

**The 29th Medium-term Forecast
of the Japanese Economy
Fiscal Years 2002-2010**

**The Path to
Stable and Sustained Growth**

-- Towards both a Revitalized Economy and Fiscal Consolidation --

December 2002

Japan Center for Economic Research

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The 29th Medium-term Forecast of the Japanese Economy (Fiscal years 2002-2010)

The Path to Stable and Sustained Growth

—Towards both a Revitalized Economy and Fiscal Consolidation—

(Release Date: December 3, 2002)

Summary

1. In the first half of the forecast period (fiscal years 2002-2006), the economy will follow a path of lethargic growth. This is due to the following factors: the corporate sector will be undergoing an adjustment and weaker companies will be weeded out, employment conditions will deteriorate as the cleanup of bad loans is accelerated, and there will be a greater social insurance burden on consumers. However, in the second half of the forecast period (fiscal years 2007-2010), business activities will be revitalized thanks to financial institutions' ability to function again as financial intermediaries and enhanced profitability on the part of the corporate sector. With an improvement in fiscal position, anxiety on the part of households should be alleviated and the propensity to consume should rise. In this way, the foundation for a revitalized economy will be gradually laid. The real GDP growth rate will rise to the upper 1% or up to the 2% level, and there will be a sustained and stable growth path on the horizon.
2. The problem of a declining Return on Assets (ROA) has been one of the factors for the prolonged economic stagnation. However, in the second half of the forecast period, this is expected to recover quite a bit as an improvement in the capital distribution rate will be possible thanks to a more flexible wage and employment environment. Moreover, as advances in IT are more widely utilized and regulatory reform takes place, this should lead to more efficient management and the creation of new demand. As a result, productivity will rise, and value added will also increase centered on the non-manufacturing sector.
3. In the meantime, on the fiscal side of matters, a full-fledged review of fiscal spending should be conducted so that a "simple, efficient government" can be realized. Some measures such as raising the consumption tax rate, will be implemented in the second half of the forecast period when the economy will embark on a path of recovery. As the result, the primary balance of the central and local governments will show great improvement.
4. In order for this scenario to be realized, much effort from many sectors of the economy is imperative. Without this, revitalizing the economy is all but impossible. We now need to ensure that all the people of Japan recognize the painful fact that Japanese economy is in a very grave state, and have everyone share a feeling of urgency. The government must strengthen the safety net so that the pains of reform can be lessened, while at the same time, present a concrete vision of the future to the Japanese that shows a bright future of the Japanese economy once this pain has been endured. It goes without saying that the main player of this economic revitalization is the private sector. The role of the government, then, is to devote its efforts to creating the setting for this by expanding deregulation into new areas. Then, if the private sector can demonstrate creativity and energy in this new environment of free competition, we believe it will be possible for the Japanese economy to show robust growth.

1. Focus of the Forecast and Assumptions Made

In compiling this medium-term forecast, we focused on the following two points, and assumed that the policy measures that follow below were implemented.

(1) Road to an improved fiscal balance in the medium-term:

As they promote the structural reform, the government aims to have the primary balance (fiscal balance less net interest payments) for the central and local governments together mark a surplus by the beginning of the 2010s. Will the government actually be able to draft a concrete plan to realize this goal?

(2) Likelihood that a private-sector led revitalization in the economy will be attained:

There will be negative influences on the domestic economy of the reduction in government expenditures as the government aims to improve its fiscal balance. The increased globalization of the economy will also lead to a shift to overseas production that will have negative effects on the domestic economy as well. In light of this, will the domestic private sector be able to enhance the value added of their goods and services, will they be able to make full use of IT, and will they regain energy through regulatory reform and truly be able to lead the Japanese economy on to a stable growth path? The key to this lies in if corporate profit rates-- that were stagnant for all of the 1990s -- can improve and if in particular, the non-manufacturing sector will be able to increase its productivity.

Measures to be implemented:

- Supplementary Budget for fiscal 2002 (we assume the provision of social capital, provision of a safety net, compensation for mandatory spending)
- Acceleration of the bad loan cleanup while revitalizing industry at the same time (we assume a sweeping clean-up by the end of fiscal 2004.)
- An advanced tax reduction centered on corporate taxation as an anti-deflation measure (Reduced taxes on R&D and investment)
- Reduced government spending to improve the fiscal balance in the medium-term (public works spending, reduction in number of civil service employees, reduction in total healthcare spending due to efficiency in healthcare), increasing the taxable base (review of the special tax exemption for spouses, etc.), tax hikes (gradual increase in the consumption tax starting from fiscal year 2007)

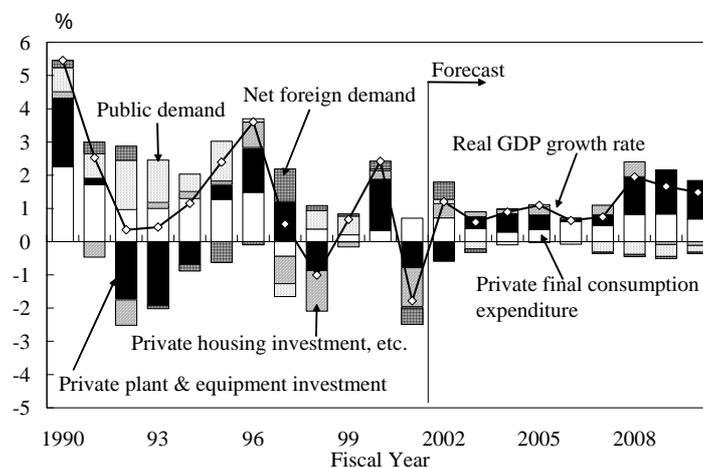
2. Medium-term Growth Path to Fiscal 2010

The Japanese economy's medium-term growth path to fiscal 2010 is as shown in Figure 1. In the first half of the forecast period, growth will be very limited. However, in the second half, the economy will be revitalized and the growth rate will recover to a degree, and the road to a sustained and stable growth path will be paved.

The real GDP growth rate in the first half of the forecast period (fiscal 2002-2006), will be small and only about 0.9% per year on average. The acceleration of bad loan disposal that involves both financial and industrial sectors will lead to adjustment of companies and weaker ones being weeded out, while the employment situation will be aggravated. Furthermore, with the burden of social insurance increasing – that is, for healthcare and pensions – growth in personal consumption and residential investment will also be very low. Public works spending will continue to be reduced. Yet, the economy will not fall into a recession due to the following: the government anti-deflationary measures will be implemented, the safety net will be put up to alleviate the pains of unemployment, and the tax reductions on R&D and investment as advanced tax reductions will incite business investment. Furthermore, the US being able to maintain some level of growth and avoiding a double dip, will also support the Japanese economy.

The trough of the business cycle will be hit in fiscal 2006. After this, in the second half of the forecast period (fiscal 2007-2010), the real GDP growth rate will rise to about 1.5% per year on average. The cleanup of bad loans, and the adjustment and the reorganization of the corporate sector will have largely been completed, and banks will be able to fulfill their function as financial intermediaries. Corporates will have improved their productivity thanks to IT investment and regulatory reform, and new demand will be created. With this favorable backdrop, corporate profits will recover and business investment will be more active. Compensation of employees will increase and the anxiety about unemployment will be less acute. Due to progress made in fiscal structural reform as well, the propensity to consume will gradually rise, and personal consumption and residential investment will stabilize. In this way, the foundation for economic revival will be laid and there will be hope for a sustainable private-sector led growth. During this time, the public sector will be injecting negative factors to the actual economy because they will be reducing public works spending, cutting the number of civil servants employed, and raising the consumption tax. However, because the fiscal balance will be improved, the “simple, efficient government” will become within an attainable range.

