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ABENOMICS:
WHAT'S LEFT IN THE QUIVER?

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Japan's prime minister, Shinzo Abe, is trying to revive the country's economy with a combination of three "arrows": monetary stimulus, fiscal pragmatism and structural reform. Of the three, structural reform is the most important in the eyes of many investors. But the third arrow is nothing without the first.

It is easy to forget the state of the Japanese economy when Shinzo Abe returned to political prominence in September 2012. Back then, the country was suffering its third recession in four years. The yen was uncomfortably strong (trading at 78 to the dollar)[1], the stock market was unsurprisingly weak (the TOPIX index was about 743)[1], and consumer prices (excluding food and energy) were falling for the 45th month in a row[1]. Only two years have passed since then. But it already feels like a long time ago.

On September 26th Abe regained the leadership of Japan's Liberal Democratic Party, then in opposition. Known as a nationalist hawk, Abe soon revealed himself to be a monetary dove. To his old complaints about China's temerity, he added fresh grumbles about the Bank of Japan's timidity. Within days of his leadership victory, the yen began to weaken in anticipation of bolder monetary easing to come.

Monetary stimulus represents the first "arrow" of Abe's strategy to revive Japan's economy. He soon added two others: fiscal pragmatism, which allowed higher spending despite Japan's large public debts, and structural reform. By the time Abe returned as prime minister in December 2012, after his coalition won a decisive majority in the lower house, his three-part plan had already acquired the name "Abenomics".

The initial results of Abenomics were better than anyone could have expected. The yen cheapened dramatically, the stock market surged, and the Bank of Japan, under new leadership, shed its past inhibitions (see figure 1). Abe appeared on the cover of *The Economist* in the guise of Superman, spearing through a big, blue sky.

But in 2014, some of the excitement ebbed. Skeptics questioned the prime minister's commitment to structural reform, fretted about a big consumption-tax hike on April 1st, and worried that the return of inflation would do more harm than good [2]. Their concerns weighed on the stock market, leaving the TOPIX index down by 1% in the first seven months of the year. As things stand, few would dispute that Japan is better off than it was before Abe returned in 2012. But many feel it is not doing as well as they had hoped at the end of 2013[3].

1 Bloomberg, September 2012
2 http://www.ft.com/intl/cms/s/0/bebeb5c8-fb8c-11e3-9a03-00144feab7de.html?siteedition=intl#axzz37as2uuui
3 Bloomberg

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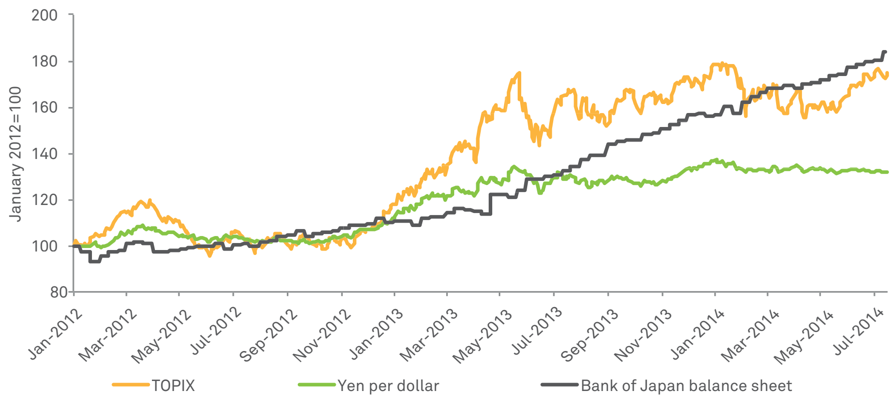
Abenomics has enjoyed measurable success in reflating the economy.

Figure 1:



Source: Bloomberg, Last data point 15 July 2014.

