

**The 33rd Medium-term Forecast
of the Japanese Economy
Fiscal Years 2006-2020**

**The Japanese Economy in Transition
under Population Decrease**

December 2006

Japan Center for Economic Research

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Chapter 1. Assumptions made in the Forecast and Summary by Phase

The Japanese economy is currently at a turning point from two different perspectives.

One perspective is that it is the end of the deflationary economy. The Japanese economy has almost completely cleaned up the effects of the burst of the economic bubble in the 1990s, and has been in an ongoing recovery phase. Consumer prices and corporate goods prices have already both turned upwards, and the GDP deflator's rate of decline has slowed. With these developments, monetary policies are being normalized (with the end of the zero interest rate policy), and with higher interest rates, property income is expected to rise. The degree of the reversal of real and nominal interest rates – where nominal rates were lower than real rates – has been lessened, and it is viewed as only a matter of time before the economy is back to normal.

The other perspective from which the economy is in a transition phase is that the economy is shifting to one where the population is now beginning to shrink. The population of Japan has already reached its peak in 2004, and has started to decline. Until now the growing population has aided in the increase in scale of the economy through rising consumption and production, but going forward the effect of the change in the population will be reversed. That is, the Japanese economy will be trying to grow, but now with the disadvantage of a shrinking population.

The objective to this 33rd medium-term economic forecast¹ is to find and report the kind of path the Japanese economy will take in the medium term given the positive and negative forces working on the economy as mentioned above.

1 . Assumptions for this Forecast

In this 33rd medium-term forecast, we extended the period of the previous (32nd) forecast, to span the fifteen years from fiscal 2006 to fiscal 2020. Then, we divided these fifteen years into three smaller “phases”. Phase I is from fiscal 2006 to 2010, Phase II is from fiscal 2011 to 2015, and phase III is from fiscal 2016 to 2020.

(1) Population Framework

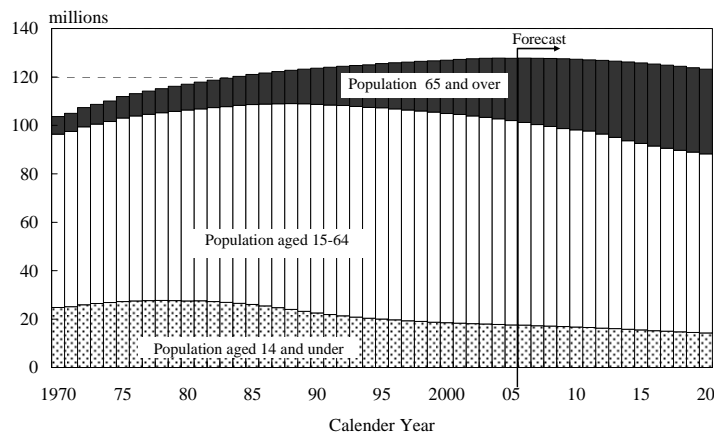
For population estimates of the previous forecast, we relied largely on the medium variant of the “Population Projections of Japan” released by the National Institute of Population and Social Security Research (IPSS). However, for the current forecast, we estimated our own figures for the population using the most recent information available from the Census. According to the results of the “First Basic Complete Tabulation of the 2005 Census” released in October 2006, and the “Preliminary Intercensal Adjustment of Current Population Estimates (Preliminary)”, it has become clear that the population peaked in 2004 and has begun to decline in 2005. The total fertility rate in Japan has been much lower than the rate to maintain the existing population (of 2.07) for some time, and it is very unlikely that the declining trend in the population will be reversed. The important factor, then, to the accuracy of this entire forecast is to assume as accurate a rate of decline as possible.

We believe that the birth rate of those in their 20s will hit its bottom, that the tendency to marry later and later in life will end, and the current countermeasures to the falling birth rate that have been implemented will have some success. We assumed that the birthrate of those in their 30s would gradually rise, and the age of peak childbirth will shift from the 20s to the 30s. We have assumed that the total fertility rate in

¹ This forecast was compiled using data available up until the November 14th release of the Quarterly Estimates of GDP: Jul. ~ Sep. 2006(The First Preliminary Estimates).

Phase III would rise to just under 1.3, recovering from its current 1.25. As a result of the above, the population according to our estimates lies somewhere between the medium and low variants of the IPSS's most recent estimates (2002), and the total population in 2020 is forecast to be about 123.27 million (Figure 1-1-1). As for the composition of the population, the share of the population 65 years and older will rise from 20.2% in 2005 to 28.4% in 2020. At the same time, the share of the productive age population (15-64 years) would fall from 66.1% to 60.0% of the total population. In other words, currently one out of five is an aged person, but by 2020, this will rise to one in four. These changes, not only in the scale of the population, but also in its composition will have great effects on both the supply and demand sides of the economy as we will see later.

Figure 1-1-1 Total Population and Population of 3 Age-groups



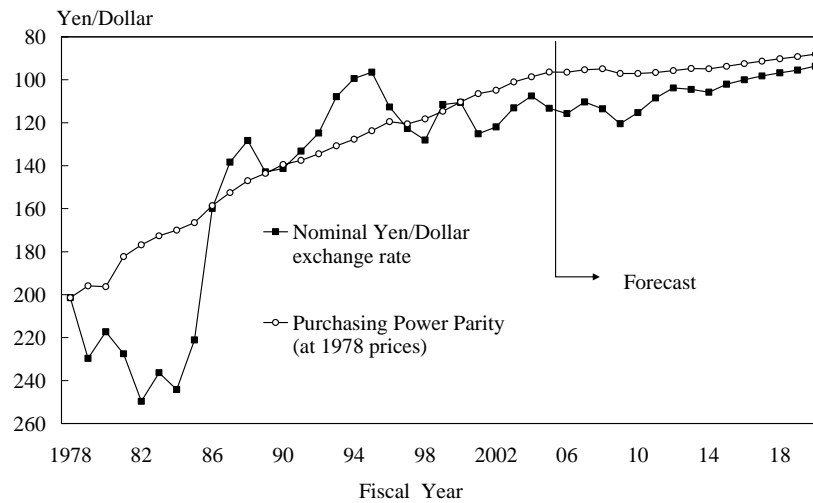
Source: "Population Census", Ministry of Internal Affairs and Communications

(2) Oil Prices, Exchange Rates

The price of a barrel of crude oil (WTI -- West Texas Intermediate) was over \$70 in July of 2006, but the market has softened since then, and the price fell to below \$60 this past November. In this forecast, we assumed the price of crude oil (average of WTI, Brent and Dubai) to follow a long-term declining trend to about \$40 in fiscal 2010, then on a nominal dollar basis, rise by about 2% per year. This means that on a real basis, oil prices will remain pretty much flat.

As for the exchange rate, we assumed the yen/dollar rate in the medium term to return to its purchasing power parity levels. In other words, if the real exchange rate does not fluctuate much, and prices in the US rise at higher rates than in Japan overall, then on a nominal basis, we have to assume that the yen will be on a rising trend. However, in this case, there is another factor working to lower the value of the yen – that is the real interest rate differential in the US and Japan – and so this will weaken the pressure for a rising yen. As a result of the above, we forecast the exchange rate to rise from the current 110-120 yen to the dollar to 90-95 yen to fiscal 2020 (Figure 1-1-2).

Figure 1-1-2 The Exchange Rate (Yen to the dollar) and Purchasing Power Parity



Sources: “Annual Report on National Accounts”, Cabinet Office, “Price Index Monthly”, “Financial and Economic Statistics Monthly”, Bank of Japan, “Federal Reserve Bulletin”, FRB, “Producer Price Indexes”, U.S. Department of Labor

(3) Fiscal and Monetary Policies

On the government expenditure side, we assumed that the spending reform policies outlined in the “Basic Policies for Economic and Fiscal Management and Structural Reform 2006” (“Basic Policies 2006” below) would be adopted and maintained by the new Abe government. Moreover, we also took into account the upcoming reform in the government-affiliated financial institutions and the full privatization of Japan Post (postal savings, postal life insurance) in fiscal 2017 into this forecast. The new government has made clear their stance to prioritize the spending reforms, but on the revenue side, their position on a possible hike in the consumption tax has not been articulated at this stage. We expect this debate to be brought to life after the Upper House elections in fiscal 2007. Yet, as there are plans to raise the government contribution to the basic pension to one half² by fiscal 2009 under the pension reform of fiscal 2004, we cannot deny the possibility for the consumption tax to be raised as a source of revenue. Thus, for our forecast, we assumed a 3% rise in the consumption tax in fiscal 2009.

In addition, as we will see later, in Phase III of the forecast period, the baby boomers will exit the labor force and this will lead to greater pressure for higher spending on social security benefits, mainly for healthcare. Thus, we assumed a hike in the consumption tax rate by another 2% in fiscal 2014. Though we have assumed the consumption tax to be raised to 10% by the mid 2010s for the purposes of this forecast, we need to be aware that there could easily be differences in the timing and scales of the hikes, depending on the revenue of the government and on the domestic economy in general. Also, there is the possibility that there may be a reform in corporate taxes and other direct taxes, but the details are yet too uncertain to integrate into this forecast, and so for our purposes, we assumed only that the fixed rate tax deduction will be abolished, as this is already determined.

With the lifting of the zero interest rates, we expect there to be more flexibility to monetary policy and for short-term interest rates to be adjusted according to price indications and domestic and external

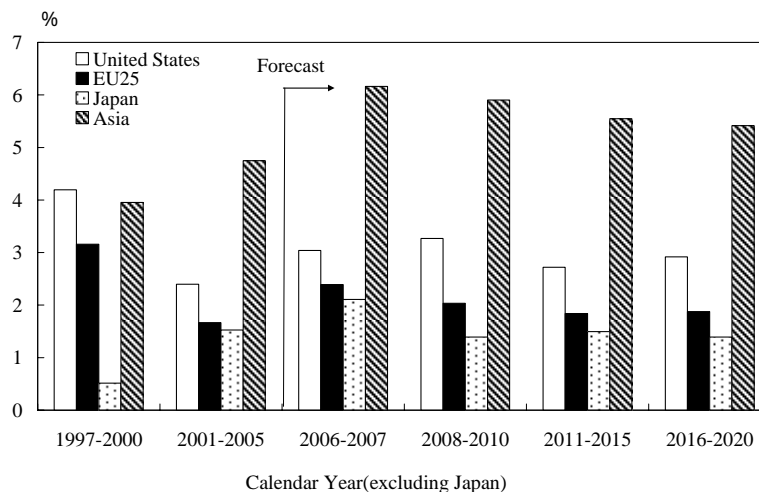
² In fiscal 2006, as there will be a reduction or elimination of the fixed tax rate reduction, the government contribution was increased by 2.5% to be one-third of basic pension benefit expenditure. From fiscal 2007, it is clearly written in law that it must be raised to one-half by fiscal 2009, once the system of basic tax reforms to secure steady revenue is implemented. For this forecast, we assumed about an additional 3 trillion yen in tax revenue.

economic performance. However, as US interest rates have not been raised recently, and domestic prices have been stable, we see little reason to raise domestic interest rates immediately. We expect a cautious policy to be followed for the time being.

(4) Overseas Economies

Regarding world economies, we assumed no change in the relative growth rates of the regions for the duration of the forecast period. In other words, for the US, we expect growth to be about a real 3% and thus at about their potential growth rate throughout the three phases of the forecast period. Asia including China will drive the growth of the world economies and though growth will slow slightly in the region in Phase III, it will still maintain an average rate of growth of about 5.5% a year. Performance in Europe will be dependent on the growth of the US and Asia and the region is expected to maintain growth rates of about a real 2% which is about their potential growth rate (Figure 1-1-3).

Figure 1-1-3 Real GDP Growth Rates of the World Economies



Note: "Asia" refers to China, Hongkong, Korea, Taiwan, Singapore, Philippines, Malaysia, Thailand and Indonesia.

Source: "Quarterly Estimates of GDP", Cabinet Office

We will see a slowdown in the US economy in 2007, as growth in both residential investment (that had been overheated), and personal consumption (where wealth effects are waning) will be less robust. However, we believe a large recession will be avoided and a soft landing will be achieved. After this, we assumed that the Bush tax reductions will end as the US Congressional Budget Office expects³, and the strong demand centered on personal consumption will wane due to the tax increases in 2011-2012 (in Phase II). At the same time, we expect an adjustment phase from the capital stock cycle, and so we forecast a slowdown in business fixed investment as well. As a result of the above, real GDP will slow to a rate of about 2.5% by the middle of Phase II. After this, a gradual recovery will start, and in Phase III we expect to see growth at about the sustainable rate of 3.0%.

The Chinese economy continues to expand rapidly, and although we foresee a correction phase in fixed asset investment after the 2008 Beijing Olympics, we believe a high growth rate will be maintained overall. The 2010 Exposition to be held in Shanghai is also expected to contribute to growth throughout China. However, in Phase III, the labor force should start to shrink, and so the potential growth rate will gradually

³According to "The Budget and Economic Outlook: An Update", CBO (2006)

start to decline. Also, since the value of the RMB is expected to be raised, and wages will increase in line with economic growth, the export environment will start to become harsher for China. We cannot eliminate the possibility of growth slowing further due to a less favorable export environment.

