# The Third 18-Month Economic Forecast Using the STP Method

by the Economic Research Dept.

Japan now stands at a crossroads. Along with other industrialized economies, Japan has witnessed the damage that comes from aggressively introducing free markets in emerging markets from Asia to Russia. But substantial risks await Japan should it surrender to events and fail to chart its own course.

The outlook is bleak: four straight quarters of negative growth; two straight years of contraction of the macro economy; the steadily worsening disintegration of what used to be vaunted systems in the corporate sector; and growing anxiety about job security among the public.

The 21st century arrives in a mere 700 days. But there will be little reason to cheer unless we return the economy to health by using limited resources to maximum effect, and push ahead with tough medium and long-term structural reforms for sustainable growth.

# 1. The Global Economic Environment

# (1) Asia

Asia's economy is in a severe recession, with no signs of immediate improvement. The region's currency and financial crises have impacted real economies by gutting consumption and capital investment, while exports are slumping from weak foreign demand and tough structural reforms are working through financial and other sectors. The region's real GDP growth will plummet from 6.4 percent in 1997 to -0.5 percent in 1998.

Structural reforms have begun in each country, including the disposal of nonperforming loans by financial institutions, financial system reform, improvement of the corporate sector's financial condition, and adjustment of excess capacity and employment. In the short term, credit contraction and bankruptcies, reduced capital investment, and rising unemployment will be a drag on real economies.

In the first half of 1999, chances of substantive recovery remain slim. Export growth will be

sluggish due to slowing economies in Japan and the West, while newly implemented structural reforms will burden economies, and foreign investors will remain cautious. In the second half, economies will gradually begin to stabilize, bringing real GDP growth in 1999 to 2.4 percent. However, despite slightly positive growth, concerns remain that rising unemployment and dismal conditions will trigger public discontent and unrest. In addition, financial reforms will not rebuild the financial system overnight; much time is needed for financial institutions to regain foreign confidence and resume financing capabilities.

In 2000, Asia's economy will achieve a moderate recovery with an overall positive growth rate of around 4 percent, due to progress in structural reforms, the start-up of new systems, and improvement in the export environment. However, certain risk factors will remain in place, including the rate of progress in structural reforms, the value of the Chinese yuan, and external economic conditions in Brazil and Russia.

			(% yoy chang				
	1997 a	1998 e	1999 f	2000 f			
China	8.8	7.7	6.5	7.0			
Korea	5.5	-6.0	-1.0	2.0			
Taiwan	6.8	5.0	4.5	5.0			
Hong Kong	5.3	-5.0	-0.5	2.0			
Singapore	7.8	0.5	1.0	2.0			
Thailand	-0.4	-7.5	0.0	2.0			
Indonesia	4.6	-15.0	-5.0	0.0			
Malaysia	7.8	-6.5	-1.5	0.0			
Philippines	5.1	0.0	1.5	3.0			
Asia	6.4	-0.5	2.4	4.1			
Asia excl. China	5.2	-4.8	-0.1	2.3			
4 NIES	6.0	-2.2	0.9	2.9			
4 ASEAN	3.7	-9.2	-1.8	1.1			

Table 1 Economic Forecast for Asia

Note: 1997 growth rate for Thailand is an official prediction

# (2) U.S.

Growth drops to 1% range from late 1998 to 1H 1999

The bullish stock market has propelled personal spending to excessive levels, causing the savings rate to fall to -0.2 percent (October 1998). Households will begin to increase their savings rate. In addition, as Figure 1 shows, the risk remains that a major stock market correction will shake consumer confidence, causing a reverse wealth effect that crushes consumption. Except for information technology investment, capital spending growth will be more moderate due to sluggish corporate earnings growth and a decline in capacity utilization rates.

Residential investment will expand substantially due to lower interest rates. While this will boost residential related spending, the total impact will not be sufficient to drive the overall economy.



Figure 1 Consumer Confidence and the Dow Industrial Average

Forecast Scenario

Following 3.6 percent growth in 1998, the economy will slow to 1.9 percent in 1999. However, it will return to a low 2 percent pace in the second half of the year, and achieve 2.3 percent in 2000.



