

## **JAPAN IN THE DOLDRUMS: A STUDY OF DEFLATION AND RECESSION**

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Japan's dream deflates  
Interest rates and Keiretsu  
Dan Baker blames you

### **Introduction**

This essay examines the performance of the Japanese economy over the period 1985 to 2002 with reference to key economic variables, such as GDP growth, price stability performance, employment, and the public debt to GDP ratio, etc. We focus on the path the economy has taken since the bursting of the “bubble economy” early in 1990, and in particular on the phenomenon of deflation, which appeared as a persistent problem towards the end of the 1990s. This paper will investigate the underlying causes of recession and deflation in Japan, and examine the main problems associated with the latter. Finally, a number of policy solutions will be suggested to combat the deflationary pressures in Japan, and more generally, to help stimulate economic growth.

### **What’s wrong with Japan?**

#### **Before the bubble burst - Japan as Number One**

During the 1980s it was a popularly held belief that Japan was rapidly and inexorably catching up on America as the world’s number one economy. From a state of near-complete devastation at the end of World War II, Japan had transformed itself into a global economic powerhouse second only to America in terms of productive output, and unequalled in terms of growth<sup>1</sup>. Not surprisingly, Japan was considered by many to be the model economy, which “year after year

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<sup>1</sup> During the 1960s, Japan’s GDP growth amounted to over 10% per annum as compared to 3% in the USA. (Jones)

managed to hit simultaneously all the major macro economic targets - fast growth, low inflation, full employment and a current account surplus.” (Jones, 2001) Such was the seemingly endless capacity of the Japanese economy for growth that certain commentators, particularly in America, began to predict the absolute economic domination of Japan. These predictions seemed to be borne out when, in 1985, three American icons - the Rockefeller Center in New York, Pebble Beach golf course in California, and Columbia studios - fell in quick succession into Japanese hands. Indeed, the title of Ezra Vogel’s book, *Japan as Number One*, captured perfectly the consensus regarding Japan’s ascendancy as a global economic superpower. In Japan itself, the confidence of businesses and investors in the Japanese model was demonstrated in the stratospheric rise in the value of the stock market<sup>2</sup> and in the price of urban land between 1986 and 1989. In fact, it seemed to many as if Japan’s economy had somehow managed to escape the economic laws of gravity, which were at that time causing slowdowns in Europe and America. Such optimism proved misplaced, however, as a rise in interest rates by the Bank of Japan, aimed at cooling the economy, caused a collapse in the stock market early in 1990.

### **Since the bubble burst - the slow, relentless decline**

After the bursting of the bubble economy, Japan experienced a slowdown that initially followed the usual pattern of business cycles in industrial countries. (Ahearne *et al* 2002; p.8) Asset prices fell, credit tightened, growth in corporate profits contracted, and consumer and investment spending declined. Considering the size of Japan’s bubble, however, the subsequent recession was relatively mild. Unlike the depression following America’s stock market crash of 1929, which was characterised by a large drop in consumer prices, unemployment rates of up to 25%, and a fall by half in economic output, the slowdown in Japan was marked instead by a overall price stability<sup>3</sup>, ongoing growth in GDP (albeit at a slower rate), and negligible changes in employment rates. Initially it appeared as if the application of fiscal and monetary policy had been successful in minimising the after-effects of the boom. But as the nineties wore on, it became clear that Japan’s economy, far from regaining health, was actually in the grip of a slow, relentless decline. As *The Economist* (2 March, 2002) reported: “Twelve years after America’s bubble burst, output was more than 40% higher than at the start.” In contrast, “Japan’s output today is about 10% below its level in 1989.” *The Economist* estimates, furthermore, that Japan’s output gap currently exceeds 30% of GDP based on the 4% annual

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<sup>2</sup>The Nikkei 225 index reached an all-time high of 38,915 in December 1989 up from around 13,000 at the start of 1986. (Okabe 1995, p. 235)

<sup>3</sup>Inflation peaked at around 4% in 1990, but following a rise in interest rates, it moderated to around 2% in 1992.

trend growth rate posted throughout the 1980s<sup>4</sup>. (*The Economist*, 2 March, 2002) Tellingly, Japan's robust GDP growth rates of the 1980s gave way, over the past decade, to an average annual growth rate of less than 1%. (*The Economist*, 28 September, 2002)

