Japan’s Economic Deflation

By

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Introduction

Professor Eisuke Sakakibara, former Japanese Vice Minister of Finance, recently gave a lecture to the Chinese Academy of Social Science that ascribed Japan’s problems to its dual structure of the economy: large but inefficient domestic sector and internationally competitive but small export sector. He also said that the Chinese economy had similarities to Japan. This paper analyses what lessons we can draw from Japan’s bubble economy for the reforms in China and other Asian economies.

Sakakibara’s dual economy analysis was derived from a recent McKinsey study on the Japanese economy. It revealed that the best of Japanese industries – autos, steel, machine tools and consumer electronics, account for only 10% of GDP, but have productivity levels 20% above global competitors. However, 90% of GDP are in the non-export sectors of domestic production and services, which have productivity levels 63% below that of the US. Despite its huge export success, Japan’s involvement in external trade is only 18.8% of GDP, compared with 47% for China.

Japan’s 1940s Economic System

Japan was the first of the Asian economies to open up to the West during the Meiji era. However, its present economic and financial structure had much to do with the so-called 1940s economic system, set up between 1937-45 to mobilize for war. This involved a cartel of selected “zaibatsu” conglomerates, supported by the main bank system, tied with lifetime employment. The cartels were protected from international competition, so that it could invest in heavy armaments and shipbuilding to extend Japan’s military power. The shogashosas trading companies (e.g. C Itoh, Marubeni)

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3. Bill Overholt of Harvard University was first to point out this historical fact.
were specialist import-exporters that extended Japan’s distribution network for required imports and penetrating export markets.

The 1940s economic system worked effectively and served the national purpose – it protected the cartels, gave workers lifetime employment and pension, protected the main bank system, and gave politicians and the bureaucrat tremendous power to mobilize national resources for war efforts.

The system was only partially dismantled by General MacArthur during the American Occupation, which introduced competition laws, sponsored the Liberal Democratic Party to rule Japan more democratically and removed war criminals. But the Japanese production machinery was quickly revived due to the need to meet the Korean War needs. The removal of war criminals and business leaders associated with the war created a vacuum, which allowed new entrepreneurs and engineers to emerge, such as the founders of Sony, Honda, Seiko and others. This allowed the Japanese economy to expand its external trade and innovate in many new products. Nevertheless, the basic structure of the 1940s system remained intact and its ossification is mainly responsible for the problems of Japan today.

The key elements of the 1940s system involve the following:

- A mercantilist export-led growth strategy that puts current account surplus as a key policy objective. This is the “fish-trap” policy, which encourages money to flow in but do not want money to flow out;
- A bank-dominated financial system that absorbs majority of household savings and provides cheap funding for industrialization and exports;
- A stock market system that is tightly controlled by the Ministry of Finance, so that share-ownership remains controlled either by the majority owner or the “main group” linked by the “main bank”. The small amount of public float keeps control firmly in hands of the “main group”, with high PE ratios, so that IPOs can be used to fund political activities and the high share prices could deter hostile take-overs;
- A company-based lifetime employment system that links the social welfare benefits of housing, retirement and health directly with the company;
- A postal saving and social security scheme that is run directly by the Ministry of Finance so as to provide cheap funding for public infrastructure projects;
- A single-party led political system and an elitist bureaucracy that ensured stability; and
- A highly protected service sector that generates huge “rents” – price differences between imported goods and their final retail price – in order to support the lifetime and full employment.

In other words, the 1940s system was essentially a closed command economy, with a strong socialist element of social welfare and a small external sector that was slightly more than 10% of the economy but could match global market competition. The internal resource allocation was done at the corporate level, subject to distorted prices.
that were not competitive at the global market places. The result was social stability, at the cost of an inefficient domestic market and relatively low purchasing power for consumers. The distortions in resource allocation and prices were the roots for today’s huge deflation.

This system was successful from 1950s to 1980s because of three key factors:

- The benefits of MacArthur reforms that allowed in the post-war period more competition and new entrepreneurs to meet a growing global and domestic demand for products;
- A young and growing population that raised overall productivity and generated high savings and investments, leading to strong growth;
- A global environment of free trade and financial liberalization, which allowed Japanese exports and investments to grow, with little trade conflicts. The US provided the main market for Japanese goods, and Japan was willing to accumulate US dollars and overseas investment as external assets.