Figure 2 Real GDP Growth Rate Forecast

## (3) Europe

## Germany

Despite slower export growth caused by inventory adjustments and the financial and economic crises in Asia and elsewhere, the economy will still achieve 2.7 percent growth in 1998 as the economy shifts from external to domestic demand led growth.

In 1999, domestic demand will drive the economy at a sustained mid 2-percent growth rate. There is a conspicuous disparity between conditions in the corporate sector and household sector. However, the corporate sector will clear its most difficult phase of adjustment in the first half of 1999, and capital investment will increase in the second half due to the market expansion from EU unification. In personal consumption, improvement in the employment environment will bolster consumer confidence.

In 2000, the economy will grow at a 3 percent pace due among other things to stronger exports as Asia and other crisis areas recover, and to expected interest rate cuts by the ECB (European

Source: Dept. of Commerce

Central Bank) into 2000.

U.K.

In 1998, the U.K. economy is estimated to have slowed to a 2.6-percent pace as the strong sterling and economic crises in Asia and elsewhere dampened export growth, while domestic demand also slowed.

In 1999, domestic demand will slow further and exports will remain depressed, slowing the economy to a 1.1 percent pace.

The growth rate will edge up to 2.0 percent in 2000 as the crises in Asia and elsewhere head toward recovery, spurring external demand, and progress in inventory adjustment strengthens domestic demand.

			(% <u>)</u>	oy change)
		1998 f	1999 f	2000 f
ΕI	U	2.8	2.3	2.6
	Germany	2.7	2.3	2.6
	Contribution of:			
	Domestic demand	2.4	2.1	2.8
	External demand	0.3	0.2	-0.2
	U.K.	2.6	1.1	2.0
	Contribution of:			
	Domestic demand	3.9	1.8	2.4
	External demand	-1.3	-0.7	-0.4
	Other countries	2.9	2.5	2.7

## Table 2 Real GDP Growth Rates

# 2. Japan

(1) Corporate Sector – Lower Earnings Strength and the Strong Yen

Large discrepancies exist in corporate earnings by company size and industry. Since fiscal 1990, earnings strength has declined the most among small and mid-sized companies and non-manufacturing sector. Stimulation through monetary easing and conventional public works investment have had little impact, leaving companies to struggle on their own:

1. Little improvement is seen in high cost structures among non-manufacturing industries

and small and mid-sized companies even in the recovery.

2. Policy measures to boost earnings are having minimal effect: monetary easing has not alleviated financial burdens, while conventional fiscal measures are ineffective.

Recent breakeven exchange rate figures (compiled by the EPA) indicate that small and midsized companies are losing their immunity to the strong yen. The strong yen factor, while being less pronounced than in the previous recession, will further squeeze corporate earnings. This will occur after a lag in fiscal 1999.





Note: Shows operating margin (seasonally adjusted). Source: MOF, *Quarterly Statistics of Financial Statements of Incorporated Enterprises.* 



Figure 4 Break even Exchange Rate Puts Pressure on 2nd Tier and Small & Mid-sized Companies

Note: Large companies have a capitalization of ¥10 billion or more. Note: EPA, *Survey of Corporate Activity.* 

## (2) Adjustment in Capital Investment

Relentless pressure for adjustment of capital investment comes from the following factors: the prolonged final demand slump has extended the need for adjustment beyond small and midsized companies to large companies, and the strong yen is squeezing corporate earnings and necessitating further adjustment.

Adjustment of capital stock will be necessary until present perceptions of excess capacity are dispelled and the capital stock growth reaches a level appropriate for an expected economic growth rate of 1 percent. The ratio of capital investment to (nominal) GDP may drop to a new postwar low of 12.9 percent.



### Figure 5 Outlook for Private Capital Investment

## (3) Employment Adjustment

Since 1990, the labor distribution ratio has reached record highs, cutting into corporate earnings strength.

In the first oil shock, the rising labor distribution ratio was attributed to increases in both the labor coefficient (number of employees divided by value added) and real wages. However, the main factor in the recent rise is an increase in the labor coefficient. Pressure to reduce employment has grown stronger.

Assuming that employment will be adjusted until the perception of excess employment is resolved, employed worker income (excluding severance pay) will need to decrease by approximately 4 percent. This corresponds to an income reduction of over 10 trillion yen for the macro economy. Since income tax cuts will offset only about 40 percent of this reduction, consumption will be constrained.