PROGRESS SO FAR

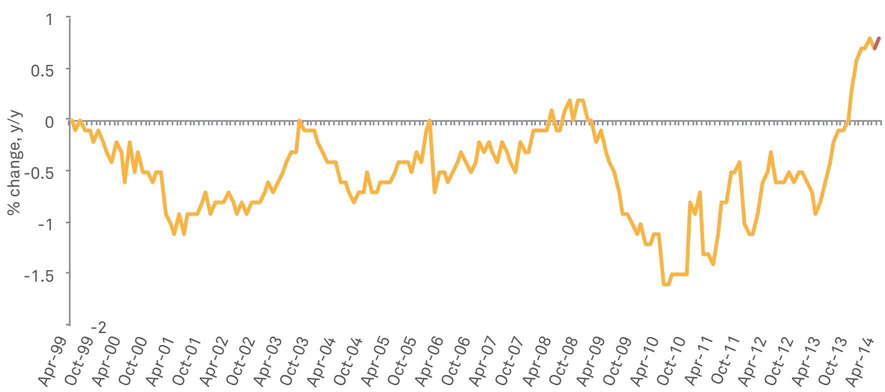
Nominal GDP

Is this waning of enthusiasm for Abenomics justified? The consumption-tax hike on April 1st (which inspired a growth surge in the first quarter of 2014 followed by a retreat in the second) has played havoc with Japan's official statistics, complicating any assessment of recent economic performance. Nonetheless Abenomics has enjoyed measurable success in reflating the economy. The best indicator of this progress is nominal GDP (the yen value of domestic production, before stripping out the effects of inflation) which captures increases in both activity and prices. It has grown at an annual pace of 2.3% in the first 18 months of Abe's government[4]. That is better than any equivalent stretch of growth in the preceding 15 years, with the exception of Japan's rebound from the global financial crisis after April 2009[4].

Inflation

This encouraging expansion in nominal GDP reflects both an increase in "real" output (1.4%) and a pickup in prices[5]. Recent readings for core inflation (excluding food prices and energy costs) were the strongest for a decade and a half (see figure 2), even when the effects of the consumption tax are subtracted[6]. The increase is not confined to a few industries. Prices are now rising for more than half of the items in Japan's consumption basket[7].

Figure 2: Consumer-price index excluding food and energy



Source: Bloomberg, Bank of Japan. The latest figure excludes consumption-tax hike.

4 http://www.esri.cao.go.jp/en/sna/sokuhou/sokuhou_top.html
5 Ibid.
6 http://www.boj.or.jp/en/announcements/press/koen_2014/data/ko140709a.pdf
7 Ibid.

Farms, pharmacies, electricity and equities
Alongside this progress in reflating the economy, Abe has made some modest progress in reforming it, cutting corporation tax, easing out rice quotas, liberalizing drug sales and chipping away at monopoly power in the electricity market. Steps have also been taken to encourage households to embrace shares, and to spur companies to respect shareholders.

Tax. On April 1st, at the same time that the government raised taxes on consumers, it repealed the special reconstruction tax on firms. Imposed after the 2011 earthquake, this special levy was originally scheduled to remain in place for another year. Its early removal amounted to a 2.4% cut in the effective tax rate on average[8].

Rice. The government decided to phase out the Gentan rice quotas that date back to the 1970s. The scheme rewards rice farmers for abiding by production quotas, imposed to keep prices artificially high[9]. In effect, it pays farmers not to grow rice. The government will instead reward farmers for growing alternative crops, such as wheat, soybeans, or rough rice for livestock, and encourage them to put idle paddy fields to alternative uses, such as flood prevention.

Drugs. Abe has shaken things up for pharmacies as well as farmers. Almost all "over-the-counter" drugs (i.e. those that do not require a prescription) can now be sold online, despite the strong objections of bricks-and-mortar drugstores. (Twenty-three drugs that were only recently cleared for sale without a prescription cannot be sold online for another three years. Five other drugs, four of which treat sexual dysfunction, were also deemed too dangerous for sale online.)

Electricity. The tussle over online drug-sales was important for its symbolism. Of greater economic significance is Japan's gradual overhaul of the retail-electricity market. The market is now carved up between powerful regional monopolies (set up in 1951 during the American occupation) that control both generation and transmission. Last year Abe passed a law that will create a national grid (the Organization for Cross-regional Coordination of Transmission Operators) in April 2015, allowing power producers in one region to sell more of their electricity in another. Legislation passed in June will let consumers choose their supplier. The final stage of reform, due in 2018-20, will liberalize prices and separate generation from distribution, so that competing power plants can use the grid on equal terms. The International Monetary Fund recently noted that the overhaul is "likely to have a substantial impact on potential growth"[10].

Equities. Perhaps the most promising reforms for investors are, however, financial. To encourage households to hold assets other than cash, the government introduced tax-friendly investment accounts (the Nippon Individual Savings Accounts or NISA) in January. Households can invest up to 1m yen a year in these accounts (up to a limit of 5m yen) and escape tax for the first five years. The government has also introduced a "stewardship code" for institutional investors, which encourages them to assert the interests of shareholders and keep company managers on their toes.

8 http://www.meti.go.jp/english/aboutmeti/policy/fy2014/pdf/fy2014tax.pdf
9 http://www.economist.com/news/finance-and-economics/21590947-government-abolishes-previously-sacrosanct-agricultural-subsidies-political
10 http://www.imf.org/external/pubs/cat/longres.aspx?sk=41800.0

Sources of skepticism
Despite Abe's measurable progress in reflating the economy and his modest progress in reforming it, doubts about his strategy persist. The skeptics make at least five arguments to support their case.