The turning point was the 1986 Plaza Accord, when the US acknowledged that the dollar had appreciated too much, and as a matter of policy, forced its trading partners, particularly Japan, to allow the Yen to appreciate. In the 1980s, the Yen initially fluctuated between 200 to 250 against the US dollar, but appreciated to 125 level by 1987, and then further to a peak of 84 by April 1995. This volatility was traumatic for Japanese export industries, but because they were efficient, they moved production overseas and remained competitive.

However, the appreciation also exposed and worsened the massive price distortions in the inefficient domestic service sector. The prices for domestic services became even higher relative to international prices as the Yen was appreciating. In order to protect the inefficient sectors, Japan did not engage in the necessary structural reforms such as deregulation and market opening, which would reduce the domestic services prices through competition and productivity improvement. Instead, the government allowed the bubble and distortions to continue. The following sections analyze the defects of the Japanese system within the four functions of the financial system.

**Structural Defects in Japanese System**

A market-based financial system has four major functions:

- Resource allocation
- Price discovery
- Risk Management
- Corporate Governance
**Resource Allocation**

The Japanese main-banks maintained close relations with exporters and “preferred customers”. The banks provided cheap funds to these close corporate customers while tapping on large amounts of cheap household deposits, which had little alternative channels of investment. Excessive reliance on this main-bank system resulted in a banking sector that dominated household savings. For example, Japanese households have 53% of their financial assets with the banks, compared with 11.4% for US households. Japanese banks account for 140% of GDP, compared with only 60% of GDP for the US banking system.

In other words, too many resources are given to the banking system in Japan. If it allocates the resources inefficiently through non-performing loans, then the high savings of the Japanese are actually wasted. This was exactly what happened during the asset bubble. Japanese banks lent excessively to finance an asset bubble for three reasons:

- First there was a supply shortage in land for development due to obsolete and bad land planning laws
- Second, the linkages between politicians and bureaucrats created a lobby to ensure large amounts of fiscal spending on infrastructure that were partly funded by fiscal loans and also main-banks. Whether such huge infrastructure needs added value to the economy did not appear to be of great concern.
- Third, banks were caught up with excess liquidity trapped in Japan

The Japanese banks and securities houses never encouraged Japanese investors to invest abroad because this would reduce their source of cheap funds. Japanese policy makers refused to de-regulate overseas investment by households until very late. By then, the massive appreciation and volatility in the yen not only created huge losses to anyone holding overseas assets but also frightened Japanese households on investing aboard so much that they preferred to hold yen assets even at much lower yen interest rates.

**Price Discovery**

The dual nature of the Japanese economy meant that domestic prices do not reflect internationally competitive supply and demand. This was particularly clear in the financial system, as can be demonstrated from three sets of prices: interest rate, securities prices and the exchange rate.

Because of the “fish trap” mentality, the Japanese policy makers preferred to keep most of the high savings at home. This did not lead to high inflation at the consumption

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4 Japan is the first actual manifestation of the Keynesian “liquidity trap”. The economy is still saving, but such savings are put into non-productive assets, such as NPL, so that liquidity is being destroyed rather than recycled.

5 Japanese households held ¥6.9 trillion in foreign securities, or only 3.4% of total foreign securities held by Japanese residents. The balance are held by banks, enterprises or pension and insurance funds.
level, but lead to high domestic liquidity that created an asset bubble [too much money chasing too few fixed assets and too few stocks].

At the banking level, Japanese banks paid low nominal deposit rates to enable them to lend to enterprises at low interest rate with low credit spreads. But the domestic interest rates do not reflect true credit risks. Currently, Japanese credit spreads are 1.5% [net lending rate minus deposit rate less administrative costs before bad debt provision]. However, the level of non-performing loans of the Japanese banking system is at least 15%. Clearly, the banks cannot clean their NPLs through their own cash flow.

If the cost of funds is excessively low, it is likely that the borrowers will waste their usage. Property developers found that they could borrow very long-term funds at cheap rate, leading to a self-fulfilling asset bubble in the entire property sector. The more the banks were willing to lend for property, the larger the bubble. This type of bubble was common in other Asian crisis economies.