The signs of Japan's economic malaise can be seen in more than just the current stagnation of industrial output, however. Undoubtedly the first indicator that the bubble had burst was the rapid fall in the value of the Nikkei 225, which within a matter of months of its zenith – it reached 38,915 in December 1989 – had plummeted to approximately one half its value. After hovering around the 15,000-17,000 mark for the remainder of the 1990s, the Nikkei 225 recorded a further slide to about 8,600 at the end of 2002. In a similar fashion, land prices slumped throughout the nineties, rapidly at first and then more gently as time went on. *The Economist* (A survey of Japan, April 2002, p. 3) reported that property prices in Japan's six biggest cities had dropped an average of 84% since 1991. At the same time, labour statistics showed unemployment standing at 5.3%, up from a slim 2% in 1990. A further witness to Japan's current woes is the level of government debt, which grew steadily throughout the 1990s to its present position of nearly 150% of GDP, up from just 60% of GDP at the start of the decade. (*The Economist Global Agenda*, 21 November, 2002) And whereas in 1990 the government budget boasted a surplus of 2% of GDP, it now runs a deficit of 8% of GDP<sup>5</sup>. (*The Economist*, September 28<sup>th</sup>, 2002)

Perhaps a more alarming symptom of Japan's economic plight, however, is the phenomenon of deflation. Deflation is defined as a persistent decline in the general price level. (McAleese 2001; p. 304) Although it is common for the price of individual goods to fall over time as, for instance, increased manufacturing efficiency and new technologies translate into lower production costs, it is relatively rare for the overall level of prices across an entire economy to fall on a consistent basis. By and large, the most common affliction of the world's industrial economies during the twentieth century was high inflation. The experiences of both hyperinflation in inter war Germany and the sustained levels of high inflation in the majority of developed countries during the 1970s led the public and politicians of most democracies to view inflation as "public enemy number one." This mind set was evident in the actions of Japan's policymakers following the boom of the late 1980s: so intent were they on choking off nascent inflation that they completely overlooked the possibility of a deflationary slump. From a peak of around 4% in

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<sup>4</sup>Output gap is defined as the difference between potential GDP and actual GDP. An OECD estimate of Japan's output gap, assuming a fall in the potential GDP growth rate along with actual growth, is just 3% of GDP. (*The Economist*, September 28<sup>th</sup>, 2002)

<sup>5</sup>By way of comparison, the EU growth and stability pact requires member states to limit budget deficits to 3% of GDP.

1990, inflation steadily declined until it moved into negative territory in 1995, where it has largely remained ever since.

## **Recession and deflation - An analysis of the problem**

Having briefly outlined the main problems facing Japan's economy – in the broadest sense, recession and deflation – we shall now turn our attention to the factors which led to these problems and in the case of deflation, to the ensuing effects.

### **Roots of the recession**

Low interest rates, excessive capital spending and bullish profit expectation: To understand why the Japanese economy remains trapped in a decline, we need to examine the factors that fed into the boom of the late 1980s. On a macro economic level, a prima facie cause for the boom was low interest rates. From a level of 5% in 1985, Japan's official discount rate fell to 2.5% in 1987<sup>6</sup>, where it stayed until mid-1989. As economic theory would predict, a fall in interest rates fed into an increase in aggregate demand through an upward shift in both the investment and consumption components. As a result of mainly cultural and historical factors, capital spending has always comprised of a relatively large component of aggregate demand in Japan. This preference stems from the traditionally long-termist view of economic growth taken by both government and business, and is evident in the dominance of producer interests over consumer interests<sup>7</sup>. (Preston 2000, p.116) The result of the fall in interest rates in 1987 was therefore to provide a further stimulus to the corporate sector's already strong investment demand. The consequences for the bubble economy were significant. As *The Economist* reported in February 1990: "Japan's boom has been driven by capital spending. Last year Japan's investment ratio (i.e. capital spending as a percentage of GNP) reached nearly 23%, its highest level since 1955."

A further boost to Japan's capital spending spree was the strong growth in corporate profits between 1986 and the end of the decade (*The Economist*, February

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<sup>6</sup>According to Christopher Wood (1992), this was the lowest interest rate in Japanese history up to that point.

