I. Recent developments: will the cyclical recovery lead to sustained growth?

Despite continuing deflation and weakness in the financial sector, the Japanese economy has recovered at a moderate pace since early 2002, led by a sharp increase in exports. The weak yen in early 2002 and the already low level of inventories have supported export growth and increased production, which in turn have led to an improvement in business sentiment. The recovery has been particularly strong in electronics and in other exporting sectors, especially automobiles. Activity in domestic sectors has also started to recover, though at a modest rate.

However, the pace of the recovery has been slowing since the middle of the year as the momentum of inventory rebuilding and the benefit of the weak yen fade and are not replaced by final domestic demand. Increased uncertainty about the world economy, lower stock prices and a stronger yen may serve to dampen business sentiment, constraining the recovery in private investment. The forces driving investment will in any case remain weak. With deflation expected to continue at current levels and real asset prices likely to remain in decline, profitability of the non-financial corporate sector could stay weak, pushing corporate restructuring efforts further. Such weakness in the corporate sector is reflected in the large stock of non-performing loans held by banks and in very low growth of household incomes, which in turn will restrain consumption. Moreover, an expected cyclical improvement in profitability will probably be used to accelerate the balance sheet adjustment of firms rather than, as in the past, to raise bonuses. Overall, the economy is likely to grow at only a relatively slow pace in the next few years, with deflation persisting for a while yet. Looking further ahead, much will depend on progress in implementing structural reforms to increase productivity and to stimulate domestic demand.

Recent trends and forces at work: a re-run of the 2000 recovery?

After a sharp contraction during the last three quarters of 2001, GDP growth stabilised in the first quarter of 2002 as exports rebounded while imports stagnated (Figure 1). GDP growth accelerated to 2.6 per cent (s.a.a.r.) in the second quarter, which is modest but well above its potential rate (currently

Figure 1. **Recent economic indicators point to recovery**

Source: Economic and Social Research Institute (ESRI), Cabinet Office, Bank of Japan and Ministry of Economy, Trade and Industry (METI).

around 1 per cent).[1] The main driving force was once again exports, although there was an end to the inventory decumulation which had been retarding growth for the past year. Private consumption also returned to low rates of growth.

The current episode shares a common feature with the last recovery between 1999 and 2000: a recovery led by strong growth in exports and a rapid increase in output by the information and communication technology (ICT) industries. However, the overall picture is really rather different. The world economic situation looks more unstable this time than in 1999 and 2000. Although the OECD area is expected to grow by 1½ per cent in 2002 and by 2¼ per cent in 2003 (*Economic Outlook* 72), the recent deceleration of growth in the US has raised some doubts. In such a situation, the current Japanese economic recovery, which depends narrowly on exports, looks vulnerable to changing external circumstances. Another difference is that the current rapid recovery of output by the ICT sector is driven mainly by inventory rebuilding, while the recovery in 1999 to 2000 was accompanied by a much broader ICT boom, including rapid diffusion of mobile phones and internet services. Related to this point, the recovery in share prices in 1999 to 2000 was bullish, partly reflecting the ICT boom, but share prices are at a much lower level this time with the possibility of further weakness. This suggests that the growth momentum going forward will be less than that in 1999 to 2000.

Exports have slowed after the rapid recovery in the first half

After contracting throughout most of 2001, exports rebounded in the first half of 2002 growing by more than 20 per cent (s.a.a.r.). Imports grew by only 1.2 per cent during the same period so that the foreign sector made a strong contribution to GDP growth. Exports were led by broad sectors including the two largest export industries, electrical machinery and transport equipment. Exports by the former, including semi-conductors, grew by 34 per cent (s.a.a.r.) in the first half following a drop of 21 per cent in 2001, while exports of transport equipment increased by 20 per cent in the same period. Export growth to Asia surged by 36 per cent (s.a.a.r.) in the first half, while increases to North America and the EU were a more modest 7 and 4 per cent respectively.[2] The lagged recovery in imports reflected weak domestic demand and the softness of the yen in early 2002, though imports of intermediate goods such as electrical components have been growing steadily in line with the rapid increase of production.

However, there are signs that export growth has slowed since the middle of the year, reflecting weak world economic growth and a stronger yen. In volume terms, exports increased by only 3.6 per cent (s.a.a.r.) in the third quarter, while they fell by 13 per cent in value terms due to the appreciation of the yen. The short-term prospects for exports also remain sombre, with increasing uncertainty about world economic growth.

Table 1. **The current account and external trade**

	1998	1999	2000	2001	2002[1]	Seasonally adjusted annual rates: 2001 1st half	2001 2nd half	2002[1] 1st half	2002[1] 2nd half
	Trillion yen								
A. Balance of payments									
Trade	16.0	14.0	12.6	8.5	12.3	8.7	8.7	11.9	12.7
Exports	48.9	45.8	49.5	46.6	49.2	48.3	45.0	48.7	49.7
Imports	32.9	31.8	37.0	38.1	36.9	39.6	36.4	36.8	37.0
Services	–6.5	–6.2	–5.1	–5.3	–4.9	–5.7	–4.9	–5.0	–4.9
Income	7.1	6.6	6.5	8.4	9.1	8.0	8.7	8.6	9.6
Transfers	–1.1	–1.4	–1.1	–1.0	–0.5	–1.0	–1.0	–0.2	–0.7
Current account	15.5	13.1	12.9	10.7	16.0	10.0	11.5	15.4	16.7
Per cent of GDP	3.0	2.6	2.5	2.1	3.2	2.0	2.2	3.1	3.4
	Percentage change from previous year								
B. Trade in goods (customs basis), 1995 = 100									
Volume									
Exports	–1.3	2.1	9.4	–10.2		–7.8	–12.5		
United States	5.4	4.3	3.0	–14.9		–14.7	–15.3		
EU	13.4	–1.4	3.9	–16.8		–12.0	–21.7		
Asia	–15.3	9.7	17.1	–9.6		–5.7	–13.1		
Imports	–5.3	9.6	11.0	–1.4		2.9	–5.3		
Unit value									
Exports	0.7	–8.1	–0.7	5.5		8.2	2.9		
Imports	–5.5	–12.2	4.6	5.1		9.6	0.7		

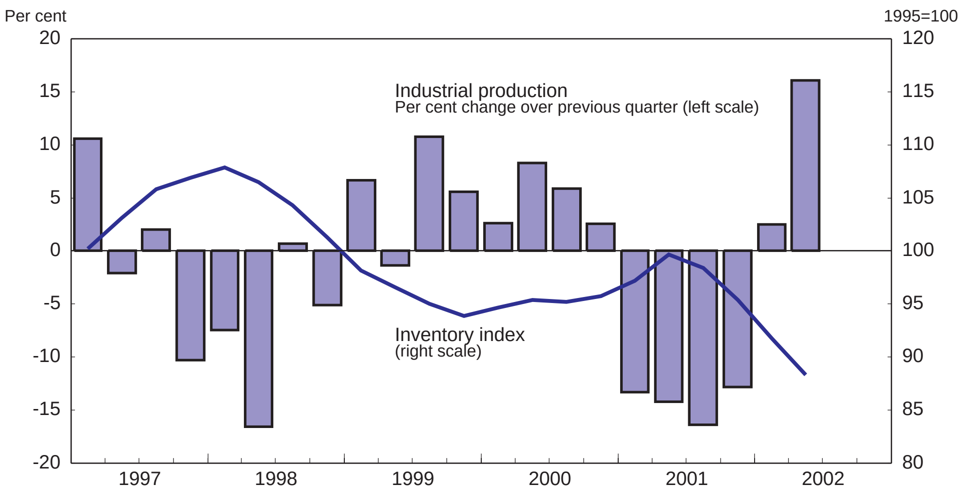
1. Second half estimated by the OECD.
Source: Bank of Japan, Balance of Payments Monthly; Japan Tariff Association, Summary Report of Trade of Japan, and OECD.

The strong growth in exports in the first half of 2002, together with weak imports, led to a rapid increase in the trade and the current account surplus. The current account surplus reached an annualised 16 trillion yen (3 per cent of GDP) in the first half of 2002 with the trade surplus almost doubling to 11½ trillion yen (Table 1). The sharp improvement in the current account surplus also partly reflects the decline in the service trade deficit due to reduced travel after the September 11th attacks.

With low inventories, production has recovered

Prior to the export recovery, inventories reached a peak in May 2001 and then declined sharply through to mid 2002 (Figure 2). Adjustment was led by the electrical machinery sector, which cut inventories by 32 per cent by April 2002 from their peak in May 2001. The overall inventory index fell by 10 per cent during the

Figure 2. **Inventories are at a level where production rises**



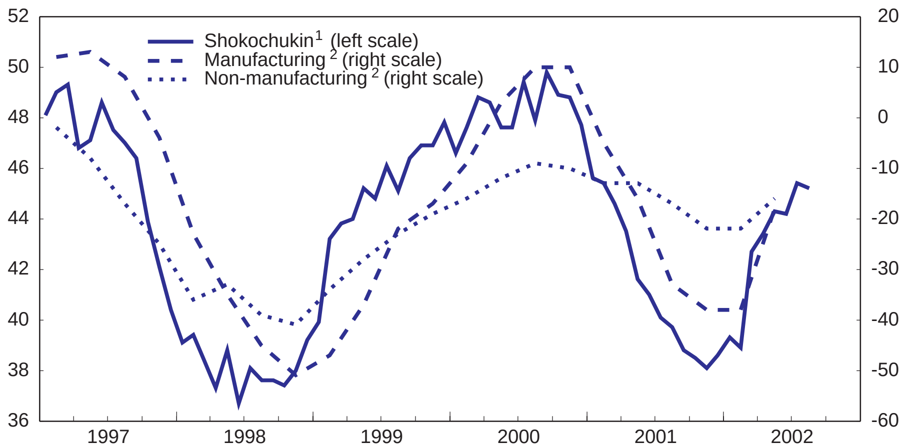
Source: METI.

same period. The recovery in exports and low inventories drove the V-shaped recovery in industrial production. The increase was at first modest, around 3 per cent (s.a.a.r.), but gathered momentum in the second quarter, to 16 per cent. The recovery has also been led by electrical machinery, whose production rose by 14 per cent in the first quarter, accelerating to 55 per cent growth in the second quarter. The electrical machinery sector accounted for about three-quarters of the overall growth in industrial output in the second quarter of 2002.

Following a limited decline in 2001, activity in the tertiary sector also began to recover at a very slow and variable pace from the beginning of 2002. The tertiary activity index increased by ½ per cent (s.a.a.r.) in the first quarter, followed by a 1½ per cent decline in the second and a rise of some 2½ per cent in the third quarter. The recovery in these branches was led not only by transport and telecommunications but also by retail and wholesaling. Although the reliability of the private consumption-related statistics is generally very poor, many of them indicate that private consumption has been relatively stable since the beginning of the year. However, some signs of weakening in tertiary sector activity appeared in the middle of the year, perhaps reflecting the limited income prospects facing households.

Reflecting the recovery in production, business sentiment and consumer confidence have also improved. According to the Shokochukin survey, the business sentiment of small companies has recovered after a trough in

Figure 3. **Business confidence has rebounded**



1. The Shokochukin survey covers 800 small and medium-sized companies. The business conditions index is calculated in the following manner: Index = (number of improved firms + 0.5 × number of unchanged firms)/total number of firms × 100. If the index exceeds 50, business conditions are seen to be improving.
2. The diffusion index is derived from the BOJ Tankan Survey reponses: the number of firms judging their business conditions as "favourable" less those answering "unfavourable".

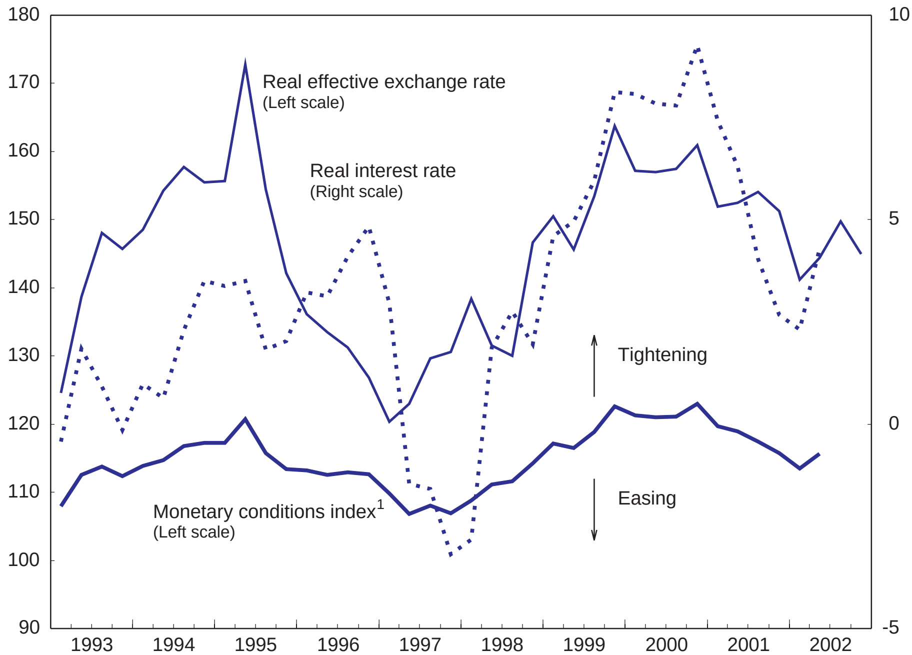
Source: Shokochukin and Bank of Japan.

