Mizuho Financial Group

May 2003

Economic Outlook for FY2003 and FY2004

⬢ The Overseas Economies

The US Economy

The demand-side engine of the US economy will shift from consumer spending to capital investment given the impact of the Federal Reserve Board's (the "Fed") accommodative monetary policy stance and tax cuts. Despite stagnant economic growth up to the first half of 2003, the US economy will enter a moderate recovery in the second half of the year. In 2004, the growth of capital investment will drive the economy into a mild recovery. We expect US real gross domestic product (GDP) to expand 2.1 percent in 2003 and 3.0 percent in 2004.

The Euro Zone Economy

Although the economy in the euro zone will start to recover in the second half of the year supported by an improvement of the export environment, the German economy will serve as a drag and keep growth in the euro zone on heavy footing. We expect the rate of real GDP growth in the euro zone to expand 0.8 percent in 2003 and 1.8 percent in 2004.

The Asian Economies

Growth in the Asian economies will stall in the first half of 2003 given the adverse impact of the SARS (severe acute respiratory syndrome) epidemic but will enter a moderate expansion cycle from the second half of the year. We expect average GDP growth of the Asian economies to expand 5.3 percent in 2003 and 5.9 percent in 2004.

The Japanese Economy

- **The Japanese economy will start to recede from around mid-FY2003 along with the loss of steam of capital investment (the "peak of the economic cycle" will occur sometime in the Jul-Sep quarter of 2003). The current economic recovery will most likely be the shortest ever in post-World War II history.**
- **In the second half of FY2003, we expect more aggressive restructuring efforts in the corporate sector reflecting the economy's loss of momentum. The erosion of the employment and income environment and the rise of uncertainties toward the future will dampen personal consumption, leading to a further adjustment of the economy toward the year-end. The government will most likely implement economic stimulus measures totaling 2.4 trillion yen on an effective basis. The Japanese economy will bottom out in the second half of FY2004 helped by the growth of exports reflecting the recovery of the overseas economies.**
- **We expect Japan's real GDP to grow 0.6 percent in FY2003 and contract 0.1 percent in FY2004, recording negative growth for the first time in three years.**

This translation is based upon the original Japanese-language outlook released on May 21, 2003.

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I. Key Points in the Economic Outlook

The Mizuho Research Institute (MHRI) has compiled the *Economic Outlook for FY2003 and FY2004* (the *Outlook*) subsequent to the release of the *Preliminary Quarterly Estimates of GDP* for the Jan-Mar quarter of 2003 by the Cabinet Office. In the *Outlook*, MHRI has attached particular importance upon the following key points.

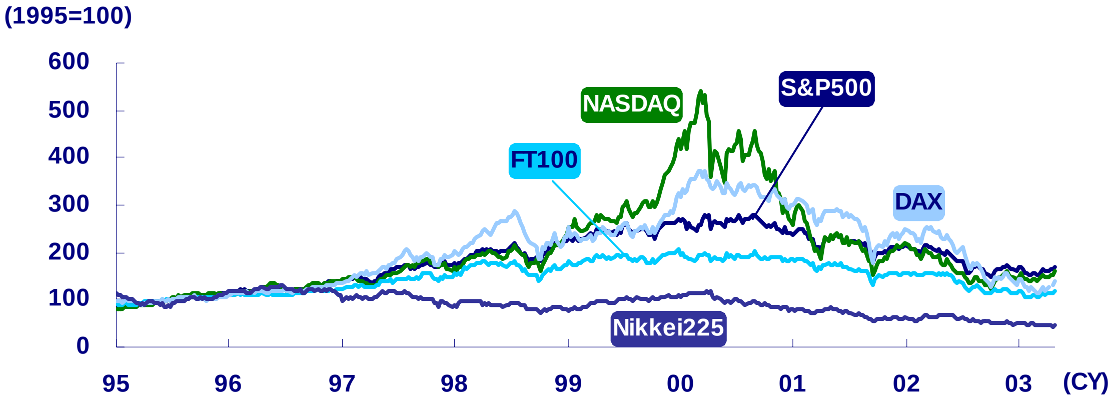
1. Key Points in the Overseas Economies

The focal point is whether the US will be able to shift its engine of growth

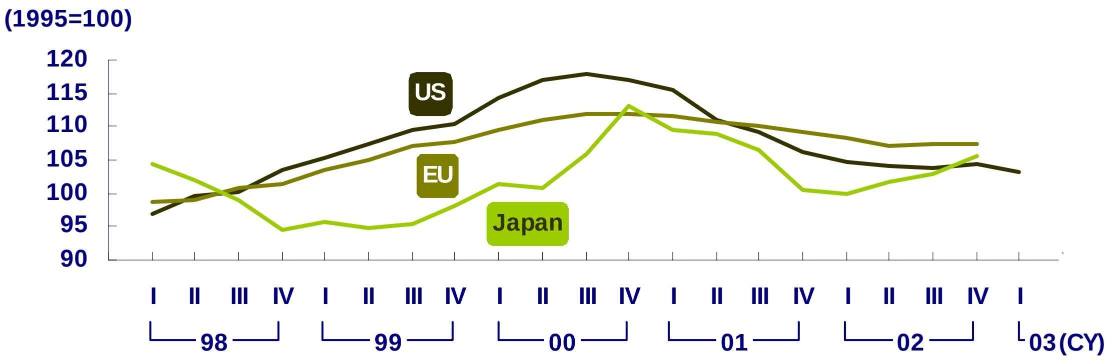
MHRI views the ability of the US economy to achieve a successful shift of the growth engine from personal consumption to capital investment as the pivotal factor in its outlook on the overseas economies.

Although the major countries of the world slid into a serious economic recession accompanied by adjustments in capital investment triggered by the collapse of the information technology (IT) bubble in 2000, the global economy bottomed out and emerged out of a serious adjustment phase by the year 2002 (Chart 1).