<sup>7</sup>Japan's traditionally high savings rate also confirms this fact. According to the NLI Research Institute, "workers' households [in Japan] have continued to increase their savings rate from 22.1 percent in 1980 to 24.7 percent in 1990, and 27.9 percent in 2000." By comparison, the US savings rates fell from over 12% in 1980 to less than 1% at the start of 2001 (Milleker 2002, p. 4)

1990; p. 63). Such was the expectation that this growth would continue for the foreseeable future that the drive to build new factories and expand productive capacity assumed nonsensical proportions. The high level of capital spending between 1986 and 1989 had two important consequences for the recession and deflationary slump that followed: firstly, Japan's corporate sector was burdened with huge debts; and secondly, the economy as a whole suffered from chronic overcapacity.

Japan's banks – too much easy money, too little self-control: Another important factor in Japan's boom and subsequent recession was the role played by the banks. For a start, the banking system in Japan is inefficient by international standards (*The Economist*: A survey of Japan, April 2002; p. 5). It is also characterised by a system of cross-holdings, whereby a group of companies and a major bank will form an alliance (a *keiretsu*) and agree to hold significant numbers of each others shares. If a company needs a loan, instead of searching for the most competitive rates on the open market, it will automatically “apply” to its partner bank. Although this system has several advantages, it can also serve to hamper an economy's flexibility and distort the efficient operation of the market system. The disadvantages of the *keiretsu* system were brought forcibly to light during the bubble economy, and remain a problem to this day. Specifically, most of Japan's banks engaged in injudicious lending during the boom. As a consequence of both the *keiretsu* system and the seemingly endless supply of cheap credit, Japan's banks made big loans to partner companies, which were in many cases inefficiently run. Instead of money being awarded to companies that were well-managed and competitively run, loans were funnelled indiscriminately to alliance partners and to companies run by business cronies. A result of this impaired judgment was that money was frequently put into projects with below-average profit potential, or worse still, it was simply squandered; this in turn meant that firms were often unable to cover the cost of capital when interest rates finally rose - which left banks with a large number of non-performing loans on their balance sheets<sup>8</sup>.

However, it was not only the features of the *keiretsu* system and the supply of easy credit that propelled banks towards commercial imprudence; the banks' own faulty prescriptions for growth were equally to blame. In his book, *The Bubble Economy*, Christopher Wood (1992) explains that, at the time of the boom, the yardstick for growth used by management in the banking sector was the increase in assets (i.e. loans) on the banks' balance sheets – rather than the more sensible measure of growth in profits. As a result, banks would do almost anything to

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<sup>8</sup>In 2002 official estimates of bad loans stood at Y37 trillion (or 7% of GDP). Other sources say the true figure is closer to Y70-80 trillion. (*The Economist*: A survey of Japan, April 2002, p.3)

increase their portfolio of loans, even if it meant putting their profitability and solvency at risk. According to the capital adequacy requirements stipulated in the 1988 Basle Accord, however, central banks of participating countries (which includes Japan) are required to ensure that commercial banks under their jurisdiction maintain a minimum capital-to-loans ratio of 8%<sup>9</sup>. Ideally this capital cushion should comprise cash reserves, but at that time, most of Japan's banks were reluctant to sacrifice their ability to make new loans by adhering to this (newly agreed) requirement. A compromise of sorts was reached, whereby the banks were permitted to meet 45% of their capital reserve obligation through unrealised profits on investments, i.e. on the value of shares and land held. The astronomical rise in the value of both the stock market and land prices<sup>10</sup> during the boom meant that, as a result of this compromise, many banks were in reality vastly undercapitalised<sup>11</sup> and therefore highly vulnerable to the risk of bad loans. As we have already mentioned, the foolish lending undertaken by Japan's banks almost guaranteed that bad loans would emerge as a major problem – as indeed has been the case.

A final comment can be made about the banking industry in Japan. It has already been noted that the Japanese economy is marked by strong producer, and weak consumer, interests. A corollary to this situation is the comparative underdevelopment of the market for consumer credit – a business with much higher margins than commercial lending. The near wholesale neglect of the consumer credit market, therefore, meant that in addition to being undercapitalised and having a portfolio of high-risk loans, Japan's banks were operating in a low-profit market – a further threat to their solvency and their ability to act as financial intermediaries.

