

Ratchatawan Mahasaranond (ratchatawan@thequantgroup.com)

Dan Gallucci (dan@thequantgroup.com)

December 2011

LOST 3.0: Japan's Quest for an End-Game



Old versus New

Civil wars are invariably directional or sectarian: Left versus Right, West versus East, North versus South. But in Japan they have always been about Old versus New. This seems to have been the case since time immemorial, during the Meiji Restoration and the *ways* of the Samurai. This very point of "*ways*" is critical: the Japanese too often seem to be more concerned about the *means* rather than the *ends*. Put another way: no clarity in the end-game.

Japan has undergone two Lost Decades. Lost Decade 1.0 was about macroeconomic policy blunders: too little, too late in the clean-up of bank balance sheets and asset re-pricing caused by the bubbles of soaring real estate prices and stratospheric valuation of its stock market. Lost Decade 2.0 can be summarized as, well, drifting. When Japan was unwilling to re-price its assets via restructurings in one go, the market would re-price it for them gradually through deflations. Whether 1.0 or 2.0, too much of Japan's country and corporate governance was characterized by clinging to old ways.

Unfortunately, as Japan enters what may become Lost Decade 3.0, little seems to have changed. Before going further, however, it is important to note that the criticism that follows must be understood vis-à-vis the broader context of Japan's many strengths. Despite the fanfare last year when China moved ahead of Japan to become the world's second largest economy, Japan remains 60% larger than number four

Germany and more than twice the size of France, the UK, and the rest. Japan still wields far greater purchasing power than any country except the US, and is home to the second greatest number of Fortune 500 companies. Beyond such statistics, Japan possesses a unique and powerful asset in its people, whose resilience and strength of character so greatly impressed the world in the aftermath of the 11 March 2011 earthquake and tsunami.

END GAME

'Tis far better to do the right thing middling well than to do the wrong thing with great dispatch.'
Benjamin Franklin.

We don't know who said this first but our senior partner keeps repeating this formula:

$$Productivity = \text{Doing The Right Thing} \times \text{Doing Things Right}$$

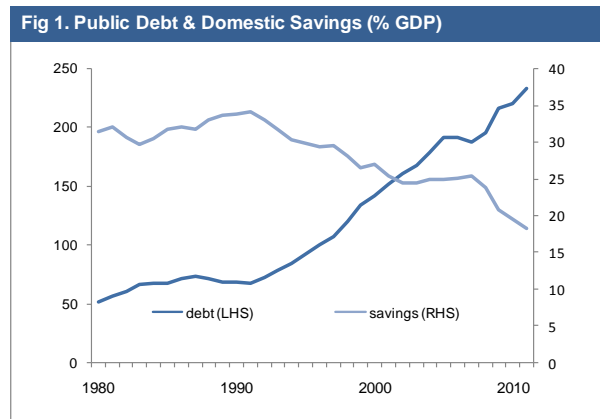
The math is quite simple. If you are very efficient at doing something but that something is useless then you score 100% for Doing Things Right and 0% for Doing The Right Thing. $100\% \times 0\% = 0$. That's zero productivity. Doing The Right Thing is defined as the right End-Game. It's directional. It's strategy. If you're in Fukushima and you want to get to Akita then you run North. If you start running South and you run fast and non-stop then it's useless unless you're going to Tokyo. In fact, it's worse because you're running further from the target. This is the problem of focusing on the *means* rather than the *ends*.

Much of the problem of *revivals*, *transformations*, and *quests for growths*—you pick the phrase—is that they don't define so clearly what a country should transform into.

Debt and Demographics

Nothing can be said to be certain, except death and taxes

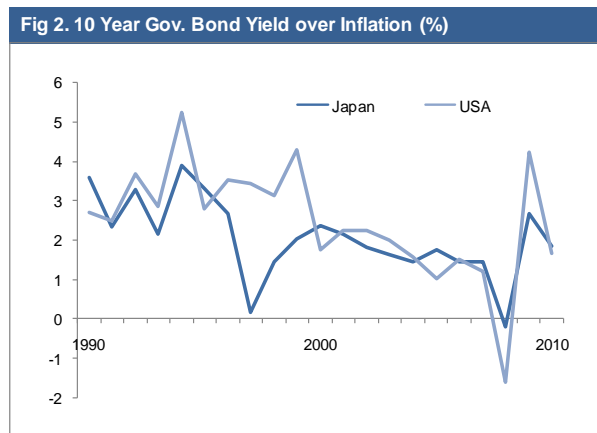
Today the most widely quoted challenge facing Japan is the country's massive government debt-to-GDP ratio, which will exceed 230% by 2011 year's end according to current IMF estimates (Figure 1). Like the steady, clanking climb up the start of a rollercoaster, Japanese



government debt has been methodically ratcheted upward since the early 1990s. In USD terms, the rollercoaster car now sits some 13 trillion above the ground.