The number of employed persons decreased by 1.6 percent in fiscal 1997, and the unemployment rate will rise to 4.9 percent in fiscal 1999 and 5.2 percent in fiscal 2000. This corresponds to 40 percent of the 1.5 million excess employees retained by companies. Unit wages (wage per person) will be reduced 2.6 percent.



#### Figure 6 Distribution to Labor Climbs to Record Level

Note: The distribution to labor ratio is calculated from the MOF's *Quarterly Statistics of Financial Statements of Incorporated Enterprises* as follows: Distribution to labor = Personnel cost / Value added Value added = Personnel cost + Current profit + Interest paid + Depreciation cost

## (4) Backdrop to the Persistent Consumption Slump

The slump in personal consumption, particularly in discretionary spending such as eating out and educational and recreational services, reflects a defensive posture in household behavior. Decades of prosperity have increased the weight of discretionary spending over the years (from 32 percent in 1970 to 37 percent in 1980 and 43 percent in 1997). The large discretionary component causes consumption to contract all the more in recessions.

Compared to spending on necessities, discretionary spending is more strongly affected by both income and consumer confidence.

Consumer confidence is unlikely to improve soon due to continued wage adjustment pressure and a rising unemployment rate. From the standpoint of both consumer confidence and income, households will remain defensive and curtail discretionary spending, causing consumption to remain weak. However, even with a nominal income decline, real purchasing power will rise due to falling prices, enabling consumption to avoid posting a third straight year of negative growth (0.3 percent increase in fiscal 1999).

## Figure 7 Discretionary and Non-discretionary Consumption



Source: MACA, Household Survey.

# (5) Effect of Fiscal Policies

While unable to entirely offset the decline in private demand, the series of economic packages (tax cuts and additional public works investment) and expansionary initial budget for fiscal 1999 will contribute 0.6 percent growth to GDP in fiscal 1998 and 0.9 percent in fiscal 1999.

The impact of these efforts will peak in the July-September 1999 quarter, decreasing afterward. In fiscal 1999 and 2000, we assume a neutral fiscal policy that will not impede the economy's structural adjustment.

In public works investment, we assume supplementary outlays (3 trillion yen of freshwater spending every year) from fiscal 1999 to moderate the sudden negative effect when the policy effect wanes.

We assume the 1999 tax cuts (in tax rates) will be made permanent in 2000. Social insurance premiums will be frozen in fiscal 2000.

On the other hand, the resuscitation effect of the economic policies may have the unintended effect of slowing down corporate adjustment. Instead of formulating policies from day to day, it

is important to formulate a fiscal vision, declare targets for public works investment, and overhaul the public pension system, which is restraining the propensity to consume.



Figure 8 GDP Contribution of Fiscal Policy Will Peak in July-Sept. 1999

Notes: The corporate tax rate cut is assumed to have a contributing effect throughout the fiscal year. In quarters when the contribution to GDP declines, the effect is a negative contribution on a sequential basis. For example from Q3 to Q4 1999, since the contribution drops from 0.75% to 0.55%, the sequential effect is a -0.20% decline.

# 3. The 18-Month STP Forecast

## (1) Japan

*The 6-month GDP forecast*: Due to increasing adjustments in the corporate sector including declining capital investment, real GDP growth remains elusive: -0.1 percent sequential growth in the October-December 1998 quarter, and almost reaching 0.0 percent in the January-March 1999 quarter.

*The turning point*: The NBI (NLI Business Index) improved slightly to -26.8 in November 1998. While the risk of severe adjustment has abated slightly, the economy is in a process of readjustment. We estimate that the economy's turning point will occur in the October-December 1999 quarter, when the economy turns the corner on capital stock and employment adjustments.



Figure 9 NBI Signals a Trough in Oct.-Dec. 1999

Notes: Circle denotes signal for start of contraction, square denotes signal for start of expansion. Shadowed area denotes recession. Former data series are used prior to March 1997.

### Forecast Scenario

In fiscal 1998, real growth rate will be -2.4 percent for the second consecutive year of negative growth. As companies move make adjustments in capital investment and employment, production will continue to slump due to inventory readjustment.