Chart 1 Global Stock Market Fall and Capital Investment Adjustment



Source: Datastream.

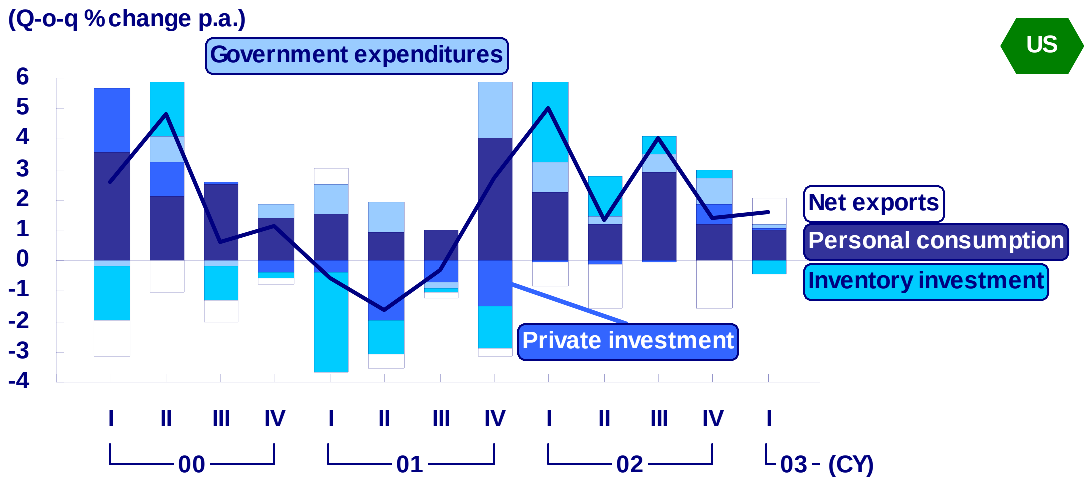


Note: Figures for US and Japan pertain to private sector capital investment and those for EU pertain to gross fixed capital formation.

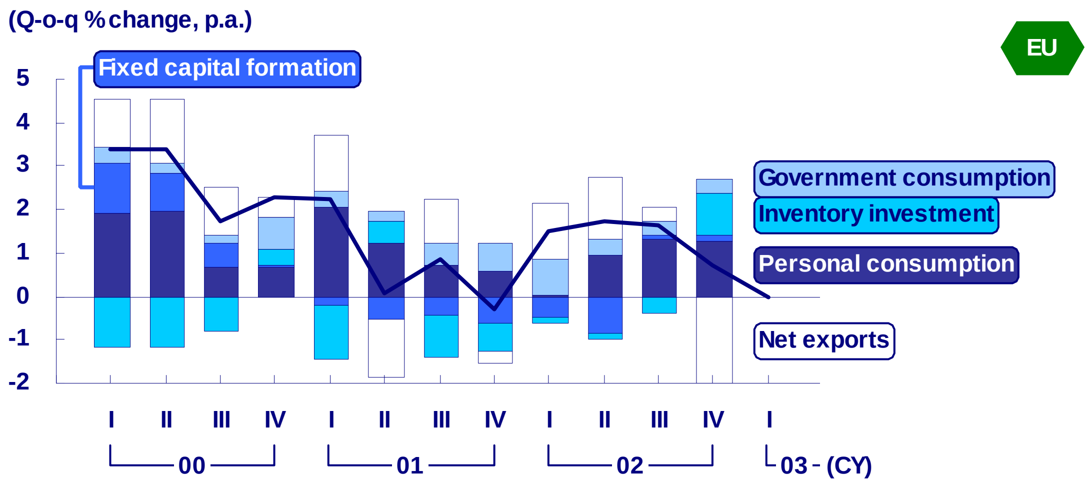
Sources: US Department of Commerce, Eurostat, Cabinet Office.

Nevertheless, note that the negative pressures upon the global economy are merely mitigated by expansionary macroeconomic policy measures and that actual conditions fall short of a full-fledged recovery accompanying the growth of capital investment. A breakdown of economic growth from 2001 to 2002 reveals that in the US and Europe, the only positive contributors to economic growth were government spending boosted by economic stimulus measures and personal consumption supported by the alleviation of tax burdens and that investment in the private sector remains stagnant (Chart 2).

Chart 2 US and EU Economic Growth



Source: US Department of Commerce.



Source: Eurostat.

The successful shift of the growth engine from policy-generated demand to capital investment is the key to the emergence of the global economy from a prolonged stagnation and return to a self-sustained recovery trajectory. In particular, all eyes are focused upon the US economy, which is expected to play a leading role in the global economic recovery.

MHRI's outlook is cautiously optimistic that the US will manage to accomplish the shift. US personal consumption will avert a loss of momentum in 2003 because income levels will be propped up by tax cuts. We also expect an upturn in capital investment in mid-2003 as a result of the ebb of uncertainties along with the end of the war in Iraq.

The rise of interest rates in real terms and a growing debt repayment burden stemming from the spread of deflation fears are risk factors which may hamper the growth of capital investment. In a bid to stem such deflationary risks, the Fed may ease monetary policy further (an interest rate cut by 25 basis points and a commitment to an accommodative monetary policy stance until a perceivable above-trend rise of the inflation rate is expected at the Federal Open Market Committee (FOMC) meeting in June). As a result of the Fed's further easing of monetary policy, the US should be able to avoid falling into deflation.

By mid-2003, we expect the US economy to emerge out of the prolonged stock adjustment cycle following the collapse of the IT bubble. Henceforth from the second half of 2003, the recovery of capital investment should buoy the US economy into a sustainable expansion cycle of approximately three percent per annum. The recovery of the US economy will have a positive impact upon the global economy through the increase of US-bound exports. The euro zone and Asian economies are also expected to emerge out of a stock adjustment cycle and return to a recovery path by 2004.