November 2001 (Figure 3). The June Tankan survey of the Bank of Japan (BOJ) showed the strongest gain on record for the diffusion index regarding the judgement of business conditions by large manufacturing enterprises (difference between positive and negative responses).[3] The improvement in the manufacturing sector was also led by the electrical machinery sector, whose business sentiment bounced back substantially from the deterioration during 2001. However, the limited improvement in business sentiment in the September Tankan survey suggests that the business climate might have moved into a new phase since the middle of the year.

Monetary conditions have tightened somewhat due to the stronger yen

Even though bank loans have continued to contract, overall monetary conditions have eased due to a real depreciation of the effective exchange rate driven not only by the nominal exchange rate but also by deflation (Figure 4). However, conditions have tightened somewhat since the middle of the year (not shown) with the exchange rate appreciating from around 125 in June to the range

Figure 4. **Monetary conditions have eased**
1991Q1 = 100



1. The monetary conditions index is defined as the level change in the three-month deposit rate deflated by the four-quarter percentage change in the GDP deflator (adjusted for the 1989 and 1997 tax hikes) plus one-quarter of the percentage change in the real effective exchange rate of the yen (unit labour cost definition) against 29 OECD and 12 non-OECD trading partners. The weight (one quarter) was derived from INTERLINK model simulation properties.

Source: Bank of Japan and OECD.

of 115-120 yen/dollar. Reflecting turbulence in the world capital markets and some bankruptcies in Japan, risk premiums have risen in the corporate bond market and the value of outstanding bonds has remained flat. However, the market is only small, with bank loans comprising the bulk of external financing. Lending attitudes of financial institutions, as judged by small enterprises, have tightened somewhat this year whereas in the previous recovery of 1999/2000 there was a slight tendency to improve. For larger enterprises, which are covered by the Tankan survey, lending attitudes have remained fairly neutral. An important source of concern of the authorities has been the equity market, the Nikkei index having fallen to as low as 9 500 in February recovered to around 10 000-11 000 in the middle of the year before retreating once again to around 9 000 in early September and to beneath this level in October. The more important consequence of weak stock prices is not corporate financing *per se*, but a weaker balance sheet of the financial sector and reduced business sentiment.

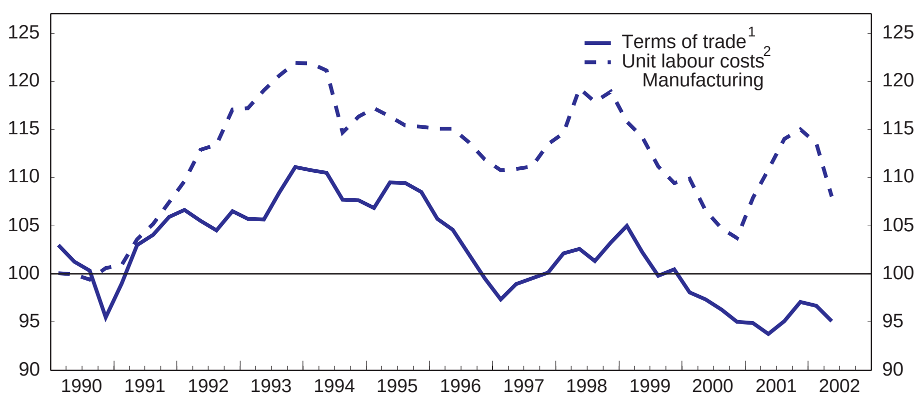
Profits have improved but the recovery is likely to be modest

With the economy recovering, firms expect a marked improvement in their profits for FY 2002. The September Tankan Survey of the BOJ suggests that recurring profits for all firms are expected to increase by 13 per cent in FY 2002 and large manufacturing firms project a 31 per cent increase in their profits. Since these firms are also expecting sales to remain almost flat in FY 2002, part of the expected gain in profits can be attributed to their restructuring efforts. Leading indicators of enterprise profitability such as terms of trade and unit labour costs have also showed an improvement in 2001 and early 2002 (Figure 5).

However, the recovery of profits could be much weaker than suggested by the BOJ's Survey because of the recent worsening in some leading indicators. For example, the terms of trade (in yen) has deteriorated since a peak in January 2002 with the yen appreciating and oil prices rising gradually. The cumulative improvement in the terms of trade from the trough to January was also limited to 6 per

Figure 5. **Profitability has been helped by better terms of trade**

Index 1990 = 100



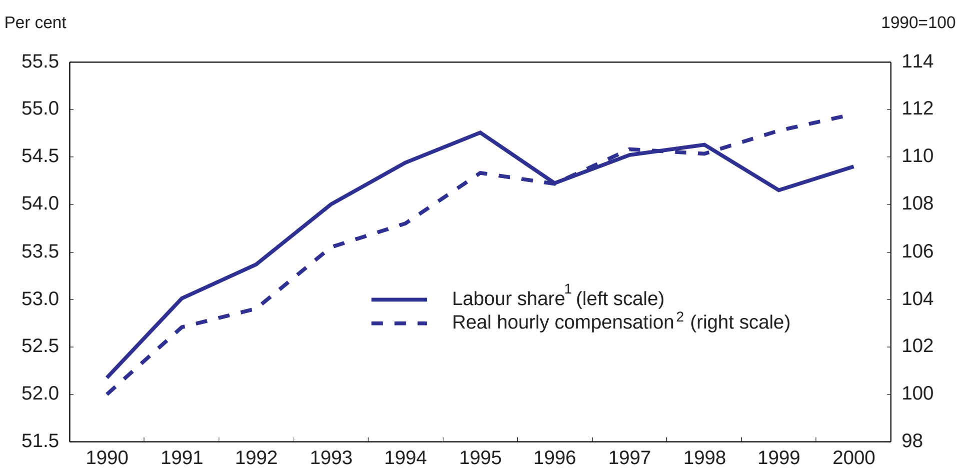
1. Terms of trade is defined as the ratio of export prices to import prices in yen.
2. Unit labour cost is defined as the ratio of employee earnings to production in manufacturing.
Source: OECD.

cent, which is only half the 12 per cent gain posted during the previous recovery from 1999 to 2000. The decline of unit labour costs has also been modest so far, suggesting a limited potential for improvement in profit margins.

Although firms are continuing with their restructuring efforts, the labour share remains high reflecting the tendency to hoard labour and the trend increase in labour costs. Throughout the 1990s, real compensation per hour increased steadily, reflecting shorter working hours and the ageing of the workforce (Figure 6). Working hours declined by more than 10 per cent between 1990 and 1999, while the share of employees above 50 years increased from 20.7 per cent to 26.1 per cent during the same period. This development resulted in higher labour costs as wage payments increase automatically under the seniority wage system. Firms have also tried to reduce labour costs by hiring more part-time workers and workers from employment agencies (termed dispatched workers in Japan).

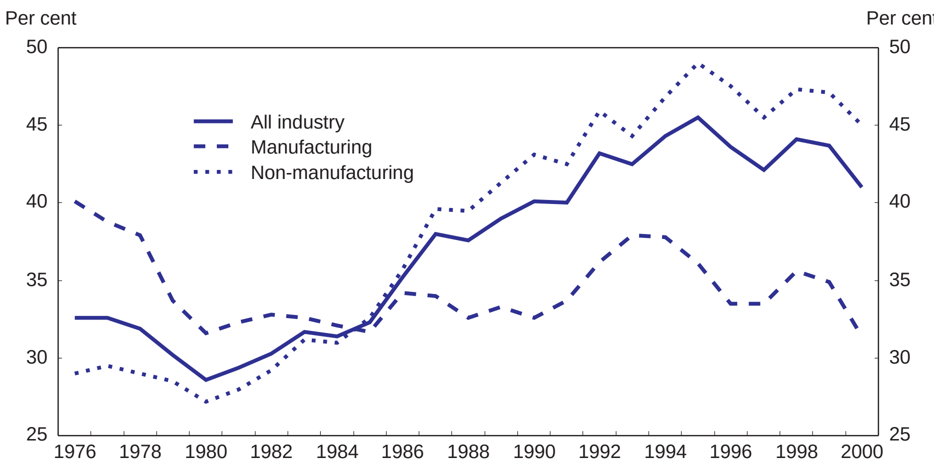
The balance sheet adjustment differs between the manufacturing and non-manufacturing sectors. The debt to turnover ratio for the former has already declined to nearly the same level as in the middle of the 1980s, while that of the non-manufacturing sector has remained well above that level. One way to look at the sustainability of financial liabilities is to compare the size of the free cash flow measured by the sum of undistributed profits and depreciation with the long-term

Figure 6. **Firms still suffer from earlier wage increases**



1. Labour share is presented as the ratio of compensation for employees to nominal GDP.
2. Deflated using the consumer price index.
Source: OECD.

Figure 7. **Excessive debt is a problem in non-manufacturing**[1]



1. The debt-turnover ratio is calculated by dividing total liabilities, including short and long-term borrowing and bonds, by sales.

Source: Ministry of Finance.

liabilities including borrowing and bonds. The ratio for the non-manufacturing sector amounted to 800 per cent at the end of March 2001, though that for the manufacturing sector has remained at 300 per cent (Figure 7). If account is taken of the fact that a part of short-term borrowing involving weak enterprises is automatically rolled-over by banks and can therefore be considered long-term borrowing, the balance sheet adjustment in the non-manufacturing sector will take more time than suggested by the above figure.

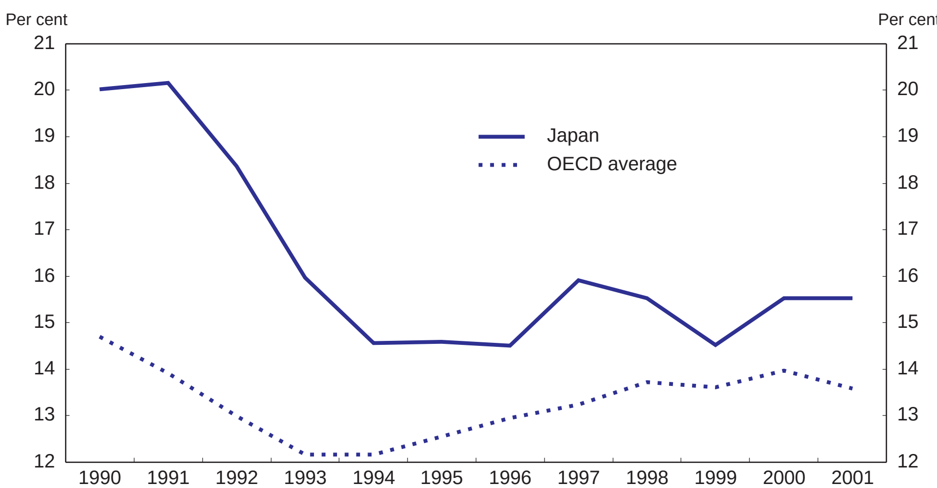
Investment has been constrained by balance sheet adjustment

By the second quarter of 2002, business investment has been in decline for one and a half years. Firms expect a further 5 per cent decline in investment for FY 2002 according to the BOJ's Tankan survey. However, some leading indicators have begun to improve since the middle of 2002. Machinery orders (excluding volatile orders by electricity generation and shipbuilding) hit the bottom in the first quarter of 2002 and increased by 28 per cent (s.a.a.r.) in the second quarter. Floor space of construction starts picked up sharply in the middle of 2002, suggesting that investment in buildings also reached a trough in the early part of 2002. These leading indicators suggest that business investment could start to stabilise in the second half of 2002. On the other hand, with uncertainty about the prospects for the world economy growing and share prices remaining low, the timing of the recovery in investment could be delayed.

Even if business investment starts recovering, it will not be strong enough to lead to sustained economic growth. Although the investment to GDP ratio has fallen to 15 per cent of GDP from its peak in the early 1990s, it is still above the average of OECD countries (Figure 8). Continuing corporate restructuring and balance sheet adjustments are likely to constrain investment growth. In the past several years, investment has not responded fully to the increase in free cash flow. This is explained by the fact that profits have also had to cover the costs of corporate restructuring such as withdrawal from loss-making businesses and to adapt to new accounting rules, which require mark-to-market valuation and full provisioning of corporate pension liabilities.[4] According to the MOF corporate survey, such special losses reached 15.2 trillion yen in FY 2000, around 40 per cent of total recurring profit. The cumulative amount of special losses between 1990 and 2000 was 59 trillion yen. However, the decline in the value of assets held by firms in the post-bubble period may not yet have been fully reflected in their balance sheets. The value of assets held by non-financial corporations declined by 270 trillion yen on a national accounts basis, which far exceeds the cumulative amount of special losses.[5] Since real asset prices are still declining and firms continue to reduce the scope of unprofitable businesses, non-recurring losses could constrain new investment for several years to come.

Figure 8. **Investment is still high**

Ratio of business investment to GDP



Source: OECD.

Japanese firms are continuing to invest abroad, but the recent shift of large manufacturing plants to China and an increase in re-imports of their products have raised particular concerns about "hollowing out". However, such concerns are not supported by the statistics. As of the end of 2001, 17.7 per cent of the stock of Japanese foreign direct investment was in Asia and only 3.3 per cent in China, while that in North America and in European countries accounted for 48.2 per cent and 23.5 per cent respectively. The flow of FDI to China increased in FY 2001, though it amounted to just 9 per cent of total manufacturing and 4.6 per cent of total FDI including non-manufacturing (see also Chapter III). Although some manufacturing sectors have started losing competitiveness under the current exchange rate, this is caused by the lower productivity growth in these activities in comparison with that in the most competitive sectors.