Table 1. Summary of Assumptions made for the 33rd Medium-term Economic Forecast

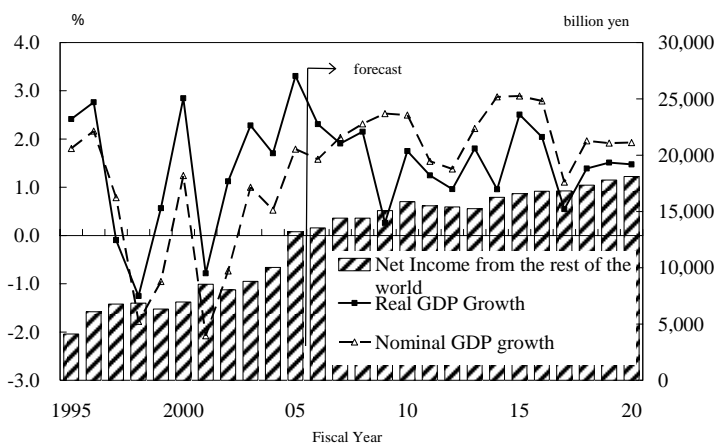
Population	After peaking in 2004, the population will start to decline and continue. The rate of decline is expected to be more rapid than we assumed in the 32 nd medium-term forecast.
Oil prices	Prices will fall to \$40/barrel by fiscal 2010, beyond which prices will be flat on a real basis.
Exchange rates	Exchange Rates will return to purchasing power parity rates. Yen will continue on its gradual upward trend.
Fiscal Policies	On the spending side, expenditures will continue to be in reduction mode. For consumption taxes, there will be two hikes in the rate, in fiscal 2009 and fiscal 2014.
Monetary Policies	Short-term interest rates will slowly rise in line with the economy and price levels.
Overseas Economies	There will be some factors causing volatility such as the Beijing Olympics (2008) and the end of the Bush tax incentives, but overall, the economies overseas will continue to grow solidly, centered on the Asian region.

2 . Summary by Phase of Forecast Period

The results of our forecast under the assumptions given above show that for nominal and real GDP growth, per capita GDP growth (nominal and real), and the net income received from abroad, the Japanese economy is indeed an economy in transition. First we take note that the nominal and real GDP growth rates have become reversed and back to “normal” (Figure 1-2-1). This means that the GDP deflator is showing an increase and can be viewed as evidence that the economy has come out of deflation.

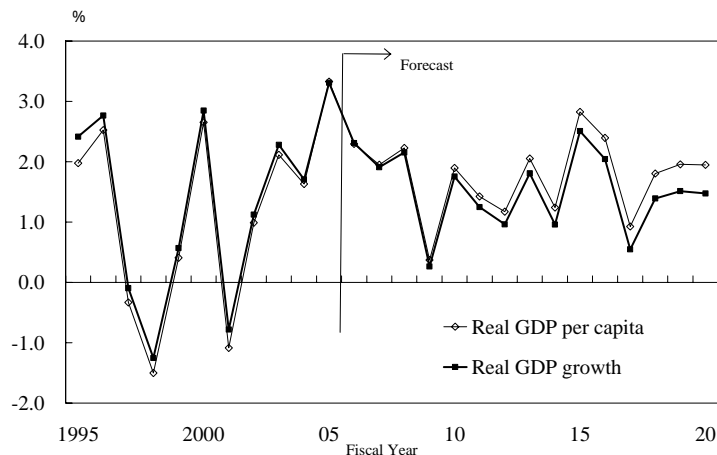
Also, Japan will be entering into a state where the per capita real GDP growth rate will outperform the real GDP growth rate of the economy overall (Figure 1-2-2). This should be expected given the decline in the population, but this highlights the notion that as a measure of the wealth of an economy, we need to look at not only the figures for the entire macro economy, but also on measures on a per capita basis. This is a phenomenon that becomes more pronounced particularly in the latter half of the forecast period. Furthermore, as a characteristic of the revenue structure of the Japanese economy as a whole, we see that the net income from overseas will expand greatly from fiscal 2005 and will grow at rapid rates throughout the forecast period. We take this to mean that Japan is approaching the status of a mature creditor country that is garnering solid returns from their investments overseas where the growth is expected to be rapid.

Figure 1-2-1 Nominal, Real GDP Growth Rates and Net Incomes from the Rest of the World(Nominal)



Source: “Quarterly Estimates Of GDP”, Cabinet Office.

Figure 1-2-2 Real GDP Growth Rate and Real GDP Per Capita

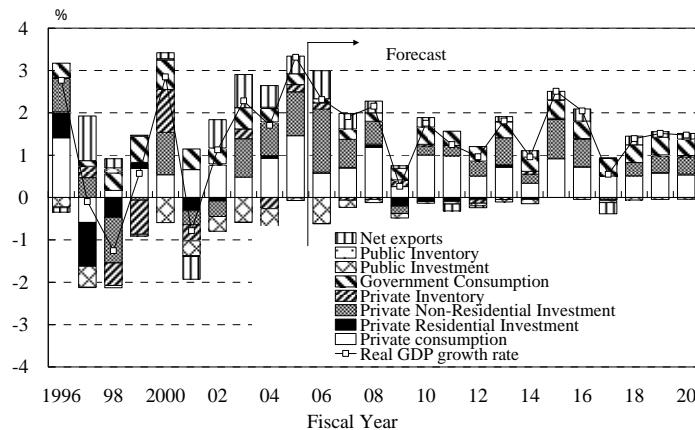


Source: “Quarterly Estimates Of GDP”, Cabinet Office , “Population Census”, “Population Estimates”, Ministry of Internal Affairs and Communications

(1) Phase I of the Forecast Period (Fiscal 2006 to 2010).

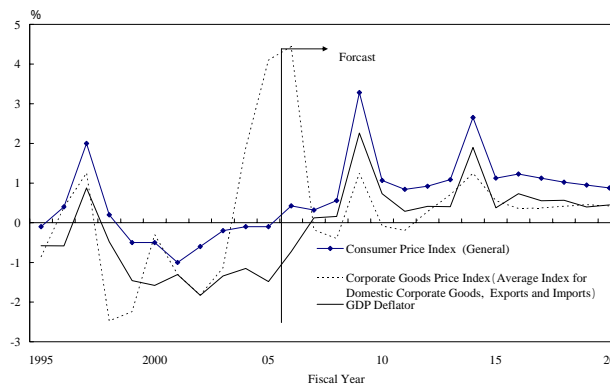
The real GDP growth rate in fiscal 2006 will be 2.3% and be fairly strong thanks to the support of active business fixed investment and robust exports to China (Figure 1-2-3). With the increase in oil prices, the year-on-year increases in price indices such as the corporate goods price index and the consumer price index will become standard (Figure 1-2-4). The GDP deflator is also expected to turn to increase, though a slight one, in fiscal 2007. From these events, we view that it is highly likely that the Japanese economy will be fully out of its deflationary phase in fiscal 2006.

Figure 1-2-3 Breakdown of Contribution Rates to Real GDP Growth Rate



Source: "Quarterly Estimates of GDP", Cabinet Office

Figure 1-2-4 Consumer Price Index, Corporate Goods Price Index and the GDP Deflator.



Sources: "Annual Report on National Accounts", "Quarterly Estimates of GDP" Cabinet Office, "Annual Report on the Consumer Price Index", Ministry of Internal Affairs and Communications, "Price Index Monthly", Bank of Japan

In fiscal 2007, though business fixed investment will slow over the previous year, because wages will rise with the improvement in the employment environment, there will be a recovery in private consumption. With a strong growth in overseas economies, external demand will continue to show positive growth. However, public investment will continue to shrink as policies to reduce expenditures are implemented. The contribution of residential investment to growth is expected to be minimal as well. In fiscal 2008, some rush buying ahead of a consumption tax hike is anticipated, and the real GDP growth rate should maintain a rate of between 2 and 3%. However, with the expected decline in demand immediately after the consumption tax hike in fiscal 2009, the lower demand for exports from Japan to China after the Beijing Olympics, and the effects of the capital stock adjustment to domestic business fixed investment, the real

GDP growth rate is expected to slow temporarily, before it returns to its previous growth path in fiscal 2010. As a result of this, our forecast for the real GDP growth rate of the first half of Phase I will be an average 2.1%, but this rate will fall in the second half due in part to the consumption tax hike to 1.4%. On a nominal basis, GDP growth will be about an average 1.8% in the first half and 2.4% (includes the effects of the consumption tax hike) in the second half.

In the meantime, both the primary balance (the sum of the balances of the central and local governments) in fiscal 2008, and the balance of the general government in fiscal 2009 will be in surpluses. This improvement in the fiscal balance will be the result of the increased revenue arising from current strong tax revenues, the reduction and then elimination of the fixed tax rate deductions, and of reduced spending on public works. However, for the central government on a standalone basis, even if we consider the increase in revenue from the consumption tax hike in fiscal 2009, it will not be in a surplus position.

(2) Phase II of the Forecast Period (Fiscal 2011 to 2015)

As for external factors, the Bush tax reductions will have ended and so consumption levels and imports of the US will slow down from fiscal 2011 to 2012, and Japanese exports will slow as a result. However, the US economy will start a gradual recovery from then, and with the continued strong growth of the Asian economies, exports will recover in fiscal 2013.

As we assumed a second consumption tax hike in fiscal 2014, we are expecting a rush demand of purchases in fiscal 2013, and then a dip in fiscal 2014 in personal consumption and residential investment. We expect fiscal 2015 to be the year for the renewal of capital stock, (renewing of capital stock being actively invested in now), and we see business fixed investment being very vigorous in that year and the following year. In Phase II, we forecast that the real economic growth rate is an average 1.5% per year and the nominal growth rate is 2.2% (though real economic growth will fluctuate year over year). Thus economic growth is expected to continue at about the rate of potential growth.

(3) Phase III of the Forecast Period (Fiscal 2016-2020)

In this third phase of the forecast, there will be vast changes in the labor markets. The baby boomers will have all but exited the labor force, and the unemployment rate will decline greatly. However, the women of the second generation baby boomers will be returning to the labor market after raising children, and the decline in the labor force population will soften somewhat. We do not expect the tightness in the labor market as a whole to be very severe. With a decline in the population, though the growth in private consumption should decelerate, at the same time, we will be seeing an aging of the population that will lead to a steady contribution to growth from the government consumption component in the form of healthcare and long-term care including benefits in kind.

The growth scenario we foresaw for business fixed investment is that after growing rapidly to fiscal 2016, it will slow in fiscal 2017 due to a stock correction phase, and then start to recover again thereafter. Though there will be little opportunity for a domestic-led large-scale investment, we expect a positive contribution from investment overall from healthy exports, from the need for investment into rationalization and labor saving, and demand arising from the need to adapt to the aging population. Furthermore, though the contribution to growth of external demand will fall, there will continue to be a surplus in the current account because of the large surplus in the income account arising from the accumulation of external assets. The income account surplus is now consistently larger than the trade surplus. We read this as a sign that the Japanese economy is becoming closer to a mature creditor nation.

As a result of the above, in Phase III, the real economic growth rate will be an average 1.4% and 1.9% on a nominal basis. Thus we expect economic growth to continue at about the potential growth rate.

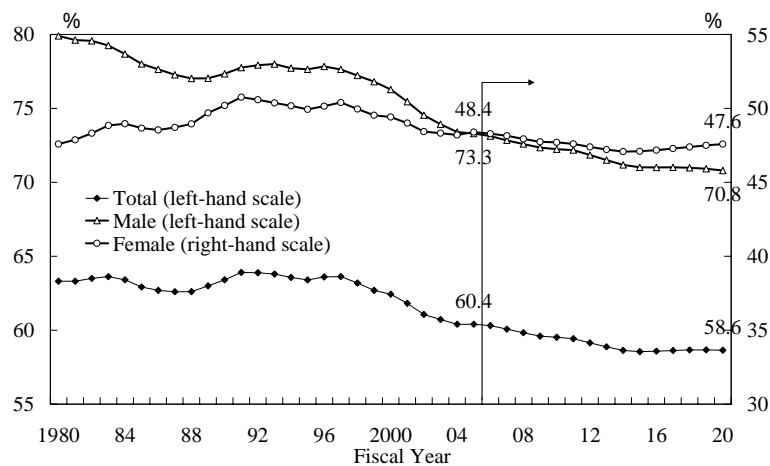
Chapter 2. Summary of the Forecast by Component

1. Household Sector

(1) Employment and Employee Compensation

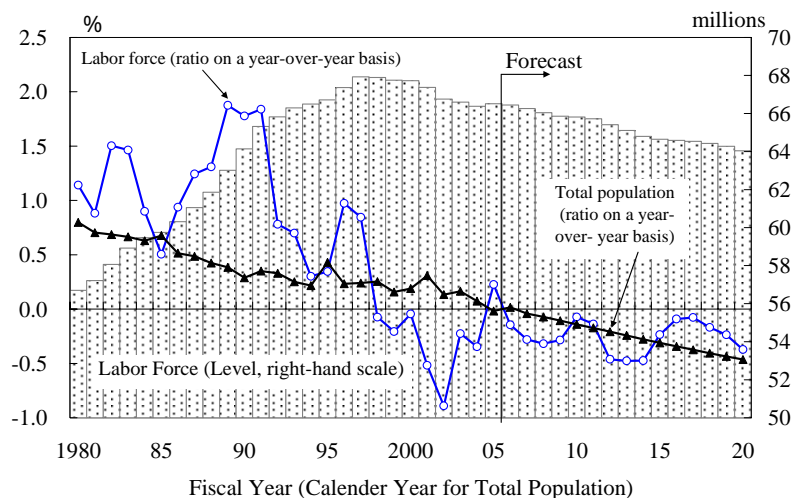
The labor force population has been declining since fiscal 1998, and it will continue to gradually decline throughout the entire forecast period. This is largely due to the fact that many in the male labor force will be leaving the labor market due to age. However, we expect the labor participation rate of women to gradually rise as the second generation baby boomer women re-enter the labor force in Phase III, and this will help moderate the reduction in size of the labor force as a whole (Figure 2-1-1). As a result, we foresee the total labor force population (men and women) that was, in fiscal 2005, about 66.54 million people, shrinking by about 2.5 million by fiscal 2020 (Figure 2-1-2). Yet, the number of employed persons overall should be flat as the ratio of employed persons rises (in other words, a decline in self-employed persons) and the number of women employees also gradually increases.

