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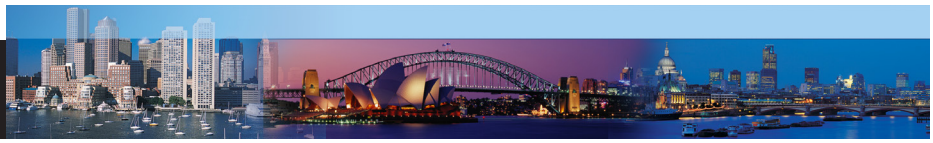


November 2012

Japan: After the Quake, After the Floods

Richard P. Mattione

I can see clearly now, the rain has gone,
I can see all obstacles in my way …
It's gonna be a bright, bright, sun-shiny day.

—*Johnny Nash*

Japan's recovery from the Tohoku earthquake and tsunami of March 11, 2011 has been so astounding that people rarely even think about the tsunami anymore. Even fewer remember that heavy rains in Thailand further disrupted the global production chain at the end of 2011. With so much accomplished, why do so few Japanese companies see bright days ahead?

This paper will first look briefly at the resolution of the five potential earthquake- and tsunami-related bottlenecks identified in last year's report.[1] The accomplishments are truly remarkable: except for the issue of power supply, the bottlenecks are long gone.

I will then examine how chronic issues such as the expensive yen, deflation, and Japanese government debt leave some clouds in Japan's future. Japan's recovery has played out in the context of slowing demand in the rest of the world, triggered by budget battles in the United States, sovereign debt and bank financing difficulties in Europe, and a slowing economy in China. Then, to top it all off, anti-Japan protests in China triggered by the issue of sovereignty over a few small islands in the East China Sea (called Diaoyu by the Chinese, Senkaku by the Japanese) resulted in disruptions and damage at Japan's factories in China. One would scarcely be surprised if Japanese corporations have not seen a bright day ahead, yet there has been enough progress to make Japan an interesting place to be.

Japan's bottlenecks after the quake: four down, one still to go

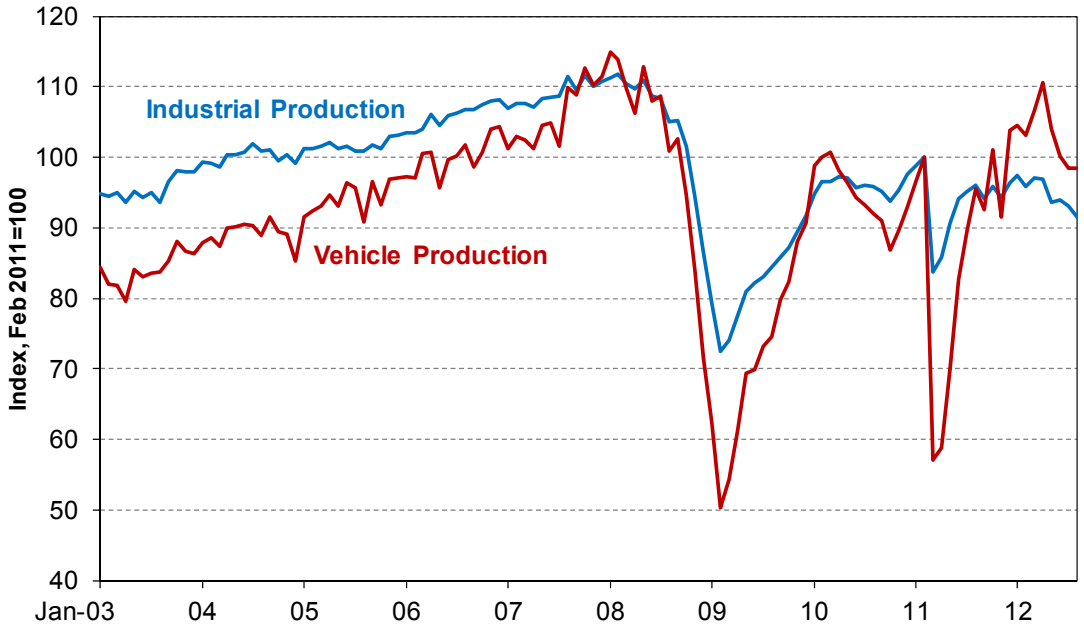
In the intermediate aftermath of the earthquake and tsunami, Japan and the global economy faced five key bottlenecks: damage to chemical plants in Kashima; disruption of electronics-related plants in Tohoku; consequent disruptions to auto production worldwide because of the problems in chemicals and electronics; disruptions to Japan's energy production; and the possibility of financial disruption if the disasters forced a number of firms into bankruptcy. The disruption to nuclear power production was the only one that appeared at that time to potentially take a long time to solve, and such indeed was the case. So four down, one still to go: not too bad!

The speed with which corporate Japan mustered its resources remains impressive, witnessed by the rapid improvement in many of Japan's economic numbers after the quake. Industrial production slipped 16% in March 2011 from February 2011 (the last full month before the quake), but in eight months had recovered to within 4% of the February 2011 level despite bumps from the floods in Thailand (see Exhibit 1). By now the effects of quakes, the tsunami, and floods are gone from the data, but the recovery in overall production peaked about 3% shy of pre-quake levels before slipping again on a slow global economy. Domestic motor vehicle production topped out in April 2012 at a level 10% above pre-quake levels, as Japanese makers caught up with demand and rebuilt inventories.

[1] Richard P. Mattione, "Five Bottlenecks in Search of Global Calamity," June 2, 2011. This white paper is available to registered users at www.gmo.com.