## Deflation revisited – Causes and effects

Having analysed a number of factors that contributed to Japan's bubble economy, and by extension to its ongoing recession, we now return to the subject of deflation. We have already defined deflation as a persistent fall in the general price level, and we have hinted that a proximate cause for Japan's current deflationary

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<sup>9</sup>Full compliance with the stipulations of the Basle Accord was not required until 1992 - at which time, the damage to Japan's banking system had been done.

<sup>10</sup>Between 1980 and 1990, the value of the Nikkei 225 index increased by circa 600%, and Japanese land prices by over 400%.

<sup>11</sup> Although officially the big banks have about Y19 trillion of core capital (implying capital-adequacy ratios of about 10%), if public funds received in 1998, deferred taxes, and unrealised gains on assets are subtracted, this figure comes down to just Y5 trillion, which translates into an average capital-adequacy ratio of about 2%. (*The Economist*, April 18<sup>th</sup>, 2002)

slump might be found in the misjudged monetary and fiscal policies implemented by the Bank of Japan (BOJ) and the government during the 1990s. In this section, we consider in more detail the factors that may have led to deflation; we explain how policymakers may have unwittingly contributed to the downward pressure on prices; and finally, we outline the problems associated with deflation.

### **Causes of deflation**

**Overcapacity in the real economy:** It has been suggested that a contributory factor in Japan's deflationary trend was the large-scale overcapacity in the real economy created by the boom. Excess capacity means that the supply of goods and services produced by the economy is greater than the corresponding demand. The laws of supply and demand indicate that in such a situation, prices will fall until both sides of the market reach equilibrium. While incomplete, this analysis goes part way towards explaining the downward pressure on prices experienced by Japan. Interestingly, empirical evidence shows that there is a close relationship between the size of a country's output gap and changes in the inflation rate. (*The Economist*, October 12<sup>th</sup>, 2002) In accordance with this rule, it follows that Japan's negative output gap would tend to push inflation down.

**Misjudged monetary policy:** With hindsight, we can also attribute part of the blame for Japan's deflationary slump and recession on the monetary policy employed by the central bank after the end of the boom. A recent study by economists at the Federal Reserve (Ahearne *et al* 2002) concluded that, because Japan's deflationary slump was not anticipated by policymakers, the lowering of interest rates and loosening of monetary policy in response to the fall in inflation in the early 1990s was insufficient for the purposes of reviving the economy. Had the dangers of deflation been appreciated earlier on, a judicious use of interest rates and quantitative easing could probably have averted the problem. However, the BOJ was so preoccupied with preventing another bubble in asset and land prices that monetary policy was kept tight. Inasmuch as interest rates followed inflation down to zero during the early 1990s, when the BOJ finally wanted to open the throttle on the economy using interest rates, it was prevented from doing so because they had already reached the zero lower bound - and nominal interest rates can never be negative. Then as deflation set in, even though nominal interest rates were virtually 0%, real interest rates turned positive (the real interest rate equals the nominal interest rate minus the rate of inflation or plus the rate of deflation). Theory suggests that when this situation occurs, the other tool of monetary policy open to a central bank - namely adjustments in the monetary base - also becomes ineffective. Under normal circumstances, an increase in the money supply leads to a fall in interest rates, which in turn leads to an increase in consumption and investment spending. However, when interest rates have already reached zero, monetary easing is

powerless to drive up aggregate demand or to spark a rise in the rate of inflation. This case is the so-called “liquidity trap.” The telltale evidence of this phenomenon is when the monetary base in an economy expands at a faster rate than the broader money stock. Empirical evidence indicates that this exact scenario occurred in Japan. As the economists at the Federal Reserve report: “Beginning in late 1995...after the call money interest rate had fallen nearly to zero, base money started growing at roughly double the rate of the broader aggregates.” (Ahearne *et al* 2002, p. 26) The inability of Japan’s banks to extend new credit because of their own financial weakness also served to make the BOJ’s monetary policy during the 1990s yet more ineffective.

Flawed fiscal policy: Although the role of fiscal policy tends to be less important than monetary policy in the maintenance of price stability, it is nevertheless critical to the attainment of long-term economic growth. We shall therefore evaluate the main features of Japan’s fiscal policy during the 1990s.