Figure 1. Contribution to Real GDP Growth Rate



[Note] Net foreign demand = Exports of goods and services - Imports of goods and services

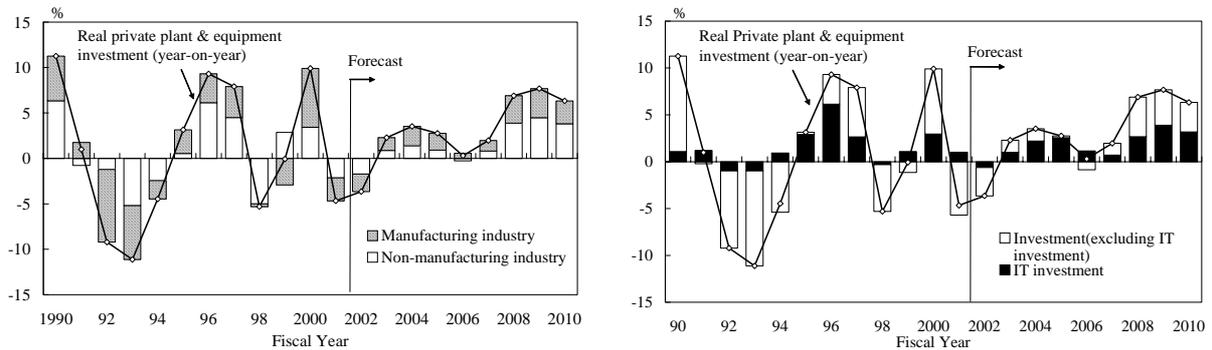
[Source] Cabinet Office “Quarterly Estimates of GDP”

2-1. Improvements in profit structure to gradually lead to more active business

Plant and equipment investment of private companies will be lackluster in the first half of the forecast period (only an annual average growth of 1.0% in fiscal years 2002-2006). Stagnant sales levels will prevent cash flow from showing vast improvements, and as companies will reorganize and weaker ones will be weeded out of the market, business owners will not be eager to make investments. Furthermore, manufacturers shifting their production overseas will be a negative factor to domestic investment, while in the non-manufacturing sector, excess stock will put continuing downward pressure on investment (Figure 2). However, as part of the government’s anti-deflationary measures, taxes on R&D investment and business investment will be reduced (as a temporary measure in fiscal 2003-2005, we assume 900 billion yen per fiscal year), and this will support investment to a degree.

After a decline that will occur as part of the business cycle (in fiscal 2006), growth will be much higher in the latter half of the forecast period (5.7% in fiscal 2007-2010 average annual growth). Corporate profits will improve thanks to rising sales, and cash flow will increase. Progress will be made in corporate reorganization and efficiency, and the Return on Assets (ROA) will improve. As a result, the expected growth rate by business owners will gradually rise.

Figure 2. Contribution to Change in Real Private Plant & Equipment Investment
(1) By Industry **(2) By Type**



[Notes] 1. The figure of “Private plant & equipment investment” (on SNA basis) is divided between manufacturing and non-manufacturing industry based on “Capital stock statistics of private corporate sector”

2. Investment (excluding IT investment) = Private plant & equipment investment – IT investment

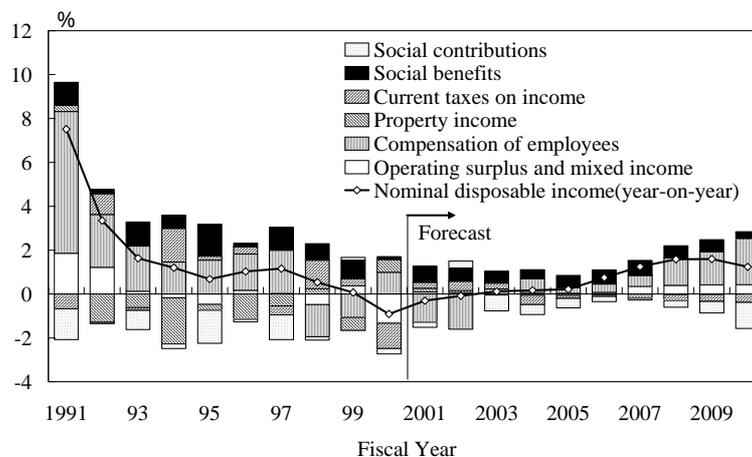
[Sources] Cabinet Office “Annual Report on National Accounts”, “Capital stock statistics of private corporate sector”, Ministry of Economy, Trade and Industry “Report on Machinery Statistics” etc.

2-2. Personal consumption to recover gradually in the latter half of the forecast period

Growth in personal consumption will be minimal during fiscal years 2003-2005, growing at a real rate of only 0.5-0.7%. This is because in this time, as the bad loans are being disposed of, there will be adjustment in the weaker companies and some will be weeded out. Furthermore, in fiscal years 2003 and 2004, social insurance payments for healthcare, long-term care and pensions will increase. There will also be a review of the special tax deduction for spouses and the pension benefits system. As a result of the above, the disposable income of the household and consumer sentiment will both be stagnant (Figure 3).

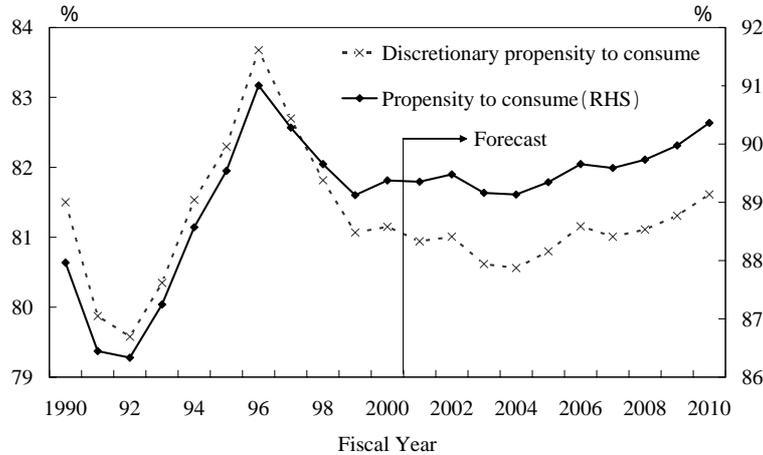
After this, there will be a very gradual recovery in consumption and by fiscal 2008-2009, it should grow by about 1.5% per year. The hikes in the consumption tax (by 1% every year from fiscal 2007) will be a negative factor to consumption, but renewed business activities will boost disposable income. Progress in the fiscal structural reform, improvements in the employment situation and the stabilization of the financial system will all encourage the propensity to consume to rise (Figure 4.)