Exhibit 1

Japanese Industrial Production Has Rebounded



Source: stat.go.jp, GMO calculations *As of 8/31/12*

The unemployment rate had drifted down from 4.7% just before the quake to 4.2% by September 2012. The uptick in production boosted overtime for workers, which fed through to consumption in the first half of 2012. Thus, while technically the quake and tsunami caused a recession, the recession proved short. Real GDP fell 2.3% in the first half of 2011, but rose in each of the four subsequent quarters. As of the June quarter of 2012, real GDP is 1 percentage point above the level in the last quarter of 2010, before the quake. The autumn of 2012 sees the economy shrinking again, but the earthquake and tsunami are not the cause; instead, blame slow global demand and politics, domestic and foreign.

The chemical industry

In the immediate aftermath of the earthquake and tsunami, chemicals were a potential chokepoint because of their use in a variety of electronic and automotive applications. A number of products – BT resin, high-purity hydrogen peroxide, and EPDM – were cited as severe bottlenecks. Yet the chemical chain was fixed fairly rapidly, and by the third quarter of 2011 was no longer a significant constraint on Japanese or global growth.

Briefly it appeared that a new bottleneck for Japanese and global production had arisen when Evonics managed to blow up its cyclododecatriene (CDT) plant in Germany in March 2012. CDT is a precursor chemical for PA-12, a nylon resin used in brake and engine parts that must stand up under severe heat and stress, and Evonics accounted for 50% of global capacity. Dire articles warned that the global auto industry would soon grind to a halt,[2] with Japanese producers again seen as the most affected because they tend to run with low inventories. The disaster never materialized. Auto makers allocated nylon-12 production to parts such as truck brakes that needed the highest resistance to heat and stress, and made do with a variety of substitutes elsewhere. Theoretically, repair records over time could show some costs for the substitution, but as of this date things appear to be fine.

Electronics and electrical equipment

Within a few days of the earthquake, the destruction at plants producing electronics parts in the Tohoku region of northern Japan was cited as a key bottleneck. In particular, several Renesas Electronics factories that produced

[2] "Auto supplier warns of resin shortage disrupting output," Bloomberg.com, April 15, 2012.

microprocessors (MCUs) for cars were heavily damaged, temporarily bringing production of a wide variety of car models (mostly Japanese, but in some cases American) to a halt. But, as expected, Japanese firms came together and focused on solving these problems, and by the third quarter of 2011 production had recovered for MCUs and other electronics products that had posed a bottleneck.

Scarcely had the earthquake-related problems been solved when floods in Thailand again crimped production in key areas for Japanese and global electronics companies and, to a lesser extent, for automobiles. Probably the most dramatic effect from the Thai floods was a shortage of hard disk drives (HDD) and related components beginning in the fourth quarter of 2011. Thailand had over the years come to play a dominant role in the manufacture of key parts for HDDs, as the devices that used HDDs were themselves overwhelmingly sourced in Asia (for example, personal computers). Yet companies such as NiDec moved swiftly to rebuild in Thailand and to move some capacity to places such as the Philippines, so by the second quarter of 2012 this new problem had been resolved. Tight supplies led temporarily to higher prices in late 2011 and early 2012 for HDD, but weak global demand had by September of 2012 led to earnings warnings from HDD makers: HDD supply had caught up with weak PC demand, and the bottleneck had been eliminated all too quickly!

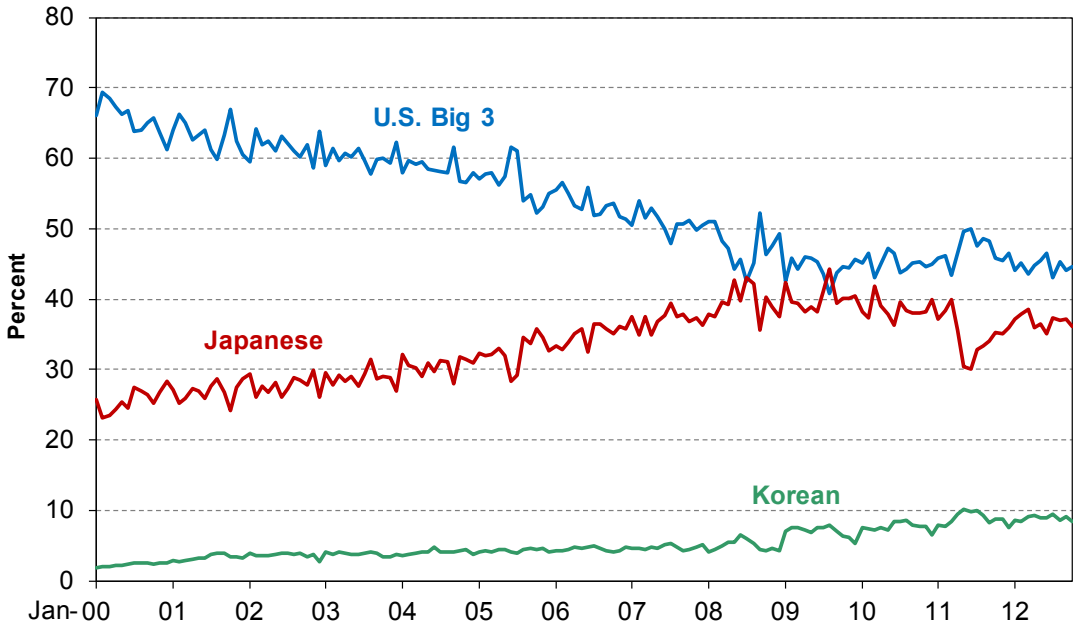
The automobile industry

The key bottleneck for the global automobile industry was the previously-mentioned shortage of MCUs. Though a variety of global companies had one or two products affected, Japanese makers were most affected. Even within Japan, the timing of model changes combined with dumb luck to leave Nissan little affected while Toyota and Honda took major hits to production. This generated silly stories of how Japanese makers would permanently lose huge amounts of market share to competitors in the U.S. and other markets. Honda took a further hit when floods in Thailand disrupted supply for the company and its suppliers at the end of 2011.