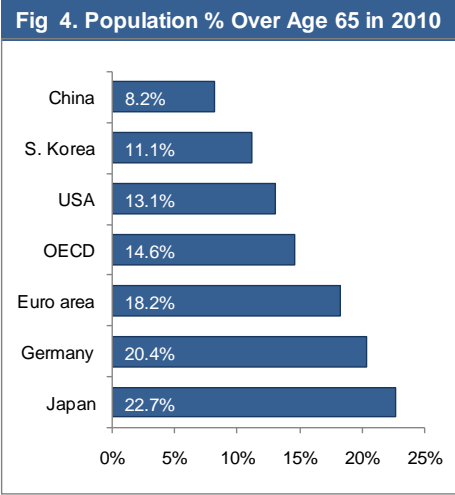
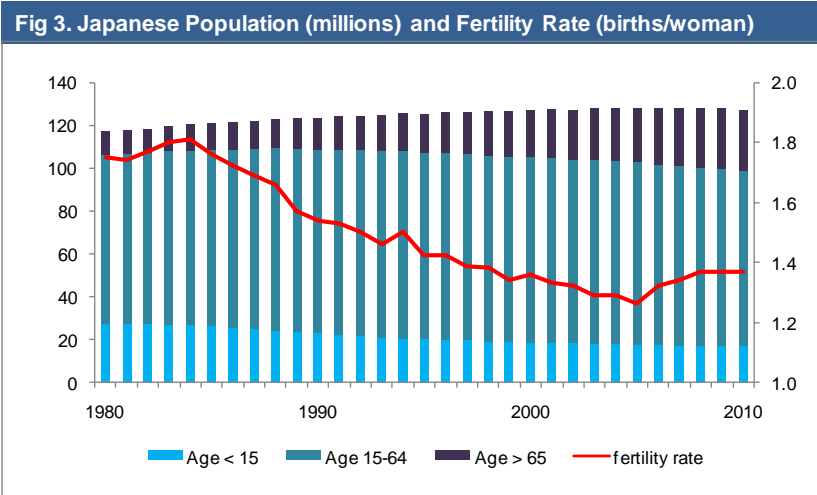
The two decade length of this remarkably linear ascent quickly dispels any notion that the current heights of the debt could not be foreseen. Given similar trends in the US and Europe, it is not at all surprising that the government has allowed debt to reach present levels. However, a risk adverse and domestically-focused investing public also bears much of the blame.

The Japanese government has not been forced to repent largely because the domestic bond market is willing to hold Japanese government bonds (JGBs) with yields better counted in basis points than full percentages. A full half of Japanese household assets are in cash and bank deposits, and just 6% in equities, reported *The Economist* last month. Such deposits are invariably linked to Bank of Japan policy rate and JGB yield. At the time of this article, ten-year JGBs yield below 1%; last week an auction for two-year JGBs offering 0.1% was met with “strong demand” according to the *Wall Street Journal*.



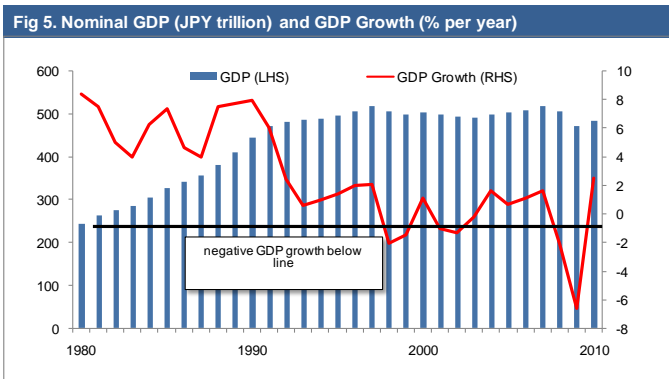
Low yielding government bonds are certainly not limited to Japan. In fact, when adjusted for inflation (or deflation, for some years in Japan), JGBs have performed similarly to US Treasuries since 2000 (see Figure 2, for example). The difference is who holds them. Eiji Hosona, chairman of Resona Holdings, Japan’s fourth largest bank, recently estimated that a mere 10% of JGBs are held by foreign investors. By comparison, the US Federal Reserve reported that 47% of US treasuries were held by non-US investors at the end of 2010. In other words, the government is almost entirely dependent on domestic investors, from individual households to institutions, to prop up the spiraling debt. Hosona warns that with falling domestic savings rates (Figure 1), domestic demand cannot continue to support government borrowing: a “danger zone” of below 80% will be breached in four to five year “if current trends persist.”