Figure 3. Contribution to Change in Disposable Income of the Households



[Source] Cabinet Office, “Annual Report on National Accounts”

Figure 4. Change in Propensity to Consume

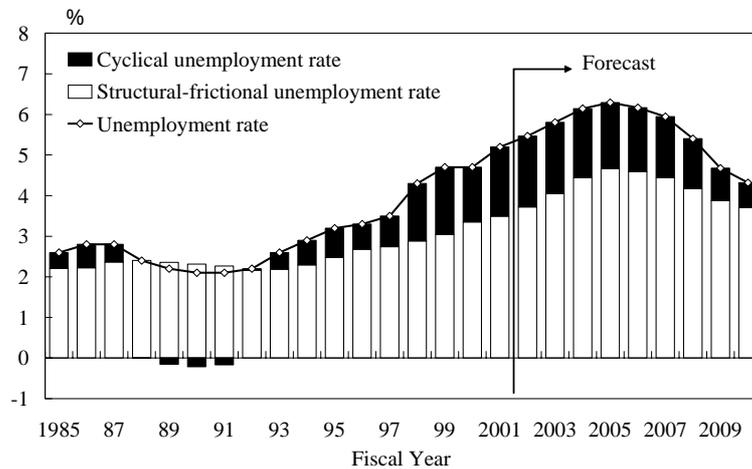


[Source] Cabinet Office, “Annual Report on National Accounts”

2-3. Labor force participation of women to rise

Changes in the labor market have great influence on household expenditure. The unemployment rate will rise to as high as 6.3% around fiscal 2005 due to an accelerated cleanup of the bad loans (Figure 5). After this, however, employment will be absorbed centered on the service industries reflecting the revitalized business activities. The unemployment rate will gradually fall and improve to the 4.3% level in fiscal 2010. The adjustment in industry that will follow the bad loans cleanup will aggravate the mismatch in the labor market (structural and frictional unemployment), but with such measures as job training and the further liberalization of the job placement industry, this should shrink towards the second half of the forecast period.

Figure 5. Cyclical and Structural-Frictional Unemployment Rates



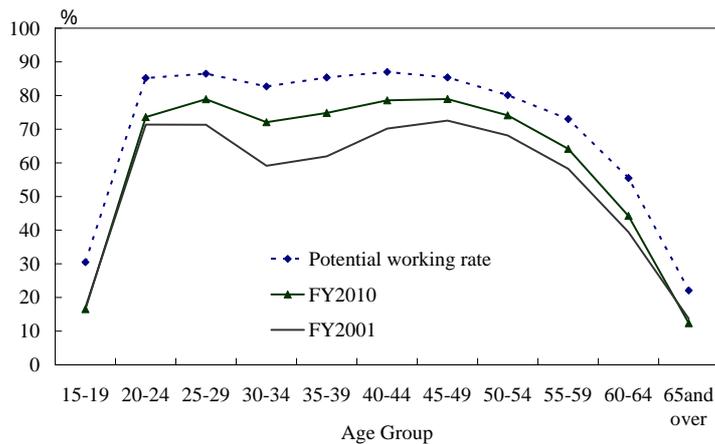
[Notes] Unemployment rate is divided into cyclical one caused by recession and structural-frictional one caused by mismatch in employment condition. Structural-frictional unemployment rate shows the unemployment rate when unemployment rate is equal to vacancy rate (i.e. labor demand = labor supply). Cyclical unemployment rate = Unemployment rate - Structural-frictional unemployment. Method of estimating structural-frictional unemployment rate is as follows.

1. Unemployment rate of employees = $\frac{\text{Unemployed}}{\text{Employees} + \text{Unemployed}} \times 100$
2. Vacancy rate = $\frac{\text{Job offers} - \text{Placement}}{\text{Job offers} - \text{Placement} + \text{Employees}} \times 100$
3. $\ln(\text{Unemployment rate of employees (u)}) = \frac{1}{2} \ln(\text{Vacancy rate (v)}) + \frac{1}{2} \ln(\text{Unemployment rate of employees (u)})$

[Sources] Ministry of Public Management “Labour Force Survey”, Ministry of Health, Labour and Welfare “Report on Employment Service”

In the meantime, we should see an increase in the labor force participation of women (from 49.0% in fiscal 2001 to 50.7% in fiscal 2010) as the availability of daycare facilities improves, the special tax reduction for spouses is reviewed, and work-sharing through “part-time regular workers” become more common. The M-shaped curve that shows the labor force participation rate of women by age will mark an upward shift, mainly from the mid-30s age group, and will approach a more western-style form (Figure 6). As a result, although there will be a decline in the labor force participation rate of men due to the aging of the workforce (75.5% in fiscal 2001, to 73.5% in fiscal 2010) this gap will be filled by women, and a decline in the labor force participation rate as a whole will be avoided (61.8% in fiscal 2001 to 61.7% in fiscal 2010).

Figure 6. Labor Force Participation Rate (Female)

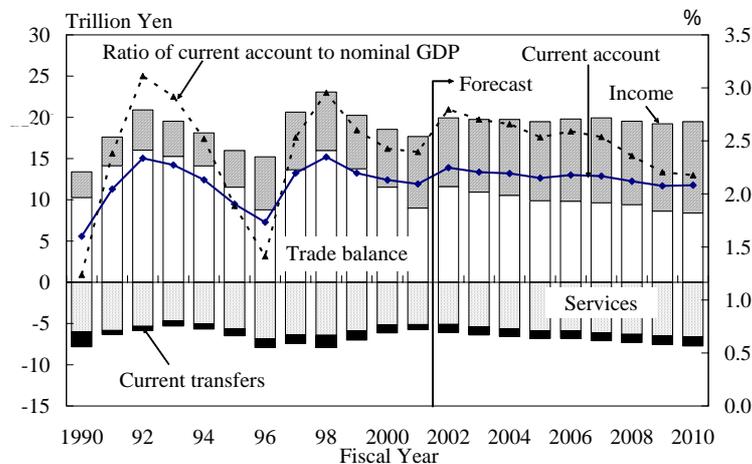


[Notes] 1. Labor force participation rate = Labor force / Population 15 years old & over
 2. Ratio of Potential working persons (1997) = (Working persons + Persons out of work and wishing to work) / (Population 15 years old & over)
 [Sources] Ministry of Public Management “Labour Force Survey”, Management and Coordination Agency “1997 Employment Status Survey”

2-4. Structural change in external balance due to international division of labor

Now turning to the external balance, although the current account will mark a widening surplus in fiscal 2002 mainly due to the growth in exports it will show a gradual contraction for the remainder of the forecast period. As a share of nominal GDP, it will fall slightly from 2.4% in fiscal 2001 to 2.2% in fiscal 2010 (Figure 7).

Figure 7. Balance of Payments



[Source] Bank of Japan “Balance of Payments Monthly”

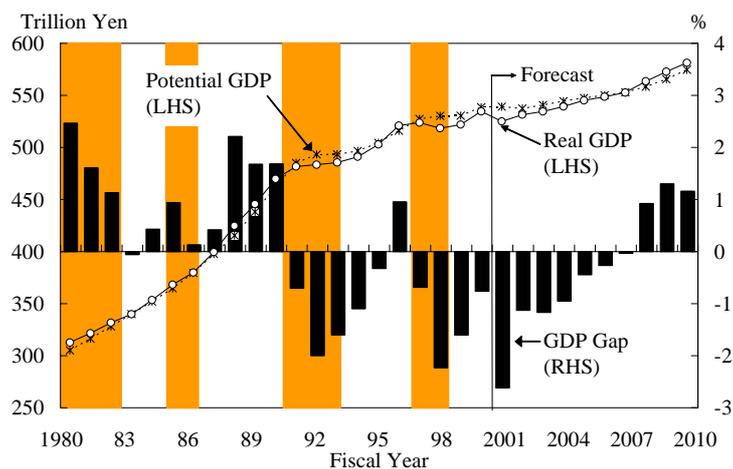
Although the current account will continue to record large surpluses, there has been some change recently in its composition due to the increased globalization of the economy. The trade surplus in fiscal 2002 will rise temporarily from increased exports to Asia, but after this, the surplus will gradually shrink, reflecting the more numerous production bases in Asia and the trend towards local parts procurement. However, at the same time, foreign direct investment and overseas financial assets will increase and the surplus in income balance will grow each year. After fiscal 2006, the surplus in the income balance will be greater than that of the trade balance.