Figure 2-1-1 Labor Participation Rate (Total, Male, Female)



Source: "Annual Report on the Labor Force Survey", Ministry of Internal Affairs and Communications

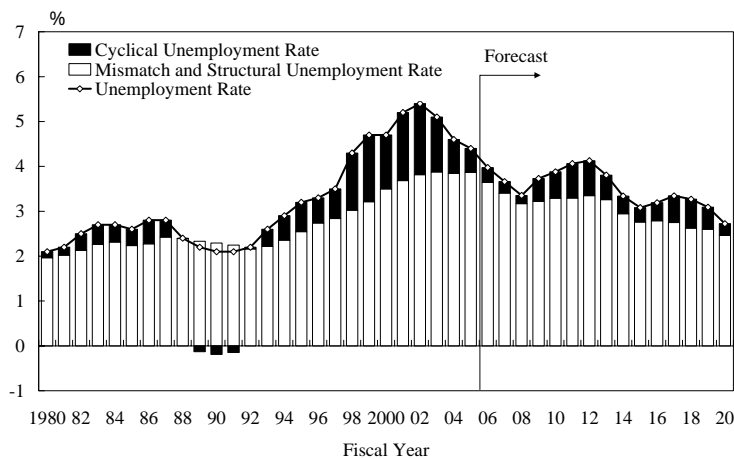
Figure 2-1-2 Changes in Labor Force



Source: "Annual Report on the Labor Force Survey", Ministry of Internal Affairs and Communications

Though the baby boomer generation will be turning 60 years old from 2007 and will be retiring from their current positions, since the eligible age to receive pension benefits has been raised to above 65 years, we expect an increase in those that wish to continue working, and this to result in an increase in the labor force participation of older persons until about the beginning of Phase II. At the same time, on the corporate side, there will be some measures put into place so that they can keep these retirement age employees on their payrolls, and we should be able to avoid an increase in structural unemployment occurring from employment mismatch (Figure 2-1-3). Large changes in the labor market will occur in Phase III: the baby boomers will have all but left the labor market, the factors raising structural unemployment will have weakened, and the overall unemployment rate will decline greatly to about 2.5-3.0%.

Figure 2-1-3 Factor Analysis of Unemployment Rate

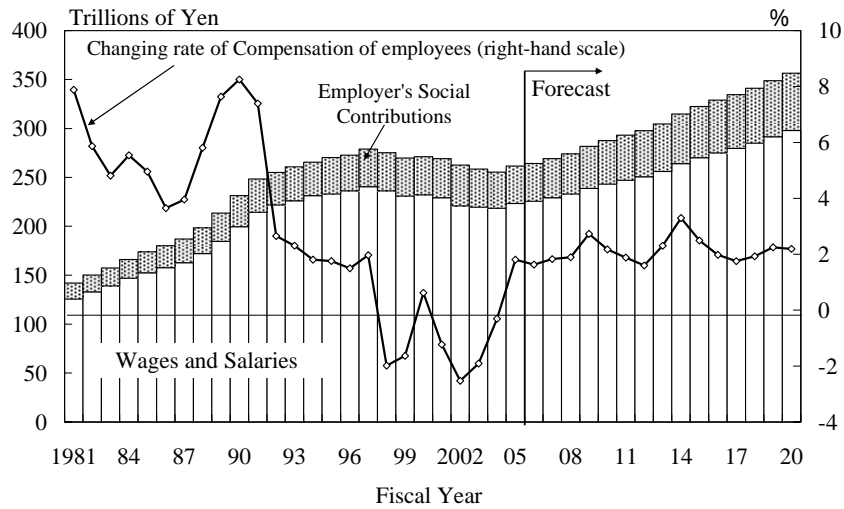


Source: "Annual Report on the Labor Force Survey", Ministry of Internal Affairs and Communications

Though the number of employees will grow rapidly due to the tight labor market in the first half of Phase I as companies are eager to hire, an overall growth in employee compensation is not likely due to the fact that there will be a shift from utilizing expensive baby boomers to lower cost younger workers. The improvement in the employment environment will continue, but the nominal employee compensation growth in the first half of Phase I of the forecast period will be in the 1.5-2.0% range. Even in Phase III of the forecast period, employee compensation growth will not be brisk (Figure 2-1-4). This is due to our view that despite the tightening of the labor market, the number of women employees – centered on the second generation baby boomers – will gradually increase, and as companies increase their utilization of non-permanent employees, the pressure for wages to increase will be capped to some degree.

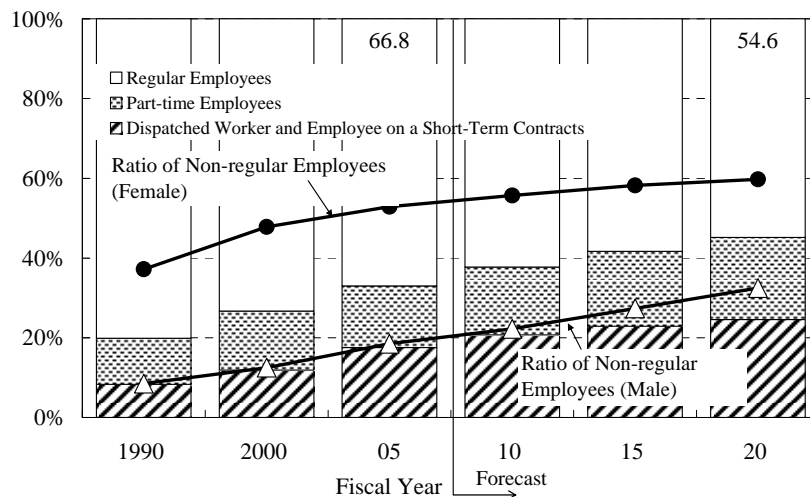
We expect that while the share of service industries in the economy increases, the utilization of such non-regular labor options as part-time employment, contract employees and short-term employment to further intensify. We view this trend to use non-regular labor to be irreversible as it allows companies to keep their human resource expenses lower while providing to employees a variety of employment options; as more older persons and women want to enter into the labor market, they will be looking for more flexible working conditions. We imagine the share of such non-regular employees to be over 45% of all employees by fiscal 2020 (men and women) (Figure 2-1-5).

Figure2-1-4 Nominal Compensation of Employees



Source: "Quarterly Estimates of GDP", Cabinet Office

Figure 2-1-5 Ratio of Non-regular Employees

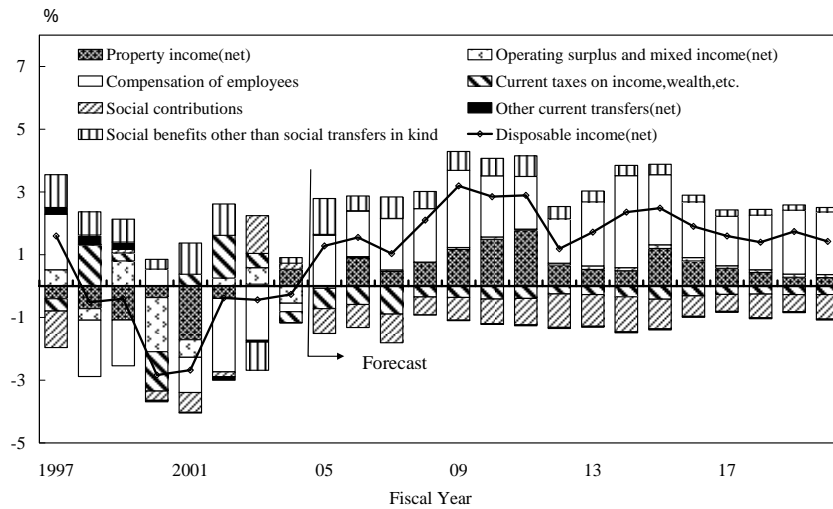


Source: "Annual Report on the Labor Force Survey", Ministry of Internal Affairs and Communications

(2) Private Consumption

Although private consumption moves in line with household disposable income (composed of employee compensation and property income), we will see the effects of a shrinking population on expenditure on durable goods, for example. Not only will employee compensation growth contribute positively, but property income is also expected to be a positive factor throughout the forecast period due to increases in interest rates and dividends. In the meantime, the social burden will be a negative factor to disposable income as social insurance premiums will be raised. Furthermore, the relatively higher negative contributions of current taxes on income and wealth in the first half of Phase I reflect the reduction and elimination of the fixed tax rate reduction (Figure 2-1-6).

Figure 2-1-6 Contribution Rates of Factors to Disposable Income

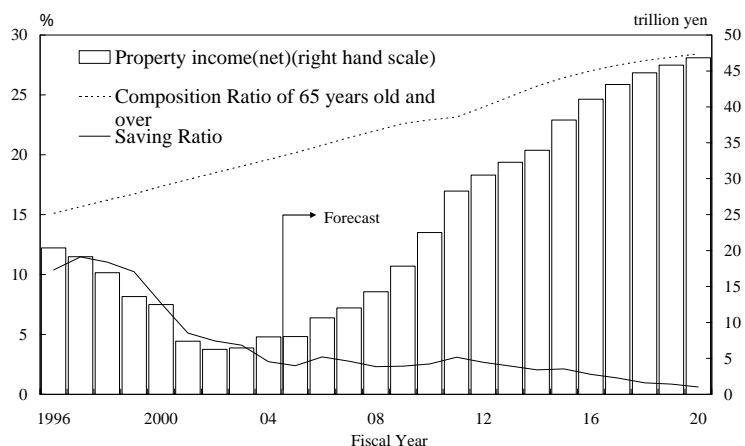


Source: “Annual Report on National Accounts”, “Quarterly Estimates of GDP”, Cabinet Office

As a result of the above, real private consumption will grow by about 1.1% in the first half of Phase I as the increase in disposal income will be moderate. However in the second half, growth will be a stronger 1.5%. After this, in Phase II of the forecast period and beyond, the growth rate will fall. From the structure of consumption expenditure, as the growth in the number of households will slow, the demand for durable goods – that derive from residential demand – will also show only moderate growth. With more older persons and women entering into the labor market, we expect more outsourcing of housework, and so the share of spending on services will increase in overall spending, and by Phase III, it will account for over 60% on a nominal basis.

As for household savings, with the increase in the share of the population who are older and have higher propensities to consume, the saving rate should be on the decline, despite such other factors as an increase in property income (that is more likely to be saved). By fiscal 2020, the saving rate will be close to zero. (Figure 2-1-7)

Figure 2-1-7 Saving Rate and the Aging Population



Note: Saving Ratio=Saving, net/(Disposable income, net + Changes in pension reserves in pension funds, receivable)

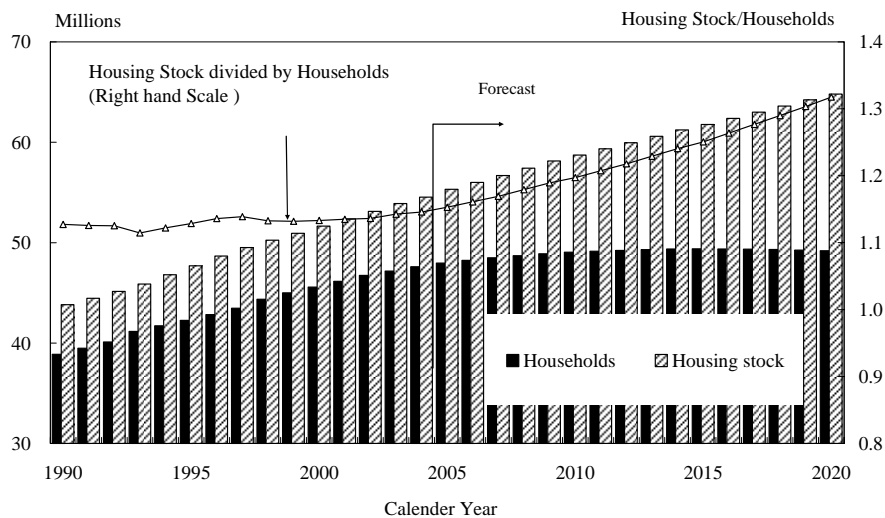
Sources: “Annual Report on National Accounts”, Cabinet Office, “Population Census”, “Population Estimates”, Ministry of Internal Affairs and Communications

(3) Residential Investment and Land Prices

Residential investment is not booming: the stock levels of housing are already greater than the number of households at this stage and so the vacancy rate is rising, the number of households is not growing (Figure 2-1-8), while the number of persons in each household is also falling. Thus, except for Phase I, we expect the declining trend in residential investment to continue on a new housing starts basis. We have assumed two consumption tax hikes to take place in fiscal 2009 and 2014, and that there will likely be rushed buying ahead of the hikes, and declines in demand in reaction in the years of the hikes. However, as the per house floor areas are increasing, real private residential investment will decline more gradually than when measured as the number of new houses being constructed.