Broadly speaking, the response of the Japanese government to the bursting of the bubble was to adopt an expansionary fiscal policy along Keynesian lines. By increasing government spending, the authorities hoped to compensate for the fall in private consumption, and thereby to shift the aggregate demand curve to the right. Between 1992 and 2000, over Y132 trillion was injected into the Japanese economy either through extra spending or tax cuts. (Ahearne *et al* 2002, Exhibit V.1) As has been previously noted, Japan’s government budget went from a 2% surplus in 1990 to an 8% deficit in 2001; and the ratio of public debt to GDP increased from 60% to nearly 150% over the same time.

So how successful was this policy? Apart from a growth spurt of around 4% per annum in 1995/96 and 2000, Japan’s real GDP grew very sluggishly for most of the 1990s; and by the end of 2001, the economy had begun to shrink. In spite of this bleak picture, it is almost certain that without the government’s fiscal stimulus, Japan’s GDP would have contracted much more than it did. But Japan’s fiscal policy contained several flaws. Firstly, much of public spending went towards unproductive public works projects and pork barrel schemes. Secondly, most of the increase in the budget deficit was caused not by public spending increases or tax cuts, but because tax revenue automatically shrank as output fell. And thirdly, according to the Federal Reserve economists, since “Japanese fiscal policy was reacting to large and sustained shortfalls in private demand...increases in the fiscal deficits generally were offset by reductions in private spending.” (Ahearne *et al* 2002; p. 36).

## Effects of deflation

Consumers' delight - watch the money grow: We now turn our attention to the effects that deflation can have on an economy. For consumers, deflation is a delight because it means the purchasing power of the money sitting in their pockets increases with time. Since the general price level is falling, the cost of a good or service will be less tomorrow than it is today. This trend affects consumer behaviour in an important way, because it encourages people to delay their purchases until the future, when the goods they wish to buy will be cheaper. Unfortunately, what for the individual consumer is good, for the economy as a whole is bad. The nature of deflation depresses consumption, which feeds into lower national income, which itself reduces consumption – and so the vicious circle continues. What is more, the greater the rate of deflation, the greater the inclination for consumers to “purchase tomorrow,” and the more deleterious the ultimate effect on GDP. In the end, depressed profits for firms means less income for households, and this in turn means less money to spend on goods and services. In Japan's case, deflation is reinforcing the tendency of consumers to save, rather than spend their incomes, with the result that domestic demand is sluggish.

Bad for borrowers – watch the debt grow: Most other effects associated with deflation are unequivocally bad. Perhaps the hardest hit by falling prices are borrowers. Whereas inflation is a debtor's friend, deflation is his enemy, because it increases the real value of money owed. Since debts are denominated in nominal currency, the real value of a debt (and therefore the repayments) increases in line with each fall in the price level. This outcome has had huge implications for Japan's debt-laden companies and overexposed banks. Not surprisingly, deflation in Japan has had the effect of steadily increasing the number of non-performing loans on bank balance sheets as indebted companies get pushed towards insolvency by the added burden of “deflation payments.” The resultant undermining of banks' capitalisation not only threatens their continued viability, but also limits their ability to act as financial intermediaries.

The profit squeeze: Deflation can affect companies in another way. As prices across the economy fall, there is usually a corresponding decline in corporate profits, at least in nominal terms. However, corporate profits may suffer a real squeeze if wages are not scaled down in line with commodity prices. In practice, wages tend to be sticky, so corporate profits can often be adversely affected by a deflationary slump.

Interest rates affected: Finally, as we have already mentioned, deflation can have an undesirable effect on interest rates. Although the nominal rate of interest may be zero, the real rate of interest may amount to several percentage points given deflationary circumstances. This factor, together with an associated fall in national

income, can lead to a decline in investment – which is liable to further damage an economy.

## **What is to be done with Japan? - Policy suggestions**

Any worthwhile policy solutions for Japan must address the twin problems of shrinking GDP and deflation. To be effective, these solutions need to be combined into a comprehensive reform package that tackles both Japan's macroeconomic and structural problems. Based on the investigation and analysis we have done, we would like to make the following proposals.