In fiscal 1999, despite a major increase in public works investment, the economy will see zero growth due to a continued decline in capital investment and the absence of a positive contribution from external demand.

In fiscal 2000, the real growth rate will improve to 0.7 percent as the end comes into sight for adjustments in capital stock and employment, corporate earnings strength improves, and capital investment begins a moderate recovery.



#### Figure 10 The STP 18-Month Forecast

Source: EPA, Annual Report of National Accounts.

## (2) Financial Markets

#### Long-term interest rate

In fiscal 1999, the long-term interest rate will rise moderately, averaging in the upper 1-percent range for the fiscal year, due to the following factors: bottoming out of the economy, massive issue of government bonds, new financial laws that will reduce financial instability, and reversal of the flight to quality. In fiscal 2000, the long-term interest rate will rise but be restrained by the weak recovery, and average approximately 2 percent for the year.



#### Figure 11 Long-term Interest Rate Forecast

Note: Uses the BOJ estimation method for long-term interest rates. Long-term interest rate = F(CPI (3-year change), industrial production (seq. change annualized), yen/dollar rate (seq. change annualized), unsecured call rate, U.S. real long-term interest rate, CD-TB)

#### Exchange rate

The U.S. economy is entering a minor adjustment phase, which will reduce the growth rate spread with Japan, and there is also concern that the new euro will reduce preference for the dollar. Given this, Japan's large current account surplus will cause the yen to strengthen. However, this will be offset by the continued large interest rate spread between the U.S. and Japan, and by Japan's delayed recovery, so that the capital flow to the U.S. will be maintained.

Although the U.S. became a debtor nation in the 1990s, the foreign positions balance is not as bad as one might assume. The broadly defined foreign positions balance -- net receivables of foreign investment earnings, which is an index of external assets and liabilities, plus net receivables of technology royalties -- still remains positive. While it is necessary to improve the trade balance in the medium term, for the time being, it is unlikely that the deficit will develop into a crisis.

Until Japan achieves a sustained recovery, the yen is not likely to appreciate significantly.



Figure 12 Ratios of Foreign Positions Balance to GDP

Table 3	Exchange	Rate	Forecast

Differential			FY 1998					FY 1999			FY
(U.S Japan)	4-6	7-9	10-12	99/1-3		4-6	7-9	10-12	00/1-3		2000
Economic growth rate	4.7	6.5	1.0	2.0		0.9	1.3	2.3	2.3	1.9	1.8
U.S. (seq. annual)	1.8	3.9	0.7	1.8	3.0	1.4	2.2	2.3	2.4	1.9	2.5
Japan (seq. annual)	-2.9	-2.6	-0.3	-0.2	-2.4	0.5	0.9	0.0	0.1	0.0	0.7
Current balance	-5.6	-6.5	-6.3	-5.9		-6.2	-6.3	-6.6	-6.3	-6.3	-6.5
U.S. (GDP ratio)	-2.7	-2.8	-3.2	-2.8	-2.9	-3.0	-3.0	-3.2	-2.9	-3.0	-3.1
Japan (GDP ratio)	2.9	3.7	3.1	3.1	3.3	3.2	3.3	3.4	3.4	3.3	3.4
Long-term interest rate	4.2	4.1	4.3	3.5		3.7	3.6	3.8	3.9	3.8	4.2
U.S. 30-yr Treas.	5.9	5.5	5.3	5.3	5.5	5.5	5.6	5.8	5.9	5.7	6.3
Japan 10-yr JGB	1.6	1.4	1.0	1.9	1.5	1.8	1.9	2.0	2.0	1.9	2.1
Inflation (Japan - U.S.)	-1.2	-1.8	-1.4	-2.1		-2.5	-2.7	-3.3	-3.4		-3.0
U.S. (yoy)	1.6	1.6	1.6	2.1	1.6	2.3	2.5	2.6	2.7	2.4	2.9
Japan (yoy)	0.4	-0.2	0.2	0.0	0.1	-0.2	-0.2	-0.7	-0.7	-0.5	-0.1
¥ / \$ rate based on	135.7	140	120	125		125	125	130	130		120
fundamentals				±10		±10	±10	±10	±10		±10

# 4. Policy Proposals

The Crucial Need to Overhaul the Public Pension System

In the backdrop to the persistent consumption slump is the anxiety toward the public pension system. To dispel the anxiety, the pension system's problems need to be explained in clear terms so that an informed public debate can ensue and alternatives can be developed.