The labour market remains under pressure from restructuring

Some leading indicators of the labour market have begun to improve, but structural problems are becoming even more apparent (Table 2). Overtime hours for all industries increased by 2 per cent (s.a.a.r.) in the first half of 2002 after falling by 4 per cent in 2001, and new job offers also increased by 1.3 per cent (s.a.a.r.) in the first half. The unemployment rate, which tends to be a lagging indicator, has remained at around 5¼ to 5½ per cent from the end of 2001 to the middle of 2002. However, the rise in the unemployment rate has been moderate compared with the last recession in 1997 to 1999. The increase has been limited so far to ¾ percentage point this time, while it reached 1½ points in the last

Table 2. **Recent labour market indicators**

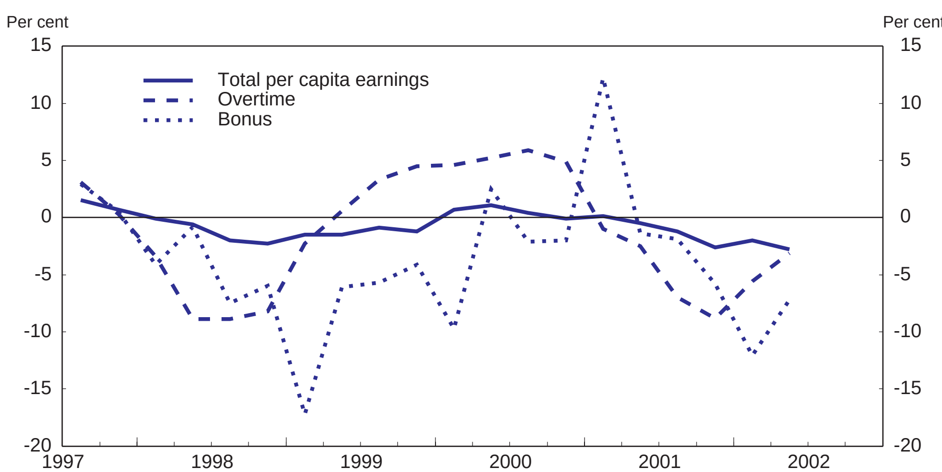
	1999	2000	2001	2001				2002		
				I	II	III	IV	I	II	III
Labour force (million)	67.8	67.7	67.5							
(%, change, s.a.)	–0.2	–0.2	–0.2	–0.1	–0.6	–0.1	0.2	–0.3	–0.8	0.3
Employed (million)	64.6	64.5	64.1							
(%, change, s.a.)	–0.8	–0.2	–0.5	–0.1	–0.8	–0.4	–0.1	–0.2	–0.9	0.2
Employees (%, change, s.a.)	–0.7	0.5	0.2	0.0	0.2	–0.6	–0.6	–0.1	0.0	0.5
Unemployed (million)	3.2	3.2	3.4							
(%, change, s.a.)	13.6	0.9	6.3	–0.7	2.1	4.7	6.5	–3.1	0.1	2.3
Unemployment rate (s.a.)	4.7	4.7	5.0	4.7	4.9	5.1	5.4	5.3	5.3	5.4
New job offers										
(%, change, s.a.)	–0.7	19.9	1.5	–3.4	–0.2	–3.9	–2.7	–1.0	6.1	1.5

Source: Ministry of Labour, Health and Welfare, Ministry of Public Management, Home Affairs, Posts and Telecommunications, Cabinet Office.

recession. The limited rise in the unemployment rate is mostly attributable to a sharp decline in the labour force. Total employment declined by 1½ per cent (s.a.a.r.) in the first half of 2002, but the labour force also contracted by 1¼ per cent during the same period. Reflecting firm's restructuring efforts to reduce labour cost, the number of permanent workers in the non-agricultural sector fell by 2.7 per cent year on year in June 2002, while temporary workers increased by 9.1 per cent in the same period. A high proportion of the unemployment rate is now thought to reflect rising structural unemployment. One measure of structural unemployment, derived from the relationship between job vacancies and the unemployment rate, reached around 3½ to 4 per cent in 2001.[6] This mismatch reflects an increase in the labour turnover ratio (total job separation over labour force) from 7 per cent in 1990 to 10 per cent in 2001 (it reached 12 per cent in 1999 and 2000). The share of long-term unemployment (unemployed more than 12 months) has also risen from 19 per cent to 27 per cent during the 1990s.

Nominal wages are expected to decline further in 2002 despite the expected recovery of corporate profits. Total wage earnings in 2001 fell by 1.1 per cent and by 2.4 per cent (year-on-year) in the first half of 2002 (Figure 9). The spring wage bargaining in 2002 (*Shunto*) was tight, with an increase in the base wage limited to 1.6 per cent, the lowest on record. The character of the spring bargaining, which has worked as a nation-wide coordinated bargaining system, has

Figure 9. **Household income remains weak**
Per cent change over 4 quarters



Source: Ministry of Health, Labour and Welfare.

been gradually changing as wage increases now tend to be determined more at the individual firm level. This reflects the fact that the negotiation between firms and unions has placed a greater priority on maintaining jobs rather than raising wages. According to the Nikkei survey, the 2002 summer bonus is expected to fall by 4½ per cent on average. The weakness in wages reflects disruption to the traditional relationship between profits and wage payments due to the special losses arising from the corporate restructuring and the changes in accounting rules. The already high labour share has also forced firms to intensify efforts to reduce labour costs. These factors should continue to constrain wage increases for a while yet.

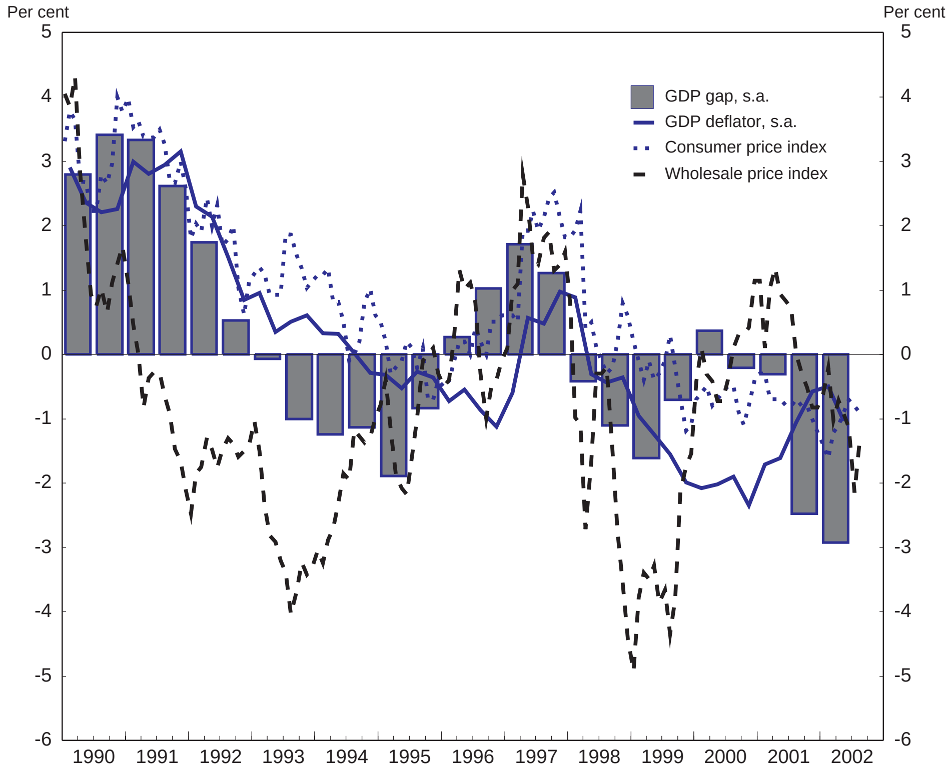
Despite the weakness in wages, private consumption has been relatively stable since early 2002. Surveys suggest that consumer sentiment is recovering gradually. The June 2002 Consumer Confidence Survey of the Cabinet Office, showed an improvement of consumer confidence for the second consecutive quarter, reflecting an improvement in employment prospects. However, the Survey for September indicated little further improvement. Since household income growth has been very weak, the recent stabilisation of consumption must involve a higher propensity to consume. One interpretation is that consumption might reflect greater household liquidity.[7] However, it is not yet clear whether the underlying trend of private consumption has improved. The BOJ's survey of consumer behaviour (*Seikatsu ishiki chosa*) conducted in March 2002 suggests that, despite an improvement in the judgement about the business climate, more consumers reported that they are cautious about increasing spending because of rising concerns about job security and the possible decline in future pension benefits. These two factors, which are thought to have constrained consumption for several years now, could continue. As the prospect for household income is poor, any acceleration of consumption in 2003 is likely to be limited.

Deflation and the decline in real asset prices have continued

Moderate deflation has continued for more than half a decade and over several business cycles, and even deepened in 2000 as the economy improved rapidly and the output gap fell by 1¼ percentage points (Figure 10). Indeed, it appears that conventional forecasting methods based on the output gap do not necessarily provide a good projection for prices (Box 1). The fact that deflation cannot be explained fully by the change in the output gap may suggest the significance of supply side factors such as the intensified competitive pressure due to higher import penetration and deregulation. The exchange rate also has an effect: wholesale prices (WPI) stabilised somewhat in the first half of 2002, reflecting the weak yen and higher oil prices. However, the WPI started weakening again in the middle of the year reflecting the stronger yen. The experience of the past several years suggests that, once an economy has encountered deflation, a cyclical recovery alone is unlikely to change the situation. Deflation itself has a mechanism

Figure 10. **The output gap and deflation are only loosely related**

Percentage change from previous year



Source: OECD.

which drives further deflationary pressure by raising real interest rates, depressing profit margins, lowering nominal wages and postponing consumption. The inertia of deflationary expectations also seems to be very important. In this sense, it is quite difficult to expect a rapid turnaround in the current deflationary situation in the near future unless drastic change occurs in the supply side (*e.g.* a sharp rise in import prices) or in policy.

Deflation in asset prices has also continued for a decade. In Tokyo the land price for residential areas is now less than half of its peak price, while that for the commercial areas has fallen to a quarter of its peak price. This has stimulated the construction of offices and condominiums in the urban areas, though a possible excess supply in the future is now a concern.

Box 1. Forecasting deflation

Under persistent low inflation or deflation as seen over the past several years, it has become more difficult to forecast the development of prices based on a Phillips curve relationship between inflation and demand. Even in retrospect it is difficult to "forecast" the move from inflation to deflation in the 1990s.[1] Conventionally, the short-term path of inflation is thought to be determined by three factors: inflation expectation/inertia, the pressure of demand as proxied by unemployment or the output gap, and supply factors. In the long run, prices depend on money supply and public debt. However, deflation tends not to respond much to the output gap (Figure 10). Estimations show that the sacrifice ratio, defined as the percentage point increase of output required to raise the inflation rate by one percentage point, rises from 1.6 to 6.3 when the inflation rate declines below one per cent.

The difficulty in estimating potential output and an output gap also makes an inflation forecast based on a Phillips curve extremely difficult. Although the OECD has been using a conventional production function to estimate potential output, difficulties arise in a number of areas: there has been a drastic change in potential output growth from 4 per cent in the late 1980s to some 1 per cent; there is a possible over-estimate of capital stock due to the existence of unprofitable and unutilised capacity built up during the bubble period; basic statistics including GDP are poor and large seasonal fluctuations remain in the CPI and other deflators. One way to avoid this problem is to use another proxy for demand pressure such as an unemployment gap based on the NAIRU. However, the relationship between inflation and the unemployment gap has proved to be unstable due to labour hoarding by firms during much of the 1990s.

Responding to these problems, some studies have attempted to improve inflation forecasts by including expectations and monetary variables. Fukuda and Keida (2001) reported that the inclusion of inflation expectation derived from the consumer survey could improve the forecasting power of the model based on a Phillips curve. Another attempt is to utilise a P-star model, in which inflation depends on the price gap given by a linear combination of the deviation of money velocity from its trend and the output gap.[2] The P-star model, which takes into account equilibrium in both goods and financial markets, is thought to have more information about the longer term development of inflation than the conventional Phillips curve model. Kimura and Fujita (1999) suggest that the P-star model could have higher forecasting power about the future inflation rate beyond a one and a half year horizon, though its forecasting power of inflation in the short term is about the same as the Phillips-curve-based model.[3] Based on an estimation of the P-star model, Matsuoka (2002) also argued that the continuous fall in the inflation rate throughout the 1990s and up till now can be explained more reasonably by the price gap, which remained negative through the period, than by the output gap which fluctuated a lot.[4] However, one of the weaknesses of the P-star model is that it requires an estimated trend money velocity, which is difficult to obtain in the current situation where it has declined dramatically, reflecting the weaker intermediation function of the banking sector and possibly an increase in the precautionary demand for money.[5]

Box 1. **Forecasting deflation** (*cont.*)

1. See for example, H. Hayakawa and H. Ugai, "Why did prices in Japan hardly change during the 1997-98 recession?", BIS *Papers* 3 and A. Ahearne *et al.*, "Preventing deflation: Lessons from Japan's experience in the 1990s", *International Finance Discussion Papers*, 729, 2002.
2. The concept of the P-star model is derived from the following steps. Assume the identity among price (p), money (m), velocity (v) and output (y) as : $p = m + v - y$ (all items are in logarithmic form). Given the actual money supply, the long-run equilibrium price (p^*), velocity (v^*) and output (y^*) can be expressed as: $p^* = m + v^* - y^*$. Subtracting the first equation from the latter gives the price gap : $p - p^* = (v - v^*) + (q^* - q)$. Negative price gap ($p < p^*$) suggests the expected rise in p to p^*. In this model, negative deviation of v from v^* is thought to reflect expansionary monetary policy, which could lead to the upward shift in demand curve, resulting in stronger pressure on inflation. See Hallman, Porter and Small, "Is the price level tied to the M2 monetary aggregate in the long run?", *American Economic Review*, 81, 1991, pp. 841-858. See also, Hoeller and Poret, "Is P-star a good indicator of inflationary pressure in OECD countries?", OECD *Economic Studies*, 17, pp. 8-29, 1991.
3. See Kimura and Fujita, "Financial distress, money, real economic activity, and prices", BOJ *Working Paper*, December 1999.
4. See Matsuoka, Will inflation be back? Analysis from the P-star model, Deutsche Bank Security, June 2002.
5. Kimura and Fujita predicted a rise in inflation in 2000 based on their estimated P-star model, though it did not happen. Matsuoka argues that the estimated price gap in his model stayed negative around that period, suggesting that his P-star model can explain the actual development of deflation, though retrospectively. The major difference between these studies is thought to come from the estimation method of trend velocity. The former discounted the change in velocity to reflect the increase in precautionary money holding due to the financial crisis in 1998, while the latter simply applied a Hodrik-Prescot filter to the historical data.