At the securities level, Japanese PE ratios are consistently the highest in the world. At the high of the stock market bubble in 1989, the Nikkei index was 38,000 and had a market cap equivalent to nearly half of global market cap. The PE ratio then was 80, when interest rates were 4.5% per annum. By 2002, when the Nikkei 225 index was down to around 10,000 level, the PE ratio was still around 80, amongst the highest in Asia.

The lack of data does not enable us to estimate how much of the NPL was due to banks financing stock market speculation. Based upon international experience, this was clearly one significant component of bank losses.

In normal financial markets, there should be an equity premium, which is the cost of funds of raising equity should be higher than the government bond rate, because the risks are higher. In Japan, the equity premium is a discount (e.g. negative), being as high as 5% per annum in 1990 and nearly zero in 2002. The cost of funds through equity is the inverse of the PE ratio. Hence, a PE Ratio of 80 implies a 1.25% cost of funds.

There are structural and policy reasons why the PE ratio in Japan is very high. First, the float in public hands is very low, since only 8.8% of Japanese household assets are in shares, compared with 34.9% for US households. The bulk of Japanese equity is held by institutions, such as insurance companies and pension funds. These cross-holdings ensure that large corporations are controlled within the same “keiretsu” or conglomerate.

Secondly, the high PE Ratio allows for successful IPOs, which is the method by which traditionally the political funds are financed. The Recruit scandal of the 1980s demonstrated how a Ministry of Finance official would arrange for loans to members of parliament to subscribe for IPO [in this case, Recruit]. Once the IPO price rises, the

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member of parliament would sell the shares, pay off the loan and use the funds for party political purposes.

Thirdly, high PE ratios would insulate the Japanese corporations from being raided by foreign multinationals cheaply. It would be extremely expensive for multinationals to take over a Japanese listed company, unless it was a friendly bid.

Fourthly, Japanese corporations like high PE ratios, since they are much higher leveraged than their US or European competitors. The high leverage means that with a smaller equity base, the majority shareholders can retain their control of a much larger company without seceding power to minority shareholders.

**Risk Management**

Financial systems are supposed to distribute and diffuse the risks of the real sector. However, with a dominant banking system, too many risks are concentrated in the banks. Moreover, since the banks have low capital adequacy ratio, the ultimate risks in Japan were absorbed by the Bank of Japan as lender of last resort, and eventually the Japan Deposit Insurance Corporation, which in effect guaranteed all banking deposits. By doing so, the Japanese banking system suffers from inherent moral hazard.

However, the biggest defect in the Japanese system was bad national risk management emanating from the fish trap mentality. By keeping savings in domestic markets, the Japanese authorities were concentrating risks, rather than diversifying them. A fundamental principle of risk diversification is to distribute funds into assets that are negatively correlated with each other. Thus, the best way to diversify out of a domestic economy is to invest in foreign assets. In economies with good foreign exchange reserves, any internal banking losses could be written off against the revaluation gains from devaluation. For this condition to work, the economy must have net foreign exchange assets. This did not work in the case of Thailand or Indonesia, because both countries had net foreign liabilities [FX reserves less than external debt].

To achieve effective national risk management, it is essential for exchange rates to reflect the fundamentals of the economy and its growth dynamics. This has become difficult with Japan’s dual economy. Japan’s internationally competitive export sector with implicit subsidies from its banking system was generating a large and continuous current account surplus, implying that Yen should appreciate. On the other hand, the inefficient domestic sector with excessively high prices and large NPLs would suggest that Yen should depreciate and domestic households should invest in overseas assets to hedge domestic risks.

Unfortunately, the policy objective to maintain a continuous current account surplus dominated exchange rate policy for three decades. With large volatility relative to the dollar, Yen appreciated from 360 in 1970 to about 115 in 2000. Fund managers and investors who diversified into foreign assets (especially US Treasuries) were hurt badly
by the volatility and appreciation of the yen, because when the yen appreciated strongly, they suffered exchange rate losses.

The late de-regulation of exchange control and rules allowing Japanese investors to invest abroad meant not only that retail investors are not able to diversify their risks in the event the Japanese market declines.

This failure of risk management is compounded by four market practices that violate basic risk management principles. These market practices evolved from three decades of appreciation in the yen, driven by a policy objective to have current account surpluses. The cumulative effect of these practices is to exacerbate the volatility of the yen and distort domestic prices further away from global price structure.