Given Japan’s impending demographic challenges, Hosona’s prediction seems all the more likely. The fertility rate for Japanese women has remained below the replacement rate of 2.1 births per woman since 1975, and plummeted since the mid 1980’s (Figure 3). However, Japan maintained positive population growth through 2007 because of sharply increasing life expectancy, which has increased from 68 in 1960 to 83 in 2010. What this adds up to is an increasingly elderly population. In 2010, 23% of Japanese were over the age of 65, compared to 18% in the Euro area and 13% in the US (Figure 4). This percentage is predicted to increase to 40% by 2050. As more and more of the work force moves into retirement, domestic savings (i.e. JGB bond purchases) will continue to decrease, and the government will struggle even more to fund public welfare expenses. What happens after retirement is a Faustian bargain: lower public welfare expenses but also a lower population. Many predict the population to fall to 100 million by 2050; some put the figure at 90 million.



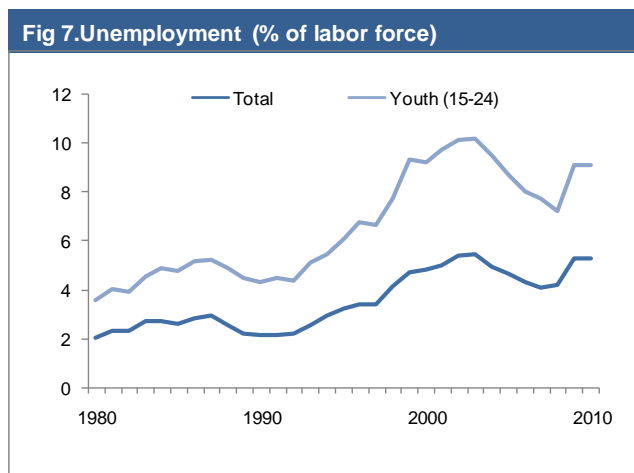
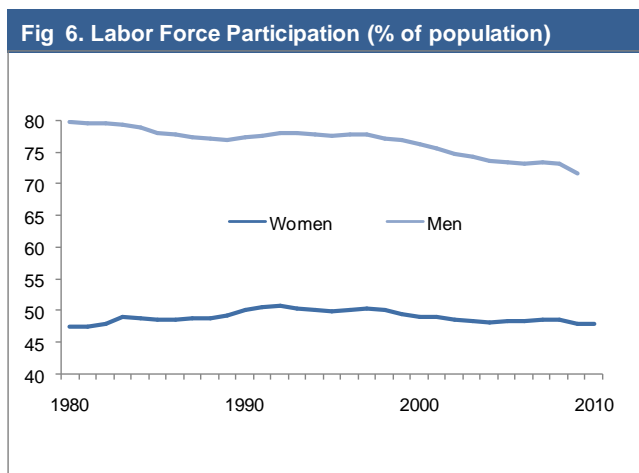
Unlike European countries such as Germany and France that offset low birthrates with significant immigration, Japan keeps itself almost entirely closed to immigrants. A UN study found that net immigration of 17 million foreigners by 2050 would be required to maintain the population size. Yet according to OECD statistics, in 2009 only 2.2 million Japanese residents were foreign-born, a mere 1.7% of the population. Furthermore, just 15,000 foreigners have become naturalized per year since 2000—relative to the total population size, this is approximately 1/20th the rate of naturalization in the US.

Growth, Employment and Productivity



Japan is entering what could be its third “lost decade” of economic stagnation. In nominal JPY terms, the Japanese economy has stalled since growth dropped from 6.0% in 1991 to 0.6% in 1993, and its 1997 high of JPY 515.6 trillion has not been exceeded since (Figure 5).