The impact of SARS upon the East Asian economies

The war in Iraq – posing the largest risk to the global economy since last year – ended in a short time period by an overwhelming victory by the US and allied forces. Despite lingering uncertainties such as Iraq's post-war governance, allocation of reconstruction costs and retaliatory terrorist attacks, we believe Middle East geopolitical risks have receded considerably.

Meanwhile, the spread of the SARS epidemic in East Asia is a new risk factor to the global economy. The adverse impact of SARS is already materializing in the form of declines in tourism-related revenues in East Asia and slumping consumer spending in the affected countries. While the negative impact upon the supply-side of the economy is limited at the current stage to sluggish production activity and physical distribution functions such as the closure of factories, the impact to trade and production may not be avoided in the event of a prolonged spread of the SARS epidemic. In any event, we expect the Asian economies to slow considerably in the Apr-Jun quarter are a result of the spread of the SARS infection.

Forecast of overseas economic growth

MHRI's forecast on overseas economic growth (the US, euro zone and Asia) is summarized below.

[The US economy] MHRI expects the rate of US real GDP growth to stand at 2.1 percent in 2003, falling below the potential rate of economic growth estimated above 3.0 percent. The principal factors dragging down the growth rate are the slowdown of personal consumption and the delay in recovery of capital investment to the second half of the year. In 2004, MHRI predicts that the rate of GDP growth will rise to 3.0 percent, propelled by the recovery of capital investment.

[The euro zone economy] Trends since the 1990s indicate that economic recovery in the euro zone is usually driven by exports. Following a similar course, the growth of exports reflecting the recovery of the US economy should trigger the upturn of the euro zone economy. However, given the weak recovery of capital investment and personal consumption due to various structural problems, MHRI expects real GDP growth in the euro zone to stand at 0.8 percent in 2003 and 1.8 percent in 2004.

[The Asian economies] The Asian economies will also be propelled by the rise of exports accompanying the recovery of the US economy. A reaction to the tax cuts by economic stimulus measures thus far and the adverse impact of the SARS epidemic upon Hong Kong, Singapore, China and Taiwan in the first half of 2003 provides us with reasons to believe that growth of personal consumption in the region will remain low. We are inclined toward the view that it will take until 2004 for the Asian economies to enter a cyclical recovery path propelled by the growth of capital investment. MHRI predicts the average real GDP growth rate in the Asian economies to reach 5.3 percent in 2003 and 5.9 percent in 2004.

Chart 3 Forecast of the Overseas Economies

(%)

	2002	2003 (Forecast)	2004 (Forecast)	2003 1st-half (Forecast)	2003 2nd-half (Forecast)	2004 1st-half (Forecast)	2004 2nd-half (Forecast)
US	2.4	2.1	3.0	1.4	2.9	2.9	3.1
Euro zone	0.8	0.8	1.8	0.1	0.8	0.9	1.0
Germany	0.2	0.3	1.4	- 0.1	0.4	0.7	1.0
France	1.2	0.9	2.0	0.2	0.9	1.1	1.1
Italy	0.4	0.9	1.7	0.2	0.7	0.9	1.1
Spain	2.0	1.8	2.3	0.5	1.3	1.1	1.2
UK	1.8	1.8	2.1	0.5	1.0	1.1	1.2
Asia (average)	6.0	5.3	5.9				
NIEs (average)	4.5	3.4	4.4				
S. Korea	6.3	4.5	5.5				
Taiwan	3.5	3.2	3.8				
Hong Kong	2.3	1.3	2.7				
Singapore	2.2	2.1	3.9				
ASEAN (average)	4.4	4.1	4.5				
Thailand	5.2	4.7	4.9				
Malaysia	4.2	4.0	4.5				
Indonesia	3.8	3.5	4.2				
Philippines	4.6	4.7	4.3				
China	8.0	7.4	7.7				

Notes: 1. Real GDP growth.
2. Figures for 2003 onward are forecasts by the MHRI.
3. US: Yr=rate of change from the previous year. Half-year term = rate of change p.a. from the previous term.
Euro zone and UK: rate of change over the previous year. Half-year term = rate of change from the previous term
Asia (average): weighted average on the basis of each countries' nominal GDP in 2000.

Sources: Government data provided by each country.

2. The Japanese Economy

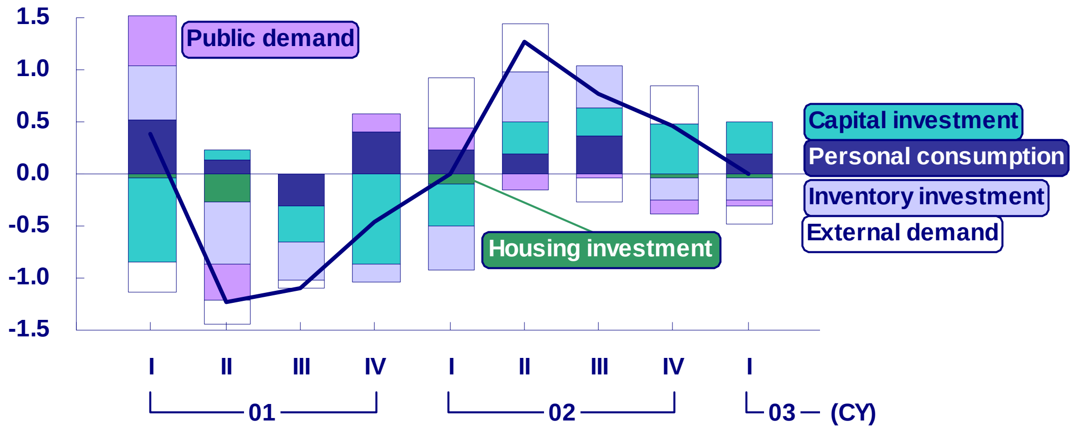
Japan's recovery momentum slows sharply

The Japanese economy is also losing momentum amid the stagnation of the global economy.