The Japanese industry worked methodically to fix the key bottlenecks, and by late 2011 production and sales were picking up. Share in the key U.S. market bottomed at 30% in May and June of 2011, having been at 40% or higher as recently as December of 2010 (see Exhibit 2). While the Japanese makers have yet to regain the share they attained during the Great Recession of 2008-9, their share of a much larger U.S. market (14 million or more in U.S. sales at a

Exhibit 2

Japan's Share of U.S. Auto Sales Has Rebounded Quickly



Source: Ward's, Autodata, GMO As of 10/31/12

seasonally adjusted annual rate) has held around 37% throughout 2012. This has come at the expense of U.S. makers, whose share peaked at 50% in May and June of 2011, but has been running closer to 44% in 2012. Admittedly, a lack of capacity has kept Korean makers from gaining much share, but that reflects their deliberate decision to keep production of key components at home in Korea.

The Japanese vehicle industry does face challenges. Competitors have narrowed the quality gap.[3] Demand has been weak in a number of markets including China (even before the anti-Japan protests) and at home as the eco-point incentives wear off. A strong yen means that there should be further moves of production outside of Japan, witnessed by the expansion plans of companies such as Honda and Nissan in Mexico to serve the North American market. Another has nothing to do with earthquakes or exchange rates or disputes in China: the possibility that over the long run other products such as smart phones replace autos as the status symbol for younger people. Some data hint at this, but any weakness in car ownership among younger people may also reflect factors such as weak income growth (cannot buy a car), weak household formation (living at the parents' house and borrowing the parents' car), and increased urbanization (no place to park a car). Rather than a lack of enthusiasm for cars, the problem may be a lack of income, solved once the economy picks up and the young have enough money to get married and move to the suburbs.

Energy in Japan

The quake and tsunami damaged both the refining and electricity generation capacity of Japan. The former proved easy to fix, the latter remains unresolved.

Japan temporarily lost over 10% of its refining capacity in March 2011. But the industry was operating at low rates before the quake, so was able to service Japan's needs with some changes in delivery logistics. Operations had been restored at all facilities by late 2011 except at the Cosmo Oil facility in Chiba. Even that one opened in early 2012, though it is now shut for other problems unrelated to the quake. For the refining industry the quake is over, and it must now turn its attention back to the longer-term issues of excess capacity prompted by the steady decline in gasoline consumption in Japan.

The remaining and very fundamental bottleneck from the quake is in the electricity sector. By May 2012 all of Japan's nuclear reactors had gone quiet as their regular inspections came due, for few of the officials whose signatures were needed wanted to sign the authorization for a restart.

Japan had 49 gigawatts (GW) of nuclear plant capacity prior to the earthquake and tsunami, producing 26% of Japan's electricity in 2010, the last full year before the quake. Nuclear had long been favored because it promised more security against short-term supply disruptions triggered by overseas political events, given that Japan has little in the way of carbon resources (coal, oil, gas) on its own territory.

Removal of the capacity at Fukushima Daiichi and Kashiwazaki-Kariwa (the seven reactors at Kashiwazaki had never restarted after the Niigata quake a few years earlier) meant that Japan entered the spring of 2011 with 36 GW of nuclear capacity in operation, a figure that would gradually drift to zero as plants closed for scheduled inspections. Tokyo had survived the summer of 2011 with these gradually reducing nuclear operations, but a complete absence of nuclear power was seen as too much for 2012. Plants had applied to reopen following their regular inspections. Eventually a compromise was reached to restart reactors 3 and 4 at Ohi, owned by Kansai Electric Power, to cover peak summer needs in western Japan, but those two plants account for a mere 2.36 GW of capacity from the 49 GW existing before the quake.

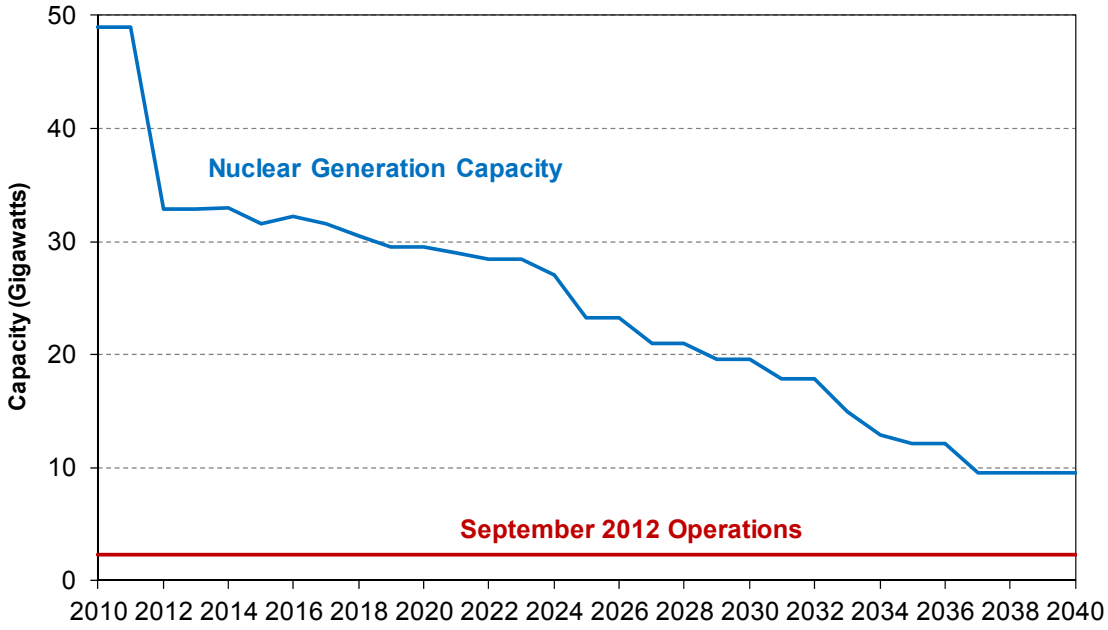
The government has moved fairly quickly on renewable energy sources, enacting a tariff of ¥42 per kilowatt hour to encourage sources such as solar and wind. This led to a rush of project announcements, but renewables will remain a negligible part of Japan's energy matrix for a long while despite grand statements of policy.