By type of use, investment of owner-occupied dwellings – mainly detached houses – will be driven by the demand for rebuilding of existing homes, which is greatly affected by the condition of the existing current stock. Until the end of Phase II of the forecast period, demand for new rebuildings will be kept in check due to the larger stock of homes, and new owner-occupied houses will continue to decline. However in Phase III, the middle-aged to older population – that is considered the age group with a high demand for rebuilding – will increase somewhat and so demand should also rise slightly and be more or less flat. Further, in Phase I, the second generation baby boomers will begin to own their first homes. As this generation has a preference for condominiums and other built-for-sale homes and so the share of these types of homes in overall homes should rise. Finally, as employees in the younger age groups will be declining, we expect demand for rental homes and company housing to continue its gradual descent.

Figure 2-1-8 Residential Stock, Ratio of Stock/Households



Note: "The Housing and Land Survey" is conducted every 5 years. Therefore, we estimated the housing stock of the interim years from construction statistics, and the number of households from "Report on Internal Migration in Japan".

Sources: "Monthly of Construction Statistics", Ministry of Land, Infrastructure and Transport; "Housing and Land Survey of Japan" and "Report on Internal Migration in Japan", Ministry of Internal Affairs and Communications.

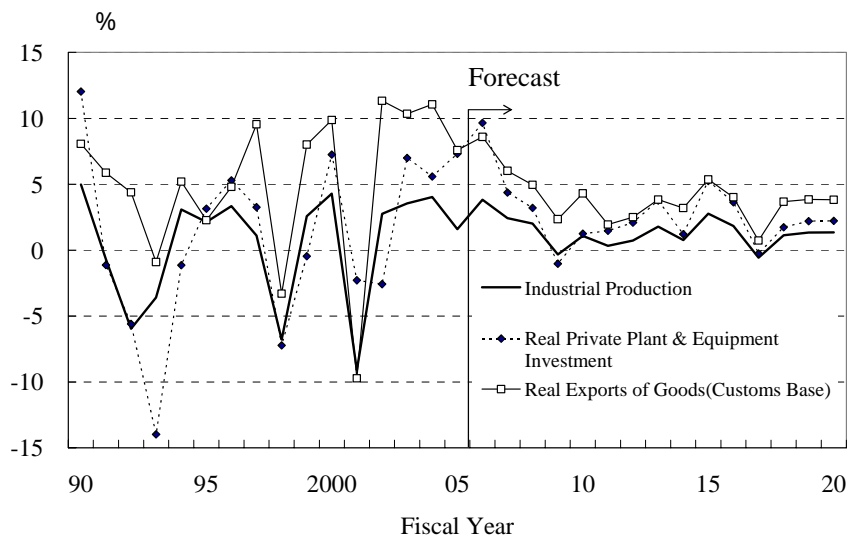
2 . Corporate Sector

(1) Production, Shipments, Inventory

We assume that production and shipments move pretty much in line with changes in exports and business fixed investment. Therefore for the first half of Phase I, we expect that there will be relatively robust growth in these indicators, but in fiscal 2009 we will see a hike in the consumption tax rate and a slowdown in growth from post-Olympic China, and so we expect a growth slowdown in the latter half of Phase I mainly on final goods (Figure 2-2-1). In Phase II of the forecast period, from fiscal 2011 into 2012, we will see a slowdown in the US economy starting and a global trough in the silicon cycle, and so we expect an inventory adjustment phase to continue and then inventory to recover in the second half of Phase II. Furthermore, in fiscal 2014, the second hike in the consumption tax in fiscal 2014 will be cause for a temporary slowdown in production and shipments.

Business fixed investment is expected to be brisk from fiscal 2015 to 2016, and so at this time, the production of production goods and capital goods will also be robust. However, there will be another silicon cycle trough and a capital stock adjustment in the middle of Phase III, and so production will follow the cycle and decline, but will recover in the second half of this period .

Figure 2-2-1 Industrial Production, Real Private Plant & Equipment Investment, Real Exports (Customs Basis)



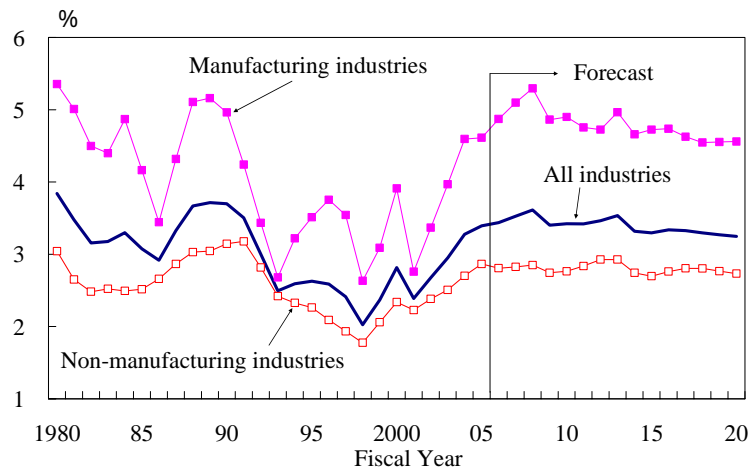
Source: "Indices of Industrial Production", Ministry of Economy, Trade and Industry, "Quarterly Estimates of GDP", Cabinet Office, "Trade Statistics of Japan", Ministry of Finance.

(2) Corporate Profits

After the burst of the economic bubble, much restructuring was carried out in the corporate sector, and the three excesses of labor, capacity and debt were eliminated. This resulted in the transformation to a new management structure where profitability is more strongly emphasized. This trend should now be firmly established and will be maintained even in the post-deflation economy. Profitability rates are currently high for the manufacturing industries, supported by the recent strong exports. There will be a slight decline going forward as there will be a slowdown in domestic growth rates and exports, but with stronger corporate governance in place, it will be at higher levels overall. For the non-manufacturing industries, like the manufacturing industries, a strong profitability level will be maintained, but in Phase III, profits will fall somewhat from the effects of higher human resource expenses. However, as we will

explain later in this discussion, in Phase III interest rates will rise moderately, and as it is normal for companies to be securing profitability rates higher than interest rates levels, it is difficult for us to foresee a significant decline in profitability (Figure 2-2-2).

Figure2-2-2 Change in Operating Profit Rates



Source: "Financial Statements Statistics of Corporations by Industry", Ministry of Finance

When we examine human resource expenses by labor's share (human resource expenses divided by the sum of value added and depreciation expenses) in the manufacturing industries, we find that although the Operating Profit Ratio is high in the first half of Phase I of the forecast period, the share will decline because employment will be transitioned from the baby boomer generation to the younger generation. Furthermore, in the medium to long-term, the number of employed persons will decline in the manufacturing industries, and a rise in labor's share will be controlled due to the active use of contract employment services (that occurs mainly in the non-manufacturing industries) in Japan, and the fact that the labor intensive lines of business will continue to be moved overseas. In the non-manufacturing industries, particularly the service industries, there are many labor intensive sectors and these sectors will intensify its role of absorbing labor supply. As a result, labor's share in the non-manufacturing industries will rise, but through the utilization of non-regular labor, the increase in the per capita cost of labor will be modest.

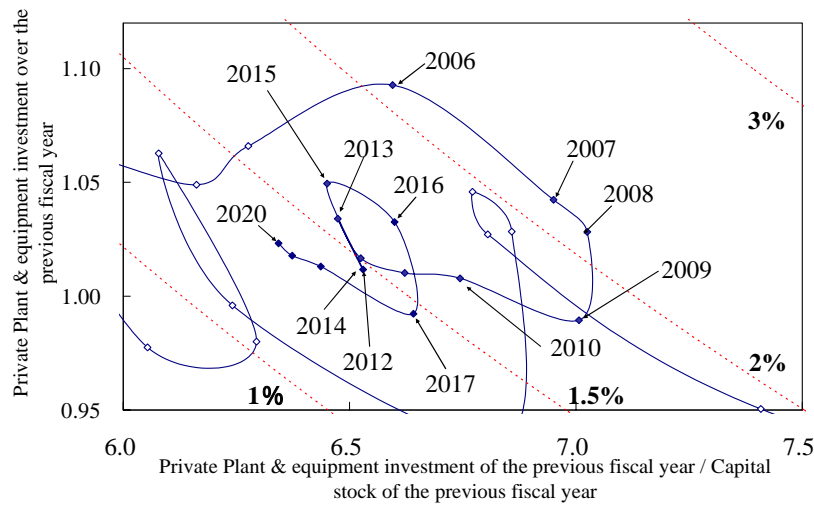
(3) Business Fixed Investment

In fiscal 2006, the fixed investment of businesses grew quite robustly. Since we expect a downturn in reaction to this, and from the capital stock cycle factor, it is normal to expect a slowdown from fiscal 2007. After this, in fiscal 2009 or so we will see a trough in the adjustment phase, then in fiscal 2011 and 2012 of Phase II, exports will slow and so a full-fledged recovery will have to wait until after these events.

Furthermore, in fiscal 2014, with the hike in the consumption tax rate and the deceleration in consumer demand, a lull may occur in investment as well at this time. However, from fiscal 2015 and 2016, the capital stock accumulated from the current high levels of investment should be in need of renewal, and so we expect there to more action at around this time. Then, in the middle of Phase III of the forecast period, we expect another adjustment period to happen and thus another slowdown. Moreover, with the real average economic growth rate in the forecast period falling from the current rate of over 2.0% to about 1.5%, the expected growth rate of the corporate sector will fall accordingly. After the second half of Phase

In the forecast period, investment will grow according to an expected growth rate of about 1.5%, and the band of fluctuation is expected to be smaller than in the past (Figure 2-2-3).

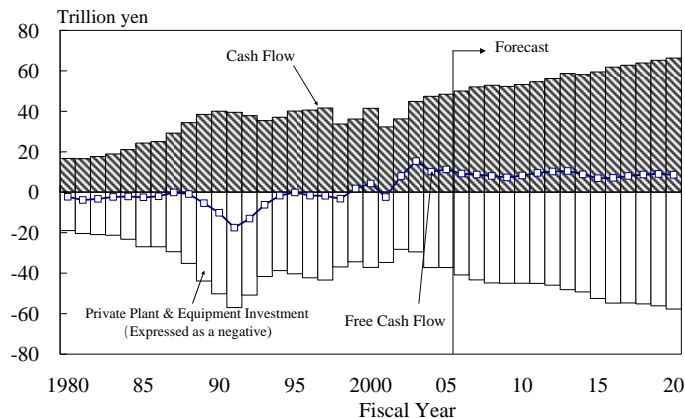
Figure 2-2-3 Capital Stock & Potential Growth Rate



Note: The Potential Growth Rate Curve (dotted line) shows the level of the potential growth rate corresponding to the increase of capital stock.
 Sources: "Quarterly Estimates of GDP", "Private Enterprise Capital Stock Statistics", Cabinet Office

In the manufacturing industries, investment was held back during the deflationary period and so the vintage of the current equipment is quite high. In order to maintain international competitiveness, some maintenance and renewal action should be taken. Even in the non-manufacturing industries, there will be increasing incentive for labor saving and rationalization to keep down human resource costs. However, during the forecast period, there will be domestic investment opportunities to meet the needs of the aging society, but it is not likely that there will be investment opportunities arising from domestic consumption demands. The level of investment by companies will be within what the cash flow situation up to Phase III of the forecast period allows. (Figure 2-2-4). This trend (as we will mention again in the section to follow about the investment-savings balance) is consistent with the development of the corporate sector as a whole to be more likely to have excess savings (surplus entities) than excess investment.

Figure 2-2-4 Cash Flow and Private Plant & Equipment Investment of all Industries



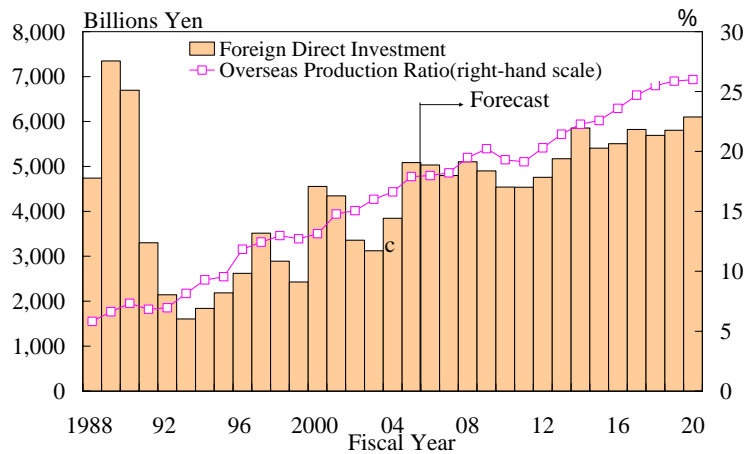
Note: Free Cash Flow = Cash Flow - Private Plant & Equipment Investment
 Source: "Financial Statements Statistics of Corporations by Industry", Ministry of Finance

(4) Foreign Direct Investment, Overseas Production

Foreign direct investment grew very rapidly in fiscal 2004 and 2005, and as the overseas markets are expected to grow going forward, we expect this high rate to be maintained. However, as economic growth in such countries as China is expected to lead to higher human resources costs, the marginal rates of return on investment will be diminishing. As a result, in Phase III of the forecast period, we expect the growth in investment to be more moderate (Figure 2-2-5).

Furthermore, the rate of overseas production will continue to rise due to the flow to foreign direct investment that has already been made, but also from some active reinvestment through local procurement, and we expect overseas production as a portion of total production to exceed one quarter by the end of Phase III.