Although Japan’s aging population and lack of population growth have surely contributed to this slowdown, the country’s economic malaise is not primarily the result of its shrinking labor force in the sense that there are plenty of able bodies. The 19th Century French economist Frederic Bastiat once quipped that everybody should have their right hand cut off so France can double employment to make up for the self-inflicted half-capacity. We muse that if, say, the right hand is the male labor force who are metaphorically cut-off due to waning population, and the left is the female, this may not be a bad time for Japan to add women into the labor pool. Japan has been running on a *Bastiatique* half-capacity!



The participation of women in the labor force has hovered at or below 50% for decades, and in the 2000’s trailed slightly downward (Figure 6). Importantly, this figure does not reflect the large numbers of women who, especially after their first children, remain in the labor force but take a job for which they are overqualified. According to a recent *Economist* piece: “The vast majority of women who take time off

want to go back to work. But [of the] 43% [who] find a job... 44% are paid less than they were before they took time off, and 40% have to accept less responsibility or a less prestigious title.” Hardly an incentive! A Goldman Sachs study cited in the same article found that “if Japan made better use of its educated women, it would add about 8.2 million brains to the workforce and expand the economy by 15%—equivalent to about twice the size of the country’s motor industry.”

Both total and youth unemployment have risen significantly since the early 1990s (Figure 7). Total unemployment currently sits at 5.3%, and youth unemployment at 9.0%. The latter is particularly disturbing in light of the shrinking youth population. Japan’s failure to better utilize this portion of the population represents deep structural issues, unlike the more basic inability of many Middle Eastern economies—where the average age is less than 30—to more fully employ their exploding youth populations. The labor rate participation of both sexes has also dropped off since the 1990s, particularly for men (Figure 6).

Fig 8. GDP per Hour Worked in 2010 of 5 Largest Developed Economies		
	% of US	OECD Rank
USA	100	4
Japan	66.2	19
Germany	89.8	8
France	92.1	7
UK	78.5	16

For those Japanese women and men who do participate in the labor force, productivity is much lower than one might expect. Although rightly famed for its high technology and diligent workforce, Japan posts middling productivity figures. In the OECD’s 2010 ranking of GDP per hour worked, Japan ranks

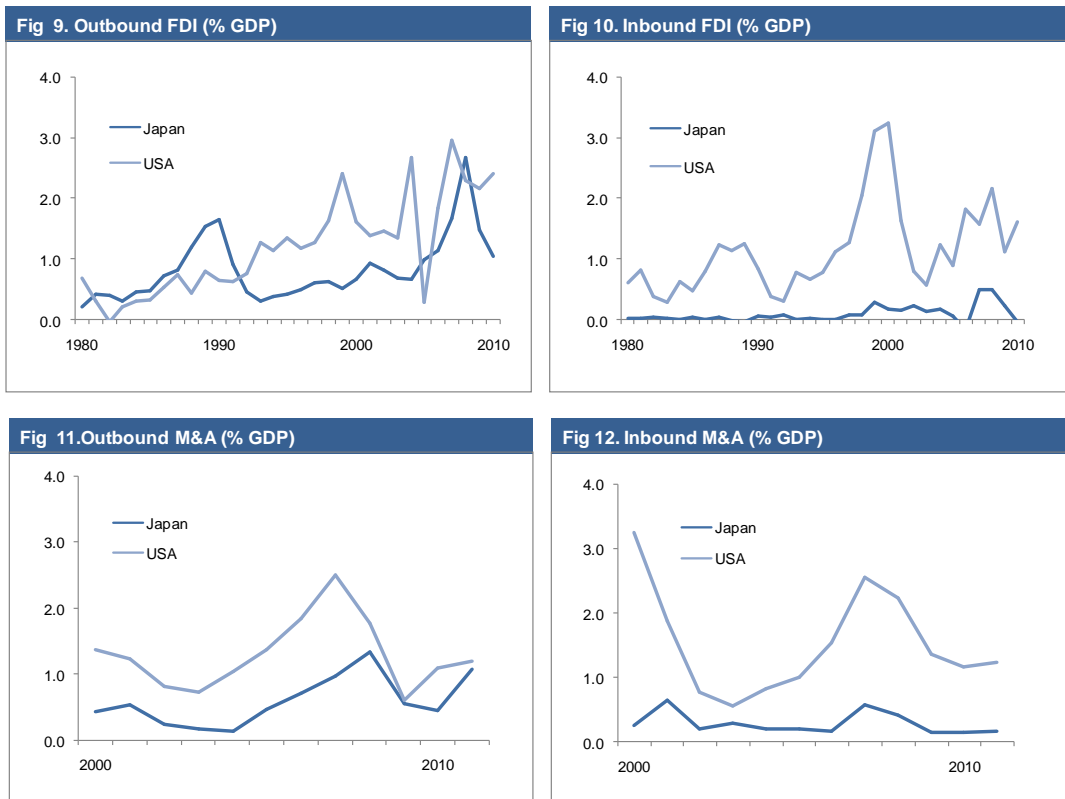
19th of the 34 member countries plus Russia, with GDP per hour at just 66.2% that of the US. This basic statistic cuts to the heart of the Japanese productivity problem: enormous portions of the workforce are being ineffectively used. Japan is proud home to scores of industry leading companies such as Toyota, Sony, and Nintendo, but also to many so-called “zombie” firms, propped up by parent *keiretsu* willing to accept below average return on equity year after year. These undead also rely on *keiretsu*-related banks willing to lend to the conglomerates at below market rates, and on still-common social expectations regarding lifetime employment.