Prospects and risks

The projections presented in Table 3 are the same as in the *Economic Outlook* 72 where world trade volume is projected to accelerate from 2.3 per cent growth in 2002 to 7.8 per cent and 8.8 per cent increase in 2003 and 2004. They are based on the following assumptions:

– Oil prices are assumed to stabilise at 25.8 US dollars per barrel in 2002 and 2003 before returning to 25 dollars in 2004.

– With regard to fiscal policy, no supplementary budget for FY 2002 and FY 2003 is assumed. Tax revenue in FY 2002 is expected to be weaker than in the FY 2002 budget. Total expenditure by the central government in FY 2003 is assumed to remain at the level of the FY 2002 budget, while 1 trillion yen of net tax reduction is assumed for FY 2003.

Table 3. **Short-term outlook**[1]

	2001	2002	2003	2004	2002		2003		2004	
					1st half	2nd half	1st half	2nd half	1st half	2nd half
Demand and output (volumes)										
Consumption										
Private	1.4	0.8	0.5	0.8	1.3	0.6	0.5	0.6	0.8	0.8
Government	2.9	2.4	1.9	1.7	1.9	3.0	1.4	1.7	1.7	1.7
Gross fixed investment										
Public[2]	–5.9	–3.0	–10.1	–3.5	–3.2	1.7	–15.2	–10.6	–0.8	–1.2
Private residential	–5.6	–4.0	–0.5	–0.5	–4.1	–0.6	–0.5	–0.5	–0.5	–0.5
Private non-residential	–0.1	–6.8	0.8	0.2	–8.1	–0.1	1.5	0.5	0.5	–0.5
Stockbuilding[3]	–0.2	–0.7	0.1	0.0	–0.8	0.3	0.1	0.1	0.0	0.0
Total domestic demand	0.4	–1.4	0.3	0.6	–1.5	1.3	–0.2	0.1	0.8	0.6
Exports of goods and services	–7.0	5.5	7.6	6.2	14.2	7.6	7.8	7.4	6.1	5.2
Imports of goods and services	–0.8	–1.2	3.9	4.5	0.1	6.4	2.9	3.4	5.0	4.5
Net exports[3]	–0.7	0.7	0.5	0.3	1.4	0.3	0.6	0.5	0.3	0.2
GDP	–0.3	–0.7	0.8	0.9	–0.1	1.5	0.4	0.7	1.1	0.8
Inflation and capacity utilisation										
GDP deflator	–1.2	–1.0	–1.6	–1.4	–1.0	–1.5	–1.7	–1.5	–1.4	–1.5
Total domestic deflator	–1.1	–1.1	–1.5	–1.5	–1.0	–1.5	–1.4	–1.5	–1.5	–1.4
Private consumption deflator	–1.5	–1.5	–1.6	–1.6	–1.3	–1.6	–1.6	–1.6	–1.6	–1.5
Unemployment rate	5.0	5.5	5.6	5.6	5.3	5.6	5.6	5.6	5.6	5.6
Output gap	–1.4	–2.9	–2.9	–2.6	–3.1	–2.8	–2.9	–3.0	–2.6	–2.6
Memorandum items:										
Net government lending										
(% of GDP)	–7.2	–7.9	–7.7	–7.8						
Gross debt	132.6	142.7	151.0	159.2						
Net debt	58.4	67.2	75.5	83.7						
Short-term interest rate	0.1	0.1	0.0	0.0						
Long-term interest rate	1.3	1.3	1.1	1.4						
Current account (% of GDP)	2.1	3.2	3.8	4.2						

1. Assuming an exchange rate of 122 yen to the dollar.
2. Including public corporations.
3. Contribution to GDP growth.

Source: OECD, *Economic Outlook* 72.

– Monetary policy will remain easy with long-term interest rates gradually increasing from the current 1.1 per cent to 1.4 per cent in 2004. The three-month rate is assumed to stay close to zero.

– An exchange rate of 122 yen to the US dollar.

Growth is projected to accelerate to around 1½ per cent in the second half of 2002 and to stabilise at a moderate rate of around 1 per cent in 2003 and 2004. The appreciation of the yen from some 130 to 122, weaker momentum in inventory rebuilding and perhaps weaker growth in the world economy will constrain export growth from the second half of 2002. Nevertheless, with imports constrained by the modest growth of domestic demand, net exports should underpin growth through the projection period. Private investment is expected to stabilise from the end of the year as suggested by leading indicators, but the strength of its recovery is likely to be constrained by continuing corporate restructuring and balance sheet adjustment, and moderate gains for profits. On the other hand, public investment should continue to decline. In the absence of a supplementary budget for FY 2002, public investment, which stabilised in the first half thanks to the FY 2001 second supplementary budget, is projected to fall by around 10 per cent in 2003 before slowing in 2004. Consumption is expected to continue to grow, though at a very moderate rate, reflecting weak income prospects. With output growing at around potential, the unemployment rate could stabilise, but the expected gain in employment might be largely confined to temporary jobs. With net exports underpinning growth, the current account surplus could continue to rise from 3.2 per cent of GDP in 2002 to 4.2 per cent in 2004. Deflation is projected to continue throughout the projection period as mild economic growth and unchanged policies would prove insufficient to generate inflation.

The short term projections are based not only on the major macro-economic forces at work but also allow for the effects of restructuring, including the plans of the government to clear the bulk of non-performing loans over the next three years. As such, the projection is similar to that of the government, which envisions several years of sharp adjustment with slower growth. The major difference concerns the projection for deflation, with the OECD taking a more downbeat view. As discussed in the remaining chapters, the government has also embarked on an ambitious programme of structural reform and past sector-specific reforms, such as in the telecommunications sector, are already making their presence felt. However, in the judgement of the OECD the reforms are not at this stage either advanced enough or significant enough to have a major effect on the macro-economic outcome in the short term. This is hardly surprising given the lags between major structural reform and macroeconomic performance observed in many OECD countries, which has probably been due to the drawn-out nature of many reform programmes. However, the experience in Korea and some other Asian countries indicates that large sweeping packages, quickly implemented and supported by macroeconomic forces, can be very effective.

At the time of writing (October), risks are skewed to the down side. Increased uncertainty about the world economy, low share prices which are currently more than 20 per cent below the March level, and the stronger yen could undermine business confidence and lead to a delay in the recovery of investment. Since the current economic recovery is narrowly based on export growth, any unexpected external shocks could easily dampen prospects. The switch from the current cyclical recovery driven by inventory adjustment and exports to sustained growth based on stronger domestic demand will require substantial progress in structural reform and in corporate restructuring of both the banking and non-financial sectors.

Notes

1. The government adopted a substantial revision to the method of estimating QNA at the time of the release of the second quarter QNA in August 2002. The revised method utilises more supply side statistics for the estimation of consumption and investment with less weight on the household and corporate surveys. According to this revision, GDP growth rates from the second quarter in 2001 to the first quarter in 2002 have been revised substantially. Above all, the unreasonably high GDP growth in the first quarter of 2002 (5.7 per cent, s.a.a.r.) was revised down to 0.0 per cent, which seems more reasonable, compared with other indicators such as industrial production.
2. Although a sharp increase in exports to Asia partly reflects the recovery of exports by those countries to the US and other areas, the increase in exports of final consumption goods to Asia such as home electronics and vehicles outweighed the increase in exports of electrical parts and other intermediate goods. This could suggest that the Asian countries might become more important as a final destination of Japanese exports.
3. Since the March Tankan showed no improvement in business sentiment, the gain in the June survey might include a degree of catch up.
4. See, Matsuoka, "Capital investment outlook: Will cashflow and capex remain decoupled?", September 2001, Deutsche Bank Security.
5. This is partly because the full mark-to-market accounting has not been introduced for the real assets held by firms for the purpose of fixed investment. However, an increasing number of firms have started evaluating their real assets at market value with a view to adapting to the international accounting trend (*i.e.* asset impairment).
6. See, for example, Cabinet Office, Annual Report on Japan's Economy and Public Finance, 2000-2001.
7. Some argue that the massive increase in the monetary base may stimulate consumption, as some part of the increase in money holdings by households could flow into consumption. The possible shift to consumption from bank accounts due to the removal of blanket deposit insurance is also suggested to have some effect, but such an impact is thought to be small, if any.
8. For a review of some of these programmes see *Regulatory Reform in Japan*, Chapter I, OECD, 2000.
9. See the OECD *Survey of the United Kingdom*, 1985, and Lewis Evans *et al.*, "Economic Reform in New Zealand 1984-95: The Pursuit of Efficiency", *The Journal of Economic Literature*, Vol. XXXIV, No. 4, December 1996.
10. Although net lending in CY 2000 is slightly larger than in CY 2001, the difference can be explained by a one-off capital transfer in CY 2000, which amounted to 4.5 trillion yen.

11. Funds in a special account obtained from selling shares in Nippon Telecom and Telegraph (NTT) several years ago were transferred to a special account of the central government (*Sangyo toushi tokubetsu kaikei*) that provides interest-free loans to local governments and public corporations to finance construction of infrastructure and public facilities. To give local governments a strong incentive to implement the planned public works, the central government also made a commitment to giving grants to local governments to cover most of the repayment cost of the loans provided by the special account over the next several years. Consequently, transparency of the budget has been further eroded.
12. Consolidated tax accounting has been introduced with limitations: the consolidation is only for domestic subsidiaries, 100 per cent of whose capital is owned by parent companies; the loss carry-over generated before the introduction of this scheme is only for parent companies; and the special losses due to the creation of reserves for company pension payments are excluded for all companies.
13. The LAT special account has accumulated 42.6 trillion yen of debt as of March 2001. The BOJ has placed the lending by financial institutions to the LAT special account on the approved list of collateral for discounting.
14. Moody's and Standard and Poor's downgraded their rating of JGBs in the spring of 2002 from Aa3 and AA to A2 and AA minus, respectively. Fitch also downgraded JGBs in November 2001 from AA plus to AA. The government's questionnaire included the following questions: what kind of risk is contemplated as default for local currency denominated debt; how the world's largest current account surplus (or domestic saving) and foreign exchange reserves are evaluated; and why a country whose per capita GDP is one third of that of Japan with a large current account deficit is rated higher than Japan. The government sent letters several times to those companies and, in one letter, it explicitly stated that it believes to possess the right to claim compensation if any government or corporation suffer unwarranted damage by the rating. The dispute is ongoing.
15. However, long-term interest rates recorded their largest monthly increase (105 bps) in the past 20 years in December 1998, when the Ministry of Finance announced the reduction of JGB purchases by the Trust Fund Bureau.
16. As of March 2002, the share of long-term bonds (10 year and more) was around 65 per cent, while that of medium-term bonds around 27 per cent.
17. To give some order of magnitude, the decline of interest rates since 1990 has saved the budget some 43 trillion yen cumulatively.
18. The stock of foreign assets is also important. See Matsuoka, *Iron hexagon: Japan's ponzi scheme keeps going*, Deutsche Bank Security, August 2001.
19. Under the past scheme, the Trust Fund Bureau (TFB) collected funds from postal saving and public pension funds and invested in a number of public corporations as well as purchased JGBs. Some of the funds at the TFB were reallocated to the postal saving and the public corporation for pension reserves, both of which also invested a certain portion of their funds in JGBs.
20. See M. Shirakawa, "The reform in the Japanese government securities market", Bank of Japan, Note to Roundtable on Capital Market Reforms in Asia, April 2000.
21. Pursuing these two objectives together could reduce risk aversion by the public financial sector, possibly raising bond prices, which could send wrong signals to the private sector. See Ihori, Katoh, Nakano, Nakasato, Doi, Kondo and Sato, "Public bond

management and the role of public financial institutions", Chapter 6, *Budget deficit and economic activity*, Economic and Social Research Institute, Cabinet Office, March 2002.

22. One such mechanism is that as inflation returns, investors will see the danger of the government reducing the real burden of public debt on the budget by a period of unexpected inflation. They will consequently demand a risk premium and could shift funds off-shore.

23. The debt dynamics is derived as follows, $b_t = d_t + (1 + r)/(1 + g)\ b_{t-1}$, where b is the debt-to-GDP ratio; d is the primary-balance-to-GDP ratio; r is the nominal interest rate; g is the nominal growth rate. The required primary surplus to stabilise the debt-to-GDP ratio at time t is calculated as $d_t = (g - r)/(1 + g)b_t$.