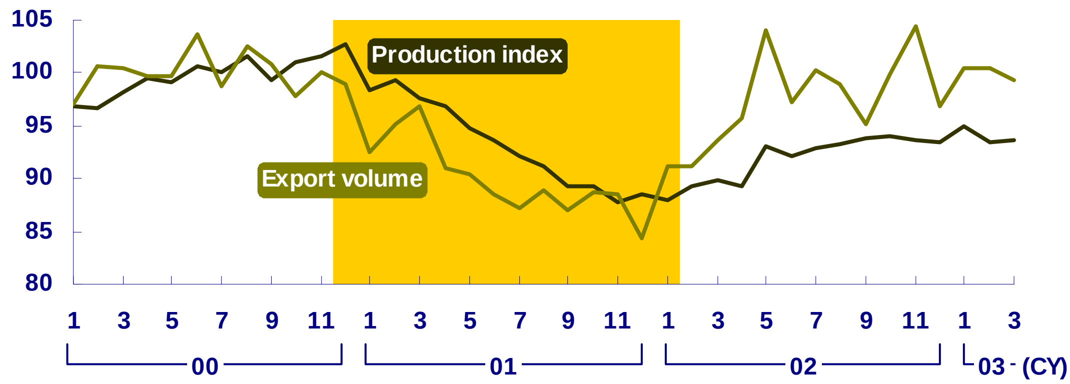
Japan's economy bottomed out in early 2002 driven by the rise of exports (the Japanese government provisionally determined that the economy hit its latest trough in January 2002). Although the economy remained in recovery mode for some time, renewed signs of stagnation are intensifying from the second half of FY2002 along with the slowdown of export growth.

Japan's rate of real GDP growth slowed to 0.0 percent on a quarter-on-quarter (q-o-q) basis in the Jan-Mar quarter of 2003 dragged down primarily by the drop of exports (Chart 4). On the supply side, the growth of the industrial production index stood virtually flat at 0.3 percent q-o-q in the Jan-Mar quarter of 2003.

Chart 4　Japan's Real GDP Growth and Industrial Production



Source: Cabinet Office.



Notes: Shading indicates a recession.
Sources: Ministry of Economy, Trade and industry,
Ministry of Finance.

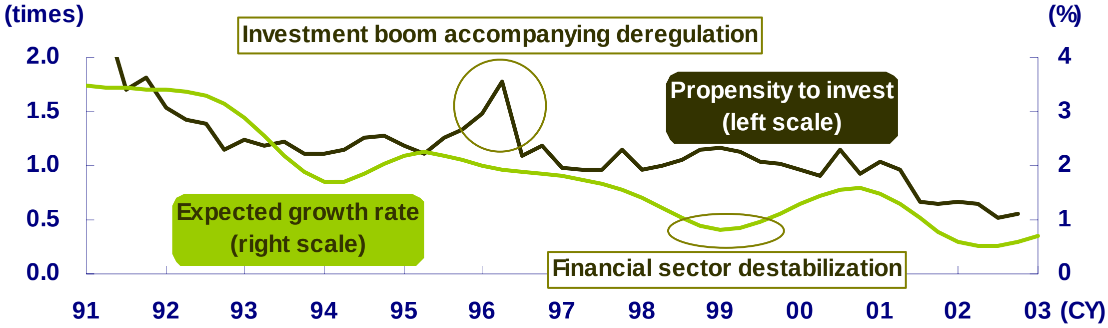
A bottleneck in the autonomous economic recovery mechanism - the recovery is not rippling throughout the economy

Under normal economic expansion cycles, the growth of exports leads to the rise of production and corporate profit, which in turn spurs business enterprises to invest in more plant and equipment. Simultaneously, it also leads to the expansion of personal consumption through more hiring. Subsequently, the recovery of capital investment and personal consumption generates more production and profits, galvanizing the economy into an autonomous expansion cycle.

This autonomous growth mechanism is not functioning properly under the current state of the Japanese economy. Given the sharp decline of the expected rate of economic growth in the corporate sector as a result of Japan's prolonged recession, a mild upturn of industrial production due to the growth of external demand such as exports would not

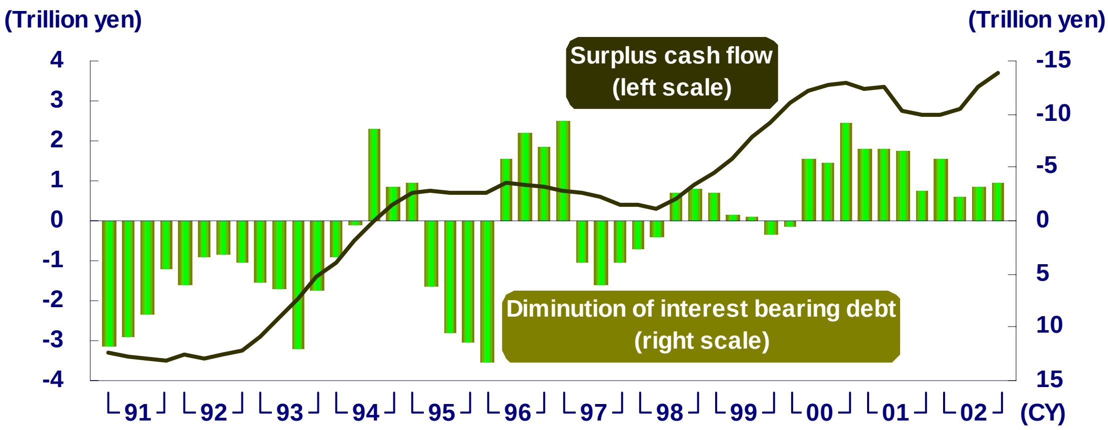
necessarily stimulate business enterprises to invest in massive plant and equipment which would be capable of expanding capital stock (Chart 5). Furthermore since debt burdens in real terms would increase under deflation, business enterprises would be compelled to place priority upon repaying debts rather than forward-looking capital investment in an environment where asset deflation possesses an adverse impact upon corporate balance sheets (Chart 6). The economic recovery mechanism, which would work under normal circumstances, is not functioning because of the decline of the expected rate of growth and the fall of prices of both general commodities and assets. This structural shortcoming of the Japanese economy provides an explanation on the current symptom of the Japanese economy where declines in exports lead directly to economic stagnation.