Figure 2-2-5 Foreign Direct Investment and Overseas Production Ratio of Manufacturing Industries



Sources: "Basic(Trend) Survey of Overseas Business Activities", Ministry of Economy, Trade and Industry, "Private Enterprise Capital Stock Statistics", Cabinet Office, "Balance of Payments Monthly", Bank of Japan

3 . The Public Sector

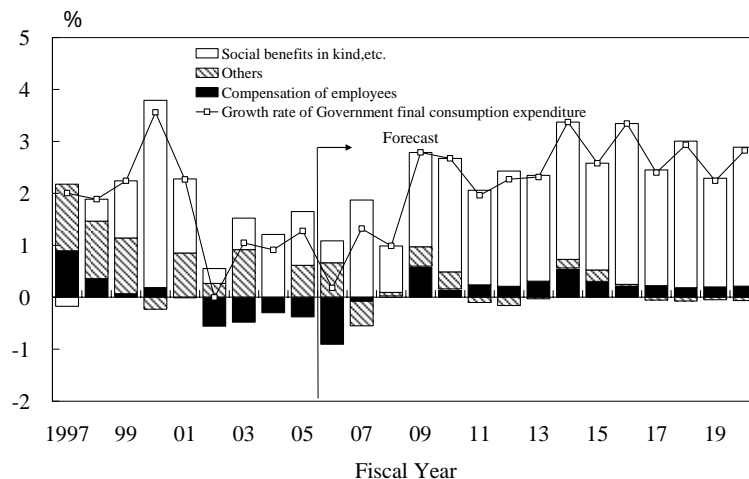
(1) Government Consumption, Public Investment, Fiscal Balance

Regarding the public sector, as already mentioned, we assume that the reform policies described in the “Law to Promote Administrative Reform to Realize a Simple and Efficient Government” (The “Law to Promote Administrative Reform”) passed in 2006 and the “Basic Policies 2006” would be realized in our forecast.

Government Consumption is made up of Employee Compensation (Human Resource Expenses of Government Employees), and Social Benefits in Kind (Healthcare and Long-term care insurance benefits) and so its scale will depend on the trends in these components.

Despite the number of efforts to restrain expenses (such as the checks placed on government employee human resources expenses), an increase in social security related expenses cannot be avoided, and social benefits in kind are expected to increase because of the upcoming further aging of the population. The rise in government consumption in the forecast period can be almost entirely be explained by this factor(Figure 2-3-1) .

Figure2-3-1 Contribution to Government Final Consumption



Source: "Annual Report on National Accounts", Cabinet Office

We expect public investment to be greatly reduced in the first half of Phase I of the forecast period over the previous fiscal years because the post-disaster reconstruction work that had kept spending at relatively high levels will be close to completion. After this, we expect that between fiscal 2008 and 2011, public works spending and local public works spending (investment expenses) would be reduced by a nominal 2% every year under the Basic Policies 2006, and so in fiscal 2007 it would fall below the consumption of fixed capital. In other words, this would mean that the level of investment would not be adequate to maintain the current social capital levels. Yet, this is not an unrealistic assumption if we consider that a portion of social capital can be disposed of or transferred to the private sector, and renewal investment is more efficient. Though there is no clear policy stated by the government for beyond Phase II of the forecast period, we assumed that the growth of investment would be restrained to the same levels as in consumption of fixed capital.

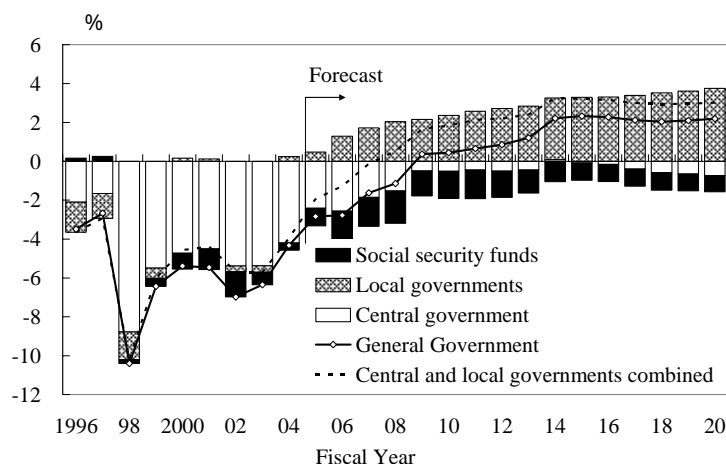
Regarding tax revenues, there will be factors increasing revenues from January 2006 such as the reduction and abolishment of the fixed tax rate reduction, the recently robust corporate profit levels, and the increase in property income resulting from higher interest rates. Furthermore as we are assuming a

consumption tax hike in fiscal 2009, we are expecting a healthy rise in revenues, and during the forecast period tax revenues as a share of nominal GDP should rise to a level equivalent to the average of the 1980s.

Regarding the fiscal balance, as a result of the recent favorable tax revenue conditions, and the reforms in expenditures and revenues, we expect a marked improvement in the first half of Phase I of the forecast period. The government was targeting the primary balance (central and local government combined) to be in a surplus position from the beginning of the 2010s, but this target will be met early, and the primary balance will be in a surplus from fiscal 2008. Even on a general government basis, the balance will be in a surplus situation from fiscal 2009. Though the situations of the individual local governments will vary, for local governments as a whole, the level of savings less investment will be positive in fiscal 2006, and this surplus will expand from then on. This will contribute greatly to driving the primary balance of the general government into a surplus.

As for the central government, the primary balance is expected to improve as a result of reforms on both the spending and revenue sides (includes the hike in consumption tax). However, though the balance will be a surplus in fiscal 2014 with our projected second hike in the consumption tax, it will turn to a deficit (Figure 2-3-2) once again from Phase of the forecast period due to greater expenditure related to the aging of the society. This discrepancy between the fiscal situations of the central and local governments will grow, and we expect this to lead to more active debate going forward regarding the current states of decentralization, subsidies and the local tax allocation system.

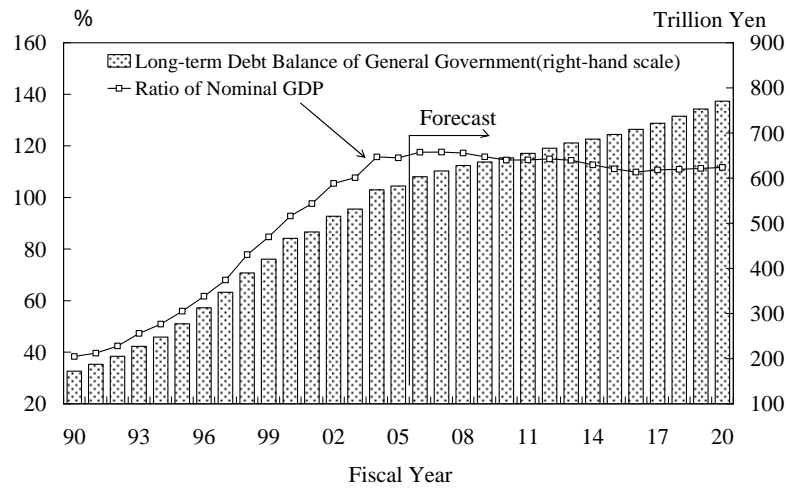
Figure 2-3-2 Primary Balance of General Government (Ratio of Nominal GDP)



Source: "Annual Report on National Accounts", Cabinet Office

Although we expect the recovery in the primary balance (a short-term goal for fiscal rebuilding) to be achieved even on a general government basis relatively early, it will be difficult to secure a level in the primary balance surplus equal to the difference in saving and investment year after year. That is, the fiscal deficit will not disappear during the forecast period, and in fact for the central government, where the revenue and spending situation is quite severe, the outstanding debt will increase. Although it has been suggested that the longer term goal (following the primary balance recovery) should be that the outstanding debt as a share of nominal GDP be at a sustainable level, during this forecast period, it will be more or less flat and we do not expect to see any clear reduction (Figure 2-3-3). A stable reduction in this rate would require more drastic revenue and spending reforms of the government than we have put forth in this forecast, though this will depend somewhat on the relationship between the nominal growth rate and nominal long-term interest rates.

Figure 2-3-3 Long-term Debt Balance of General Government (Ratio of Nominal GDP)



Note: Long-term Debt Balance=Government Bonds + Municipal Bonds

Source: "Flows of Funds", Bank of Japan, "Quarterly Estimates of GDP", Cabinet Office.

(2) The Social Security System

In addition to the expected reforms to the pension system, the healthcare system and long-term nursing, we assumed 1) revisions in medical service fees (including drug prices) and 2) the elimination of government contributions to employment insurance or the reduction of the premium for employment insurance. These are shown in Table 2 and with these assumptions of there being further spending cuts than are already scheduled, we compiled our forecast.

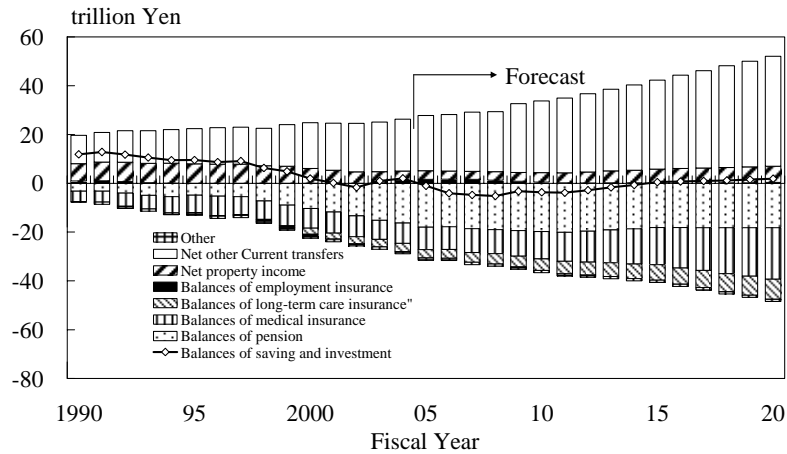
**Table 2. Outline of Reforms in the Social Security System Assumed for this Forecast
(Pensions, Healthcare, Long-term care, Employment insurance).**

Type of Insurance	Assumptions made for this 33 rd Forecast
Pension	1) Government contribution to the basic pension (currently 35.8% of the fiscal 2006 budget), to be raised to 50% by fiscal 2009.
	2) Premium rates of employees' pension to be gradually raised to 18.3% by fiscal 2017, and premiums of the National Pension to be gradually raised to 16,900 yen where it will stay.
	3) On the benefits side, our forecasts reflect that a "macro economy slide" will be built in: this will prevent benefits from increasing automatically as result of a decrease in the number of insured under the employee pension insurance, or an increase in life expectancy.
Healthcare	1) The forecasts reflect the implementation of such changes as the increase in the contribution rates of older patients in accordance with the revisions in the Healthcare Reform Law of fiscal 2006. From fiscal 2008, a healthcare system for those aged 75 years and older called the Late Old Age Healthcare system will be implemented, and for those between the ages of 70-74, the co-payment rate for healthcare will be raised.
	2) We assume that the pressure to reduce medical fees will be intensified. There will also be annual drug price revisions from fiscal 2008. Medical fees are currently revised once every two years, and we are aware that the Ministry of Health, Labor and Welfare is contemplating a reform in the medical fee system in order to keep down the expenses to those in Late Old Age. We assumed that there will be pressure for them to reduce spending by about 1.5% at each review.
	3) In the Basic Policies 2006 where reductions in government spending are set forth, it is clearly indicated that spending in social insurance would be reduced by 1.6 trillion yen by fiscal 2011. Given this, we assumed that spending in the healthcare sector would be reduced by over 1.2 trillion yen.
Long-term care	1) From April 2006, the long-term care service provided to those of relatively low need has been reduced, and a mechanism has been put in place to promote independence called "preventive services". Given this, the benefits provided to those whose need is relatively low should be reduced by 40% per person.
Employment	1) With the improved employment environment, the balance of the employment insurance system should show an upturn and so the premiums will be gradually reduced from fiscal 2007. Currently the premiums of 19.5% will be gradually reduced and from fiscal 2014 it should stabilize at about 0.8% where it should no longer negatively affect the finances of the employment insurance system.
	2) As a part of 1) above (the reduction of overall employment insurance premiums), the premiums of the other "three employment insurance activities" (services other than unemployment insurance) such as vocational training will be lowered by 0.5% from fiscal 2007.
	3) It is suggested in the "Basic Policies 2006" that the government contributions should be terminated. Given this, we assumed that the government contribution would be eliminated from fiscal 2008.

As for the balance of the social security funds as a whole, we expect an increase in the current transfer receipts from the national burden and other government sectors, and increases in property income (that are investment returns of the social security fund). The balance will improve and turn from a deficit to a

surplus from fiscal 2015. (Figure 2-3-4). By type of insurance, the pension insurance system should avoid a large excess of benefits paid (or a worsening of the insurance budget) because the premium rates will be based on a macro economy slide by 2023. However, for healthcare and long-term care insurance, despite the measures implemented to keep spending in check, the pressure of the aging population will unfortunately ensure that the balance is worsened.