The first market practice is for Japanese corporations to borrow in yen and earn their exports in US dollars. Since Japan has a trade surplus with the USA, it is natural that their net earnings are in dollars. This creates a huge currency mismatch. If the yen is appreciating, the export corporations would sell the dollar forward to lock in their yen earnings. However, if yen continues to appreciate, the action in selling dollar and holding more yen in the forward market would cause the yen to appreciate even more.

The second market practice is for the Japanese government to lend in yen. These loans were given to export the yen, so that the yen would not appreciate because of the current account surplus. Large amounts of yen are loaned to developing countries, especially those in Southeast Asia, in yen. Borrowers were persuaded to accept aid and soft loans, because of low interest rates. However, most borrowers suffered in the 1990s because of the appreciation in the yen.

The third market practice that exacerbates the yen volatility is that Japanese trading houses export their machine sales to developing countries in yen and import in dollars. They tempt the buyers with cheap yen loans, because the exporters to emerging markets do not wish to be exposed to yen volatility. However, since the yen tends to appreciate, the imports are priced in dollars, so that the importers are protected from yen appreciation. This practice meant that the exchange rate risk is borne by the developing countries, many of which have 30-50% of their external debt in yen from OECF or Japanese EXIM bank credits.

The fourth market practice is yen carry trade or interest rate arbitrage. The banks and foreign funds like to borrow in yen with cheap interest rates and earn a positive “carry” [US dollar interest rates being higher than yen interest rates] by investing in non-yen assets. As long as yen does not appreciate sharply within a short period of time, this interest rate arbitrage is profitable. The Japanese authorities welcome such trade because the borrowing of yen helps to export yen, which offsets the current account surplus that puts pressure on the yen to appreciate. But this practice also exacerbates yen volatility.

The cumulative effect of these four market practices is to create a yen overhang. There are too much yen liabilities with income in dollars on the part of Japanese...
exporters, Japanese aid recipients and yen borrowers. When the yen depreciates, the borrowers and exporters are happy. However, when the yen appreciates, everyone runs for cover through forward sales of dollars to hedge their exposure or through stop loss contracts. The net effect is that yen always whiplashes when it appreciates. In the short-run only through sharp intervention by the Bank of Japan to sell yen and buy dollars could it stop sharp yen appreciation.

Because of its excessive volatility and huge uncertainty over its long-term value, the yen is not used widely as an investment instrument or a preferred currency for trade. Low Japanese interest rates were initially an attraction for borrowers, but yen volatility scared off many long-term borrowers. This accounts for the reason why the yen never replaced the dollar as the major currency in Asia.

**Corporate Governance**

Because of the price and resource allocation distortions described above, the Japanese financial markets did not evolve as an important checks and balances on Japanese corporate governance. Indeed, Japanese transparency and accounting practices worked against improving corporate governance. Trade protection and non-tariff barriers against investments by foreign strategic investors prevented weak companies from being taken over and restructured. The Japanese tended to resolve problems by “internalizing losses” through mergers of failing institutions. For example, banking problems were solved initially through mergers and consolidation into larger banks. But the management problems that gave rise to financial failures were not addressed. Because of the lifetime employment contracts, there were few layoffs of poor or incompetent management.

Poor accounting standards also hid the scale of losses. For example, the Japanese pushed very hard in the late 1980s when the Basle Capital Accord was formulated to include unrealized profits from the revaluation of Japanese banks’ holdings of corporate equity as second tier capital. However, when the Nikkei index fell to around 14,000, the banks and insurance companies had to engage in price support operations in order to avoid shortfalls in bank capital, as their share portfolio value fell with the Nikkei index.

Japanese banks also did not apply generally accepted Basle loan classification standards in accounting for non-performing loans. The result was that the true extent of Japanese NPLs has always been a point of controversy between market analysts and the authorities. Even to today, no one has an accurate assessment of the size of NPLs in Japan.

Because of their closely-knit bank-corporate relationships, there was insufficient protection of minority rights for investors in Japan. The retail investor as a group was too small to make an impact. The institutional investors had too close a relationship to make radical changes. Management succeeded by seniority and not necessarily by merit. Although the export business were kept vibrant and highly productive by their exposure to international competition, the bulk of the non-trade business – primarily agriculture,
business services, construction and real estate – were highly inefficient with poor corporate governance and transparency.