[3] Though recent reports of a mistake by Korean makers in calculating mileage outcomes switched the fuel economy game from "advantage, Korea" back to "advantage, Japan."

The government has broached, and just as quickly pulled back on, various plans to phase out nuclear power over the longer run. One trial balloon suggested no nuclear power after 2039, another a decommissioning of plants once they reach 40 years of age. Exhibit 3 shows the likely path of nuclear production in Japan should the 40-year rule be used.[4] The absence of TEPCo plants implies a sharp reduction in stated capacity now, from 49 GW to 33 GW, followed by gradual declines in the following decades, but a relicensing using the 40-year cutoff would in fact lead to an immense increase in nuclear generation compared to the experience of 2012.

Exhibit 3

Nuclear Generation Capacity in Japan under Modified 40-Year Life Rule



Source: Federation of Electric Power Companies of Japan, GMO Calculations

Political obstacles to a resolution of the nuclear issue abound. There will be national elections on December 16 of this year, but there is no guarantee a clear majority will emerge. Meanwhile, the newly created Nuclear Regulation Authority (NRA) has taken over from the previous atomic energy agency, but it is moving with a great deal of deliberation. Even if the political will is there to open more reactors, it will be difficult to restore other nuclear operations until late in the summer of 2013.[5]

One might question whether nuclear power is needed. Japan made it through the summer of 2012 with a mere 5% of its stated nuclear capacity operating. Yet 2012 brought no major reallocations of production such as in 2011, when the auto industry went to a Wednesday to Sunday work week to smooth demand. Things are not quite that simple, however. The year 2012 enjoyed a relatively cool summer that helped restrict household demand while a weak global economy restricted industrial demand. In addition, some of the non-nuclear plants are probably operating at higher utilization rates than is sustainable.

Three problems remain for the longer term. First, normal operating rates in industry use up most of the margin that Japan has on a normal summer day, so industry might be disrupted if a hot summer coincided with a warmer economy. Second, the thermal plants that have taken up the slack are old, and may start to show more failures if they continue to operate at this pace. Third, without nuclear power there is a sharp contradiction between restoring the health of the

[4] This assumes that plants not yet completed are finished and start operation, but that no plants of Tokyo Electric (TEPCo) restart.

[5] Some of the obstacles may seem quibbles. For example, the NRA has said it will only rule on safety, and that the government has the decision on restarts, whereas the government says the NRA is also responsible for deciding on restarts.

electric power industry and keeping Japanese industry competitive. A double-digit hike in utility charges has been mooted to stabilize the health of the electric power companies; the expected compromise of an increase in the high single digits would leave them on life support. Yet power is already expensive in Japan, so a lasting hike could trigger further shifts of industrial production outside of Japan.

Balance sheets in Japan after the quake

As expected, the direct effects on the balance sheets of Japanese companies have so far been minimal. Tokyo Electric Power needs to be restructured, and has submitted a special plan to the Ministry of Economy, Trade, and Industry (METI). The government would provide ¥1 trillion in capital in exchange for majority voting rights, and banks will provide ¥900 billion of new loans and commitments excluding refinancings. The deal was purposely structured so as to allow banks to avoid declaring losses. The shutdown of nuclear plants without a hike in tariffs to cover more expensive alternative power sources is also steadily damaging the balance sheets of the other electric utilities. That drain is unlikely to end soon, with indications that utilities will finally submit official plans to raise electricity tariffs, to take effect from April 2013.

Several companies hit hard by the quake and tsunami have also seen damage to their balance sheets. Nippon Paper used the tsunami as an opportunity to restructure its operations, and appears set for a gradual improvement in its balance sheet. Renesas Electronics has two suitors battling to provide the balance sheet support it will need – one is KKR from the United States, the other a government-led intervention under the aegis of the Innovation Network Company of Japan. Renesas might well have needed new capital even without the quake, and the restructuring plan it is initiating goes far beyond modifying its damaged plants. Banks in the Tohoku region are no longer even mentioned as problems, though three did receive injections of government funds during 2011. At 77 Bank, the largest to receive funds, the ¥20 billion injection took the Tier I capital ratio from 11.5% to 12.5%, so the need was hardly urgent. Meanwhile, nationwide bankruptcy figures for September 2012 have fallen to among the lowest level in decades, at ¥177.6 billion that month. Though the bankruptcy of Elpida (a semiconductor manufacturer) earlier this year shows that not all corporates are healthy, only TEPCo's problems can be attributed to the quake.

Japan's other problems, new and old

Japanese industry fixed the bottlenecks from the quake and Thai floods quickly, only for the economy to face a number of other problems, some chronic and some acute: global stagnation, a strong currency and weak trade balance, deflation, too much government debt, and tensions with China.

Global demand – it's not just China

Global demand in the wake of the Great Recession of 2008-9 has yet to catch up to that of a normal recovery. Sovereign debt and bank capital problems in Europe and the looming fiscal cliff in the United States promise subdued demand in the developed world for a few more years.