An Overly Inward Focus

In spite of its stagnant economy and shrinking population, Japan is apathetic to how the rest of the world moves. In both outbound and inbound foreign direct investment and M&A as a percentage of GDP, Japan has long trailed far behind the US (Figures

9-12). The relative lack of outbound investment indicates a puzzling conservatism in light of limited growth and investment prospects at home. Even though the US has a larger, more attractive domestic market and can expect stable (if limited) growth in both population and GDP, the country still directs more of its investment to outside world than does Japan. To be fair, the total volume of Japanese outbound FDI and M&A has increased significantly since the 1990s, indicating that certain Japanese firms do understand the importance of seeking growth abroad.

Although perhaps less critical to future economic growth, the nearly complete absence of inbound FDI and M&A demonstrates the extent to which Japan is closed to foreign investment, due both to regulatory and social constraints. Japan ranks 44th out of 50 countries in the OECD's 2010 FDI regulatory restrictiveness index, and informal cultural barriers against controlling investments by foreigners further complicate inbound investment. Accordingly, less than 4% of total investment comes from outside the country, lowest of any OECD nation. Limiting foreign investment may to an extent protect the domestic market from foreign control, but it also keeps out foreign expertise and allows uncompetitive and inefficient Japanese firms to go unchallenged.



These trends reflect more than financial conservatism. In an insightful 2011 Deloitte and Mergermarket report, a number of Japanese managers and private equity practitioners were surveyed regarding their outlook for Japanese M&A. Nearly 80% selected “differing management cultures” when asked to identify the most serious obstacles Japanese bidders face when seeking acquisitions abroad. Similarly, in response to “what difficulties do you think a typical Japanese bidder would face with regard to the post-merger integration of a foreign target,” nearly 80% answered “cultural/management differences.”

English language proficiency and education abroad follow suit. A recent McKinsey article titled “Japan’s Globalization Imperative” stresses the critical need for greater adoption of English as a business *lingua franca*, stating that the “importance [of making English the company language] in a globalization effort cannot be overstated, especially for monocultural Japanese companies” and that “the move to English is critical because it opens up a world of talent. Everything else in the globalization

journey follows from gaining access to a higher-quality employee pool.” Yet Japan lags far behind its East Asian neighbors in both TOEFL and GMAT scores (Figure 13), reflecting a handicap against for the few Japanese who seek higher education in the US. Indeed in 2010, Japan recorded lower average TOEFL scores than any Asian country except Cambodia and Laos. More anecdotally, native and non-native English speakers alike who visit Japan consistently report greater difficulty communicating in English than they experience elsewhere in Asia.

Fig 13. Average TOEFL and GMAT Scores in 2010

	<u>TOEFL Score</u>	<u>Percentile</u>	<u>GMAT Score</u>	<u>Percentile</u>
Japan	70	28	541	46
China	77	39	592	61
Korea	81	46	574	56

Note: Percentiles approximate based on testing company data

Trends in the numbers Japanese studying abroad are equally revealing. On both an absolute and a per capita basis, the number of Japanese students going to study in the US is falling precipitously despite upward trends in these numbers across the globe (Figures 14-15). South Korea and Japan have similar economies in terms of per capita GDP, and both enjoy friendly relations with the US—yet relative to its population size, *nine times* the number of South Koreans are studying in the US as of 2010, 15.0 per 10,000 versus 1.7 per 10,000 for Japan. China, still a developing economy with few citizens fortunate enough to aspire to studying in the US, has 1.2.