There were also too much vested interests in the political game of fiscal expenditure and the maintenance of lifetime employment for any radical changes in corporate governance to be made. Inefficient companies that depend heavily on public contracts spend more time on lobbying than in improving their overall efficiency.

**Relationship with Asian crisis**

During the Asian crisis, there was a lot of blame put on the hedge funds. But as the IMF International Capital Markets 1999 survey pointed out subsequently, by early 1998, the portfolio funds had largely left the region because of fears of currency and debt crisis. It was the withdrawal of US$200 billion of Japanese bank loans that were lent to Asian customers through Hong Kong and Singapore that resulted in the crisis of Indonesia and Korea. Trade credit from Japanese manufacturers and trading houses (funded by cheap Japanese bank loans) were important sources of liquidity in the Asian crisis economies. These events were related to the volatile value of the yen.

Japanese banks were already suffering from their low level of capital due to the need for provision of NPLs, when the yen began to depreciate in 1997. However, since the Japanese banks have large amounts of US$ loans, any weakening of the yen would result in capital adequacy being lower, since the US$ loans on their books would appreciate relative to the capital funds, which are denominated in yen. Hence, the natural reaction when the banks have inadequate capital was to cut their US$ loans to customers in Asia. Asian banks were dependent on Japanese banks being net providers of US$ liquidity. When these were cut off and withdrawn, the Indonesian and Korean borrowers had to go to the market to find dollars, which resulted in the sharp depreciation of the two currencies. When the central banks could not defend the local currencies, the economies had a financial crisis.

In other words, since Japanese GDP and financial assets account for two-thirds of East Asian GDP and financial assets, any contraction of the Japanese economy could have large effects on the rest of Asia.

**Ageing Population and Retirement Fund design**

A key weakness of the 1940s Japanese economic system was that it was not designed for Japan to be integrated to the global economy. On the contrary, it was designed to insulate Japan from the rest of the world. It pays for this insularity through a dynamic export sector. It keeps the rest of the world happy by a generous aid and loan
programme [capital outflow] that ensures that for export sector the yen is relatively undervalued so as to generate a continuous current account surplus.

This design was sustainable as long as Japan had a young population and growing productivity. It clearly has structural flaws at a time when Japan is ageing faster than the rest of the world and the productivity of its domestic sector is lagging behind the US by 63%.

This policy mistake can best be contrasted with the economic system in the United Kingdom, another island trading economy. The UK faced the same problems as Japan with an ageing population. In the 1970s and 1980s, it recognized that as the population aged, it would have to generate sufficient income to finance its retiring population.

The Thatcher Government solved the problem through a series of privatisation, economic liberalization and selected immigration from Europe and East African Indians. The Big Bang in London in 1986 liberalized the financial system and welcomed foreign banks and fund managers to come into London, developing London as the premier asset management centre in the world. Today, UK-based fund managers are able to generate global returns for UK retirees. They are well diversified in terms of risk and there are no exchange controls to force fund managers to concentrate their risks in domestic assets.

By diversifying into foreign assets invested in US, Europe and emerging markets, UK ensured a steady flow of profits and dividends (as well as service income) for its ageing population.

In contrast, over half of Japanese household savings are concentrated in the domestic banking system, with a minimum of 16.2% of GDP in NPL, estimated officially at ¥82 trillion (or US$620 billion). Another 26% of household savings is in the Postal Savings and Postal Insurance, and 20% in Insurance and pension funds. Although these are under government guarantee, the quality of assets in these funds is doubtful, because of their involvement in price keeping operations of the equity market.

The prospect of losses of Japanese households’ savings is huge. The Japanese bond market accounts for 137% of GDP. If the Japanese 10-year bond interest rate, which is currently 1.44% per annum, were to double, then on average the bond value would decline by at least half. In other words, the pension and insurance funds, which hold large proportion of bonds, could suffer losses of up to 68% of GDP. This is why the Japanese monetary policy is now hostage to low interest rates.

In addition, if Japanese stock market PE ratios were to decline from the present level of 80 to the US stock market historic average PE Ratio of 21, then the present value of the stock market would be one quarter of the present value. Since the Japanese stock market now accounts for 66% of GDP, the potential losses to the financial system and household savings could be as much as 50% of GDP.
In other words, if Japanese interest rates and PE ratios were to move to global market levels, the potential losses to household savings could be as large as 118% of GDP. This excludes losses in the real value of property, which has already declined by more than 65% since its property price peak in 1990. The average Japanese household is now faced with the problems of ageing, declining value of pension of financial assets, declining value of real estate, and prospects of greater unemployment. The only thing that is standing in the way of such losses is existing government policies to keep interest rate low and to guarantee the banking, insurance and pension system.