24. The size of saving is calculated by the OECD based on the National Accounts. Government investment, and wage and non-wage consumption (excluding health care) are assumed to be cut by 3 per cent, 0.5 per cent and 7 per cent, respectively. A 700 billion yen saving in health care is also assumed.

25. These principles include: reducing public investment to the level prior to the introduction of stimulus packages; a steady reduction in the number of central government employees; social security spending to be limited and; non-wage expenditure should focus on reallocation.

26. The primary deficit for central and local government projected in the government's medium-term perspective is smaller than that for general government because the social security fund runs a primary deficit. However, the primary deficit in social security funds may not result in an increase in gross debts as it has accumulated net assets of 200 trillion yen (40 per cent of GDP). The gross debt projected in the government's perspective is also smaller than those on a national account basis as it excludes debts held by some special accounts of the central government, which amount to more than 50 trillion yen.

27. See page 78 of the OECD *Survey of Japan*, 2001. See also Giavazzi, F. and M. Pagano (1995), "Non-Keynesian effects of fiscal policy changes: International evidence and Swedish experience", NBER *Working Paper* No. 5332, Bertola, G. and A. Drazen (1993), "Trigger points and budget cuts: explaining the effects of fiscal austerity", *American Economic Review*, 83, and Alesina, A. and R. Perotti (1996), "Fiscal adjustments in OECD countries: composition and macroeconomic effects", NBER *Working Paper* No. 5730. Moreover, the fiscal theory of the price level would suggest that demand for money may, under such circumstances, fall, thereby stimulating consumption.

28. See, Ihori, Katoh, Nakano, Nakasato, Doi, Kondo and Sato, "Review of non-Keynesian effects in fiscal policy", Chapter 2, *Budget deficit and economic activity*, Economic and Social Research Institute, Cabinet Office, March 2002.

29. The past major tax reductions include: a special reduction in personal income tax (5.5 trillion yen) in 1994; advanced tax reduction in personal income tax (3.5 trillion yen) in 1995 and thereafter; a temporary cut in personal income tax (2 trillion yen for both 1995 and 1996, and 4 trillion yen for 1998); reduction in corporate tax rate from 37.5 per cent to 34.5 per cent in 1998 and thereafter; proportional tax cuts for personal income (4.1 trillion yen) and corporate income tax (2.5 trillion yen) in 1999; and a reduction in corporate tax rate from 34.5 per cent to 30 per cent in 1999. On the other hand, VAT was raised from 3 per cent to 5 per cent in 1997 (including 1 per cent local VAT).

30. The government's tax commission has opposed the suggestion of lowering the corporate tax rate. While keeping the marginal rate of corporate tax of the central government constant, it proposes to introduce a corporate tax based on sales as an

alternative to the existing local business tax, which taxes corporate profits. Since the introduction of a new tax would enable local governments to raise tax revenues from more firms including those making losses, this would lower the effective corporate tax rate including central and local taxes by 3 percentage points.

31. However, even in the early 1990s when the economy was booming, 48 per cent of firms reported that they were making losses. This might say a lot about the ability of small firms to understate business earnings.
32. See, page 171, Chapter 4, 1999 *Survey*, OECD.
33. See, OECD Directorate for Financial, Fiscal and Enterprise Affairs, "Tax and the economy: a comparative assessment of OECD countries", OECD *Tax Policy Studies*, 2001. See also P. van den Noord and C. Heady, "Surveillance of tax policies: a synthesis of findings in economic surveys", OECD *Economics Department Working Paper*, 303, 2001.
34. See, Doi, T. and T. Hoshi, "FILP: How much has been lost? How much more will be lost?", March 2002.
35. This in fact happened in the period just before the collapse of Mycal in September. The main bank assumed loans granted by other banks thereby increasing its exposure. This case is now the subject of a shareholders law suit, which might lead other main banks to curtail their implicit commitment.
36. See OECD *Survey of Japan*, 2001, Annex I for a review of private sector estimates of NPL.
37. The evidence (anecdotal as well as based on company reports) is that bad borrowers can pay lower rates than prime borrowers.
38. For an example see M. Fukao, "Barriers to financial restructuring: Japanese banking and life insurance industries", in *Structural Impediments to Growth in Japan*, NBER, 2002.
39. In the case of one large company the banks tried to avoid the guidelines and arrange matters between themselves and the company. After dissatisfaction among other creditors became more pronounced, the company finally agreed to work under the INSOL guidelines.
40. The criteria even extend to supporting a supermarket chain.
41. For a sense of the tone of the debate see Y. Fuchita, "Recent developments concerning Japan's bad loan problem and the outlook for its financial system", *Capital Research Journal*, Vol. 4, No. 4, 2001.
42. As part of the sale agreements for two large nationalised banks the RCC has agreed to repurchase loans which have lost more than twenty per cent of their value within three years. This clause was intended to compensate the purchaser for not being allowed to conduct a due diligence audit. The RCC is now declining to repurchase some of these loans and the cases may be taken to court.
43. Standard and Poor's, *Unsustainable revenue growth at major Japanese banks*, Tokyo, July, 2002.
44. See Fukao *op. cit.* who also concludes that the current solvency ratio might over-state the financial strength of life insurance companies.
45. See Fukao *op. cit.*
46. See Fukao *op. cit.* 2002.
47. Some 6½ trillion yen of core capital is also in the form of preferred shares bought by the government during the re-capitalisation of the banks. Formally speaking it will need to be repaid but there is nothing to prevent the government from simply selling its shares to the public.

48. For an insider's view of the crisis during the 1990's and of the lessons learned see H. Nakaso, "The financial crisis in Japan during the 1990's: how the Bank of Japan responded and the lessons learned", BIS *Papers*, No. 6 , 2001.
49. Foreign banks obtained yen funds in exchange for providing dollar funds to Japanese financial institutions for a certain period. Because the cost of obtaining yen funds (the yen swap rate) was negative, foreign banks were more or less guaranteed a profit margin even though the interest rate on yen investment was virtually zero. See M. Shirakawa, "One year under 'Quantitative easing'", IMES *Discussion Paper*, 2002-E-3, Tokyo, 2002.
50. The pattern of repatriation of foreign assets in the run up to the end of the financial year followed by an outflow afterwards is a well established pattern in Japan, although the period of outflow seems to have become more spread-out in recent years.
51. On one day the Ministry of Finance used the Federal Reserve Bank of New York and the European Central Bank as its agent.
52. The Tankan Survey includes sales price forecasts which have been negative for some time. Moreover, they actually deteriorated as the economy slowed in 2001 but as monetary policy eased. For a review of composite measures see Chapter I.
53. For example, M. Matsuoka, *Monetary policy, wealth effect and private consumption*, Deutsche Bank Economic Research, Tokyo, May 2002.
54. This methodology uses both the output gap and the price gap to explain price level movements. The latter is the deviation of the current price from the long run equilibrium price called P-star, which is supported by the current money supply level. This in turn is governed by the velocity gap. For estimates for Japan see M. Matsuoka, *Will inflation be back? Analysis from the P-star model*, Deutsche Bank Group, Economic Research, Tokyo, 3 June 2002.
55. A more controversial approach would also see a role for future tax liabilities arising from the build-up of debt.
56. The company bond market has been expanding by some 3 per cent per annum since 1998 which is about the same pace as the decline in bank lending. However, the size of the market is much smaller amounting to only 20 trillion by mid 2002.
57. Growth is driven not only by increased inputs of factors but also by technological progress, one aspect of which is summarised by multifactor productivity (MFP). Although MFP is a well defined theoretical concept, calculation is far from easy and small changes in the period considered and in smoothing procedures to account for business cycles can lead to large changes in estimates. Moreover, the measurement of capital stock by the statistical authorities is very imprecise with major problems arising in allowing for scrapping and depreciation, in particular, in periods when these rates are likely to be changing. The difficulties are even more severe in the case of Japan where technical progress over the catch-up period might have been incorporated in new capital stock (*i.e.* embodied technical progress) which would usually lead to an overestimate of MFP. Labour productivity (corrected for hours of work) is easier to calculate but is also subject to problems noted in the text. It is therefore important to consider broad tendencies over time and not to put too much weight on small differences in estimates unless underpinned by other information. For a detailed discussion of the issues involved, see P. Schreyer and D. Pilat, "Measuring Productivity", OECD *Economic Studies*, 33, 2001.
58. For a detailed account of MFP developments and of labour productivity in the convergence period see R. Katz, *Japan: The system that soured*, Eastgate, 1998.

59. For the derivation of this relationship and the construction of an empirical model examining the path to a new lower steady state rate of MFP growth see F. Hayashi and E. Prescott, "The 1990s in Japan: A Lost Decade", *Review of Economic Dynamics*, 5, 2002.
60. Another reason for care in using MFP estimates is that capital stock estimates are unreliable.
61. The *Growth Project* focused not on growth but on growth per head of working age population which slowed continuously from the 1970s to the end of the 1990s. See *The sources of economic growth in the OECD countries*, OECD, 2002, forthcoming.
62. See for example M. Baily and R. Solow, "International productivity comparisons built from the firm level", *Journal of Economic Perspectives*, 15, 3, 2001.
63. See Katz *op. cit.* Figure 2.2 who shows that the globalisation index for the weak sectors in Japan is much less than in Germany or the United States. There is also a wider spread between the weakest and strongest sectors.
64. McKinsey Global Institute, *Why the Japanese economy is not growing: micro barriers to productivity growth*, Washington, 2000.
65. See M. Porter, H. Takeuchi and M. Sakakibara, *Can Japan Compete?*, Macmillan, 2000.
66. Net assets left by senior citizens as a proportion of annual disposable income is around 2 200 per cent in Japan and 660 per cent in the United States.
67. For correlations which make the relationship even more apparent than in the figure, see S. Scarpetta *et al.*, "The role of policy and institutions for productivity and firm dynamics", OECD *Economics Department Working Paper*, 329, 2002.
68. For a comprehensive review of the development of competition policy in Japan see OECD, *Regulatory Reform in Japan*, Chapter III and background report, 1999.
69. Two distinct forms of bid rigging need to be dealt with: one between firms (*dango*) and the bureaucratic-led bid rigging (*kansei dango*) which is equally damaging to the economy.
70. The Ministry of Land, Infrastructure and Transport has a long history of limiting entry into air transport and failing to promote competition among airlines. Two small airlines which were established in 1996 – one has now gone bankrupt – were allocated very few slots at the beginning and ticket counters and gates were inconveniently located. Moreover, the various authorities involved have been extraordinarily slow in increasing capacity at Tokyo's crowded domestic airport.
71. From the work conducted by the OECD *Growth Project* and the empirical literature more generally there appears to be a strong causal relationship between increasing openness (as measured by the trade/GDP ratio) and growth in the OECD area.
72. The high share for the euro area is distorted somewhat by the exclusion of the UK, which has been a rapidly growing market for Europe.
73. H. Wall, "Has Japan been left out in the cold by regional integration", *Monetary and Economic Studies*, Vol. 20, No. 2, April 2002.
74. The agreement with Singapore covers a wide range of areas including market access for goods and services, mutual recognition of standards, ICT, competition policy and financial services.
75. The producer support estimate (PSE) for Japan is 59 per cent for 2001 while the average for the OECD area is 31 per cent. *Agricultural Policies in OECD Countries: Monitoring and Evaluation* 2002, OECD, 2002, Table III.3.
76. Study undertaken by the Japan Centre for Economic Research using the GTAP model.

77. Japan maintained extensive controls on inward foreign direct investment based on domestic industrial policy concerns until 1967 when greenfield foreign establishment was freed in a number of sectors designated as liberalised. Subsequently, the ceilings imposed in non-liberalised sectors were gradually lifted, but complete abolition of the cumbersome approval and notification procedures imposed on foreign investors came only in 1998, much later than in most other industrialised countries. At present, reservations maintained by Japan under the OECD Code of Liberalisation of Capital Movements in respect of inward FDI concern the following sectors: primary industry related to agriculture, forestry and fisheries, mining, oil, leather and manufactured leather products, air and maritime transport.

78. See Katz, *op. cit.*, for examples of how cartels set up to protect industries that were not competitive and to sustain high domestic prices were mutually supporting and prevented new entrants (including FDI). They also served to reduce imports and in some cases increased exports.

79. K. Fukao and K. Ito, "Foreign direct investment and service trade", in A, Kreuger and K. Ito, *Barriers to trade in services in the Pacific region*, NBER, 2001. See also K. Ito and K. Fukao, "Foreign direct investment in Japan: Empirical analysis based on establishment and enterprise census", RIETI *Discussion Paper Series*, 01-E-002.

80. It is a moot point whether this particular restriction is covered by the reservation lodged by Japan under the OECD Code of Liberalisation of Capital Movements with respect to investment in "primary industry related to agriculture…".

81. For a review of the trade and income effects of China's entry into the WTO see Annex II "Summary of studies of the impact of WTO on China", in *China in the World Economy*, OECD, 2002.

82. For a more extensive discussion see Y. Nakamura and M. Shibuya, "The hollowing out phenomenon in the Japanese Industry", *Studies in International Trade and Industry*, 19, REITI, Tokyo.

83. For estimates based on US import data (HS 10 digit classifications) see C. Kwan, *Complementarity and Competition between China and Japan*, REITI, *www.rieti.go.jp/en/index.html*

84. The study shows that 50-85 per cent of total productivity growth in five countries (excluding Japan) is driven by what happens in existing companies. Entry and exit of firms can account for 20-40 per cent of productivity growth with entry more important in high tech sectors. See S. Scarpetta, *et al.*, "The role of policy and institutions for productivity and firm dynamics: evidence from micro and industry data", OECD *Economics Department Working Paper*, No. 329, 2002.