Fig 14. Total Students in the US

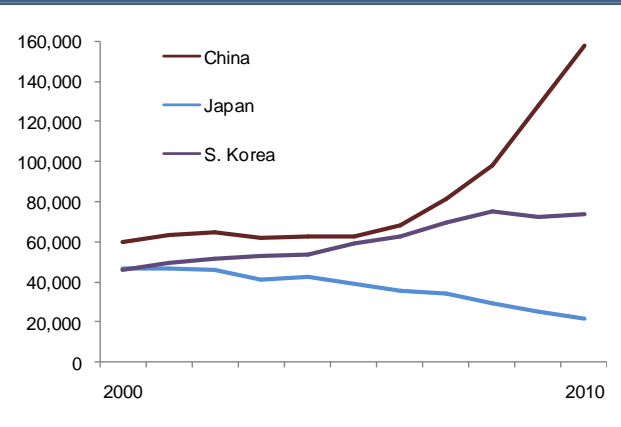
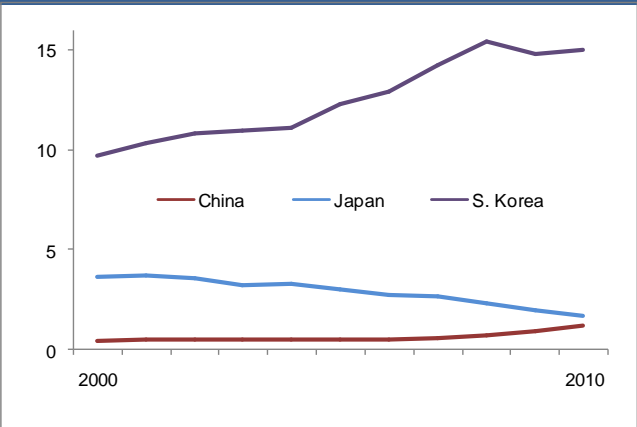


Fig 15. Students in US per 10,000 population



Government Policy

The Japanese government, now on its sixth Prime Minister in five years, has done little to mitigate the above trends. The World Economic Forum's 2011 Global Competitiveness Index ranked Japan just 24th in the world for its regulatory environment despite awarding the country ninth place overall for total country competitiveness. In surveys used to construct the index, the three “most problematic factors for doing business” in Japan reported are policy instability, government instability, and tax rates. Japan has the highest effective corporate tax rate (39.5%) among all 34 OECD countries—part of the reason Tokyo has fallen far behind Hong Kong, Singapore, and Shanghai as a major global financial center. Indeed, the same WEF report awards Japan a miserable 32nd place for financial market development.

The government's failure to develop Tokyo (either alone or together with Osaka) into a global financial hub is particularly egregious in light of the natural advantages it once enjoyed. A June 2011 Brookings report on global financial centers reminds us that, “Many believed in the 1970's, and into the 1980's, that Tokyo would inevitably become a major global financial center. It was *the* major business city in Asia and was at the heart of the second-largest economy in the world. That economy had succeeded remarkably in the preceding decades, helping to propel its financial markets to record highs in terms of price levels and volumes of activity.” Yet today, as the same report notes, “Tokyo seems to be an example of a potential global financial center whose governmental policies and overall structure of business and government held it back from gaining true global status, despite major advantages.”

Fig 15. Top 10 Exchanges by Market Cap & Foreign Companies Listed as % of Total Number of Companies Listed (2010)

Exchange	Mkt Cap	% Foreign
1 NYSE Euronext (US)	13.4	25.2%
2 NASDAQ OMX	3.9	12.0%
3 Tokyo SE Group	3.8	0.5%
4 London SE Group	3.6	25.6%
5 NYSE Euronext (Eur)	2.9	15.5%
6 Shanghai SE	2.7	0.0%
7 Hong Kong Exchange	2.7	1.2%
8 TSX Group	2.2	2.4%
9 Bombay SE	1.6	0.0%
9 National S.E. India	1.6	0.1%
10 BM&FBOVESPA	1.5	1.1%

First, although the Tokyo Stock Exchange is the third largest in the world by market capitalization, there are virtually no foreign companies listed (Figure 15). The US and European exchanges, on the other hand, have a significant number of foreign companies listed. Furthermore, the Toyko and Osaka stock exchanges have lost much of the lead they once held over the other major Asian exchanges in stock market capitalization and trading volume (Figures 16-17). At the close of 2010, the two mainland Chinese exchanges together had reached a combined market cap of USD 8.2

trillion, nearly double that of the Japanese exchanges (USD 4.3 trillion). In addition, neither Japanese exchange is home to a significant portion of the global derivatives trade, with Osaka and Tokyo ranked just 15th and 18th in the world by number of contracts traded in 2010, according to Credit Suisse.