Chart 5 The Expected Rate of Growth and Investment Propensity



Notes: 1. 4Q moving average.
2. The expected rate of economic growth is processed with the use of spline interpolation of economic forecasts for the coming three years.
3. Cash flows are based upon *the Statistical Survey of Incorporated Enterprises*.
4. Propensity to invest = investment cash flow / operating cash flow.
Sources: Ministry of Finance, Cabinet Office.

Chart 6 Surplus Cash Flow and Diminution of Interest-Bearing Debt



Notes: 1. 4Q moving average.
2. Surplus cash flow = current profits x 50% + depreciation cost - capital investment.
Source: Ministry of Finance, *Statistical Survey of Incorporated Enterprises*.

The economy will peter out in mid-FY2003

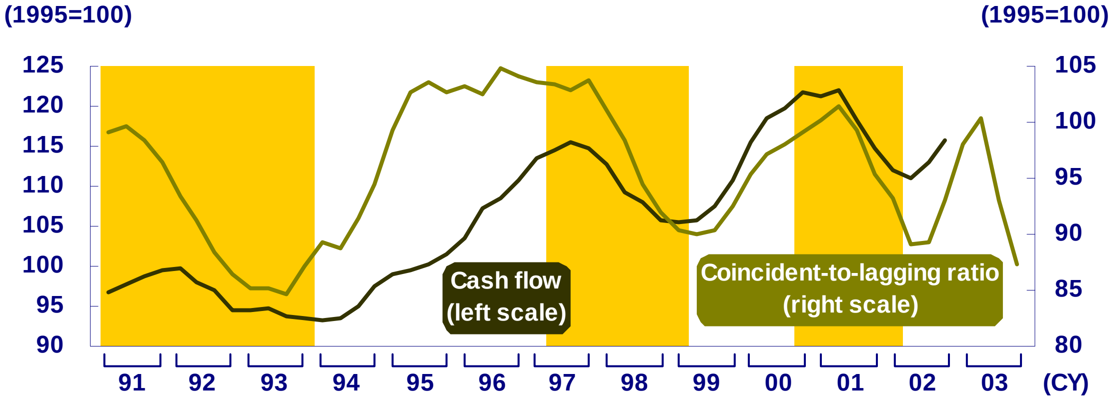
There are two focal points in forecasting the future course of the Japanese economy in FY2003 and FY2004. The first point to be discerned is whether the economy will lose momentum or not. And secondly - in the event this scenario unfolds - the depth and length of the ensuing adjustment cycle.

As regards the former, we believe that the economy may not avoid a loss of momentum from mid-FY2003. In MHRI's *Economic Outlook for FY2002 and FY2003* released in February 2003, we said that the Japanese economy would slip into recession in the second half of the fiscal year. There is no major amendment to this view.

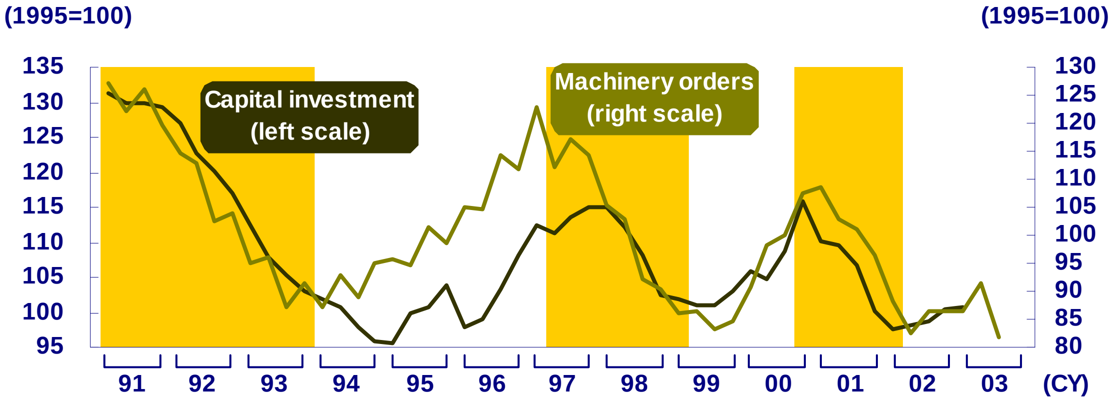
Corporate profits will most likely peak out in the summer season and start to fall due to background factors such as the slow recovery of exports. The fall of corporate profits will lead directly to the decline of capital investment, which in turn would trigger the economy's loss of momentum. Leading economic indicators are already showing clear signs that the economy will start to falter around the summer season (Chart 7). The ratio of coincident-to-lagging economic indicators – a leading indicator of corporate cash flow – is suggesting a deterioration of the corporate profit environment from around the Apr-Jun quarter to the Jul-Sep quarter of 2003. Machinery orders - a leading indicator of corporate capital investment - also presage a downturn of capital investment around the same time. In the event of a further decline of profits, business enterprises would start to cut back upon labor costs again. Thus, personal consumption will also head downward in the second half of the fiscal year. Given the decline of capital investment and personal consumption, Japan's economy will most likely fall into further malaise in the Oct-Dec quarter of 2003.

The Japanese economy will peak out in the Jul-Sep quarter of 2003 and shift into recession mode again in the second half of the fiscal year. The expansion cycle of the economy commencing in February 2002 will most likely peter out in a mere 18 months, making it the shortest economic recovery cycle in post-World War II history.