2-5. GDP Gap to improve

The potential GDP will grow at only a very low rate in the first half of the forecast period (fiscal 2002-2006, growth will be 0.4% on average per year). However, in the second half of the forecast period, through regulatory reform and the effects of R&D investment, total factor productivity (TFP) will improve, and the potential capital input will increase, contributing to a higher growth rate (1.1% in fiscal 2007-2010 on average per year).

The GDP gap was about a negative 2.6% in fiscal 2001 and this should slowly begin to diminish and by about fiscal 2007, when the economic recovery is full-blown, the gap should no longer be a negative figure (Figure 8). After this and up to fiscal 2010, there will be a small positive gap.

Figure 8. Difference of Real GDP from Potential GDP



[Notes] 1. $GDP\ Gap\ (\%) = \{ (Real\ GDP - Potential\ GDP) / Potential\ GDP \} \times 100$

2. Shaded areas indicate periods of recession (according to the Cabinet Office).

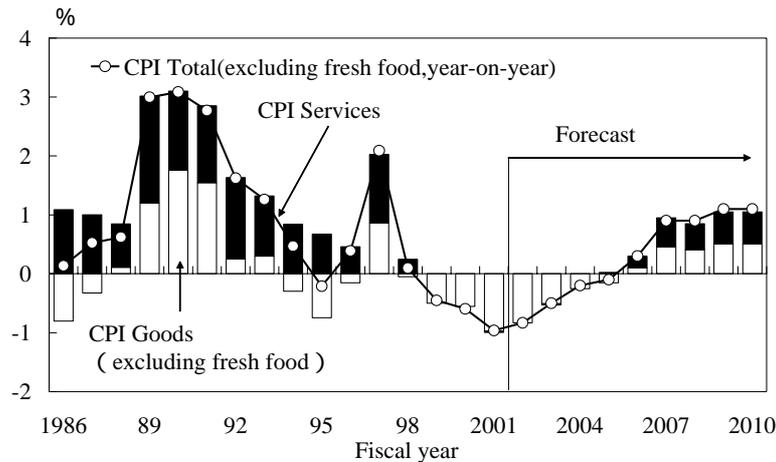
[Source] Cabinet Office "Annual Report on National Accounts", "Gross Capital Stock of Private Enterprises", Ministry of Health, Labour and Welfare "Monthly Labour Survey", etc.

2-6. Some time required to eliminate deflation

All price indicators – wholesale prices, consumer prices and corporate service prices – have been falling over the previous fiscal year by about 1%. This is due to such factors as the large demand-supply gap, the influx of cheaper imports, technological innovation, and regulatory reform.

In the forecast period, the consumer price index (excluding fresh food) will gradually stop declining due mainly to the improvement in the GDP Gap, and in fiscal 2006, the index will rise over the previous year (Figure 9). After fiscal 2007, the consumption tax rate will be raised, and consumer prices will go up by about 1% as well.

Figure 9. Contribution to Change in Consumer Price Index (CPI)



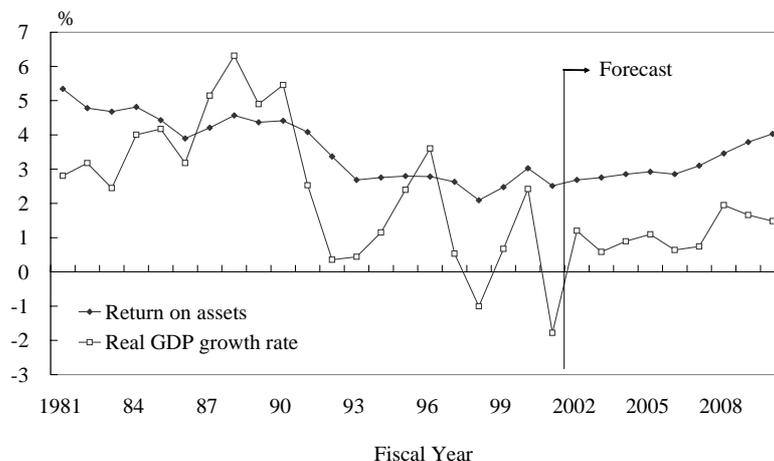
[Note] The figures after FY 2007 include influence of the hike in the consumption tax rate.
 [Source] Ministry of Public Management "Annual Report on the Consumer Price Index"

3. Corporate Profits – The Key to Growth

3-1. Capital distribution rate factor and value added factor

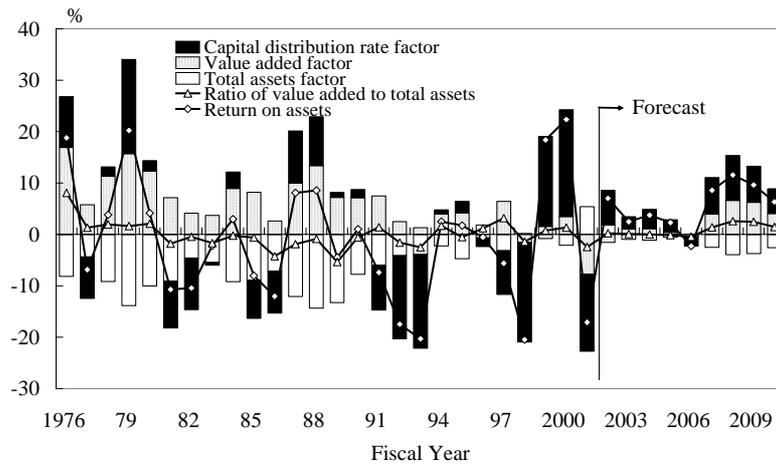
After the 1990s, the reason that Japan fell into a prolonged economic standstill is because the ROA (Return on assets) of firms had fallen (Figure 10). There are two factors that make up the ROA: One is the capital distribution rate (Of the value added, this is the part that is distributed to the company, Return/Value added). The other is the value added rate, that is, value added divided by total assets (Figure 11). In the 1990s, the ROA deteriorated due mainly to the decline in the capital distribution rate, and businesses held back on their investment as a result of this. In the forecast period, however, the capital distribution rate is expected to recover and so an investment-led recovery will be realized (Figure 12). According to Figure 11, in the latter half of the forecast period, the amount of value added will increase by a greater value than total assets and this will also contribute to an increase in the ROA. The non-manufacturing sector will be driving the increase in value added. The manufacturing industry – facing stiff competition from developing countries – will be unable to show a marked increase in its value added.