Fig 16. Stock Exchange Market Cap (USD trillion)

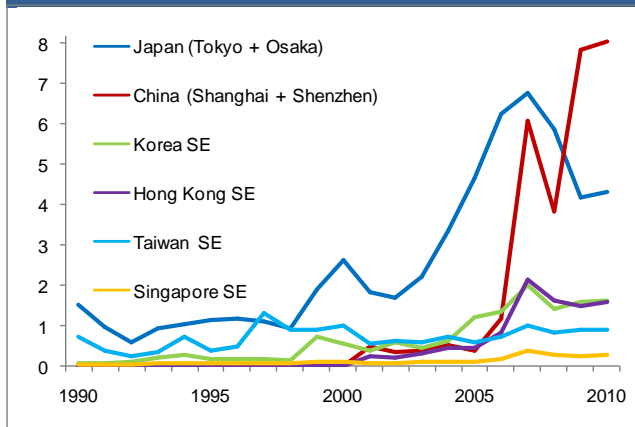
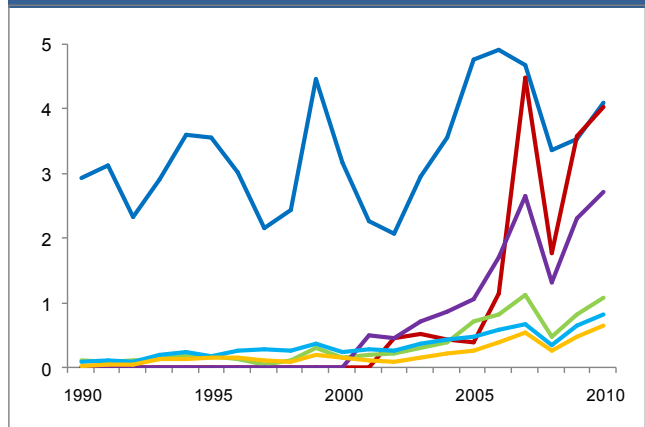


Fig 17. Annual Stock Exchange Volume (USD trillion)



Similarly, the Japanese government has never made a serious attempt to entice international financial services firms to set up shop beyond what is needed to serve the domestic Japanese market. Taxes are high, English is scarce, and foreign professionals are offered no other compelling reasons to bring their expertise into the country. Indeed, Japan had no internationally competitive investment bank until Nomura bought the remnants of Lehman Brothers in the aftermath of the 2008

financial crisis. The financial services industry, in fact, treats Japan almost as a separate continent: there is Japan, and there is Asia ex-Japan.

In other areas as well, the Japanese government exemplifies the themes of conservatism and risk aversion at least as well as its businesses do. For instance, the lauded privatization of the Japan Post has proven much ado about nothing. In 2001, Prime Minister Junichiro Koizumi was elected on a platform of economic reforms that included breaking up the Post, which is the world's largest depository institution with JPY 194 trillion (\$2.5 trillion) in deposits as of September 2011. After four years, Koizumi finally succeeded in assembling the super majority in the lower house needed to overcome an upper house veto, and in 2005 the bill to privatize the Post was passed.

Yet in 2010 the Shizuka Kamei government reversed course, announcing a partial renationalization of the Post Bank. The government chose to retain 33% ownership—enough to veto other shareholders—and double the maximum government-backed deposit guarantee, increasing the Post's unfair advantage over its already limited competition. The move is particularly contentious because the Post Bank is a critical part of the government debt machine: 75% of bank assets are invested in JGBs. If full control over the Post were given to private shareholders, they might well demand that the bank's massive JGB holdings be reduced in favor of higher yielding investments.