Chart 7 Corporate Cash Flow, Capital Investment and Leading Indicators



Notes: 1. Cash flow = current profit x 50% + depreciation cost.
2. The shaded areas indicate periods of economic recession.
Sources: Ministry of Finance, *Financial Statements Statistics of Corporations by Industry*, and Cabinet Office, *Indexes of Business Conditions*.



Note: The shaded areas indicate periods of economic recession.
Sources: Cabinet Office, *Preliminary Quarterly Estimates of GDP*, *Orders Received for Machinery*.

The depth and length of the recession

As for the depth and length of the recession, we are cautiously optimistic that the Japanese economy will manage to avoid a serious recession.

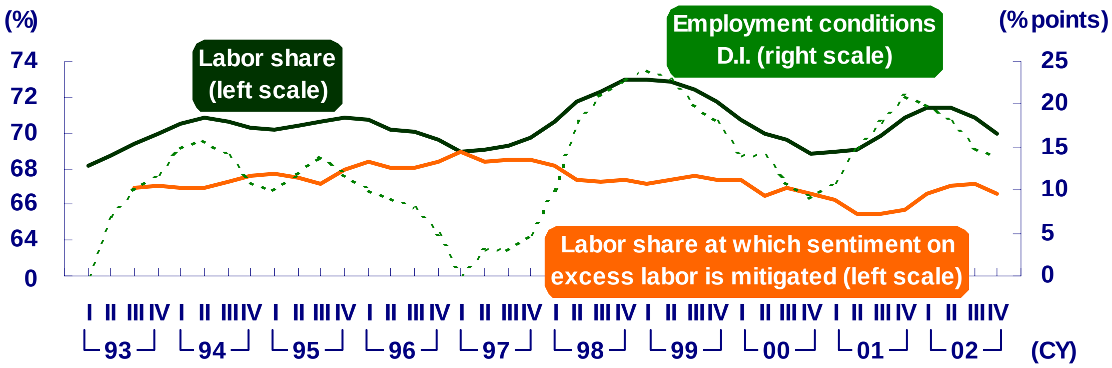
As the economy stumbles into recession, business enterprises will most likely engage in more stringent restructuring efforts by, for example, cutting labor costs and repaying debts.

The corporate sector's excess labor cost would total approximately 12.5 trillion yen as of the end of 2002 based upon the deviation of the labor share from its appropriate level (rate of labor share where the BOJ *Tankan* employment conditions D.I. equals zero). Assuming that it takes three years for business enterprises to adjust labor costs on the basis of recent empirical data, labor compensation in the household sector would be reduced approximately 1.6 percent per annum. From FY 2003 to FY2004, we may not look forward to lower public welfare

burdens to offset the decline of labor compensation (a "built-in stabilizer" effect) as it did in FY2002 because of various social system amendments (such as the reduction of the minimum taxable income level and the increase of the portion of medical costs shouldered by patients) accompanying larger burdens upon the household sector. Thus, labor cost cuts in the corporate sector will lead to an inevitable fall of personal consumption. Even among non-manufacturers, which are lagging in terms of resolving excess debts, the use of cash flow to repay debts may hamper investments in plant and equipment.

While these structural adjustments in the corporate sector will serve as downward pressures upon the economy, the growth of exports driven by global economic recovery will serve to buttress the economy again. As stated above, we expect the global economies to enter a sustainable recovery cycle accompanying the growth of capital investment in FY2004. Japan's exports should follow in line with these trends and start to grow from the Apr-Jun quarter of 2004. The rise of exports – coupled with the fall of imports along with the deceleration of the domestic economy – will lead to the growth of net exports and contribute to the bottoming of Japan's domestic economy.

Chart 8 Estimate on Excess Labor Costs Based upon Labor Share



Labor cost reduction necessary for the employment conditions D.I. to equal zero (as of end of 2002).

	Employment conditions D.I. (end of 2002)	Labor share (%)		Labor cost reduction (Trillion yen)
		Actual	D.I. (zero)	
Manufacturing	21	70.1	63.5	5.4
Construction	30	87.5	74.5	2.8
Retail sales	10	80.0	74.3	2.8
Transportation and communications	2	64.3	61.9	0.6
Services	3	66.4	64.6	0.8
Total of 5 sectors above				12.5

Note: The "labor share at which sentiment on excess labor is mitigated" refers to the labor share where the employment conditions D.I. equals zero, in a situation where the employment conditions D.I. is dependent upon labor share.
The following equation has been applied for the first quarter.
$D.I. = \rho \times D.I.(-1) + 4.106 \times (\text{labor share} - \rho \times \text{labor share}(-1)) - 275.3 \times (1-\rho)$
However, the previous quarter is (-1), $\rho = 0.7983$, estimate period 1993:1-2002:4, $R^*R = 0.9133$

Sources: Ministry of Finance, *Financial Statements Statistics of Corporations by Industry*,
Bank of Japan, *Short-Term Economic Survey of Enterprises in Japan (Tankan)* and others.

The depth of the economic recession from the second half of FY2003 will be defined basically by a "tug of war" between negative factors such as structural adjustments and positive factors such as export growth.

Judging from the benign level of the current cyclical adjustment and the likelihood of the government's implementation of economic stimulus measures (a four trillion yen supplementary budget in the fall of 2003) to cope with the recession, we believe that the current economic recession will manage to keep from falling into a deep abyss.

The economy will bottom out by the end of 2004

The Japanese economy will be pushed into negative territory from the second half of FY2003 to the first half of FY2004 by downward pressures stemming from the progress of structural adjustments in the corporate sector. Nevertheless from the Apr-Jun quarter of 2004, public investments in the economic stimulus measures will provide support to the economy and structural adjustment pressures in the corporate sector will gradually abate because of the growth of exports. Thus, we expect Japan's economy to bottom out in the Oct-Dec quarter of 2004. The economic recession will most likely be relatively short-lived, lasting approximately 15 months.