### **Macro measures**

Supply-side policies - not appropriate: On the macro side, there are two basic channels through which policymakers can attempt to stimulate growth: either through the demand side or the supply side of the economy. Supply-side economics attempts to stimulate growth in an economy by altering the level of full employment, the level of potential output and the natural rate of unemployment. Typical supply-side policies include cuts in income tax<sup>12</sup>, greater labour market flexibility<sup>13</sup>, and increases in worker productivity through improving the capital stock. In Japan's case, however, it is unlikely that supply-side policies would have much effect since: both natural and structural unemployment are relatively low; wages have shown themselves to be flexible in response to deflationary pressures; trade union power in Japan is traditionally weak; and there is already excessive spending on capital goods. Clearly, supply-side policies will be of limited value.

Demand-side policies - use with care: We must therefore turn to demand-side policies to revitalise growth. The use of both fiscal and monetary policy by the Japanese authorities has already been detailed, and it is clear that the effectiveness of both these instruments is severely limited: in the case of fiscal policy by the towering level of government debt, and in the case of monetary policy by the problem of zero nominal interest rates and the liquidity trap. These constraints notwithstanding, it is vital that the government maintain its commitment to stimulate aggregate demand and reverse deflation. This end can only be achieved through continued government spending, both in the form of actual spending and tax cuts. However, it is important that public money be channelled into "more visibly

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<sup>12</sup>Lower tax rates encourage more people to join the work force.

<sup>13</sup>Methods include reducing the burden of labour market regulations, weakening trade union power and running programmes to increase workers' employability through training and education.

productive projects, which, in addition to raising productivity, might [boost] consumption by increasing confidence in the future growth potential of the economy.” (Ahearne *et al* 2002; p.31) The economists of the Federal Reserve also suggest that a “temporary consumption tax cut” might be more effective than income tax cuts in stimulating private demand, on the basis that “consumers are more likely to spend money now if they believe that goods will be more expensive later.” (Ahearne *et al* 2002; p. 32)

As far as monetary policy is concerned, we rely on analysis undertaken by the economist, Paul Krugman (1999), who suggests that the “correct” answer to a liquidity trap is a credible commitment by the central bank to future monetary expansion. Krugman points out that, while quantitative easing in a liquidity trap may theoretically have no effect on spending (because the excess liquidity will simply be held by the banks), in practice a long-term commitment to expanding the monetary base may play a role in changing expectations – specifically with regard to future inflation. A similar rationale can be applied to open-market operations, which under conditions of a zero interest rate, would not be expected to boost private consumption. Krugman argues, however, that by engaging in “unconventional open-market operations” e.g. through the purchase of foreign exchange and long-term bonds, the central bank will be able to drive down the currency and long-term interest rate, thereby giving the economy a fillip. The critical point in pursuing both these policies, however, is to “change expectations” about future economic performance and inflation, with the aim of actually calling these scenarios into being. Krugman emphasises that for these policies to be successful, the central bank must “change its spots” and “credibly promise to be irresponsible,” so that consumers really believe that inflation is just around the corner. To quote from Krugman’s concluding remarks: “Virtues like saving, or a central bank known to be strongly committed to price stability, become vices; to get out of the trap a country must loosen its belt, persuade its citizens to forget about the future, and convince the private sector that the government and central bank aren’t as serious and austere as they seem.” (Krugman 1999; p. 5)

### **Structural measures**

To complete our reform package for Japan, we need to add one final element: structural change. The area in most urgent need of reform is Japan’s banking system, which is not only inefficiently organised, but is also crippled by a mountain of bad debt. However politically painful it may be, the dead wood in the banking industry has to be chopped out, so that the current plethora of weak, undercapitalised banks can be replaced by a smaller number of larger, well-capitalised ones. In order for this change to happen, the problem of the banks’ non-performing loans must be dealt with. Quite simply, dud loans must be written off

rather than be continually rolled over or renewed. This in turn means that many of Japan's large, but chronically weak companies must be allowed to go bust, regardless of the implications for unemployment. Japan's bloated construction industry (the chief agent through which politicians' pork barrel projects are carried out) is particularly in need of slimming down, as is the retail industry. An important benefit of allowing Japan's weakest companies to fail is that the current problem of overcapacity (and excess supply) in the economy would be at least partially solved. Clearly, the political will must exist to face the short-term pain of a rise in unemployment in order to secure the country's long-term health.