Demand from China and other emerging markets was supposed to help Japan cover a shortfall in American and European markets, but developing countries are proving to be a less independent source of demand than had been hoped. Resource-rich emerging markets such as Brazil have seen their own growth slow as China's demand eases up. Central banks in places as varied as Brazil and Indonesia have found it necessary to tackle excesses in the provision of consumer credit. The tightening in those countries has hit Japanese-owned motorcycle production especially hard.

China has been loath to repeat its stimulus of 2008, and in any case a difficult political transition has hamstrung policymaking. Meanwhile the anti-Japan sentiment in China may well be a long-lasting damper on demand for Japanese branded consumer products. Who would want to drive a new Toyota if the annual anti-Japanese protests could result in your car being keyed or burnt? Earnings reports from the September quarter for auto assemblers have shown the effects of a slowdown that had started before the riots and the uncertainty as to when and to what extent demand will recover for Japanese products in China.

Japan's trade and current accounts – things have changed, but don't overdo the gloom

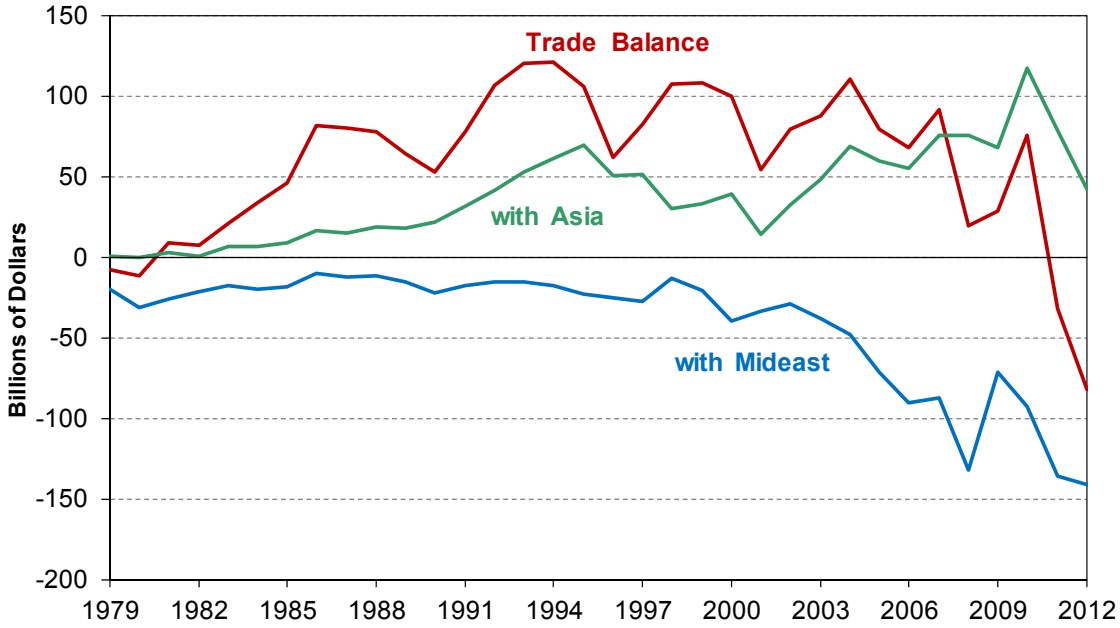
There has been a lot of hand-wringing about a Japan doomed because its trade account has swung into deficit in the wake of the quake and tsunami. The shift has been large and it is likely to last many more years, but it is unlikely to take out the Japanese economy.

One can see why the numbers have led to shock. Japan has run a surplus in only 5 of the 19 full months since the quake. The trade balance deteriorated by $108 billion from 2010 to 2011. Three regions were most prominent in the swing: a $43 billion worsening versus the Middle East, a $20 billion swing versus non-China Asia, and a $19 billion swing versus China. A full $72 billion of the deterioration came from an increase in the deficit on mineral fuels (from $185 billion to $257 billion), which not so surprisingly is almost equal to the swing in the balance with the Middle East and non-China Asia, Japan's main sources of energy imports. Only $3.5 billion of the shortfall stemmed directly from the inability to produce cars.

A closer examination of the data makes it hard to see the end of Japan, as opposed to a period of difficulty. Japan ran trade surpluses for 30 consecutive years, beginning in 1981 and ending in 2010 (see Exhibit 4), for a cumulative $2.16 trillion on the trade account. This was followed by a deficit of $32 billion in 2011, which should more than double to $85 billion for 2012. Slightly more than half of the worsening in 2012 reflects the remaining effects from the near shutdown of the nuclear industry, but those effects should disappear by May 2013. The rest seems due primarily to weak exports to Europe (slow demand there compounded by a strong yen), Korea (possibly the strong yen), and China (a mix of politics and China's economy). It still would imply the better part of 25 years or so to use up the previous surpluses.

Exhibit 4

Quake and Floods Knocked Japan's Trade Balance into the Red



Source: Jetro; GMO Estimates for 2012

Estimates are based upon the reasonable beliefs of GMO and are not a guarantee. Estimates speak only as of the date they are made, and GMO assumes no duty to and does not undertake to update such estimates. Estimates are subject to numerous assumptions, risks, and uncertainties, which change over time. Actual results may differ materially from those anticipated in the estimates provided.

Moreover, the current account remains in substantial surplus for Japan, having fallen 43% to $125 billion in 2011. A trade deficit that stabilized around $85 billion per year would be consistent with a further reduction in the current account surplus to $45 billion, perhaps even a little lower in a global environment of low interest rates. But that still means that Japan can afford its energy needs in the decade or so it would take to replace nuclear power with LNG.