Forecast on GDP growth in FY2003 and FY2004

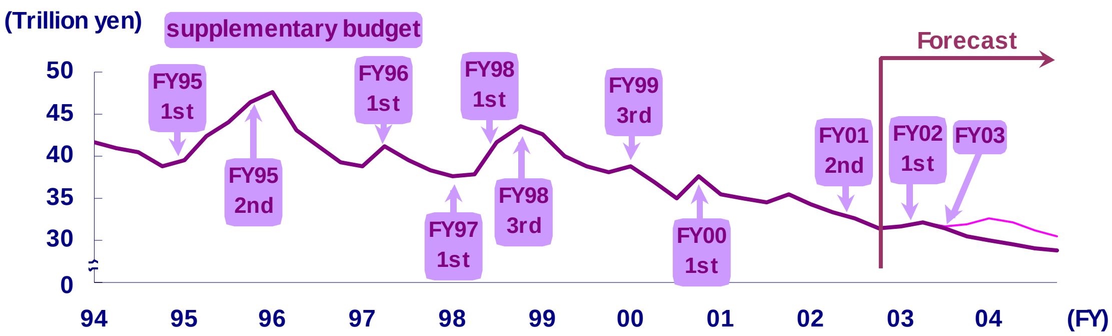
We expect Japan's real GDP to grow 0.6 percent in FY2003 and contract 0.1 percent in FY2004.

Subsequent to the downturn in mid-FY2003, corporate structural adjustment pressures will serve as a heavy drag upon personal consumption and capital investment from the Oct-Dec quarter of 2003 to the Jul-Sep quarter of 2004, leading to a prolonged cycle of negative growth. During this period from the second half of FY2003 to the first half of FY2004, the economy in general should exhibit more signs of adjustment. However, in the first half of FY2004, the economy at this stage will also enter a gradual recovery, helped by a higher rate of export growth and economic stimulus measures in the form of more public investments. The economy will bottom out in the second half of FY2004 as a result of the growth of exports. The rate of real GDP growth on a quarter-on-quarter basis should also rebound into positive territory by the Oct-Dec quarter of 2004.

Chart 9 Estimated Size and Contents of the Economic Stimulus Measures

Preconditions to the FY2003 Economic Stimulus Package (Trillion yen)

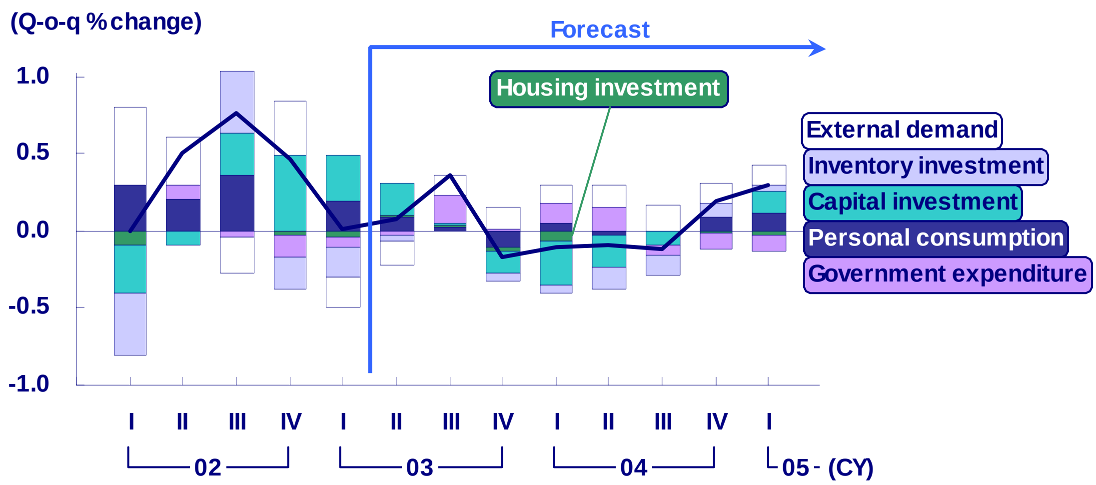
	Project volume	Budget allocation	Notes
<Expansion of public investment etc.>			
Public investment for promotion of structural reforms	3.0	3.0	National 2.0 Local 1.0 (real water basis 2.4)
Reinforcement of employment measures	1.0	0.5	National 0.3
Measures for small and medium enterprises	5.0	0.5	National 0.2
Total	9.0	4.0	



Notes: 1. Figures on public fixed capital formation set forth above are in real terms and adjusted for seasonal factors.
2. The solid line represents the case for FY2003 without additional supplementary budgets while the broken line represents the case with supplementation by 4 trillion yen (total of national and local government budgets).

Source: Cabinet Office, *Preliminary Quarterly Estimates of GDP*.