# 1. The Public Pension System and MHW Revision Proposal

# 1) Decline in economic growth rate and younger population

The present management of the public pension is close to a pay-as you-go system. This worked well during the era of rapid growth, when wage growth combined with growth of the working population exceeded the interest rate. Today, however, the system needs relief from the combination of slower economic growth and declining younger population. Under the present arrangement, future insurance premium hikes are unavoidable. To remain stable, the system must improve its long-term financial health and obtain the understanding and confidence of enrolled persons who now support the system.

# 2) MHW proposal ignores cross-generational inequity

The Ministry of Health and Welfare's revision proposal (October 28, 1998) makes a commendable effort to the improve the financial condition of the Welfare Pension Fund. However, it does not address the structural problems causing inequity across generations, wherein successive generations will have to pay more into the system but receive diminishing benefits.

While later generations will receive larger lifetime wage payments on a nominal value basis, on a present value basis discounted to current prices, lifetime wages are largest for the baby boom generation, followed by the post-baby boom and prewar generations. Since the prewar generation received less in lifetime wages, it made sense for them to receive income transfers from the pension fund. However, post-transfer income (as defined by lifetime wages minus payments plus benefits) is lowest for the post-baby boom generation. The gap between the present working and retired generations is less serious than that between the post-baby boom and subsequent generations. The present system, which transfers income from younger to older generations, will have to be overhauled by the time the post-baby boom generation retires, because their lifetime wages are the highest.

# 2. Overhaul of the Public Pension Fund

## 1) Tax funding for basic pension

The basic pension, which supports a minimal living standard for the elderly, must be funded in full by everybody. Abolishing the national pension insurance premiums in favor of tax-based funding would solve the problem of inadequate pension benefits to persons who are not enrolled or are exempted. Using the consumption tax would enable taxation proportional to lifetime income without discriminating between one-income and two-income households. And the working and retired generations can share burdens equally even as the younger population declines. The necessary tax rate is 4.9 percent for the present, and a peak rate of 9.1 percent.

## 2) Gradual shift to a fully funded method

A shift to a fully funded method is necessary. The portion of payments that is proportional to income should be changed so as not to produce an income transfer between generations. By shifting to a fully funded format, it is also possible to maintain present benefit levels and reduce premium rates. After the shift, changes in the population composition will have no effect. For the double burden problem( transition costs ) reserve shortages will be gradually eliminated by reducing benefits, cutting premium rates according to plan, and raising the consumption tax rate. While privatization is desirable after the reserve shortage is gone, to maintain the collateral for longevity risk that the public pension has shouldered, there needs to be a proliferation of private end of life pensions.

# Proposal (¥million) Year of birth 1930 1935 1940 1945 1955 1960 1965 1970 1975 A Lifetime wares 168 03 106 50 220 74 223 70 224 47 223 95 240 07 205 45 140 07 147 02

Table 4 Lifetime Income by Generation According to the (First) Revision

										(
Year of birth	1930	1935	1940	1945	1950	1955	1960	1965	1970	1975
A Lifetime wages	168.02	196.69	220.71	233.79	234.47	233.85	219.97	205.45	189.78	170.02
B Lifetime payments	11.58	15.62	20.22	25.40	29.58	34.36	37.34	39.66	40.43	39.41
C Lifetime benefits	56.76	51.27	46.31	40.99	38.36	36.09	33.30	31.20	29.19	26.95
D Net benefits (C - B)	45.18	35.66	26.08	15.60	8.77	1.73	-4.05	-8.46	-11.24	-12.46
E Lifetime income (A-B/2+C)	218.99	240.16	256.90	262.09	258.03	252.76	234.60	216.82	198.76	177.26
Benefit/payment ratio (C/B)	4.90	3.28	2.29	1.61	1.30	1.05	0.89	0.79	0.72	0.68
(Under present system)	(5.47)	(3.66)	(2.56)	(1.82)	(1.47)	(1.26)	(1.12)	(1.00)	(0.89)	(0.82)

Note: Assumes 4.0% interest rate, 2.5% wage increase, 1.5% inflation. Calculated in 1998 prices.