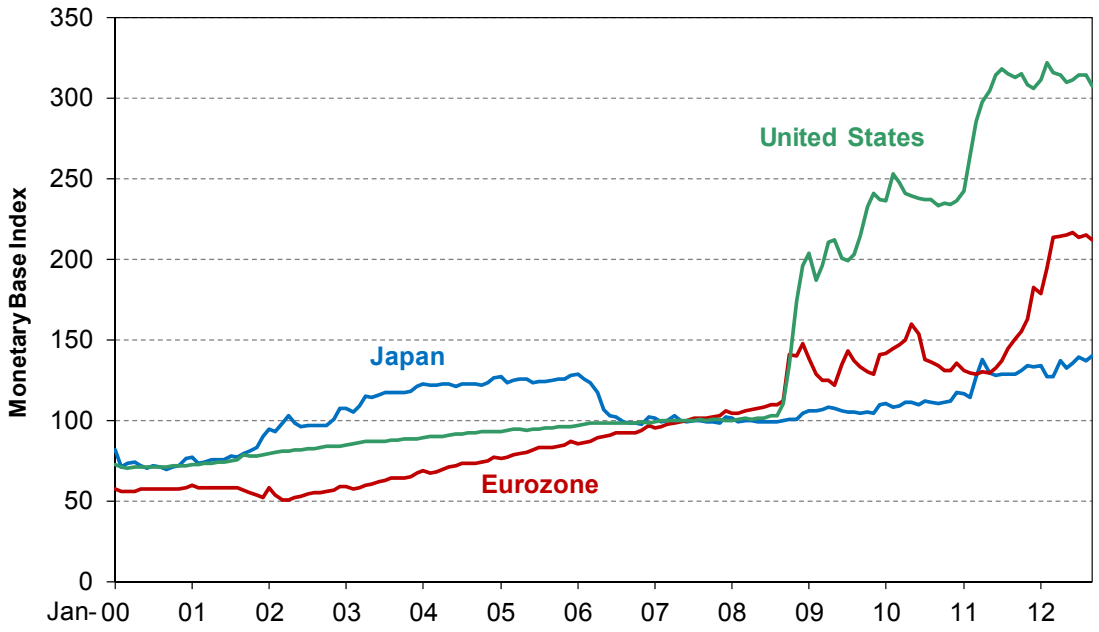
Some might argue that the strong yen spells the death of Japan. Headwinds may be the better characterization. The strong yen has coincided with a realization that the geographical location of Japanese industry was insufficiently diversified. As a result, Japanese firms are implementing further moves of production overseas, and that will keep the trade balance weak. But if the trade balance proves too weak, the yen is likely to weaken (and even now it is probably propped up by quantitative easing moves in the United States and Europe, which are far more dramatic than in Japan). Korea provides something of a case study. Over the years, the value of the won has shifted dramatically against other currencies, particularly the yen, keeping an overvalued won from ever becoming much of a problem.

Japan's monetary policy remains fairly tight, but politics may provide an easing

One wouldn't want to hold out too much hope that easy money would rescue Japan, although there has been some softening recently. Actions promised during the September and October meetings of the Bank of Japan (BoJ) would raise the Asset Purchase Program to ¥91 trillion, mostly focused on government bonds (JGBs); however, some of that merely extended earlier programs, and the target for full use of the program is the end of 2013. Thus quantitative easing by the BoJ remains milder than in the United States or Europe, as seen in the surge of the monetary base for the United States and Europe in recent years (see Exhibit 5).

Exhibit 5

Global Monetary Expansion (and Japan's Lack Thereof)



Note: 2007 average = 100

Source: Bank of Japan, St. Louis Federal Reserve Bank, ECB, GMO Calculations As of 9/30/12

One must concede that Japan is including a broader range of assets in its quantitative easing: the Federal Reserve Board in the United States has used mortgage securities in quantitative easing, while Japan has gone so far as to buy real estate investment trusts (REITs) and exchange traded funds (ETFs), though in very modest amounts. It also more recently proposed to make funds available for four years at an interest rate of 10 basis points. This mimics the financing operations the ECB has conducted in Europe, but the effect is unclear since Japanese banks have fewer loans than deposits, whereas European banks have been hung up by the fact that loans in problem countries exceed deposits, sometimes by a wide margin.

The BoJ has talked of an inflation target for 2014 of 0% plus. This is not enough for Shinzo Abe, the candidate of the opposition Liberal-Democratic Party for prime minister in December's elections. He has stated that Japan should target a 3% inflation rate to get the economy moving, and has threatened to find three doves to replace the

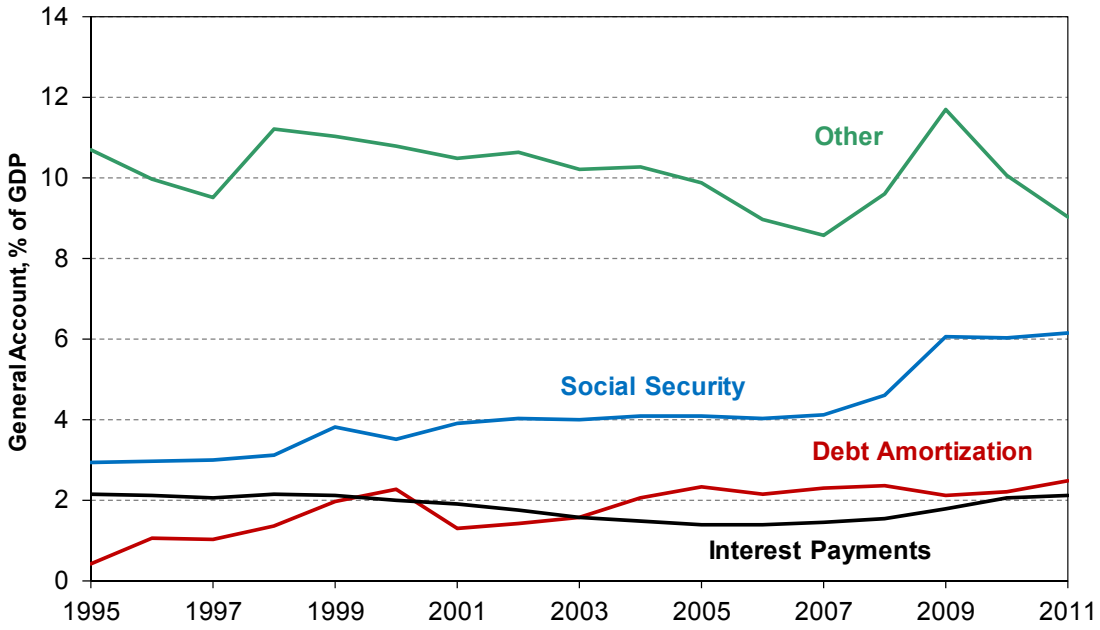
BoJ governors whose terms expire next April. Yet the reality is that core prices (excluding fresh food and energy) are falling at a year-over-year pace of 0.5% to 0.6%. Still, it seems wise to bet that inflation will turn positive in Japan on a consistent basis soon. Enough money has been created to weaken the yen, which will create a mild inflation dynamic via import prices.