Chart 10 Real GDP Growth and Degree of Contribution by Each of the Components

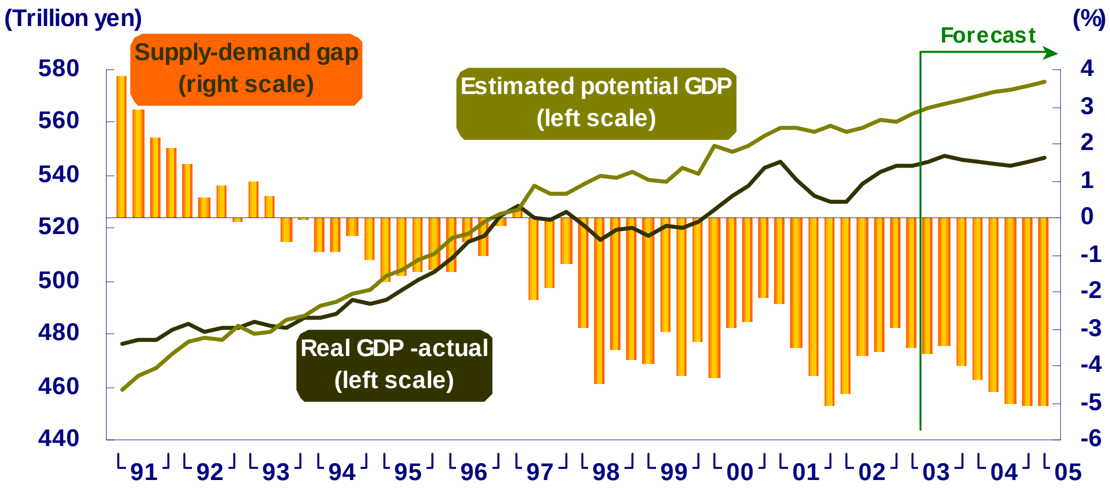


Source: Cabinet Office, *Preliminary Quarterly Estimates of GDP*.

The recovery will remain fragile

The Japanese economy will sink into negative territory once again in FY2004. Furthermore, the deflation gap will continue to widen since the rate of growth in real terms will remain below the potential rate of growth during the forecast horizon. Given the GDP deflator deep in negative territory in both FY2003 (-2.0 percent) and FY2004 (-1.8 percent), deflationary pressures are far from being dispelled in the Japanese economy. The bottlenecks hampering the recovery momentum to ripple throughout the economy must be repaired to enable the Japanese economy to enter a sustainable recovery cycle. To do so, the government must (1) take necessary fiscal and monetary measures to alleviate deflationary measures and (2) take measures which raise "growth expectations" among business enterprises by generating new capital investment through the expansion of industrial frontiers by taking bold deregulatory initiatives. The future course of the Japanese economy rests upon whether or not the government will be able to implement its full line of possible policy measures.

Chart 11 Economic Growth Forecast and the GDP Gap



Source: Estimates by MHRI based upon various sources.

Chart 12 Forecast of the Japanese Economy

(%)

	FY2002	FY2003	FY2004	FY2003		FY2004		FY2003	FY2004
				1st-half	2nd-half	1st-half	2nd-half	(Contribution)	(Contribution)
	(Actual)	(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)	(Forecast)
GDP (real)	1.6	0.6	- 0.1	0.3	- 0.0	- 0.2	0.3	—	—
Domestic demand	0.9	0.6	- 0.6	0.5	- 0.3	- 0.5	- 0.0	0.6	- 0.6
Private sector demand	1.2	0.8	- 1.1	0.6	- 0.6	- 0.9	0.2	0.6	- 0.8
Personal consumption	1.5	0.5	0.1	0.3	- 0.1	- 0.0	0.2	0.3	0.0
Housing investment	- 2.9	- 1.6	- 2.1	- 0.1	- 1.4	- 1.1	- 0.7	- 0.1	- 0.1
Capital investment	0.5	3.6	- 3.2	2.2	- 1.8	- 2.5	0.1	0.6	- 0.5
Public sector demand	- 0.2	0.2	0.9	0.1	0.8	0.8	- 0.8	0.1	0.2
Government consumption	2.2	1.3	1.5	0.2	1.1	0.7	0.5	0.2	0.3
Public investment	- 6.5	- 2.7	- 1.3	0.0	- 0.3	1.5	- 4.5	- 0.2	- 0.1
Net exports (contribution)	0.7	0.0	0.5	- 0.2	0.3	0.3	0.3	0.0	0.5
Exports	11.8	1.9	4.7	- 1.1	2.0	2.1	3.0	0.2	0.5
Imports	5.7	2.3	- 0.1	0.6	- 0.3	- 0.3	0.9	- 0.2	- 0.0
GDP (nominal)	- 0.7	- 1.3	- 1.8	0.1	- 2.5	- 0.3	- 2.2		
Industrial production	2.6	0.1	0.0	- 0.5	- 0.3	- 0.3	0.8		
Unemployment rate	5.4	5.5	5.8	5.4	5.5	5.7	5.8		
Current account balance (trillion yen)	13.3	12.0	14.7	13.4	11.0	14.1	16.0		
as percentage of nominal GDP	2.7	2.4	3.0	2.7	2.3	2.9	3.4		
Corporate goods prices	- 1.6	- 0.7	- 1.3	- 0.5	- 0.9	- 1.3	- 1.4		
Consumer prices	- 0.6	- 0.4	- 0.7	- 0.3	- 0.5	- 0.6	- 0.8		
Long-term interest rate (%)	1.11	0.71	0.73	0.67	0.75	0.70	0.75		
Nikkei stock average (yen)	9,489	7,870	8,150	7,839	7,900	8,000	8,300		
Exchange rate (yen/dollar)	121.9	118.6	120.0	117.1	120.0	120.0	120.0		
Crude oil price (WTI)	29.1	25.0	25.0	26.0	24.0	24.0	26.0		

Notes: 1. FY = rate of change from the previous year. Half-year term = rate of change from the previous term (excluding the unemployment rate, current account balance and prices).
2. Half-year corporate goods prices and half-year consumer prices = rate of change over the same period a year ago.
3. Half-year unemployment rate and half-year current account balace are adjusted for seasonal factors.
4. Crude oil price = nearest term contract for WTI crude futures. The long-term interest rate = newly-issued 10-year government bonds.

Sources: Cabinet Office, *Annual Report on National Accounts*,
Ministry of Economy, Trade and Industry, *Production, Shipment and Inventory Indexes*,
Ministry of Public Management, Home Affairs, Posts and Telecommunications, *Labor Force Survey*, *Consumer Price Index*, Ministry of Finance, *Balance of Payments Statistics*, Bank of Japan, *Balance of Payments Statistics*, *Corporate Goods Price Index*.