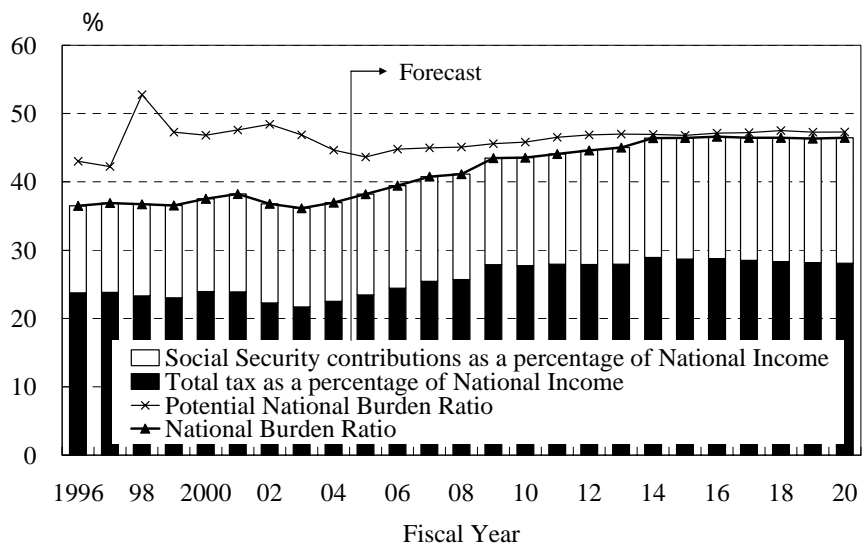
Figure 2-3-4 Balance of Investment in Saving Social Security Funds (by type of insurance)



Note: Balances are defined as premium contribution less benefits
 Source: "Annual Report on National Accounts", Cabinet Office

The "national burden rate", that is the costs of taxes and social security as a share of national income, weighed in at around 39% in fiscal 2006 and is expected to rise to 46% in fiscal 2020. However, the potential national burden rate, which is the normal national burden rate plus what will be the future burden on the people (that is, the budget deficit rate), will be kept down to about 47% in fiscal 2020 because the share of the fiscal deficit of national income will shrink (Figure 2-3-5).

Figure 2-3-5 National Burden Ratio (as a Share of National Income)

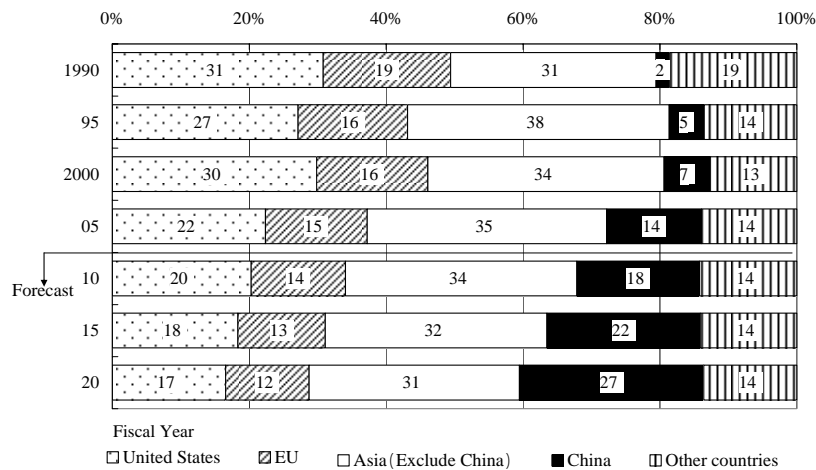


Source: "Annual Report on National Accounts", Cabinet Office

4 . Imports and Exports, Balance of Payments

Regarding exports, we forecast steady growth throughout the forecast period because although growth will be dependent on the assumptions made for the Chinese and US economies in Chapter 1, most likely it will be propped up by the rapid growth in China and the rest of Asia, with the share of Japan's exports to these regions increasing (Figure 2-4-1). By type of goods, the share of electrical machinery including electronic parts will increase, and the share of chemical products will also grow rapidly, though their share is small.

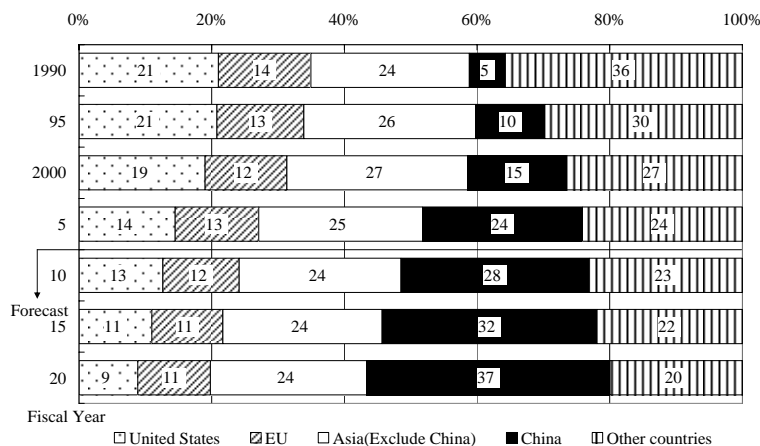
Figure 2-4-1 Share of Exports by Destination Region (Real Figures)



Sources: "Trade Statistics", The Ministry of Finance of Japan, "Price Indexes Monthly", Bank of Japan

Regarding imports, we believe that the penetration of imports into the domestic market will continue to rise. Imports from Asia will account for the majority of this (Figure 2-4-2), and that the real value of imports will rise at a faster rate than domestic demand or exports during most of the forecast period. By type of goods, the share of machinery and equipment should show a notable increase. The fact that the share of imports of manufactured goods is increasing reflects the fact that while Japan maintains a large role in the international division of labor, the intra-industry trade with the Asian region will be more active.

Figure 2-4-2 Share of Imports by Source Region (Real Figures)

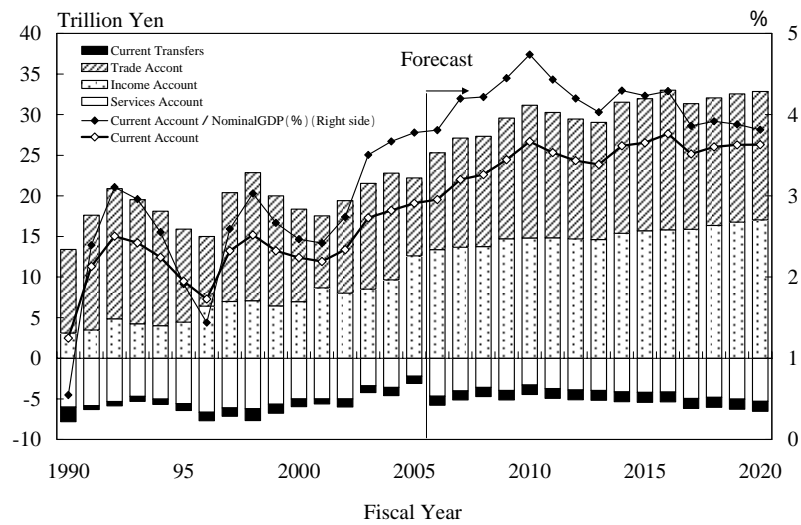


Sources: "Trade Statistics", The Ministry of Finance of Japan, "Price Indexes Monthly", Bank of Japan

In the current account, the trade account will reflect the developments in the imports and exports we noted earlier. However in the first half of Phase I of the forecast period, the current high oil prices will cause the value of imports to be greatly inflated, and so the growth in the value of imports will slow in the second half of Phase I of the forecast period when oil prices are forecast to be lower. The trade surplus will increase by double digits in Phase I, but from Phase II, there will be ups and downs while generally taking a slightly downward path. The income account of the balance of payments should increase steadily from Phase I reflecting the solid accumulation of net external assets, although the rate will slow because the interest gaps between home and abroad will shrink and the yen will continue on its upward trend.

As a result of this, by Phase III, the income account will be consistently greater than the trade account, and we view this as evidence that Japan is developing towards a mature creditor nation (Figure 2-4-3).

Figure 2-4-3 Contribution Rates of Factors to the Current Account Balance



Source: "Balance of Payments Monthly", Bank of Japan

5 . Other Important Items

(1) Prices

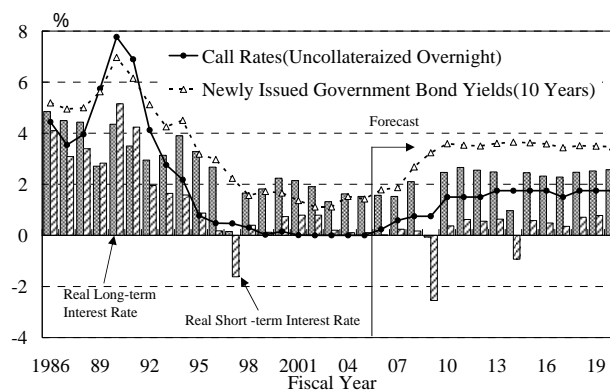
As we have noted already, due largely to recent higher oil prices, the corporate goods price index and the consumer price index are already on rising trends (See Figure 1-2-4, above). Though the import deflator should put downward pressure on the GDP deflator, the economy should be out of deflation in the first half of Phase I. However, import prices are expected to decline from the second half of Phase I due to our assumption of lower oil prices through to about fiscal 2010. As these effects would be felt in the domestic corporate goods index and the consumer price index (general, excluding fresh food), they will increase only slightly in this period. Even with the effects of the hike in consumption tax, they will rise by only about 1.0% and 1.6% respectively on average.

For Phase II and beyond, there will be little pressure for inflation because 1) the moderate appreciation of the yen will lead to stable import prices, 2) the penetration of imports in the domestic markets will be higher, 3) we expect more competition among companies due to deregulation, even in the non-tradable goods industries, 4) unit labor costs are expected to grow only within the range of productivity, and 5) consumers have developed a more discerning attitude towards their consumption choices during the deflationary economy, and this is expected to persist. As a result, the consumer price index (general index, excluding fresh food) will in Phase II rise only at a fiscal annual average rate of 1.4% (including the effects of the consumption tax hike) and in Phase III it will rise by about 1.1%.

(2) Interest Rates, Flow of Funds, Stock Prices

Though the zero interest policy was terminated on July 14 2006, for the first half of Phase I, we forecast stable short-term and long-term interest rates as monetary policies are expected to be implemented in careful consideration of prices and the trends in domestic and overseas economies. From the second half of Phase I, we believe that a situation where a domestic fund shortage would lead to higher interest rates would be highly unlikely. This is because the corporate sector will have a surplus overall even with a possible budget deficit in the central government's account although prices will be rising gradually, and long and short term interest rates will also be rising,. Therefore, long term interest rates may rise to 3.5% and short-term to 1.7% by Phase III, but from a real interest rate perspective, rates will be flat with or just below US rates throughout the forecast period. (Figure 2-5-1).

Figure 2-5-1 The Movement of the Main Interest Rate



Note: Real interest rates are deflated by the "CPI"(Consumer Price Index, General) "Newly Issued Government Bond Yields (10 Years)" is a value estimated by using the growth rates of "Interest-bearing Government Bonds (10 Years)" before fiscal 1998.

Source: "Financial and Economics Monthly", Bank of Japan

(3) Investment Savings Balance

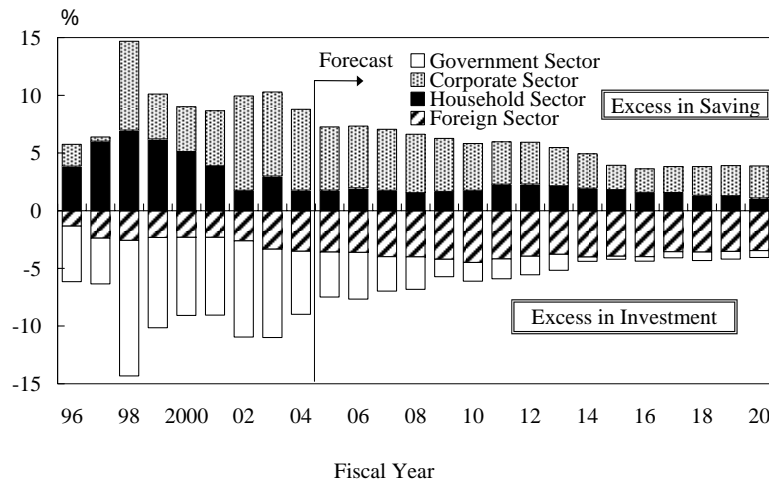
The household sector, which is the sector that had the greatest excess savings in the 20th century, will throughout the forecast period, have a low savings excess rate (as a share of nominal national income), reflecting the decline in the savings rate overall. (Figure 2-5-2).

For the government sector, as we saw in Section 3 of this chapter, the balance of investment and savings will be improving through reforms in revenue and spending, and so the excess investment situation will gradually improve.

For the external sector, we expect the excess investment (a deficit for overseas) to continue to be large and consistent in scale, as not just the trade surplus, but also the income account surplus will be steadily increasing.

For the corporate sector, the excess savings will continue to finance the excess investment of the external and government sectors. As explained in Section 2 of this, this is consistent with the scenario we outlined in this Chapter, with the corporate sector maintaining a relatively high profit rate, and the business fixed investment being kept within their cash flow levels.