85. Recession cartels and agreed capacity cuts during this period often led to proportional cuts across enterprises that bore no relation to productivity and also led to gaming outcomes on the part of firms which sought to increase capacity and market share to put them in a better bargaining position at a later time. See Katz *op. cit.* and also Porter *et al.*, *op. cit.*

86. Audretsh and Thurik (2001) have demonstrated that an increase in entry rates tends to result in higher subsequent growth rates and a reduction of unemployment. D. Audretsch and R. Thurik, "Linking entrepreneurship to growth", OECD STI *Working Papers*, 2001/2, 2001.

87. From K. Komoto, "Economic impact and policy implications of the long-term decline in Japan's business start-up rate", NLI *Research Institute*, 2002, No. 161.

88. One of the model cases assumed by the Council for Regulatory Reform is a set of exemptions concerning port services, including facilitation of custom procedures, abolishment of additional charges at night, easing the qualifications for issuance of tourist visas, and the allowance of legal and accounting services provided by foreign lawyers and accountants. Another important model case assumes easing regulations in agriculture, which limit the size of agricultural land holdings and restrict the entry of corporations into many agricultural businesses.

89. To give an idea of the costs of the present system, advisors have estimated that reforms could lead to over 5 million new jobs in the service sector in five years.

90. See J. Peek and E. Rosengren, *Have Japanese banking problems stifled economic growth?*, mimeo for a study based on a unique data set which traces the link from individual firms to their main bank. They also discover no evidence of a credit crunch. Hayashi and Prescott *op. cit.* also find no evidence that potentially profitable investments lacked finance during the 1990s. A study by the IMF also indicates that balance sheets of both banks and enterprises contributed to the decline of credit. See IMF Article IV Consultations, Japan 2002.

91. Although hard data are not available, firms are known to have cut back activity in some areas as part of their debt reduction strategies. Industrial processes and even whole factories have been moved abroad, a process which also took place in the 1980s following the appreciation of the yen. At the other end of the scale, older firms are now increasingly failing: companies with a history of 30 years or more accounted for a record quarter of the bankruptcies in 2001 and this pattern has continued into 2002.

92. The criteria even extend to supporting a supermarket chain.

93. There is a certain guarantee that loans will be repaid since they are classed as common interest claims which have priority over any claims (general claims) originating from pre-petition causes. However, the protection is not strong. See M. Iwatani, "Issues surrounding debtor in possession financing in Japan", *Capital Research Journal*, Vol. 4, No. 2, 2001.

94. Y. Seki, "The use of debt equity swaps by Japanese companies", *Capital Research Journal*, Vol. 5, No. 2, 2002.

95. For a description of the Japanese bankruptcy framework in an international perspective see OECD *Economic Survey of Japan*, 2000, Box 6.

96. In addition, it is also proposed to ease the condition that all directors must resign to cover the case where some directors are brought in to help solve a deteriorating situation.

97. For a review of the impact of corporate governance arrangements on performance focusing on shareholder rights, see S. Johnson and A. Shleifer, "Privatisation and corporate governance", forthcoming in T. Ito and A. Kreuger (eds.), *Privatisation, Corporate Governance and Transition Economies*, University of Chicago Press. They find that various dimensions of shareholder protection do affect performance, not only at the corporate level but also when a cross-section of countries is examined, although their sample is heavily weighted to Asia.

98. Foreign holdings have now risen to around 18 per cent. Financial institutions continue to hold around 40 per cent despite the reduction of holdings by banks.

99. For a general overview of the new code see S. Osaki, "Corporate governance and reform of Japan's commercial code", *Capital Research Journal*, Vol. 5, No. 2, 2002.

100. The new committee will have similar responsibilities to the "operating committees" and "management committees" that exist already. Unlike these unofficial committees, the new one has powers and responsibilities clearly defined in the law.

101. The Tokyo Stock Exchange survey of corporate governance in 2000 covered 1 310 firms and arrived at somewhat different results. 60 per cent replied that they had taken measures to strengthen the board. Of these, 33 per cent said that they had nominated outsiders, 46 per cent said that they had reduced the number of board members, and 35 per cent that they had introduced executive officers. See K. Nitta, "Corporate governance rating", NLI *Research*, 02/06/13.

102. The reason for reducing the size of the board of directors is less concerned with efficiency than to lower the total cost of shareholder law suits. These have now been capped at six years annual income of a representative director.

103. At municipal level they are 70 per cent and 45 per cent, respectively. The ratios are better at prefectural level but still below those of the central government.

104. For example, in one case a Ministry received 301 comments in the period 25 July to 27 August. The final version of the bill was published only 13 days later raising doubts about the sincerity of the procedure. The bill was virtually unchanged.

105. While on mission the Secretariat was given numerous examples of contradictory action by customs and tax officials; in one case a submission for a license was initially rejected, even though the relevant Ministry had no right to do this, and subsequently reversed its decision.

106. Population estimates in the past have failed to anticipate the fall in the number of children per couple so that population growth has been overestimated. The most recent projection appears to have reacted to widespread criticism and is based on the assumption that a couple born after 1985 will have only 1.72 children in their lifetime. The current post-50 age group had an average of 2.14 children.

107. Ono and Rebick calculate that a male employee with 30 years of tenure would lose 30 per cent of his earnings by leaving his current job. Such a loss should not be attributed to the loss of firm specific capital since there is little evidence that the wage profile reflects productivity rather than other more sociological factors. H. Ono and M. Rebick, "Impediments to the Productive employment of Labour in Japan", in M. Blomstrom *et al.* (eds.), *Structural Impediments to Japan's Economic Growth*, NBER, 2002.

108. The loss of pension rights can be very substantial: 10-20 million yen for an average pension of 35 million yen depending on the age of separation. For this reason, firms offer lump sum payments to individuals who leave under early retirement plans or who are transferred, often permanently, to other companies. Ono and Rebick, *op. cit.*, report that additional lump sum payments amount to between 5 and 10 million yen but do not cover all the losses in pension value. Overall losses of up to 100 million yen may be realised by workers who lose their jobs at large firms at age 40.

109. For example, promotion in a US company often occurs immediately after entry into a firm but in a typical Japanese firm is non-existent for the first 12 years (see Ono and Rebick and references therein). In these circumstances, bringing in older workers disrupts the system.

110. This is the main conclusion of Kato who also shows that restructuring and downsizing have depended on early retirement and transfers of employees to subsidiaries (often to sales subsidiaries) and related firms and hiring cuts. T. Kato, "The end of lifetime employment in Japan? Evidence from national surveys and field research", *Journal of the Japanese and International Economies*, 15, 2001. With respect to the ability to transfer to

smaller firms his results might be somewhat misleading since Fujiki *et al.* (2001) have shown that the smaller firms are no longer characterised as in the past by a shortage of labour. H. Fujiki *et al.*, "Structural issues in the Japanese labour market", *Monetary and Economic Studies*, 19, 2001.

111. For more detail, see "Employment protection and labour market performance", Chapter II, OECD *Employment Outlook*, 1999.

112. Redundancy dismissals require urgent business reasons for reducing the number of staff, reasonableness of selection criteria, and reasonableness of procedure.

113. The change in the law in 1999 opened up most areas to dispatched workers except those mentioned in the text.

114. The relatively high proportion of spending on unemployment benefits reflects in part the recent rise in the unemployment rate.

115. See R.G. Fay, *Making the public employment service more effective through the introduction of market signals*, OECD, 1997 and OECD, "Labour market policies that work", *Policy Brief*, July 2001.

116. If the requirement would be strictly adhered to, it could prevent the headquarters of a holding company from recruiting employees on behalf of their group companies. See Ohtake, *Discussion in Economics*, Spring 2000, Toyokeizai.

117. For example, the Australian government has introduced a competitive framework in job services by contracting public employment services to private and community placement organisations while the functions of registration and eligibility assessment were amalgamated with the administration of income support in social security.

118. The eligible age for employment grants in the new and growth sectors has been expanded to unemployed between 30 and 60 years who are on public vocational training. Initially, to get those grants, firms were required to hire unemployed through the public job placement offices. Now firms can receive the grants when they employ workers through private job placement agencies licensed by the government. One of the reasons for low utilisation of these schemes could be the economic downturn since late 2000, which might constrain employment by firms even with public grants.

119. Dead-weight costs arise from the situation where many of those for whom the subsidy is paid would have been recruited anyway: money paid for those recruits is dead-weight and has no effect at all. The substitution effect means that some of those recruited merely replace others who the firm would have recruited instead. See R. Layard, S. Nickell, R. Jackman, *Unemployment: Macroeconomic performance and the labour market*, Oxford press, 1991.

120. J. Martin (2000) summarises the effects of various active labour market measures. Evaluations of wage subsidies in Australia, Belgium, Ireland and the Netherlands have suggested combined dead-weight and substitution effects amounting to around 90 per cent, implying that for every 100 jobs subsidised by these schemes only ten were net gains in employment. See J. Martin, "What works among active labour market policies: Evidence from OECD countries' experiences", OECD *Economic Studies*, No. 30, 2000.

121. Among the mechanisms involved, contributions to health insurance and public pensions are exempt for spouses provided that their employed hours do not exceed a certain level and annual income does not exceed 1.3 million yen. Contributions to unemployment insurance are exempt for spouses whose annual income does not exceed 900 000 yen. There is evidence that these factors influence hours of work. C. Horioka, "Japan's public pension system: What's wrong with it and how to fix it",

Japan and the World Economy, 11, 1999. For details of how the income tax system influences the return to work decision see OECD *Economic Survey of Japan*, 1999.

122. The guidelines covering age discrimination are effective only to some extent and age requirements are still usually associated with job offers. For example, one of the exceptions is related to seniority based wages: "Cases where recruiting or hiring is intended for workers under a certain age in situations where in order to make wage payments regardless of age to new employees, companies will be required to revise present regulations determining wages mainly in accordance with age in such a way that it will have an adverse effect on the wage payment to existing workers."

123. A great deal will also depend on how corporate groups (*i.e. keiretsu*) evolve. For an analysis see Y. Yafeh, "Japan's corporate groups: Some international and historical perspectives", in M. Blomstrom *et al.*, *Structural Impediments to Japan's Economic Growth*, NBER, 2002.

124. Figure 28 converts yen prices to dollars using the exchange rate for August 2002. The MPHPT makes its calculations using purchasing power parity which has the effect of lowering prices.

125. For example, the regulator in Britain has the power to impose fines of up to 10 per cent of UK turnover for up to a maximum of three years.

126. Long run incremental cost (LRIC) has been adopted as the methodology for determining interconnection prices although the precise form of the technique is still under discussion. See *Survey* 2001 for a discussion of LRIC A and B methods.

127. An example of bundling would be combining new products, which are subject to competition, with the existing local exchange business, which is not subject to competition.

128. The logic here is that the right to place poles was given free by the authorities to the electricity companies so they should not be left in a position to extract scarcity rents from telecommunications operators. Charges related to operations are permitted.

129. See "Corporate IT investment and internet usage gain momentum: The NLI Survey of Business conditions", NLI *Research*, No. 140, 2000.

130. H. Joffe, "Japanese business models for electronic commerce–laying the foundation of a ubiquitous networking infrastructure with mobile phones and convenience stores", *Vierteljahrsheft*, 4-2001, DIW. Berlin.

131. More recently, ADSL (asynchronous digital subscriber line) and DSL have been spreading due to lower prices following local unbundling and better access to facilities (colocation).

132. For highly qualified engineers, treaties have been signed with India, Korea and China which should allow work permits to be granted more readily.

133. This was the recommendation of the 1999 *Regulatory Reform Review of Japan*.

134. Competition will be allowed in express mail delivery services where the mail item is charged 1 000 yen or above; items weighing 4 kg or more or with a combined length, width and depth of more than 90 cm and; where the delivery time does not exceed 3 hours.

135. See OECD *Survey*, 2001 Table 6 which is in turn drawn from CAO, *The economic impact of recent regulatory reform*, Tokyo, April 2001.

136. At present 96 per cent of slots on the longer runway are subject to coordination rules set down by IATA. However, raising slots by some 4 per cent would still be a significant change for an airstrip which is already suffering from capacity constraints.

137. Students invest a great deal of money and effort to pass difficult entrance exams for prestigious schools and the investment does pay. Employers, however, do not assess graduates on the basis of their university performance but on the basis of being at a given university. See H. Ono, "College quality and earnings in the Japanese labour market", SSE/EFI *Working Paper*, 395, Stockholm, 2002.

138. Blondal, Field, Girouard and Wagner (2001), estimate that the private rate of return to tertiary education in Japan, which is based on pre-tax earnings and the length of study, is around 8 per cent. This is below the average of sample countries but higher than in Germany and Italy. The social rate of return to tertiary education in Japan is 5½ to 6½ per cent. Private rates of return to tertiary education for men 45 years and older are negative as is the case in other non-Anglo-Saxon countries. This reflects the high opportunity cost for older workers due in part to the steep age/wage profile in Japan.

139. The ratio of post-graduates leaving universities each year to normal graduates is a little over 10 per cent.

140. Ministry of Labour, *Minkan kyoiku kunren jittai chosa*, Tokyo, 1993, 1997.

141. Arnal *et al*. suggest that employment tenure can be affected by two conflicting forces: a change in industrial structure towards low tenure industries and an increase in tenure within industries. E. Arnal, W. Ok and R. Torres, *Knowledge, work organisation and economic growth*, OECD, Paris, 2001.

