscal problems are mounting
 - Deficit spending has been tried in spades
 - Currently 8% of GDP
 - Averaged roughly 6% for decade
 - Debt to GDP ratio is greater than 130%
 - Interest payments are rising portion of budget
 - Japanese debt downgraded → higher borrowing costs
 - No desire to try this any further
- Monetary policy
 - Central bank has not credibly committed to inflation
 - Nominal interest rates are very low: 0.25%
 - But real interest rates remain positive!!! Why?
 - To prop up equity prices, BOJ recently purchased equities

Real interest rates have remained positive despite deflation

Table 5
Real Interest Rates

(Government long bond yield minus expected inflation)

	1990-91	1994-95	1998-99
Japan	4.9	3	1.8
US	4.2	4.6	3.8
Germany	4.5	4.3	3

Japan's budget deficits have soared

Japan's Budget Deficit (Excluding Social Security)
(% of GDP)

	Deficit (General Government)
1983	6.2
1984	4.6
1985	3.4
1986	3.9
1987	2.4
1988	1.6
1989	0.7
1990	0.6
1991	0.8
1992	2
1993	4.8
1994	5.1
1995	6.4
1996	6.9
1997	5.9
1998	7.1
1999	8.9
2000	8.5
2001	8.1

Debt has reached astounding proportions

General Government Gross Debt (National Accounts basis)
(% of GDP)

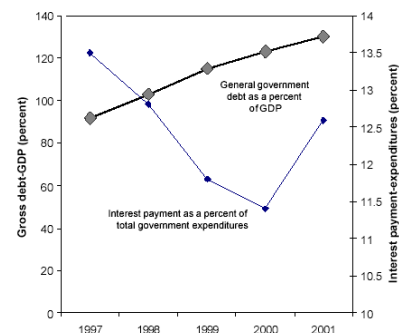
	Japan	US	Germany
1991	57.9	71.4	40.1
1992	59.3	74.1	43.4
1993	63.7	75.8	49
1994	68.8	75	49.2
1995	76.2	74.5	59.1
1996	80.5	73.9	61.9
1997	84.6	71.6	62.8
1998	97.4	68.6	63.3
1999	105.3	65.1	63.5
2000	112.8	60.2	63.5

Global picture isn't too great

- Yen overvalued
- China is the new economic bully on the block
- Military threats from North Korea?
- Demographic trends

The Long-term fiscal picture is bleak

Figure 3 Fiscal indicators for Japan



Default risk has been rising

Figure 6 Credit spread on 10-year Japanese government bonds



Policy prescriptions

- Bank closures: why?
- Bank recapitalization
 - Outside sources?
 - Political opposition?
- Bank of Japan purchases of long-term Japanese government bonds
- Depreciation of Yen
 - Will the US allow it?