#### **18-Month Economic Forecast for Japan**

				6-month f	orecast		Т	urning poi	nt	Previous forecast	
(Unit: % sequential change)											
	1998	1999	2000	98	99	99	99	99	2000	1998	1999
	F	Y Foreca	st	10-12	1-3	4-6	7-9	10-12	1-3	(FY)	(FY)
Real GDP (seq. change)	-2.4	0.0	0.7	-0.1	-0.0	0.1	0.2	-0.0	0.0	-1.7	1.0
seq. change annualized				-0.3	-0.2	0.5	0.9	-0.0	0.1		
yoy change				-2.6	-1.6	-0.8	0.2	0.4	0.4		
Domestic demand contrib.	(-3.0)	(0.0)	(0.7)	(-0.1)	(0.0)	(0.2)	(0.2)	(0.0)	(0.0)	(-2.3)	(0.7)
Private demand	(-3.3)	(0.7)	(0.6)	(-0.9)	(-0.4)	(0.1)	(0.1)	(0.1)	(0.2)	(-2.9)	(0.1)
Public demand	(0.3)	(0.7)	(0.1)	(0.8)	(0.4)	(0.1)	(0.1)	(-0.1)	(-0.1)	(0.6)	(0.5)
External demand contrib.	(0.6)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.6)	(0.3)
Final private consumption	-0.3	0.3	0.8	-0.2	-0.2	0.3	0.3	0.3	0.2	-0.4	0.9
Residential investment	-8.4	1.2	1.6	-2.7	3.0	1.0	0.7	0.6	1.1	-7.9	-0.4
Capital investment	-14.1	-6.1	0.7	-3.9	-2.3	-1	-0.5	-0.3	-0.2	-12.6	-3.1
Public fixed capital form.	3.5	7.7	0.3	9.2	4.4	0.5	0.9	-1.4	-1.7	6.8	4.8
Exports	-2.4	-0.8	1.8	-0.2	-0.5	-0.8	-0.3	0.5	0.4	-2	2.9
Imports	-8.0	-1.4	2.2	-0.4	-0.2	-0.9	-0.7	0.8	0.4	-7.8	1.0
Nominal GDP	-2.4	-0.5	0.6	0.3	-0.3	-0.0	0.1	-0.1	-0.2	-1.7	0.5

Forecast assumptions: Exchange rate: FY 1998 ¥131, FY 1999 128, FY 2000 121 ODR: Unchanged at 0.5%

Crude oil: FY 1998 \$13/barrel, FY 1999 \$11.70, FY 2000 \$12.10

Public works investment: ¥3 trillion freshwater supplementary budgets in both FY 1999 & 2000.

Tax cut: ¥4 trillion in both FY 1999 & 2000.

Social insurance premium: Freeze on premium hike until FY 2000.

#### **Major Indices**

										Previous	s forecast
	1998	1999	2000	98	99	99	99	99	2000	1998	1999
	(FY)	(FY)	(FY)	10-12	1-3	4-6	7-9	10-12	1-3	(FY)	(FY)
Industrial prod. (seq. change)	-7.5	-1.3	1.0	-0.7	-0.3	-0.4	-0.3	-0.2	0.3	-7.6	-0.5
Overall wholesale price (yoy)	-2.4	-4.5	-1.2	-3.4	-4.0	-5.8	-6.4	-3.6	-1.9	-0.4	-0.7
Consumer price (yoy)	0.1	-0.5	-0.1	0.2	0.0	-0.2	-0.2	-0.7	-0.7	-0.3	-0.1
Current balance (¥trillion)	15.8	16.2	16.5	15.2	15.0	15.5	16.2	16.6	16.6	17.3	19.0
(Nominal GDP ratio)	(3.2)	(3.3)	(3.4)	(3.1)	(3.1)	(3.2)	(3.3)	(3.4)	(3.4)	(3.5)	(3.8)
Unemployment rate	4.3	4.9	5.2	4.4	4.5	4.7	4.9	5.0	5.1	4.4	4.7
Housing starts (million)	1.18	1.21	1.23	1.16	1.19	1.20	1.21	1.22	1.22	1.20	1.21