142. Ministry of Labour, *White Paper on Labour*, Tokyo, 1996.

143. Y. Higuchi, *Koyo to Sitsugyo no Keizaigakn*, Nikkei press, Tokyo, 2001.

144. Ohtake, 2000, "Special Employment Measures in Japan", *Japan Labour Bulletin*, December 2000.

145. For example, seven of the top ten companies by patent applications in the United States in each of the last five years were Japanese. US patents are used because of a break in the Japanese patent series after 1988. Since then more patents are required to protect the same intellectual property. Patents have been adjusted for quality by measuring the number of citations received by a patent from subsequently granted patents over four years, information that is available in the US data bank. See, L. Branstetter and Y. Nakamura, "Has Japan's innovative capacity declined", Forthcoming in M. Blomström, J. Corbet, F. Hayashi, A. Kashyap (eds.), *Structural Impediments to Growth in Japan*, NBER, 2002.

146. Porter *et al*., *op. cit*. Underpinning this conclusion is econometric work which suggests that co-operative R&D projects did not yield productive outcomes when they involved close competitors (who presumably use a similar technology).

147. D. Guellec and B. van Pottelsberghe de la Potterie, "The internationalisation of technology analysed with patent data", *Research Policy*, 2001, 30.

148. *Gijutsu Yoran*, Tokyo, 2000.

149. M. Sakakibara and L. Branstetter, "Do stronger patents induce more innovation? Evidence from the 1988 Japanese patent law", RAND *Journal of Economics*, Vol. 32, 2001.

150. For a discussion as well as estimates of the value of R&D tax measures in the OECD see *Tax Incentives for Research and Development: Trends and Issues*, OECD, 2002.

151. An earlier study of marginal effective tax rates indicated much the same pattern and noted that short run R&D projects were more favourably treated in Japan as elsewhere. K. Gordon and H. Tchilinguirian, "Marginal effective tax rates on physical, human, and R&D capital", OECD *Economics Department Working Papers*, No. 199, 1998.

152. For a discussion of the advantages and disadvantages of various measures to support R&D, see OECD, *op. cit.* Although it is often claimed that tax measures are ineffective in raising R&D, this is not supported by more recent empirical evidence which suggests a short term elasticity of 0.16 but a long run elasticity of 1.1. See OECD, 2002, for references and N. Bloom, R. Griffith and J. van Reenan, "Do R&D tax credits work? Evidence from an international panel of countries 1979-1994", *The Institute for Fiscal Studies Working Paper*, W99/8.

153. The statutory business profits tax is 30 per cent for the central government and 9.6 per cent for local government. There is also a local residential tax amounting to 17.3 per cent of the corporate tax payments, but which is tax deductible. This leaves the effective statutory tax rate at 40.87 per cent.

154. The number of joint research projects between industry and universities increased by 29 per cent in FY 2000 to 4 029 while research commissioned by companies grew by 8 per cent to 6 368. However, the sums involved were not large.

155. For a summary see "Industry-science relationships in Japan", in *Benchmarking Industry-Science Relationships*, OECD, 2002.

156. Since April 2001 the NRIs have become administrative legal entities which will increase management flexibility. University reform is to be implemented from 2004.

157. 1 007 venture firms (42 per cent) replied to the questionnaire. A venture firm is defined as: introducing a unique technology or know how; achieving high growth in recent years; being relatively young or having recently changed its line of business.

158. The policy is meant to also cover private universities. However, a fundamental problem has not been addressed, namely, unlike public universities they are taxed on private research contracts.

159. Geographical agglomeration is important in most countries but Japan appears to be highly concentrated. In the United States, a much larger country, 380 local clusters are reported to produce approximately 60 per cent of the country's output. Opening speech by Donald Johnston, Secretary General of the OECD, at the World Congress on Local Clusters in 2001.

160. For a description of the local political dynamic which is oriented to obtaining central government projects regardless of how they could be used locally see A. Kerr, *Dogs and demons: The fall of modern Japan*, Penguin, 2001. The major deficiencies of the fiscal transfer system are documented in OECD, *Economic Survey of Japan*, 2000, Chapter III.

161. The new theories of growth and trade also point to the importance of geographical agglomeration. Knowledge spill-overs are often restricted geographically, leading to the spontaneous development of clusters around the world. This has led to numerous policy initiatives to create clusters.

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Annex I

Assessment of the government's structural reform programmes

This Annex reviews the government's reform programme in detail so as to support the overall assessment in the *Survey*. The measures of particular importance are discussed further in the text. Conversely, a number of less important measures are not covered in the text but are taken into account here. Tax reform measures are not considered due to their highly specific nature. The programme is assessed from two perspectives: the progress in implementation which simply checks what has and has not been done and; the degree to which the measures serve original policy goals. As for the *stage of implementation* (column "Progress"), the rating is 0 for the discussion stage, 1 for having a concrete plan, 2 for a preparatory stage of necessary legislation, and the maximum 3 for the passage of legislation. As for *fulfilling policy objectives* (column "Quality"), it is measured against the deviation from the objectives set in the June 2001 programme. The rating hence ranges from 0 for plans and legislation that are not compatible with original goals (all reforms at a discussion stage are automatically rated zero) to the maximum 3 for those that broadly meet original objectives. The ratings of 1 and 2 respectively represent large and small deviations from the June 2001 objectives. The distinction between 1 and 2 is inevitably somewhat arbitrary in some cases.

Reform objectives	Action	Progress	Quality
1. Privatisation and corporatisation of public service			
1. Review the roles of postal savings, insurance and mail-delivery services including the possibility of privatisation.	*a)* Laws for establishing public postal corporation passed the Diet. The entry barriers to mail delivery market are very high. The role of postal saving and insurance remains unchanged.	3	1
	b) There is no consensus on privatising this corporation, though the discussion continues.	0	0
2. Promote privatisation of public corporations and reduce subsidies to them.	Of 163 special-status public corporations, 17 are to be abolished, 45 to be privatised, and 38 to be made independent agencies. Specific reform plans are still under discussion. FY 2002 budget cut subsidies for public corporations by 1 trillion yen.	1	2
3. Review the function of public financial institutions.	*a)* The Government Housing Loan Corporation is to be abolished by FY 2006.	2	3
	b) Reform in other major public financial institutions is under consideration.	0	0

Reform objectives	Action	Progress	Quality
4. Enhance competition among the national universities through corporatising them and introducing private management technique.	National universities are to be corporatised in 2004 (see Chapter 4).	2	2
Comments: Reform of public corporations including financial institutions and privatisation of postal services should be accelerated. The entry requirements for basic postal services appear to be restrictive and the regulatory system needs to be clarified so as to limit the potential for the postal corporation to distort competition. The reform of public corporations should aim to reduce the scope of public intervention.		Average score: 1.3	Average score: 1.3
2. Deregulation			
1. Promote deregulation in general.	A revised three-year timetable for regulatory reform was adopted in March 2002.	3	2
2. Revitalise urban areas and improve commuting.	A new law is in force to allow private developers to manage city planning for designated sites regardless of existing regulations in urban areas. A quality assessment system for second-hand houses is to be introduced. Regulation requiring residents' unanimous support for rebuilding condominiums has been eased. Some public infrastructure projects in urban areas such as a new fast railway to Narita airport and an extension of circular roads are planned.	3	3
3. Encourage competition in non-profit areas including medical services and nursing care.	Private corporations are allowed to manage nursing homes and nurseries. Assessment by a third party is to be introduced for providers of elderly care and nursery services. Restrictions on advertisement of medical services have been eased. The review service of bills submitted by doctors has been opened to the private sector.	2	2
New measures announced in the June 2002 programme (too early to be assessed).			
4. Introduce "Special zones for structural reform" which allow local governments to ease regulations and to design their own reform measures.	A unit in charge of promoting special zones for structural reform has been established in the Cabinet Office.		
Comments: Deregulation for redevelopment in urban areas is a good move. The new proposal to allow "structural reform zones" is promising and needs to be developed quickly. But it should be seen as a first step to nation-wide regulatory reform.		Average score: 2.7	Average score: 2.3

Reform objectives	Action	Progress	Quality
3. Entrepreneurship, competition and openness			
1. Strengthen the Fair Trade Commission to enforce competition policy more vigorously.	*a)* Additional 40 staff are appointed by the FTC.	3	1
	b) Independence of the FTC secretariat from the Ministry is still under discussion.	0	0
2. Encourage competition in telecommunications sector by imposing asymmetric regulations on NTT. Promote open bidding for electromagnetic spectrum and for other public assets.	Asymmetric regulation on dominant career has been introduced. The law covering the electromagnetic spectrum has been revised to allocate frequencies more efficiently.	3	2
3. Open up unutilised capacity of optical fibre owned by the public sector and disclose information about the utilisation of cables owned by the private sector.	Unused optical fibres located under roads and rivers are opened up. Information about the utilisation of optical fibres owned by electric companies and railways has been disclosed.	3	3
4. Review commercial code so as to strengthen corporate governance	The diet has passed the revised commercial code, which allows replacing statutory auditors by board committees (audit, compensation, personnel), with the majority comprising outside directors.	3	1
5. Revise relevant laws for judicial system reform within 3 years. Revise bankruptcy and corporate restructuring laws by 2003.	*a)* Headquarter for judicial reform has been established at the cabinet. A plan for judicial reform has been proposed by the council.	1	2
	b) A draft of revised corporate restructuring law is to be discussed by the Diet by the end of 2002.	2	3
6. Review the system of rice production and distribution. Promote the entry of corporations into agricultural business.	A restriction on agricultural land area for rice producers is to be replaced by a production quota for regions in order to encourage enlargement of the production unit. Additional measures for easing the entry of corporations into agriculture are discussed.	1	2

Reform objectives	Action	Progress	Quality
New measures in the June 2002 programme (too early to be assessed).			
7. Promote FTA and inward FDI: – Standardise institutions and rules to establish East Asia Free Business zone. – Facilitate the entry and employment of foreign engineers in strategic areas. – Restrictions on co-operation between foreign and domestic lawyers are to be eased by 2003. – Promote one stop service at the government to facilitate inward FDI.	Although some of its components have already been planned as part of the judicial reform and the regulatory reform programme, the proposal for a Free Business Zone in East Asia is a new initiative and the details are as yet unknown.		
8. Ease barriers for start ups: – Ease the minimum requirement for capital. – Review the coverage of personal guarantees.			
Comments: FTC should be encouraged to pursue criminal penalties and be given more investigative powers. Abuse of dominant power of NTT should be checked effectively. To extend FTA to Asian countries other than Singapore, it is important to reform the agricultural sector by promoting competition and by encouraging larger-scale operation.		Average score: 2	Average score: 1.8
4. Health care reform			
1. Improving efficiency in health care services: – Set a target on the growth of medical care expenditure. – Standardise medical services including greater use of payments based on diagnostic related groups (DRG). – Disseminate information and establish informed consent. – Differentiate functions of hospitals and reduce excess beds. – Modernise and improve the efficiency of health care provider management system. – Strengthen the role of insurers.	A new health care reform plan has been adopted: – The eligibility age for the elderly insurance scheme is to be raised to 75 and above. – Co-payments are to be raised (10 per cent for elderly and 30 per cent for SMEs employees). – Medical service fees for doctors have been reduced by 2.7 per cent. – Restrictions on advertisement of medical services have been eased. – By FY 2004, more than 50 per cent of bills in all hospitals are encouraged to be submitted in electronic form. – The role of insurers as agents for patients is to be strengthened by asking private companies to check bills submitted by doctors.	3	2

Reform objectives	Action	Progress	Quality
Comments: Progress has been made in health care reform, though measures for improving supply-side efficiency should be strengthened.		Average score: 3	Average score: 2
5. Pension and social security reform			
1. Establishing a sustainable pension system: – Review the current pension system to make it compatible with greater diversity of work arrangements and life styles. – Ensure intergenerational equity and balance of benefits and burden. – Decide specific measures to raise the tax financing of basic pensions to 50 per cent to ensure stable revenues. – Lift temporary suspension in raising pension contributions.	Pension reform measures are to be decided during the periodical review planned in 2004.	0	0
2. Introduce social security numbers and individual social security accounts.	A study of the experiences of other countries about social security numbers and individual social security accounts has been conducted.	0	0
Comments: The agenda for next pension reform should go beyond changing parameters and include ambitious measures to ensure the viability of the system in the face of changes in demographic and economic conditions.		Average score: 0	Average score: 0
6. Human capital and labour market			
1. Introduce competition among universities to foster world-class universities.	10 to 20 universities are to be selected as centres of excellence (COE) in 10 research areas to promote competition by allocating funds based on their performance.	3	1
2. Promote retraining of unemployed at universities and graduate schools.	The scope of subsidies for training has been expanded to cover vocational training courses at university and graduate schools.	3	2
3. Establish one-year courses at graduate schools and strengthen vocational courses at colleges (community schools).	Establishment of one-year vocational education courses at professional graduate schools was allowed in March 2002.	2	2
4. Increase labour mobility through: promoting training; easing restrictions on flexible work styles such as temporary work and fixed-term contract; enhancing job matching functions; and eliminating discrimination in employment by gender and age.	Lifting the ban on having dispatched workers in manufacturing sector is under consideration. Maximum term for middle-aged and elderly dispatched workers has been extended temporarily to 3 years. Private job placement services are allowed to collect charges from some job seekers.	2	2