Japan's fiscal policy has stayed loose

Numerically, Japan has the most striking government debt problem of any major country. A gross debt to GDP ratio of 230% at the end of 2011 makes Italy, Spain, and the United States mere pikers in the race of overindebted sovereigns. Yet investors earn less than 100 basis points on Japan's 10-year JGBs, and for most of the last 20 years investors have been shorting kokusai (JGBs) and losing money.

Exhibit 6

Japanese Government Spending Is Not High by Global Standards



Source: stat.go.jp, GMO Calculations As of 12/31/11

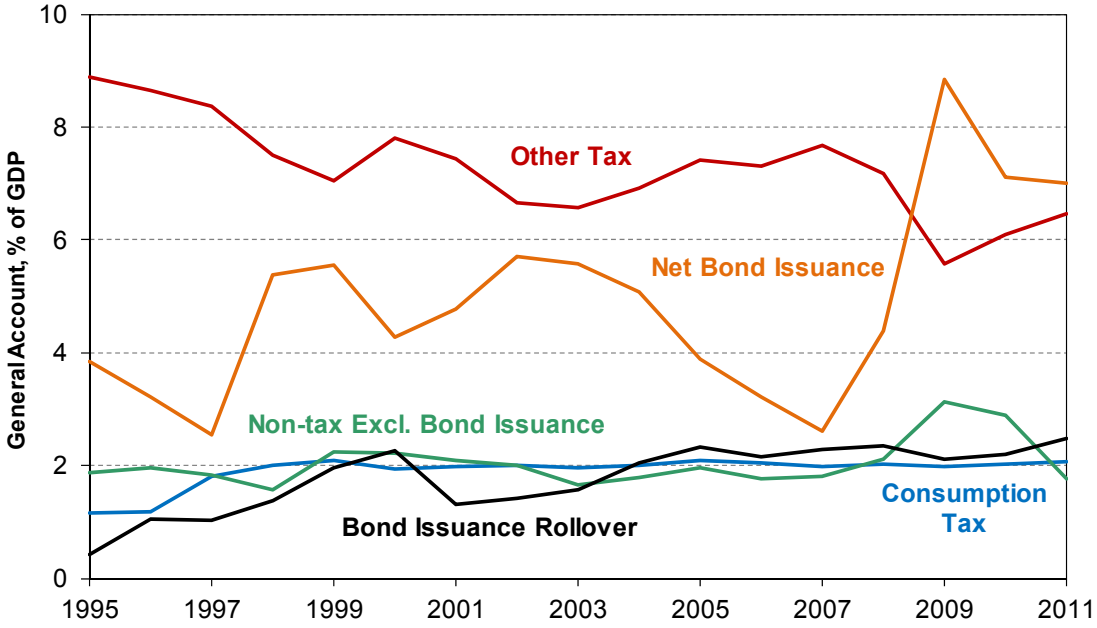
Japan's government deficit stabilized from 2001 to 2006 under then Prime Minister Koizumi. He brought social security and other spending under some control (Exhibit 6) while stabilizing the tax take, which had been drifting lower under his predecessors (Exhibit 7). His successors and a weak economy undid Koizumi's successes, with social spending up the equivalent of 2 percentage points of GDP while the already low tax take slipped again. This has taken net new bond issuance to the equivalent of 7-8% of GDP, meaning that Japan is running a deficit equal to almost half of its budget, saved only by the fact that spending is low compared to other industrial countries.

The composition of the holders of JGBs has changed substantially over the years, with both positives and minuses for the government's ease of funding new issuance (see Exhibit 8). Holdings at the Fiscal Loan Fund, a government agency, exceeded 12% in the early 2000s but are now negligible. Holdings at public pensions had crested above 12% in 2009, but have now started to run down. And despite increased quantitative easing by the BoJ, its share of holding has come down in recent years.

Insurance companies, both public and private, had over the last decade made up for much of the reduced portion the other government-affiliated entities hold, banks less so. And, more recently, foreign buyers have become more prominent, up to 6.9% of debt outstanding as of June 2012 versus a share below 3% early in the 2000s.