Figure 2-5-2 Balance of Investment and Savings by Sector (as a Share of Nominal National Income)

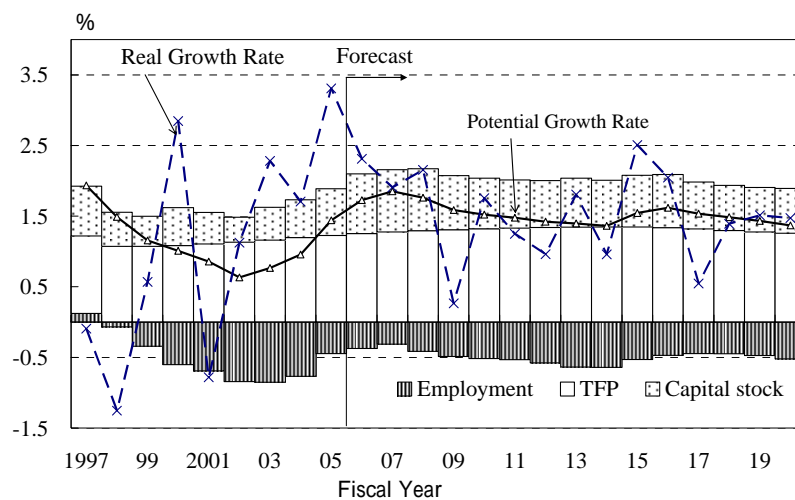


Sources: "Quarterly Estimates Of GDP", Cabinet Office

(4) Potential Growth Rate

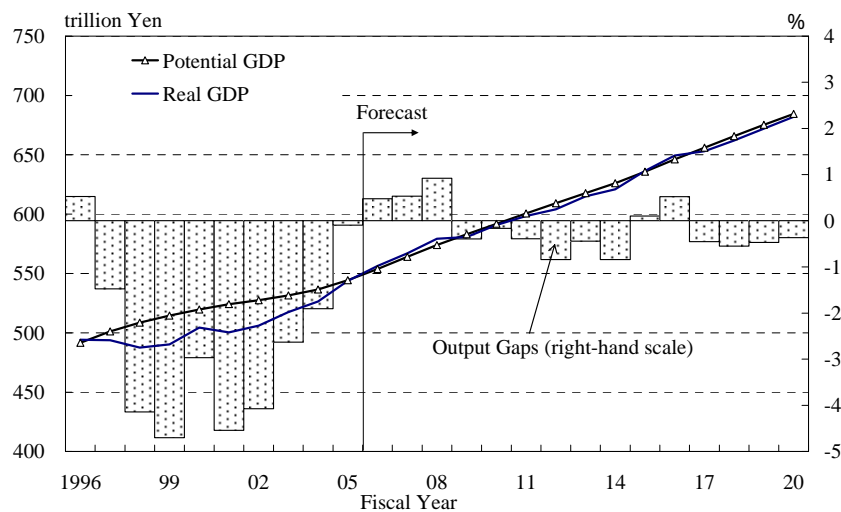
There will be positive factors raising the potential growth rate, as mentioned in this Chapter– that is, the input into capital stock at a scale consistent with business fixed investment levels. In addition, growth in TFP will provide an additional contribution of over 1%. However, the labor inputs will be lower because the labor force will be continually shrinking throughout the forecast period, and working hours will be shorter – negative factors to potential growth. In consideration of the above, we forecast the potential growth rate to rise to about a real 1.5% in the first half of Phase I and then gradually decline towards Phase III (Figure 2-5-3). Moreover, depending on how the potential GDP is estimated, the GDP gap (the difference between the actual GDP and the potential GDP), is unstable and fluctuates between positive and negative values. However, in any event, it seems that the GDP gap will not widen to a scale throughout the forecast period where it will bring about large price pressures in either direction (Figure 2-5-4).

Figure 2-5-3 Contribution for Potential GDP and Real Growth Rate



Source: “Quarterly Estimates of GDP”, Cabinet Office

Figure 2-5-4 Output Gaps



Note: Output Gaps are deviations of actual GDP from potential GDP as a percentage of potential GDP.

Source: “Quarterly Estimates of GDP”, Cabinet Office

In Conclusion

The Japan “as it may be” is, to summarize our forecast, will “maintain sustainable growth by 1) keeping government spending in check, 2) benefiting from the rapid growth of our Asian neighbors and Japan’s role in the international division of labor with them, and 3) moderating the factors that will limit growth – i.e., a shrinking and aging population .” However, this is not necessarily the Japan “as it should be.” If Japan, as it should be, is an economy of higher growth, then under our forecast scenario, it must take advantage of the following possibilities to bring the country as close to this vision as possible.

First is the possibility that household spending grows. A declining population will work negatively towards this end by leading to a shrinking consumer market. However, with a smaller and aging population, new products and services are sure to hit the market as well to meet new demands. On the income side, participation into the labor market should increase regardless of sex or age group, and by avoiding an excess of tax and social security burden concentrated on the working generation, we can hope that disposable income would grow.

The market and income aspects noted above will hold the keys to whether consumption will have the opportunity to expand.

Second is possible growth in business fixed investment. In a world of intensifying international competition, if the economy can overcome the headwind forces of the shrinking and aging population through innovative technology and business, then Japan can break new ground as the pioneer in new business opportunities, ahead of the rest of the world that will face a similar fate in the not too distant future. To be able to uncover this new technology and develop new markets also means a greater opportunity for exports. Moreover, with the spending restraints being enforced on the public sector, demand from the public sector is expected to shrink. However, with the proliferation of market testing, it is expected that the markets that were handled by public sector will be transferred to the private sector. As mentioned earlier, the corporate sector has surplus funds, and there is room for expansion of investment from a funding perspective. What they need is to find the specific (market) needs and to match this with the (technology) seeds.

Important on the supply side is to increase total factor productivity. As the population shrinks and work hours are being shortened, a decrease in quantity of labor input is inevitable, and so the keys to higher growth will be the expansion of the capacity of per capita human capital or an increase in the productivity of capital. In order for this to be achieved, we look to R&D and IT investment, or perhaps a concentration of resources into industries that have comparative advantages.

Furthermore, we expect the external sector to account for a greater source of income for the Japanese economy. It is important that we take down the barriers between Japan and overseas for investment opportunities in trade to maintain and enhance the system of international division of labor and to share those benefits at home and abroad.

For Japan in this time of transition, the country must 1) encourage home-grown opportunities in private consumption or investment under a shrinking and aging population 2) raise the capacity of human capital, and 3) expand the benefits through the maintenance and strengthening of the international division of labor.

Appendix Table

1 . Japanese Economy in FY2006-2020

		Forecast								Forecast				
										Average annual rate of percent change (*)Average figure				
		2005	2006	2007	2008	2009	2010	2015	2020	2001-05	2006-07	2008-10	2011-15	2016-20
Gross Domestic Production at chained (2000) yen		3.3	2.3	1.9	2.2	0.3	1.8	2.5	1.5	1.5	2.1	1.4	1.5	1.4
year-on -year change	Private final consumption expenditure	2.6	1.0	1.3	2.2	0.5	1.8	1.7	1.0	1.5	1.1	1.5	1.3	1.1
	Private housing investment	-0.2	0.6	0.5	2.2	-6.0	-3.0	0.4	0.7	-1.7	0.6	-2.3	-0.8	0.2
	Private plant & equipment investment	7.3	9.6	4.0	3.2	-1.0	1.2	5.2	2.2	2.9	6.8	1.1	2.7	1.9
	Government final consumption expenditure	1.4	0.5	1.4	1.2	1.6	2.4	2.4	2.1	2.1	1.0	1.7	2.1	2.3
	Public fixed capital formation	-1.4	-13.8	-4.5	-2.2	-3.2	-1.3	0.1	-1.7	-6.8	-9.2	-2.2	-1.9	-1.8
	Exports of goods & services	9.1	8.6	6.3	5.4	2.4	4.9	5.7	3.9	6.5	7.5	4.2	3.4	3.3
	Imports of goods & services	6.5	4.9	5.0	4.8	2.8	4.7	6.0	4.1	3.9	5.0	4.1	4.1	3.6
Contri- bution	Domestic demand	2.8	1.7	1.5	1.9	0.2	1.5	2.3	1.3	1.1	1.6	1.2	1.4	1.3
	Net foreign demand	0.5	0.7	0.4	0.3	0.1	0.2	0.2	0.1	0.4	0.5	0.2	0.1	0.1
Gross Domestic Production at current prices		1.8	1.6	2.0	2.3	2.5	2.5	2.9	1.9	0.1	1.8	2.4	2.2	1.9
GDP Deflator		-1.5	-0.7	0.1	0.2	2.3	0.7	0.4	0.4	-1.4	-0.3	1.0	0.7	0.5
Real GDP per capita		3.3	2.3	1.9	2.2	0.4	1.9	2.8	1.9	1.4	2.1	1.5	1.7	1.8
Yen/Dollar exchange rate *		113.3	115.7	110.3	113.5	120.5	115.2	102.0	93.7	116.2	113.0	116.4	104.9	96.8
Call rate (Uncollateralized, overnight) *		0.001	0.24	0.59	0.75	0.75	1.50	1.75	1.75	0.003	0.415	1.00	1.65	1.70
Newly issued government bond (10-years) *		1.43	1.79	1.87	2.68	3.24	3.59	3.63	3.47	1.31	1.83	3.17	3.58	3.50
Current profits (all industries)		16.2	5.3	4.3	-0.3	-5.3	0.5	1.0	1.7	7.5	4.8	-1.8	1.2	1.1
Primary balance of central government to nominal GDP *		-2.4	-2.6	-1.8	-1.5	-0.5	-0.5	-0.1	-0.7	-4.4	-2.2	-0.8	-0.3	-0.5
Primary balance of general government to nominal GDP *		-2.8	-2.8	-1.6	-1.1	0.4	0.4	2.3	2.2	-5.2	-2.2	-0.1	1.5	2.1
Current account to nominal GDP *		3.8	3.8	4.2	4.2	4.4	4.7	4.2	3.8	3.2	4.0	4.5	4.2	4.0
Propensity to consume *		97.6	96.9	97.2	97.7	97.6	97.5	97.9	99.4	96.2	97.1	97.6	97.5	98.9
Unemployment rate *		4.4	4.0	3.7	3.4	3.7	3.9	3.1	2.7	4.9	3.8	3.7	3.7	3.1
Consumer price index (excluding fresh foods)		0.1	0.2	0.3	0.6	3.3	1.1	1.2	0.9	-0.4	0.3	1.7	1.4	1.1
Domestic corporate goods price index (year-on-year percent change)		2.1	2.8	0.1	0.2	2.5	0.2	0.6	0.5	-0.2	1.4	1.0	0.7	0.5
U.S. real GDP (calendar year)		3.2	3.3	2.7	3.2	3.3	3.3	2.9	3.0	2.4	3.0	3.3	2.7	2.9

(Note) Year-on-year percent change (%)

(Sources) Cabinet Office "Annual Report on National Accounts", "Quarterly Estimates of GDP", Bank of Japan "Economic Statistics Monthly", etc.