Figure 10. ROA (Return on Assets, All Industries) and Real GDP Growth Rate



[Sources] Ministry of Finance "Financial Statements Statistics of Corporations by Industry, Annually",
 Cabinet Office "Quarterly Estimates of GDP"

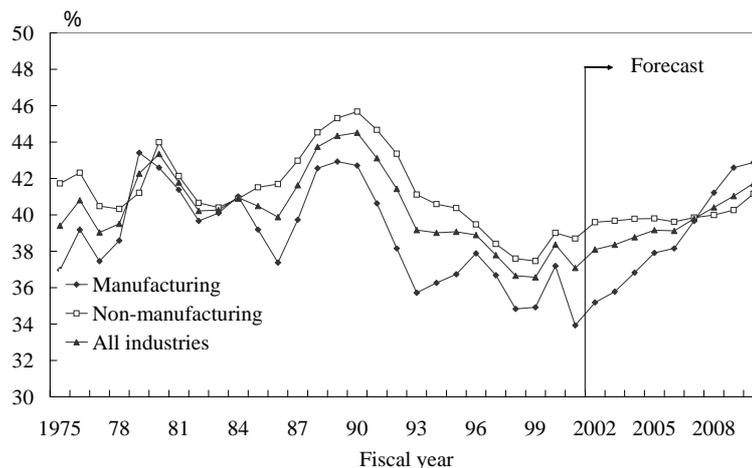
Figure 11. Factor Decomposition of ROA (Year-on-year)



[Notes] 1. Value added = Salaries and wages + Interest and discounting expenses + Rental or leasing expenses for fixed and liquid assets + Taxes and public charges + Net operating profit (Operating profit – Interest and discounting expenses)
2. Capital distribution rate = Profit / Value added

[Source] Ministry of Finance “Financial Statements Statistics of Corporations by Industry, Annually”

Figure 12. Capital Distribution Rate



[Notes] 1. Capital distribution rate = Profit / Value added
2. Value added = Salaries and wages + Interest and discounting expenses + Rental or leasing expenses for fixed and liquid assets + Taxes and public charges + Net operating profit (Operating profit – Interest and discounting expenses)

[Source] Ministry of Finance “Financial Statements Statistics of Corporations by Industry, Annually”

3-2. Progress in employment and wage adjustment– labor distribution rate will fall

An increase in the capital distribution rate necessarily means a decline in the labor distribution rate. This will occur as employment and wages are adjusted in accordance with the state of the economy. In the 1990s, even when the economy was deteriorating, neither employment nor wages were appropriately adjusted, and so the labor distribution rate rose (and the capital distribution rate thus fell).

Why then, can we expect the correction in employment and wages to proceed relatively smoothly? We surmise a continued increase in part-time labor (that is easily adjusted to suit the economic condition), and an expansion in job placement functions, but there are a few other factors as well. These are revealed as we consider the reasons why the labor distribution rate grew in the 1990s. We can summarize these as follows:

- (1) The labor market was tight at the end of the economic bubble period, and these effects prevailed even after the bubble burst.
- (2) There were deep-rooted concerns about a labor shortage in the future as a result of the movement towards reduced working hours, and the demographic conditions of a declining birth rate and aging population.
- (3) The expected growth rate by companies also suffered from “post-bubble after-effects” and the expected growth rate, particularly in the first half of the 1990s was greater than the actual rate of growth.
- (4) There was a delay in legislation of rules regarding the termination of employees and employee dismissal was restricted as a result of court precedents.
- (5) The cost of training human resources is high under the lifetime-employment system, and dismissing employees is costly and not easily done.

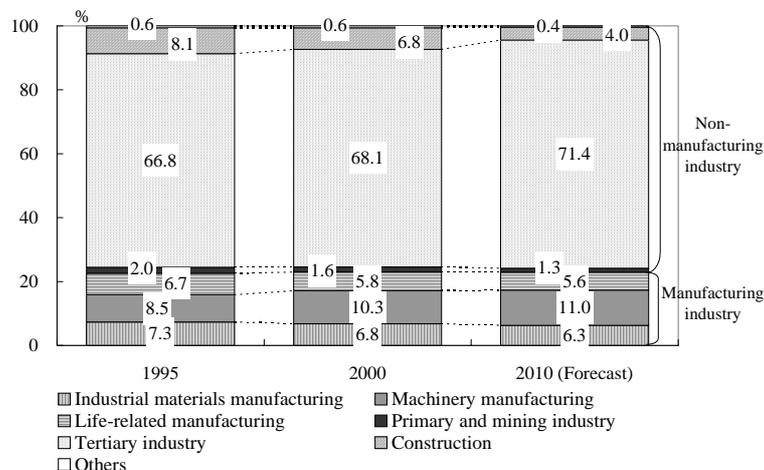
At present, (1)-(3) are changing under the prolonged economic stagnation. As for (4), new rules for employee termination will soon be included in the Labor Standards Law. Regarding (5), although we cannot deny that long-term training of labor is necessary, the Japanese economy is being forced to reform its industrial structure and shifting labor towards areas of higher productivity, and this lifetime employment system will also be forced to change.

3-3. Share of Value added stagnant in manufacturing sector

The share of the manufacturing industry’s claim in total value added was 22.5% in 1995 and rose to 23.0% in 2000. In 2010, this is expected to fall slightly to 22.9% (Figure 13). We divide the manufacturing sector into (1) basic materials industries such as chemicals, steel and metal products, (2) machinery industries such as general machinery, electric machinery, transport machinery and precision instruments and (3) daily-life related industries such as food and textiles, and we see that the the growth rate of value added in the main backbone of industry -- the machinery industry -- has been declining, and the growth in their share has slowed. The shares of basic materials, and daily-life related sectors have been falling due to their negative growth.

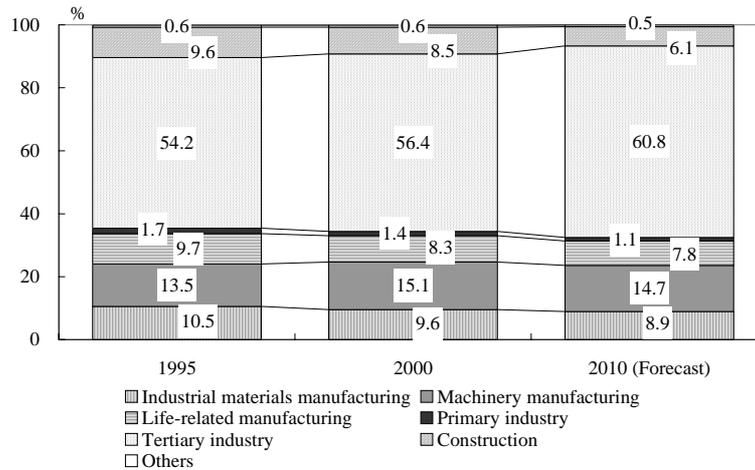
The manufacturing industry’s share of value added has been constant, but their share of total output has declined. The share of the manufacturing industry in real total output was 33.7% in 1995, 33.0% in 2000, and 31.4% in 2010 (Figure 14). The reason that the share of value added has not fallen as much as the share of output is that the manufacturing industry has been increasing its efficiency under very fierce competition and value added has risen relative to its output.

Figure 13. Share of Gross Value Added by Industry



[Source] Cabinet Office, “SNA Input-Output Tables”

Figure 14. Share of Gross Outputs by Industry

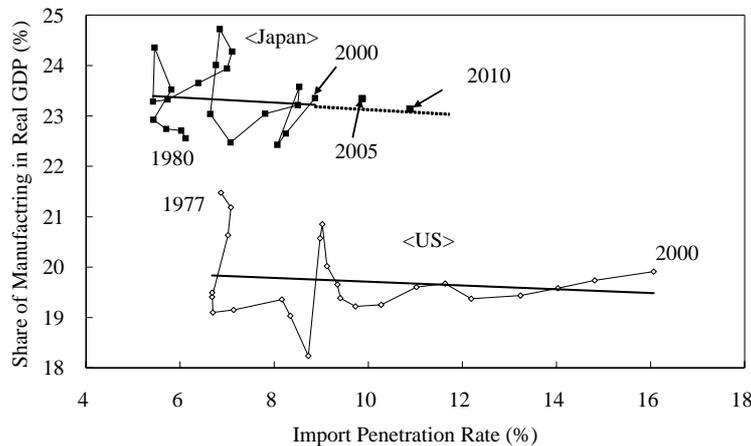


[Source] Cabinet Office, “SNA Input-Output Tables”