Exhibit 7

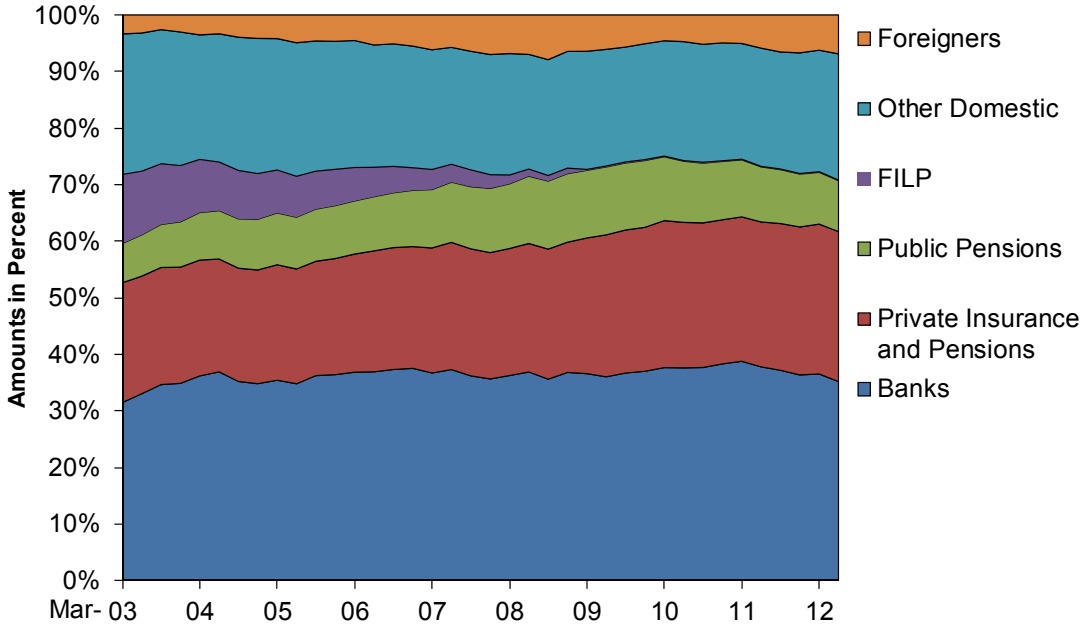
But, Japanese Government Revenues Are Even Weaker



Source: stat.go.jp, GMO Calculations As of 12/31/11

Exhibit 8

Who Holds Japanese Government Debt?



Source: Bank of Japan As of 6/30/12

Japan has promised this year to deal with the problem via consumption tax hikes, from the current 5% to 8% in 2014, and up to 10% in 2015. Adjusting for reductions in some other consumption-related taxes, these hikes represent a Japanese fiscal cliff of around 2% of GDP, less than half that threatened in the United States.

If consumption tax hikes were implemented without a major slowing of the economy (somewhat plausible since the Japanese people have had more than a decade to contemplate the increases), Japan would still face net new bond financings in the range of ¥22-25 trillion per year, equivalent to around 5% of GDP. Nominal GDP is close to stagnant, so Japan's debt-to-GDP ratio would push inexorably higher. Last year the country financed around ¥32 trillion of net new issuance by the general government, and still ran a current account surplus of $125 billion (¥10 trillion).

A political impasse between the ruling Democratic Party of Japan and the opposition LDP had raised the possibility of a battle on hiking the debt issuance ceiling. This Japanese reprise of the frequent U.S. battles on the debt ceiling included threats on the one hand that the government would soon run out of money, while other agencies delayed spending, particularly the payouts to regional authorities. The fighting was serious enough that the primary bond dealers met with the Ministry of Finance in October 2012 to discuss the situation. The impasse was resolved this past week, with bond raising authority granted in exchange for early elections on December 16.

Is there any point in worrying about Japan's deficit, or does the current account surplus indicate that Japan can finance itself forever? First, the trade account has sunk into a deficit of around $85 billion per year with the nuclear plants shut off. Second, Japan's elderly could start dissaving and turn the remaining current account surplus into a deficit. Third would be a hike in interest rates, which would gradually feed through to higher interest payments. Fourth would be an increase in government spending not covered by taxes, and fifth, an exodus of buyers (foreign or domestic) from the Japanese bond market. So far neither the nuclear shutdown nor dissaving by the elderly has been enough to eliminate those international surpluses, and a slow global economy has kept interest rates low. So the longer-term risk seems focused on uncontrolled government spending, especially since LDP candidate Abe is focused on more infrastructure spending. Thus yields of less than 100 basis points on 10-year JGBs seem insufficient compensation for those longer-term risks. The best bet would seem to be that interest rates need to move considerably above recent levels, tempered by the recognition that this bet has been one of the great losers of the last two decades.

Conclusion: the forecast is for a mix of clouds and sunshine in the Japanese economy

Extreme efforts by Japanese corporations kept the slew of recent disasters from having much of a permanent impact on the Japanese or global economies. Those efforts also generated extra hours for workers, which provided support to consumption and GDP in the first half of this year.

That hardly means that Japan is free of challenges. In fact it faces many issues – nuclear power supply, a strong yen, debt, monetary and fiscal policy – which may not be easy to solve, especially over the next few years. Fortunately, a substantial portion of corporate Japan has made itself healthier over the last decade or so, improving balance sheets and profitability, even if the travails of Elpida, Sharp, and Olympus have made the headlines in the last 12 months.

Japanese companies and government agencies often like to have "weather forecasts" in their presentations. To conclude this look at the Japanese economy, I would say that any forecast must include a good amount of sunshine despite the clouds. It is not yet a "bright, sunshiny day," but it stacks up well against what much of the rest of the world is facing.

Dr. Mattione is the portfolio manager responsible for macroeconomic research in addition to International Active's equity investments in Latin America and Japan. Prior to joining GMO in 1994, he worked as an economist and market strategist at J.P. Morgan & Co. in Tokyo and New York. Previously, he was a research associate in foreign policy studies at the Brookings Institution in Washington, D.C. Dr. Mattione earned his B.S. in Systems Science and Mathematics from Washington University and his Ph.D. in Economics from Harvard University.