Reform objectives	Action	Progress	Quality
5. Alter focus of taxation and social security system from families to individuals.	Tax reform planned in FY 2003 will reduce allowance for dependent spouses.	0	0
6. Boost measures to eliminate waiting list for nurseries to support working women.	Child care facilities are to be expanded to accept 50 000 more children by FY 2002 and 100 000 more by FY 2004.	3	2
Comments: More emphasis should be put on enhancing research capacity at universities and reducing barriers to collaborating with foreign institutions and individuals. The regulation which requires universities to hold open land should be eliminated. Although some progress has been made in labour market regulations, remaining restrictions on dispatched workers should be eased further. The use of private agents in job placement should be encouraged. Elimination of social security disincentives for spouses to increase their labour supply should be implemented as soon as possible.		Average score: 2.2	Average score: 1.5
7. More responsible local governments			
1. Promote mergers of local governments in order to improve efficiency.	Mergers of local government are promoted by some financial supports of central government such as: financing a part of initial costs arising from mergers; allowing the merged local government to receive lump sum grant from central government at the same level as before the merger; and allowing local governments to issue additional bonds to finance merger costs.	3	2
2. Allocate a local allocation tax (LAT) to local governments by setting objective standards.	Complex adjustment system for allocating LAT to local governments is to be streamlined gradually by FY 2004.	3	1
3. Review central government's share of contribution to local government administrative costs. Consider shifting tax revenues from central to local government and adopting a corporate tax based on sales and other factors to deal with low tax revenue facing local governments.	Introduction of a local corporate tax based on sales and other factors is discussed. The government is reviewing the revenue structure of local government including state subsidies, LAT and the allocation of tax resources between the central and local governments with a view to establishing a concrete plan by June 2003.	0	0
Comments: Huge transfers from central to local governments, which distort incentives for local government spending, need to be changed. The discussion about the reform of subsidies and grants from central to local governments should be accelerated.		Average score: 2.0	Average score: 1.0

Reform objectives	Action	Progress	Quality
8. Fiscal reform			
1. Aim at primary surplus as a medium-term goal. Prepare medium-term fiscal consolidation plan.	Medium-term economic and fiscal perspective aimed at achieving fiscal surplus by early 2010s has been adopted, though how to limit spending as a proportion of GDP is not specified.	3	2
2. Change budget formation process. Council for Economic and Fiscal Policy (CEFP) to propose broad direction of budget plan, while specific components of budget plan to be decided by Ministry of Finance.	CEFP has played the expected role in budget formation.	3	3
3. Reallocate spending to priority areas.	FY 2002 budget plan has allocated 2 trillion yen to priority areas, while 5 trillion yen was cut in general spending. FY 2003 reallocations not yet clear.	3	2
4. Review long-term public works projects. Lower public works spending in proportion to gross domestic product in the medium term.	*a)* FY 2002 and FY 2003 budgets have cut spending on public works by 10 per cent and by 3 per cent.	3	2
	b) Long-term plans for public works are being reviewed.	0	0
5. Reallocate earmarked road taxes.	A part of the revenue from road related taxes is now used for other purposes than road construction. Reallocation of earmarked revenue is being discussed in the context of a broader reform including public works and taxation.	1	1
Comments: The budget formation process and the outcome of FY 2002 budget are satisfactory though the 30 trillion yen ceiling on public bond issuance involved creative accounting. The medium-term economic and fiscal perspective is not sufficiently ambitious and lacks specific measures for containing spending to achieve a primary surplus. It needs to make use of shorter run real spending targets to improve credibility. The discussion about reallocating road taxes and reducing the size of road construction needs to be brought to a swift and successful conclusion.		Average score: 2.2	Average score: 1.7

Reform objectives	Action	Progress	Quality
9. Financial sector reform			
1. Dealing with non-performing loans (NPLs): – Remove existing NPLs from balance sheet within 2 years and new ones within 3 years. – Encourage Resolution and Collection Corporation (RCC) to purchase NPLs by adopting fair value for purchasing price. – Request the Development Bank of Japan (DBJ), private investors and RCC to set up and/or participate in funds for corporate reconstruction. – Introduce a special inspection for major banks	Financial revitalisation law was revised in December 2001 allowing RCC to participate in open bidding and to have flexibility in purchasing price. RCC has been permitted a trust banking licence. 100 billion yen has been funded by DBJ to set up funds, which purchase shares issued by restructuring companies. The funds will also purchase shares which banks obtained from borrowers through debt-equity swaps. Special inspection for major banks was conducted and the result was published in April 2002.	3	1
2. Encourage individual investors to participate in stock market by reviewing tax system.	Tax on capital gains has been based on self-assessment rather than a withholding system, and its rate has been reduced. Capital losses can be deducted from asset incomes for three years.	3	1
Comments: See Chapter II for the assessment of the measures to deal with NPLs. New tax measures for capital gains are too complex to be used.		Average score: 3	Average score: 1
10. Others			
1. Focus funds on four areas in allocating budget: life sciences, information technology, environment and nano-technology.	Supplementary budget for FY 2001 and budget for FY 2002 have allocated more funds to these four areas. Funds are also allocated to promoting knowledge-intensive clusters and fostering venture business at universities and technology licensing organisations (TLOs).	3	1
2. Encourage the use of ICT for administrative procedures.	A new law which promotes electronic submission of administrative documents has been prepared.	2	2
3. Reduce waste and create environmentally friendly society.	Private agents who have advanced skills in recycling and waste disposal are supported by subsidies and public loans. Government procurement favours environmentally friendly goods. Residents and NPOs are encouraged to promote waste reduction and recycling by disseminating information about the necessity to do something.	3	1

Reform objectives	Action	Progress	Quality
New measure in June 2002 programme (too early to be assessed).			
4. Promote tourism and longer vacations			
Comments: Ensure appropriate economic incentives in pursuing waste and recycling targets. Streamline government in order to allow effective use of ICT.		Average score: 2.7	Average score: 1.3

Source: Assessment by the OECD.

Annex II

Chronology of main economic events

2001

November

The Diet passed the first supplementary budget for FY 2001, which included 1 trillion yen (0.2 per cent of GDP) of additional spending for employment measures and subsidies to public financial institutions for lending to SMEs.

The government decided to abolish seven major special-status public corporations including Japan Highway Public Corporation, the Government Housing Loan Corporation, and the Japan National Oil Corporation.

December

The Bank of Japan (BOJ) raised the target for the outstanding balance of the current accounts at the Bank from 6 trillion yen or above to 10 to 15 trillion yen and to increase outright purchase of long-term government bonds from 600 billion yen to 800 billion yen per month.

A framework for the consolidation of 163 special status public corporations was adopted by the government, of which 17 are to be abolished, 45 are to be privatised and 38 are to be made independent agencies.

The government adopted the second supplementary budget for FY 2001 including 2.6 trillion yen of additional spending for public works. The supplementary budget is financed by revenue which was obtained in the recent past by selling NTT shares held by the government.

The government adopted the draft initial FY 2002 budget, envisaging general expenditure (*i.e.* total expenditure less debt servicing and transfers to local governments) of 47.5 trillion yen, down from 48.6 yen in the previous initial budget, with new public bond issues limited to 30 trillion yen.

2002

January

Japan and Singapore signed a FTA treaty (the Japan-Singapore Economic Agreement for a New Age Partnership).

Prime Minister began talks for a comprehensive tax reform in FY 2003.

The government adopted the *Structural Reform and Medium-term Economic and Fiscal Perspective for* FY 2002 *to* FY 2006, which illustrated the medium-term economic prospects and fiscal consolidation paths, including the introduction of a cap on spending as a proportion to GDP.

The government submitted the draft FY 2001 second supplementary budget and the draft initial FY 2002 budget to the Diet.

February

The Diet passed FY 2001 second supplementary budget.

The BOJ raised its outright purchase of long-term government bonds from 800 billion yen per month to 1 trillion yen.

The government adopted an anti-deflation package, which includes measures for accelerating disposal of non-performing loans and stabilising financial system as well as those for strengthening the security market regulations to curtail short-selling.

March

The Diet passed FY 2002 initial budget.

Council of Regulatory Reform adopted the regulatory reform plan for the next three years, which covers broad areas including social welfare, health, urban revitalisation, and education.

April

Protection on time deposits restricted to 10 million yen per depositor per bank since 1 April.

Financial Service Agency (FSA) published the result of the special inspection of large borrowers at major banks.

May

The government announced in its monthly economic report that the economy had reached the bottom of the cycle.

June

The government adopted a second anti-deflation package, proposing a reduction in inheritance tax and tax credits for business investment and R&D.

The government adopted the *Basic Policy for Economic and Fiscal Policy Management and Structural Reform* 2002, to update and revise the structural reform plan adopted in June 2001.

July

The Diet passed the laws for establishing a public postal corporation and setting the conditions for the entry of private agents into mail delivery services.

The Diet passed laws for reforming the health insurance system, which include measures such as a rise in the eligibility age for the elderly insurance scheme and an increase of co-payments (10 per cent for elderly and 30 per cent for SMEs employees).

August

The FSA announced the "Programme for Promoting Security Markets Reform" in order to encourage the participation of a wide range of investors.

The cabinet approved the guideline for FY 2003 budget requests, setting general expenditures at 48.1 trillion yen, slightly higher than in FY 2002 budget.

The committee for privatisation of road construction public corporations released its interim report, proposing a separation into several road operating companies and a road maintenance company.

September

The BOJ announced that it will purchase shares held by banks at market prices to help them reduce their holdings of shares to the level equivalent to their tier I capital.

Prime Minister Koizumi reshuffled his cabinet members and appointed Minister for Economic and Fiscal policy, Takenaka, as Minister for Financial services.

October

The FSA announced the postponement of the introduction of a cap on deposit guarantee until April 2005.

Table of contents

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Boxes

Tables

Figures

BASIC STATISTICS OF JAPAN

THE LAND

Area (1 000 sq. km), 1995	377.8
Cultivated agricultural land (1 000 sq. km), 1995	51.3
Forest (1 000 sq. km), 1994	251.4
Densely inhabited districts[1] (1 000 sq. km), 1995	12.3

Major cities, October 2000 estimate (10 000 inhabitants):	
Tokyo (23 wards)	813
Yokohama	343
Osaka	260
Nagoya	217
Sapporo	182
Kobe	149
Kyoto	147

THE PEOPLE

Population, October 2001 estimate (1 000)	127 210
Number of persons per sq. km in 2001	337
Percentage of population living in densely inhabited districts in 1995[1]	64.7
Net annual rate of population increase (1995-2000)	0.2

Labour force in per cent of total population, October 2001	53.1
Percentage distribution of employed persons, 2001:	
Agriculture and forestry	4.5
Manufacturing	20.0
Service	61.2
Other	14.3

PRODUCTION

Gross domestic product in 2001 (billion yen)	506 111
Growth of real GDP, 2001	–0.2
Gross fixed investment in 2001 (per cent of GDP)	25.7

Growth of real gross fixed investment, 2001	–1.9
Net domestic product of agriculture, forestry and fishery, at producer prices, in 2000 (billion yen)	5 092
Growth of industrial production, 2001	–7.5

THE GOVERNMENT

Public consumption in 2001 (in per cent of GDP)	17.5
Current public revenue in 2000 (in per cent of GDP)	29.4
Government employees in per cent of total employment, 2001	8.4
Outstanding long-term national bonds in per cent of GDP (FY 2001)	78.1

	House of Representatives	House of Councillors
Composition of Parliament, October 2002:		
Liberal Democratic Party	239	113
Democratic Party	124	60
Peace and Reform (*Komei*)	31	24
Liberal Party	22	15
Communist Party	20	20
Others	38	12
Vacancy	6	3
Total	480	247
Last elections	June 2000	July 2001

FOREIGN TRADE AND PAYMENTS
(2001, billion yen)

Commodity exports (fob)	46 584
Commodity imports (fob)	38 056
Services	–5 315
Investment income	8 401
Current balance	10 652
Exports of goods and services in per cent of GDP	10.4
Imports of goods and services in per cent of GDP	9.8

	Exports	Imports
Percentage distribution:		
OECD countries	58.7	45.0
of which: North America	33.0	21.1
Far East	34.0	37.5
Other	7.3	17.5
Total	100.0	100.0
Crude material and fuels (SITC 2, 3, 4)	1.2	26.8
Semi-manufactured goods (5, 6)	17.8	15.9
Machinery and transport equipment (7)	67.3	27.3
Other (0, 1, 8 ,9)	13.7	30.0
Total	100.0	100.0

THE CURRENCY

Monetary unit: Yen

Currency unit per US$, average of daily figures:	
Year 2001	121.5
September 2002	120.8

Note: An international comparison of certain basic statistics is given in an annex table.

1. Areas whose population density exceeds 5 000 persons per sq. km.

This Survey is published on the responsibility of the Economic and Development Review Committee of the OECD, which is charged with the examination of the economic situation of Member countries.

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The economic situation and policies of Japan were reviewed by the Committee on 14 October 2002. The draft report was then revised in the light of the discussions and given final approval as the agreed report of the whole Committee on 30 October 2002.

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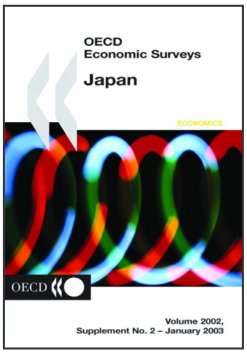
The Secretariat's draft report was prepared for the Committee by Grant Kirkpatrick and Hideyuki Ibaragi under the supervision of Yutaka Imai.

•

The previous Survey of Japan was issued in December 2001.



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