3-4. Increasingly fierce international competition

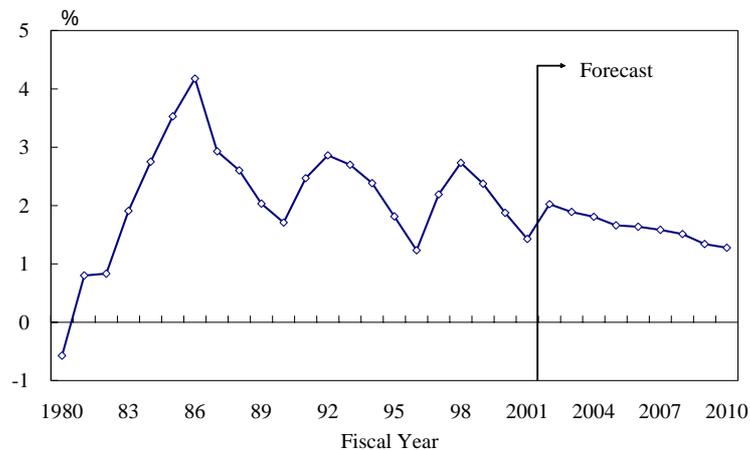
We expect the manufacturing industry’s status will gradually decline in all industries due to an increasingly fierce environment of cost competition with the developing countries. The import penetration rate (the share of imports to total domestic supply) will rise and the share of manufacturing in GDP will decline, and this will continue into the forecast period (Figure 15). The ratio of net exports on a customs clearance basis to nominal GDP did not follow any particular trend in the 1990s, but in the forecast period, the share will gradually lessen (Figure 16).

Figure 15. Import Penetration Rate and Share of Manufacturing in Real GDP (Japan and US)



[Note] Import penetration rate is defined as the share of imports to total domestic supply.
 [Sources] Cabinet Office “Annual Report on National Accounts”, U.S. Department of Commerce “NIPA Tables”, “GDP by Industry Data”

Figure 16. Ratio of Nominal Net Exports to Nominal GDP



[Source] Japan Tariff Association “Trade Return Statistics”

3-5. Signs of recovery in productivity of non-manufacturing sector

If we separate the growth of labor productivity in the US and Japanese non-manufacturing industries into the growth of total factor productivity (TFP) and the capital labor ratio (input of capital per one person labor), we see that the contribution of TFP to labor productivity is lower in Japan than in the US (Table 1). Most of the non-manufacturing industries in Japan rely on increases in the capital labor ratio to raise their labor productivity, and so growth in labor productivity does not necessarily translate into a higher efficiency of economic activity. This basic structure being left unchanged, the capital input slowed in the 1990s, and so the economy was also lackluster. The labor productivity that was stagnant in the 1990s should gradually recover in the future and so the growth of value added should also rise (Figure 17). What become important here is how fully IT is utilized, the progress made in deregulation, and the creation of demand for the service industries.

Table 1. Labor Productivity, TFP, and Capital Labor Ratio in Non-manufacturing Industries (Japan and US)

	Japan			US		
	Labor Productivity	TFP	Capital Labor Ratio	Labor Productivity	TFP	Capital Labor Ratio
Transport and communications	3.77	3.23 (85.5)	0.55 (14.5)	2.77	2.5 (90.3)	0.26 (9.7)
Electricity, gas and water supply	2.43	0.5 (20.5)	1.93 (79.5)	1.8	0.97 (53.9)	0.83 (46.1)
Wholesale and retail trade	3.07	1.98 (64.5)	1.09 (35.5)	2.55	1.76 (69.0)	0.79 (31.0)
Finance and insurance	2.66	0.97 (36.6)	1.69 (63.4)	1.8	0.81 (45.0)	0.99 (55.0)
Service activities	0.67	-1.3	1.97	-0.06	-0.32	0.26
Construction	-0.18	-1.17	0.99	0.13	0.23	-0.1
Real estate	0.15	-4.86	5.01	1.23	0.42 (34.1)	0.81 (65.9)

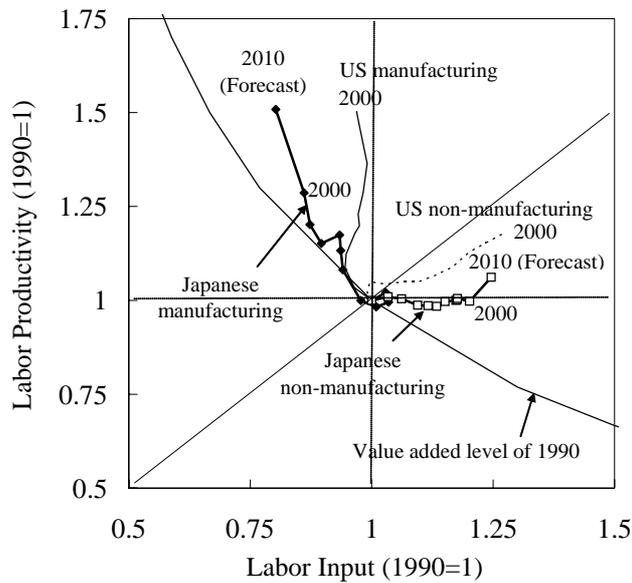
[Notes] 1. The percentage change in labor productivity is decomposed into TFP factor and capital labor ratio factor.

2. The figures are average annual growth rate for 1980-1999 (Japan), and 1980-2000 (US).

3. () denotes percentage contribution to the labor productivity growth.

[Sources] Cabinet Office “Annual Report on National Accounts”, Japan Center for Economic Research “The Japan’s Economy in the New Century: A New Vision for Growth”, U.S. Department of Commerce “NIPA Tables”, “GDP by Industry Data”, “Fixed Assets Tables”

Figure 17. Labor Input, Labor Productivity, and Value Added by Industry (Japan and US)

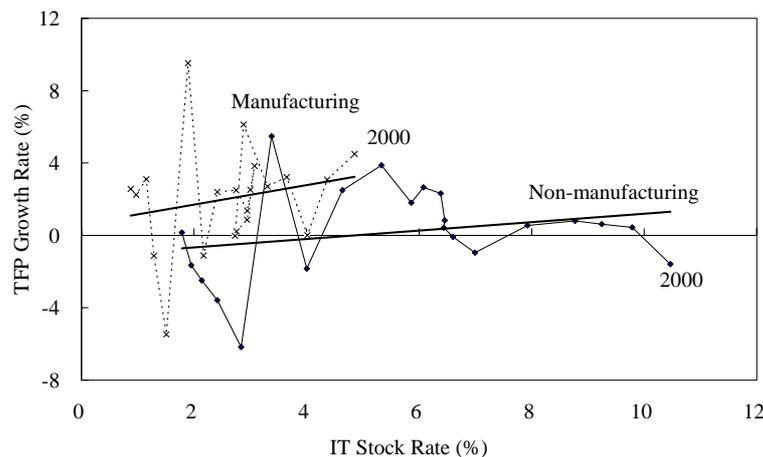


[Sources] Cabinet Office, “Annual Report on National Accounts”, U.S. Department of Commerce, “GDP by Industry Data”

3-6. TFP-raising effect of IT

With the accumulation of IT stock, we can expect the labor productivity of the economy as a whole to improve. This is not limited to IT industries such as computer-related and electronic parts sectors, but a broad range of industries that are IT users can realize an increase in TFP. IT user industries include non-manufacturing industries such as financial services and retail. Here, we examined the relationship between IT stock rates and TFP growth rates over the previous year between 1980 and 2000 for manufacturers and non-manufacturers (Figure 18).