Although Japanese policy makers argue that the high internal debt issue, at 140% of GDP, is not a problem, it is clear that the left hand cannot keep the right hand afloat.

It is therefore not surprising that Japanese households are still furiously saving to replenish asset losses. The Japanese economy cannot avoid greater deflation because it is still trying to use flows to cancel out huge balance sheet losses. Further fiscal injection will not work.

To sum up, by not aligning the Japanese economy to global prices, the Japanese investor and household is now facing huge present and future losses. There is considerable public debate on devaluation to ease the pain of adjustment.

**Will a devaluation help?**

There are two effects that might help Japan through devaluation – the flow effect and the balance sheet effect.

In terms of flows, Japan is already running a current account surplus of around ¥12 trillion (US$92 billion) or 2.4% of GDP. Over the period 1990-2000, Japan ran US$1,047 billion in trade surplus, thirteen and half times that of what China and Hong Kong had (US$77 bn). A devaluation would increase the current account surplus by boosting exports and depressing imports. The current account surplus would rise. There could be some effect on domestic growth, but since the export sector accounts for less than 10% of GDP, the net impact on growth and employment is likely to be relatively small.

The balance sheet effect could be more important. Japanese external assets have risen from ¥352.5 trillion at the end of 1997 to ¥363.9 trillion by the end of 2001, based on Bank of Japan flow of fund accounts (Table 1). Using year-end exchange rates, the value of such assets moved from US$2.712 trillion to US$2.761 trillion. If the yen devalued by 17.6% from 131.8 to say, 160, then the revaluation gains from net foreign assets would be ¥64 trillion or 12.7% of GDP. This would certainly be available to offset domestic losses in the national balance sheet.

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7 Andy Xie, “Yen or Yuan”, 26 November 2001, Morgan Stanley
If the yen devalued by 41.7% to say, 226 range (as some analysts using labour productivity indicators suggest), then the revaluation gains could be ¥151.7 trillion or 30% of GDP, which would certainly be enough to offset the official estimate of NPLs of the Japanese banking system equivalent to 16.2%. But it would not be sufficient to offset the estimated losses to households if interest rates adjust to “normal” rates. A sharp depreciation of the yen could also cause domestic interest rates to rise.

The problem with this simple balance sheet calculation is that such a devaluation would certainly impact on Japan’s trading partners, since a devaluation would pass the losses to its trading partners. In order to avoid such losses, there could be a competing round of devaluation, leaving all parties back to square one. There will be another round of huge deflation globally.

The political economy of Japan’s deflation therefore is whether Japan should internalize its losses by real sector restructuring aided by a stable exchange rate, or whether it should externalize its losses by devaluing. The answer is clearly a bit of both, but if the exchange rate goes into a free fall for whatever reason, then the rest of world will have to deal with the situation of the second largest economy in the world creating a huge liquidity trap.

This liquidity trap is a combination of ageing population, distorted prices, and a continuing current account surplus where the savings are channelled to value-subtracting areas [non-performing loans and inflated bond and stocks].

The political economy of how to distribute Japan’s losses is outside the scope of this paper, but clearly deserves urgent and close attention.

In sum, the present structure of the Japanese economic and social system rests on highly distorted prices relative to global levels. In order to combat deflation, Japanese monetary policy has a “fixed interest rate” policy, with interest rates nearly zero. This has created a highly volatile exchange rate. Asset prices still do not reflect fundamentals, so that the economy is in a liquidity trap. It cannot generate growth using fiscal or interest rate tools. Since the external sector is so small, an exchange rate adjustment may not help either. The ageing population is still saving because it cannot be assured that present and future holdings of financial and real assets will not further depreciate in real value.

The Japanese dilemma has similarities with the rest of Asia – the macro-economic fundamentals look strong, but there are serious micro-economic and structural deficiencies. This macro-micro inconsistency must be addressed through major internal structural reforms, particularly in the labour markets, changes in the banking and retirement systems, as well as a major overhaul in corporate governance.