2 . Real Output Amount by Industry

Calendar Year	Forecast						Forecast						(billions of yen, %)					
	Real Output Amount (1995 prices)						Share of Total						Average Year-on-year Changes					
Industry	1995	2002	2006	2010	2015	2020	1995	2002	2006	2010	2015	2020	1996-2000	2001-05	2006-07	2008-10	2011-15	2016-20
Agriculture, Forestry and Fishery	15,816	13,612	13,314	12,912	12,317	11,750	1.7	1.4	1.2	1.1	1.0	0.9	-2.2	-1.0	-1.0	-0.8	-0.9	-0.9
Mining	1,659	1,619	1,691	1,709	1,723	1,729	0.2	0.2	0.2	0.1	0.1	0.1	-0.4	0.5	0.9	0.2	0.2	0.1
Food	37,665	35,007	35,190	35,161	34,806	34,865	4.1	3.6	3.3	3.0	2.8	2.5	-1.1	-0.3	-0.0	0.0	-0.2	0.0
Textiles	11,149	6,288	5,287	4,920	4,391	4,046	1.2	0.6	0.5	0.4	0.3	0.3	-6.2	-7.6	-2.0	-2.1	-2.3	-1.6
Pulp and Paper	9,389	8,132	8,433	8,598	8,855	8,801	1.0	0.8	0.8	0.7	0.7	0.6	-1.1	-1.3	1.0	0.4	0.6	-0.1
Chemicals	25,701	25,525	26,168	27,330	28,606	29,668	2.8	2.6	2.4	2.4	2.3	2.2	0.2	0.0	0.6	1.2	0.9	0.7
Oil and Coal	10,489	11,079	11,058	11,401	11,863	12,240	1.1	1.1	1.0	1.0	0.9	0.9	1.2	-0.1	0.1	0.9	0.8	0.6
Ceramics, Clay and Stone	9,695	7,921	8,305	8,072	8,087	8,508	1.1	0.8	0.8	0.7	0.6	0.6	-1.5	-1.6	-0.2	-0.7	0.0	1.0
Iron and Steel	20,059	17,744	19,041	18,979	19,708	20,820	2.2	1.8	1.8	1.6	1.6	1.5	-2.2	0.9	1.1	-0.4	0.8	1.1
Non-ferrous metals	6,340	6,295	7,140	7,595	7,843	8,524	0.7	0.6	0.7	0.7	0.6	0.6	1.6	0.3	2.0	1.6	0.6	1.7
Metal Products	15,687	12,596	12,312	12,324	12,120	12,800	1.7	1.3	1.2	1.1	1.0	0.9	-2.3	-2.6	-0.3	0.4	-0.3	1.1
General Machinery	28,380	24,706	27,083	28,912	29,081	33,028	3.1	2.5	2.5	2.5	2.3	2.4	0.3	-1.8	1.8	2.0	0.1	2.6
Electric Machinery for Industrial Use	5,673	4,055	4,594	4,907	5,105	5,692	0.6	0.4	0.4	0.4	0.4	0.4	-2.8	-1.2	-0.8	2.5	0.8	2.2
Electric Appliances for Consumer Use	8,820	10,561	12,410	14,116	17,340	18,298	1.0	1.1	1.2	1.2	1.4	1.3	2.2	4.3	5.8	1.3	4.2	1.1
Electronic and Communication Equipment	36,157	49,102	69,870	81,497	91,274	105,576	3.9	5.1	6.5	7.0	7.2	7.7	9.5	2.8	5.6	3.7	2.3	3.0
Automotive	36,287	41,379	48,390	49,620	54,351	59,570	3.9	4.3	4.5	4.3	4.3	4.3	0.8	4.5	3.0	-0.2	1.8	1.9
Other Transport Machinery	5,433	5,888	6,231	6,659	6,913	7,366	0.6	0.6	0.6	0.6	0.5	0.5	1.1	1.6	1.2	1.7	0.8	1.3
Precision Instruments	3,792	3,673	4,285	4,778	5,159	5,737	0.4	0.4	0.4	0.4	0.4	0.4	2.4	0.1	1.4	2.6	1.5	2.1
Other Manufacturing	40,448	35,996	38,831	40,105	43,796	45,114	4.4	3.7	3.6	3.5	3.5	3.3	-1.0	0.8	-2.7	1.8	1.8	0.6
Construction	88,870	78,646	68,634	62,929	59,252	57,187	9.6	8.1	6.4	5.4	4.7	4.1	-1.2	-2.8	-4.0	-2.0	-1.2	-0.7
Electric Power, Gas and Heat Supply	18,810	20,711	21,723	24,520	27,724	31,175	2.0	2.1	2.0	2.1	2.2	2.3	1.7	0.9	2.1	3.2	2.5	2.4
Water Supply, Waste Disposal	4,772	4,973	5,178	5,247	5,302	5,304	0.5	0.5	0.5	0.5	0.4	0.4	0.6	0.8	0.7	0.3	0.2	0.0
Wholesale, Retail Trade	102,310	99,624	121,921	133,126	141,929	148,823	11.1	10.3	11.4	11.5	11.2	10.8	-0.7	3.2	3.8	2.2	1.3	1.0
Finance and Insurance	39,903	46,935	58,257	70,804	68,601	73,942	4.3	4.8	5.4	6.1	5.4	5.4	1.5	4.5	6.4	5.3	-0.6	1.5
Real Estate	65,365	73,833	82,213	91,345	100,978	110,018	7.1	7.6	7.7	7.9	8.0	8.0	1.8	2.2	3.1	2.5	2.0	1.7
Transportation	40,650	36,830	37,292	39,002	41,363	43,910	4.4	3.8	3.5	3.4	3.3	3.2	-1.8	0.1	0.6	1.1	1.2	1.2
Communication	12,083	25,268	29,436	31,986	36,675	41,762	1.3	2.6	2.8	2.8	2.9	3.0	14.2	3.9	2.7	2.2	2.8	2.6
Public Services	100,527	120,697	129,292	144,359	170,235	195,775	10.9	12.5	12.1	12.5	13.5	14.2	2.7	2.2	1.5	2.9	3.4	2.8
Business Services	57,852	74,767	84,000	97,853	123,226	144,265	6.3	7.7	7.8	8.4	9.7	10.5	4.6	3.1	2.6	3.3	4.7	3.2
Personal Services	56,853	59,809	66,592	72,169	79,326	86,440	6.2	6.2	6.2	6.2	6.3	6.3	1.0	1.6	2.7	1.9	1.9	1.7
Others (non-classified)	5,510	5,873	6,094	6,325	6,624	6,938	0.6	0.6	0.6	0.5	0.5	0.5	1.6	0.3	0.9	0.9	0.9	0.9
All industry total	922,145	969,144	1,070,267	1,159,261	1,264,573	1,379,671	100.0	100.0	100.0	100.0	100.0	100.0	1.1	1.5	2.0	2.0	1.8	1.8
Primary Industries	15,816	13,612	13,314	12,912	12,317	11,750	1.7	1.4	1.2	1.1	1.0	0.9	-2.2	-1.0	-1.0	-0.8	-0.9	-0.9
Secondary Industries	401,693	386,213	414,954	429,613	450,272	479,568	43.6	39.9	38.8	37.1	35.6	34.8	0.4	0.1	0.7	0.8	0.9	1.3
Manufacturing Industries	311,164	305,948	344,630	364,975	389,297	420,653	33.7	31.6	32.2	31.5	30.8	30.5	0.8	0.9	1.7	1.4	1.3	1.6
Basic Materials Suppliers	97,359	89,292	92,458	94,299	97,082	101,360	10.6	9.2	8.6	8.1	7.7	7.3	-0.7	-0.4	0.6	0.5	0.6	0.9
Processing and Assembly Industries	124,543	139,364	172,863	190,489	209,222	235,267	13.5	14.4	16.2	16.4	16.5	17.1	3.6	2.3	3.9	2.1	1.9	2.4
Products and Services for Daily Life	89,262	77,291	79,309	80,186	82,993	84,026	9.7	8.0	7.4	6.9	6.6	6.1	-1.6	-0.4	-1.5	0.7	0.7	0.2
Tertiary Industries	499,126	563,447	635,904	710,411	795,359	881,414	54.1	58.1	59.4	61.3	62.9	63.9	1.8	2.5	2.9	2.8	2.3	2.1

(Notes) Primary Industries = Agriculture, Forestry and Fishery
 Secondary Industries = From Mining to Construction Industries
 Tertiary Industries = Electric Power, Gas and Heat Supply to Personal Services
 Manufacturing Industries = Food to Other Manufacturing Industries
 Of the Manufacturing Industries: Basic Materials Suppliers = Pulp and Paper to Metal Products
 Processing and Assembly = General Machinery to Precision Machinery
 Products and Services for Daily Life = Food, Textiles and other manufacturing industries

(Source) "SNA Input-Output Table (Base Year 1995)", Cabinet Office

3 . Employment by Industry

Calendar Year	Number Employed					Share of Total					Average Year-on-year Changes					
	2000	2006	2010	2015	2020	2000	2006	2010	2015	2020	1996-2000	2001-05	2006-07	2008-10	2011-15	2016-20
Industry																
Agriculture, Forestry and Fishery	5,570	4,771	4,278	3,955	3,734	8.2	7.4	6.7	6.2	5.8	-1.7	-2.2	-4.2	-2.2	-1.6	-1.1
Mining	47	37	33	29	26	0.1	0.1	0.1	0.0	0.0	-5.6	-4.1	-3.0	-2.9	-2.4	-2.2
Food	1,462	1,282	1,207	1,119	1,039	2.1	2.0	1.9	1.8	1.6	-3.3	-2.3	-1.5	-1.5	-1.5	-1.5
Textiles	680	429	391	337	303	1.0	0.7	0.6	0.5	0.5	-9.0	-8.1	-2.6	-2.6	-2.9	-2.1
Pulp and Paper	294	254	239	220	194	0.4	0.4	0.4	0.3	0.3	-3.6	-2.8	-0.6	-1.6	-1.7	-2.5
Chemicals	422	389	378	365	353	0.6	0.6	0.6	0.6	0.5	-3.2	-1.5	-0.6	-0.8	-0.7	-0.7
Oil and Coal	38	30	27	25	22	0.1	0.0	0.0	0.0	0.0	-2.5	-4.2	-2.8	-2.0	-2.0	-2.3
Ceramics, Clay and Stone	397	334	313	302	302	0.6	0.5	0.5	0.5	0.5	-3.3	-3.5	-0.7	-1.6	-0.7	0.0
Iron and Steel	330	283	267	253	244	0.5	0.4	0.4	0.4	0.4	-4.0	-2.8	-1.1	-1.5	-1.0	-0.7
Non-ferrous metals	168	154	150	142	138	0.2	0.2	0.2	0.2	0.2	-1.7	-1.7	-0.4	-0.6	-1.1	-0.6
Metal Products	867	787	722	640	605	1.3	1.2	1.1	1.0	0.9	-2.7	-1.6	-2.4	-1.8	-2.4	-1.1
General Machinery	1,164	1,068	1,058	1,064	1,055	1.7	1.7	1.7	1.7	1.6	0.3	-1.7	-0.5	0.1	0.1	-0.2
Electric Machinery for Industrial Use	269	279	258	250	241	0.4	0.4	0.4	0.4	0.4	-2.2	1.2	-3.4	-1.1	-0.6	-0.8
Electric Appliances for Consumer Use	225	199	199	199	199	0.3	0.3	0.3	0.3	0.3	-8.2	-2.2	-0.6	-0.1	0.0	-0.0
Electronic and Communication Equipment	1,308	1,079	1,002	958	921	1.9	1.7	1.6	1.5	1.4	-1.2	-3.5	-1.8	-1.7	-0.9	-0.8
Automotive	776	785	774	751	738	1.1	1.2	1.2	1.2	1.1	-2.2	0.2	0.6	-0.8	-0.6	-0.3
Other Transport Machinery	202	204	204	203	198	0.3	0.3	0.3	0.3	0.3	-0.6	0.3	-0.2	0.0	-0.1	-0.5
Precision Instruments	227	221	224	224	224	0.3	0.3	0.3	0.4	0.4	1.0	-0.4	-0.2	0.5	0.0	0.3
Other Manufacturing	2,149	2,061	2,147	2,027	2,028	3.1	3.2	3.3	3.2	3.1	-2.9	-0.4	-0.5	1.0	-1.1	0.0
Construction	6,572	5,652	5,340	5,113	5,010	9.6	8.7	8.3	8.0	7.7	-1.4	-2.5	-2.1	-1.2	-0.9	-0.4
Electric Power, Gas and Heat Supply	229	233	235	237	241	0.3	0.4	0.4	0.4	0.4	0.7	0.3	0.3	0.2	0.2	0.3
Water Supply, Waste Disposal	403	267	271	274	274	0.6	0.4	0.4	0.4	0.4	1.1	-7.6	-0.8	0.5	0.2	0.0
Wholesale, Retail Trade	14,034	13,306	12,887	12,340	12,079	20.6	20.6	20.1	19.3	18.6	0.5	-0.9	-0.6	-0.9	-0.9	-0.4
Finance and Insurance	1,824	1,590	1,486	1,454	1,426	2.7	2.5	2.3	2.3	2.2	-2.7	-2.7	-2.8	-0.5	-0.4	-0.4
Real Estate	699	633	628	633	639	1.0	1.0	1.0	1.0	1.0	0.5	-1.6	-1.2	-0.1	0.2	0.2
Transportation	3,186	3,117	3,167	3,160	3,249	4.7	4.8	4.9	5.0	5.0	-0.7	-0.5	0.4	0.4	-0.0	0.6
Communication	705	706	692	700	684	1.0	1.1	1.1	1.1	1.1	4.7	0.1	-0.4	-0.5	0.2	-0.5
Public Services	9,944	10,063	10,152	10,641	11,039	14.6	15.5	15.8	16.7	17.0	1.4	0.2	0.0	0.3	0.9	0.7
Business Services	6,267	6,467	6,992	7,474	8,110	9.2	10.0	10.9	11.7	12.5	5.9	0.3	1.3	2.3	1.3	1.6
Personal Services	7,724	7,938	8,275	8,622	9,376	11.3	12.3	12.9	13.5	14.5	1.0	0.5	0.8	0.9	0.8	1.7
Others (non-classified)	108	107	106	105	104	0.2	0.2	0.2	0.2	0.2	24.5	-0.3	0.2	-0.3	-0.2	-0.1
All Industry Total	68,289	64,724	64,102	63,816	64,797	100.0	100.0	100.0	100.0	100.0	0.0	-0.9	-0.6	-0.1	-0.1	0.3
Primary Industries	5,570	4,771	4,278	3,955	3,734	8.2	7.4	6.7	6.2	5.8	-1.7	-2.2	-4.2	-2.2	-1.6	-1.1
Secondary Industries	17,598	15,527	14,933	14,221	13,843	25.8	24.0	23.3	22.3	21.4	-2.4	-2.1	-1.4	-0.9	-1.0	-0.5
Manufacturing Industries	10,978	9,838	9,560	9,079	8,806	16.1	15.2	14.9	14.2	13.6	-2.9	-1.9	-1.0	-0.7	-1.0	-0.6
Basic Materials Suppliers	2,516	2,231	2,097	1,947	1,858	3.7	3.4	3.3	3.1	2.9	-3.1	-2.2	-1.3	-1.4	-1.5	-0.9
Processing and Assembly Industries	4,171	3,834	3,719	3,649	3,578	6.1	5.9	5.8	5.7	5.5	-1.4	-1.5	-0.8	-0.7	-0.4	-0.4
Products and Services for Daily Life	4,292	3,772	3,745	3,484	3,370	6.3	5.8	5.8	5.5	5.2	-4.1	-2.1	-1.1	-0.2	-1.4	-0.7
Tertiary Industries	45,014	44,320	44,785	45,535	47,116	65.9	68.5	69.9	71.4	72.7	1.3	-0.3	0.1	0.3	0.3	0.7

(Notes) Primary Industries = Agriculture, Forestry and Fishery
 Secondary Industries = From Mining to Construction Industries
 Tertiary Industries = From Electric Power, Gas and Heat Supply to Personal Services
 Manufacturing Industries = From Food to Other Manufacturing Industries
 Of the Manufacturing Industries: From Basic Materials Suppliers = From Pulp and Paper to Metal Products
 Processing and Assembly = General Machinery to Precision Instruments
 Products and Services for Daily Life = Food, Textiles and other manufacturing industries
 (Sources) * 1990-1995-2000 Linked Input Output Tables*, Ministry of Internal Affairs and Communications