Figure 18. IT Stock Rates and TFP Growth Rates by Industry



[Sources] Cabinet Office “Annual Report on National Accounts”, Japan Center for Economic Research
 “The Japan’s Economy in the New Century: A New Vision for Growth”

In both types of industries we observe a trend where an increase in IT stock rates increases the TFP growth rate. However, this works differently for manufacturers and non-manufacturers. First, the trend line of the manufacturing industries has a steeper slope, and the marginal effect of an increase in IT stock in raising productivity is greater. Second, even when the IT stock rates are about the same

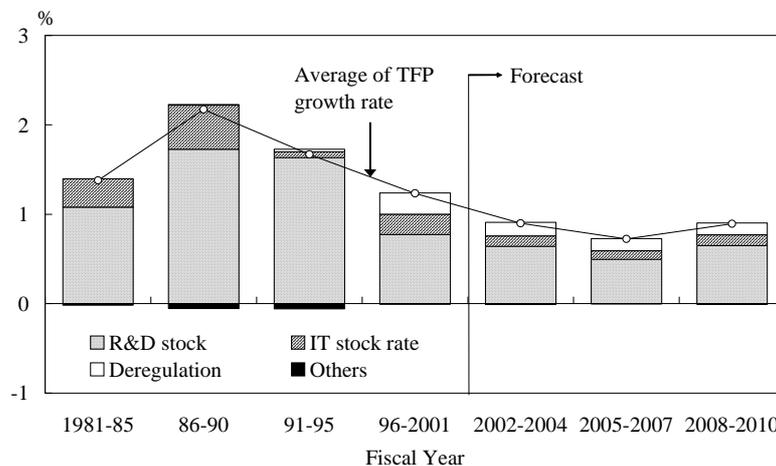
level, the TFP growth rates for the manufacturers are greater overall. This distinction will basically not change during the forecast period, but since the IT stock rates of the non-manufacturers will accelerate, this will raise TFP by a greater degree. The IT stock rates of non-manufacturers will rise from what was 10.5% in the year 2000 to 17.3% in 2010, and will be more rapid than the increase in the manufacturing sector in the same period (4.9% to 9.6%).

3-7. Effects of deregulation

Deregulation makes economic activity more efficient by allowing new entry into the market and encouraging competition. The deregulation of the transport, communications, commerce, financial services, electric power and gas industries that became full-fledged in the 1990s will continue into the forecast period. However, in order to increase TFP by a higher degree, this deregulation must be widespread and proliferate into other industries as well. In this sense, the Special Regulatory Reform Zones, taking shape as limited areas in which regulations would be relaxed or abolished, warrants our attention as a means to get this on its way. However, there is some murkiness regarding the future of this structural reform initiative because there has been resistance in some ministries and agencies, and as a result, the entry of private firms into hospital and schools – the main features of this endeavor -- has been removed from the bill. As a result, we do not expect there to be any TFP-improving effects from deregulation in the fields of healthcare and education that were initially included in the special zone.

We estimated the contribution rates of deregulation, increases in IT stock ratios, and accumulation of R&D stock, to the TFP growth on an all-industry basis (Figure 19). The effects of deregulation have been observed from the second half of 1990s, and will contribute to TFP growth throughout the forecast period. The estimate is on an all-industry basis and includes the manufacturing industry and so the effect of R&D stock is shown to have the greatest effect. However, if we limit our analysis to the regulated non-manufacturing industries, we see that deregulation is the factor that has the greatest effect.

Figure 19. Contribution to Total Factor Productivity Growth



[Notes] 1. TFP growth rate = Potential GDP growth rate – 0.30×(potential capital input, y-o-y) – 0.70×(potential labor input, y-o-y)

2. IT stock rate is the ratio of IT capital stock to total private capital stock.

[Sources] Cabinet Office “Annual Report on National Accounts”, “Gross Capital Stock of Private Enterprises”, Ministry of Health, Labour and Welfare “Monthly Labour Survey”, etc.

4. Bad Loan Disposals

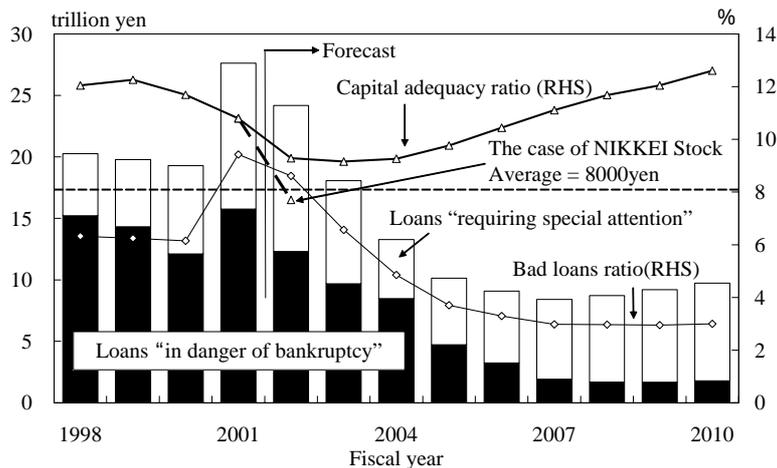
We cannot deny the fact that the poor economic environment is spurring the increase in bad loans, but it is also clear that the increasing bad loans are leading to a dysfunction in the financial intermediary role of banks, and are thus inviting stagnation in business activities. Therefore as a necessary condition of revitalizing the economy, the acceleration of the bad loan disposal is imperative.

At the end of October 2002, the government released a comprehensive anti-deflation package and the “Program for Financial Revival” where they introduced some measures to accelerate the cleaning up of the bad loans while revitalizing industry. It aims for the major banks to reduce their share of bad loans in their total loan portfolio by about half by fiscal 2004 (on a risk management loan basis, bad loans were over 9% at the end of fiscal 2001). We attempted a rather drastic simulation using several assumptions to obtain an outline of the bad loan cleanup operation to see if the government’s goals were attainable (Figure 20).

The simulation (in the case where stock unrealized losses do not occur) showed there would be many new loans classified as bad loans mainly in fiscal 2002 as more stringent asset assessment methods will be implemented. Despite this, by the active use of the Resolution and Collection Corporation (RCC) and the Industrial Revitalization Agency, more items will be taken off the balance sheet and the outstanding balance of bad loans will steadily decrease. By the end of fiscal 2004, the share of bad loans will fall to about 4.8% and close to half of the outstanding of fiscal 2001 (9.4%). In this time, there will be massive losses incurred for loan disposal (through direct write offs + loan loss provisions). However, since every year’s operating profits (gyomu junneki) can be used for bad loan disposal, their capital adequacy will reach the bottom, 9.2% at the end of fiscal 2003, and still be above the 8% required by the BIS. This ratio will slowly improve from fiscal 2004. However, in the case where the Nikkei Average is at 8,000 yen, there will be a massive unrealized stock loss, and so the capital adequacy ratio will fall below 8.0% and be at 7.7% at the end of fiscal 2002.

Although it is true that the assumptions used in this estimate were very severe, such as our raising the required loan loss provision for loans classified as “requiring special attention” to 50%. However, when we consider that a bank’s capital ratio is greatly influenced by fluctuations in the stock market, the current capital of banks is not sufficient. Banks must accelerate their bad loans disposal and at the same time, actively restructure so that they can secure the interest rate commensurate with the risk entailed on their loans and they can strengthen their profitability, and improve their capital base.