## **Conclusion**

Our investigation and analysis of Japan's economic performance since the bursting of the bubble economy at the start of the 1990s is now complete. We have examined certain traits of the boom economy and how they contributed to Japan's current recession and deflationary slump. We have also described in detail the problems associated with deflation, and their specific role in Japan. Likewise, the effects of fiscal and monetary policy on GDP and price stability have been discussed, with particular reference to the way in which policies adopted during the 1990s may have actually contributed to the ongoing bout of recession and deflation. Finally, we have presented a reform package, which includes proposals for both macroeconomic and structural reform.

Our last comment is simply to stress the urgency of the reforms we have suggested. Despite twelve years of slow decline, Japan remains the world's second largest economy. Japanese society enjoys high levels of affluence, and poverty is minimal; education and public services are excellent; and life expectancy continues to rise. The problem is that the public and politicians alike are too comfortable with their lot, and neither really wants to take the painful, but necessary, measures to restore their economy to full health. Unless these measures are taken, however, Japan will almost certainly sink further into recession and deflation, and ultimately, the party will end. Though reform today may be painful, economic collapse tomorrow will certainly be more so.

## References

- AHEARNE, A., FAUST, J., GUERRIERI, L., HEMPHILL, C., KOLE, L., ROUSH, J., ROGERS, J., SHEETS, N., WRIGHT, J. (2002) 'Preventing Deflation: Lessons from Japan's experience in the 1990s' *International Finance Discussion Papers*, 729. [Online], Board of Governors on the Federal Reserve System, Available from: <http://www.federalreserve.gov/pubs/ifdp/2002/729/ifdp729.pdf>
- ISHIKAWA, T., YAJIMA, Y. (2001) 'The Household Savings Rate Paradox – The Population is Aging, but Workers' Households are Saving More', [Online], NLI Research Institute, Available from: <http://www.nli-research.co.jp/eng/resea/econo/eco0106a.pdf>
- JONES, P. (2001) 'The UK and the World Economy/Recent Japanese experience: some policy lessons', *British Economic Survey*, [Online] Volume 30, No. 2, Available from: [http://www.statsed.co.uk/bes/bes\\_spring2001/sec9.htm](http://www.statsed.co.uk/bes/bes_spring2001/sec9.htm)
- KRUGMAN, P. (1999) *Thinking about the liquidity trap*, [Online], Available from: <http://web.mit.edu/krugman/www/trioshrt.html>
- MCALLEESE, D., (2001) *Economics for Business: Competition, Macro-stability and Globalisation*, Financial Times Prentice Hall, London.
- MILLEKER, D.F. (2002) 'America's Saving Renaissance?', *Dresdner Bank USA Report*, [Online], Available from: [http://www.dresdner-bank.com/meta/kontakt/01\\_economic\\_research/08\\_wirtschaft\\_international\\_aktuell/03\\_ldk\\_usa\\_200204.pdf](http://www.dresdner-bank.com/meta/kontakt/01_economic_research/08_wirtschaft_international_aktuell/03_ldk_usa_200204.pdf)
- OKABE, M. (1995) *The Structure of the Japanese Economy: Changes on the domestic and international fronts*, Macmillan, Basingstoke.
- PRESTON, P.W. (2000) *Understanding Modern Japan: A political economy of development, culture and global power*, Sage, London.
- WOOD, C., (1992) *The Bubble Economy: The Japanese Economic Collapse*, Sidgwick & Jackson, London.
- 'A survey of Japan' (2002) *The Economist*, April 20<sup>th</sup>
- 'Bumping along the bottom' (2002) *The Economist Global Agenda*, November 21<sup>st</sup>
- 'Checking the slumpometer' (2002) *The Economist*, March 2<sup>nd</sup>
- 'Japan's banks' (2002) *The Economist*, April 18<sup>th</sup>
- 'Japan's lost decade' (2002) *The Economist*, September 28<sup>th</sup>
- 'Of debt, deflation and denial' (2002) *The Economist*, October 12
- 'S-s-s-s-s-s-s-s-s-s-s-s-s-s-s-s' (1990) *The Economist (US)*, February 10<sup>th</sup>, v314 n7641, p. 63(2)