Similarly, movements to create a Japanese sovereign wealth fund (SWF) have failed to get off the ground. Since 2000, total Bank of Japan (BOJ) reserves have nearly quadrupled, from \$361 billion to \$1.275 trillion (Figure 18). Most of these reserves (currently an estimated 77%) are held as low yielding US Treasuries (Figure 19).

Fig 18. BOJ Total Reserves (USD billion)

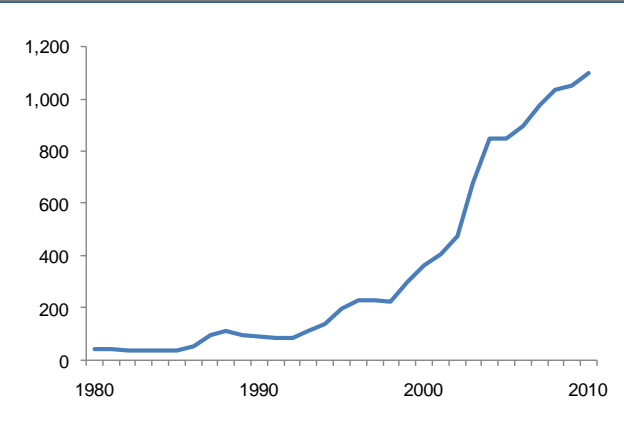
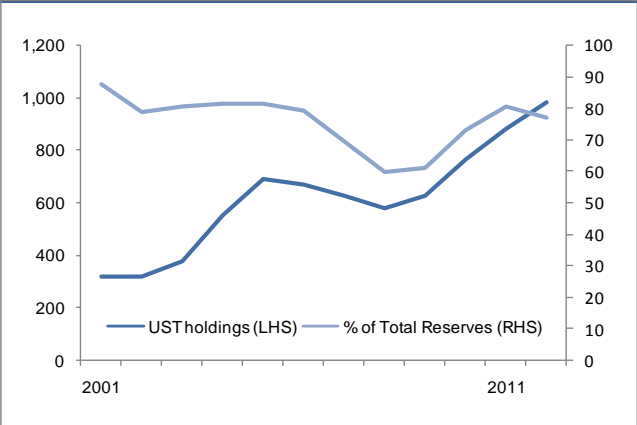


Fig 19. BOJ US Treasury Holdings (USD billion)



While the basic purpose of central bank reserves is to smooth currency fluctuations, few would argue that the BOJ needs to keep over USD 1 trillion for this purpose, especially with a persistently strong yen. Indeed, Japan could easily divert several hundred billion USD into an SWF without affecting the ability of the BOJ to defend the yen. In light of the fiscal challenges the country will face as a dwindling number of tax payers are asked to support a disproportionately elderly population, the benefits of such a fund are clear. Although limited discussion regarding the creation of a SWF has taken place, the risk-adverse and conservative government has yet to take any meaningful action.

The Case for Optimism

Sports commentators and athletes may talk the same subject but live a world apart. One notes that a punch should have been blocked while the other took that very punch to his jaw. One talks the talk, the other walks the walk. The authors profess to be mere commentators and we don't know precisely what Japan's End-Game should be. However, we borrow from our profession the financial parlance of "long-short" to analyze what Japan has versus some of its Asian neighbors.

For example, Singapore is LONG: banking, lawyers, airlines, ports, and education; while it is SHORT: people, natural resources, and land. Thailand is LONG: agricultural produce, tourist attractions, auto parts, OEMs; while SHORT: education, tourists, and globally branded products. China is LONG: people, OEMs, consumption, US dollars savings; while SHORT standardization, human rights, and freedom of speech. These are essentially the comparative advantages and

disadvantages of the countries. With the right—and oftentimes wrong—chefs, countries are baked into end-games based on the ingredients available.

Japan is LONG: education, technology, electronics, robots, *gaman & giri* (grit and discipline), infrastructures, globally-recognized products, and hegemonies in numerous industries; while SHORT in recent decades on vision and risk-taking. It seems that supervision (doing things right) has overtaken vision (doing the right thing). Japan remains an eminently competitive and critical part of the world economy. If the country can learn to be slightly less conservative, less risk adverse, and more open to the world, there is still much room for optimism.

About the authors

Ratchatawan Mahasaranond, CFA, Principal, is a graduate of The Fuqua School at Duke (MBA) and Tokyo University (B.A. in Economics).

Dan Gallucci, Associate, is a graduate of The Fletcher School at Tufts (M.A. in International Business) and Cornell University (B.A. in History).