Figure 20. Bad Loans and Capital Adequacy Ratio of Major Banks

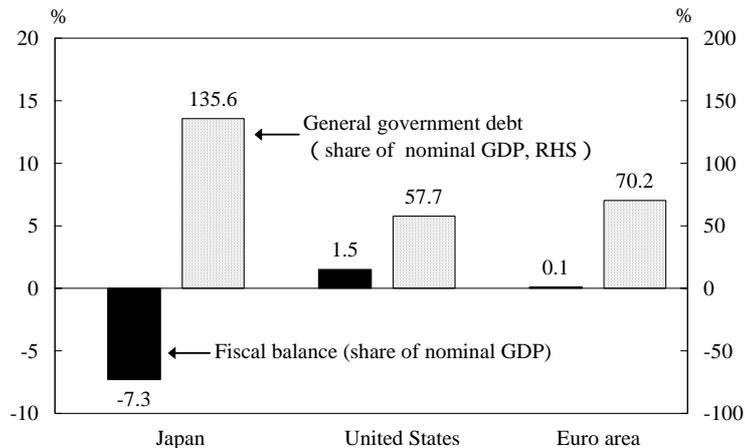


[Sources] Bank of Japan “Developments in Profits and Balance Sheets of Japanese Banks in Fiscal 2001”
 Financial Services Agency “The Status of Risk Management Loans Held by All Banks in Japan”

5. Towards an Improved Fiscal Balance

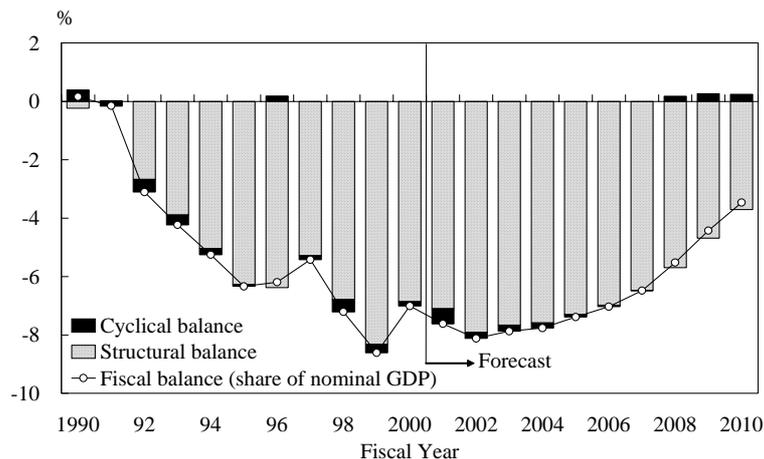
When the economic bubble burst in the beginning of the 1990s, the fiscal balance went on a path of rapid deterioration due to frequent economic stimulus packages and declining tax revenues. Currently, Japan's fiscal deficit and the amount of outstanding public debt are in the worst condition of all of the major industrialized countries (Figure 21). We separated the factors of the fiscal deficit into structural balance (the fiscal balance we would have if potential GDP were attained) and cyclical balance (= the actual fiscal deficit – the structural balance) (Figure 22), and we see that most of the deficit is derived from the structural factor. In other words, even if the economy were to recover, the fiscal deficit would not easily disappear, and unless the structure of the balance is changed, the fiscal balance will not show a large improvement.

Figure 21. General Government Fiscal Balances and Debt (CY2000)



[Source] IMF "World Economic Outlook"

Figure 22. Structural Fiscal Balance of Central and Local Governments



[Notes] 1. Structural balance = (Tax revenue when potential GDP is attained + Other revenues) – Fiscal expenditures
 Cyclical balance (residuals) = Fiscal balance – Structural balance

2. Tax revenue is estimated by using the values of elasticity estimated by nominal GDP and taxes (corporate tax 0.97, income tax 1.20, indirect tax 1.10, social security burden 1.42). The value of elasticity of the fiscal expenditure is assumed zero.

3. Figure in FY 1998 excludes the cumulative debt of Japan National Railways Settlement Corporation and special account for National Forest Service, transferred to the general government account.

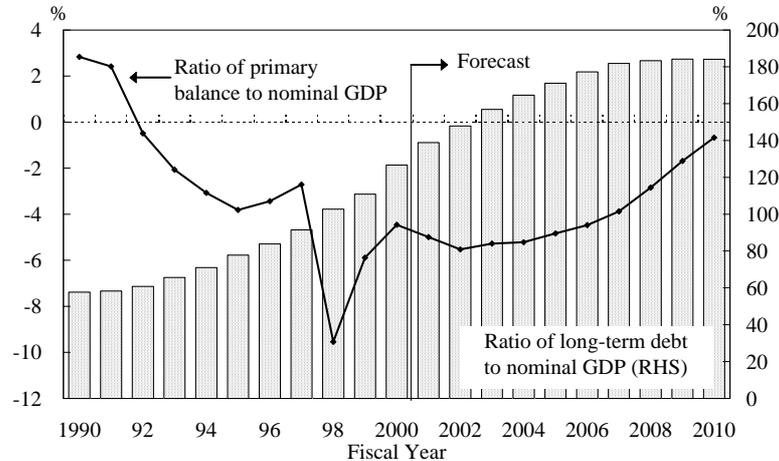
[Source] Cabinet Office "Annual Report on National Accounts"

For this reason, the government has put forth “simple and efficient government” as its motto and committed to fiscal structural reform. In the “Basic Policies for Economic and Fiscal Policy Management and Structural Reform, 2002” released by the government in June 2002, the government aims to achieve a surplus in the primary balance for the central and local governments “early in the 2010s” as a result of economic growth and fiscal structural reform. The primary balance is defined as the balance in the fiscal deficit less net interest payments, and currently this is a very large negative figure. However, if a surplus in this balance can be attained, then the growing long-term outstanding government debt as a share of nominal GDP can be reined in, and some stability in the fiscal books can be possible.

We forecast some major fiscal revitalization measures and estimated the status of the primary balance in the forecast period (Figure 23). In the forecast period, we assume that public works spending and the number of civil service employees are reduced in accordance with the government’s policy. We also assume that in the latter half of the forecast period, total healthcare expenses will be curbed due to enhanced efficiency in the healthcare system. As for revenue, the R&D and investment tax reductions will take place as advanced tax reductions, but once the economy is on a sustainable path of growth from fiscal 2007, the consumption tax rate will be raised by about 1% a year. Under these assumptions, the deficits in primary balance of the central and local governments as a share of nominal GDP will shrink to 0.7% of GDP, and be very close to balanced.

At this point, the government long-term outstanding debt as a share of nominal GDP will begin to be under some control. However, we must fully recognize that this is at an extremely high level of 185%. It is imperative that in order to lower the outstanding debt, the fiscal reins must not be loosened even after this balance is attained.

Figure 23. Primary Balance and Long-term Debt of Central and Local Governments



[Notes] Assumed reforms are as follows;

1. Ratio of nominal public fixed capital formation to GDP will be under 3% by 2010.
2. By fiscal 2010, the number of national government employees will be reduced by 10%, the number of local government employees will be reduced by 7.5%.
3. Government contribution to basic pension will be hiked from one third to a half in fiscal 2004.
4. From fiscal 2007 to 2010, healthcare expenditure per capita will be reduced by 10% by carrying out reform of medical care system.
5. Tax reductions for R&D and business investment will be carried out (from fiscal 2003 to 2005).
6. Premium of government health insurance system will be hiked to 8.2% based on total wage in fiscal 2003.
7. Insurance premium of employee’s welfare pension will be hiked from 17.35% to 18.65% in October 2004, and hiked to 20.95% in October 2010.
8. Consumption tax rate will be hiked by 1% every year from fiscal 2007 to 2010.

[Source] Cabinet Office “Annual Report on National Accounts”