1. One is that Japan's inflation will do more harm than good, eroding the real incomes of households.
2. The second is that Japan's recovery will falter after the consumption-tax hike on April 1st, just as it did in 1997, when the tax was last raised.
3. The third is that Japan cannot make further progress without carrying out nettlesome structural reforms that are popular in theory but bitterly opposed in practice.
4. This third assumption implies a fourth: that the Bank of Japan, led by Haruhiko Kuroda, has nothing more to offer.
5. The final argument is that Abenomics cannot afford to succeed, because higher inflation will result in higher interest payments on Japan's insupportable public debts.

None of these arguments is compelling in our view. In what follows, we will examine each of them in turn.

1. WILL INFLATION DO MORE HARM THAN GOOD?
Inflation is not popular, even in Japan, which has long suffered from its opposite[11]. In the public's mind, inflation simply means that everything is becoming more expensive. Why, then, is the Bank of Japan so intent on raising inflation to 2%[12]? Why should anyone applaud it for this ambition?

Contrary to public perception, the Bank of Japan's aim is not simply to make things more costly. When an economy as a whole reflates, everything increases in price, therefore nothing becomes more expensive relative to anything else. In particular, one thing that also inflates is income. As prices rise, pay packets fatten. Under deflation the opposite is true: pay packets deflate alongside prices. Thus far, the inflation of wages ("scheduled cash earnings", excluding overtime and bonuses, increased in June for the first time in two years) has lagged behind the rise in prices[13]. As a result, real wages fell by 3.2% in the year to June[14]. This decline in real wages is the fatal flaw in Abe's plan, according to his critics. By engineering higher prices, Abenomics is eroding workers' real purchasing power. That will eventually undermine demand, not strengthen it.

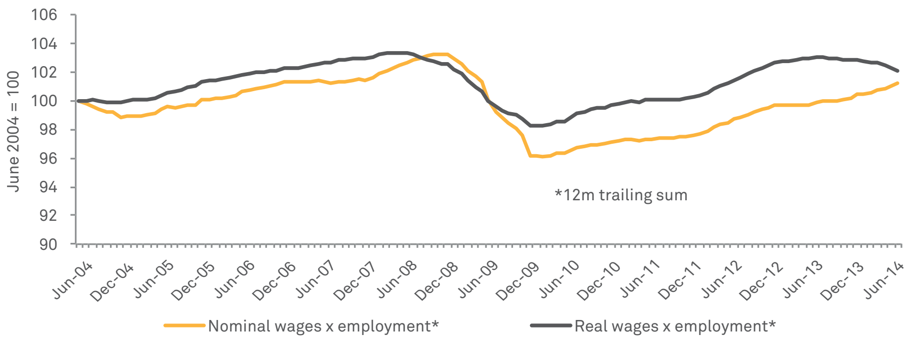
The decline in real wages does not, however, reflect any weakness in the job market. On the contrary, employment has grown briskly under Abe. As a result, the number of wage-earners has increased, even if real wages have not. Many people are now earning something who were previously earning nothing. This increase in employment has helped to prop up the collective spending power of Japanese labor (see chart).

The decline in real wages should also prove temporary, we believe. If firms can charge higher prices without paying higher wages, their profits will increase. Fatter profits will encourage firms to expand their operations and tempt new rivals to enter the market. That in turn will increase hiring and, in time, bid up wages to match the higher prices. The reflation of Japan's economy should be a prelude to higher real wages not a threat to them.

11 In the Bank of Japan's June public-opinion survey, 78.1% of those who perceived prices to be rising described the increase as "rather unfavorable". https://www.boj.or.jp/en/research/o_survey/ishiki1407.pdf
12 https://www.boj.or.jp/en/mopo/outline/qqe.htm/
13 http://www.mhlw.go.jp/english/database/db-l/26/2606re/2606re.html
14 Ibid.

Today, Japan's economy and banking system are in better shape.

Figure 3: Aggregate wage income



Source: Japan's Ministry of Health, Labor and Welfare via Thomson Reuters Eikon.

2. CAN JAPAN WEATHER THE CONSUMPTION TAX?

The decline in real wages also partly reflects the increase in Japan's consumption tax (equivalent to a value-added tax) from 5% to 8% on April 1st. It was the first such hike since 1997 and some investors feared it would prove just as damaging. The increase 17 years ago seemed to snuff out a promising economic recovery, thereby hurting Japan's public finances rather than helping them[15].

But Japan today is in a quite different position from Japan in 1997. Back then, the tax hike was part of a broader fiscal belt-tightening, including increased social-security contributions and the expiry of an income-tax cut. Japan's economy was also about to suffer the shockwaves from Asia's currency crisis and its own financial frailties: in November 1997, two big securities companies and a pair of banks failed[16]. Finally, Japan's monetary authorities did not anticipate the dangers of deflation and were slow to react[17].

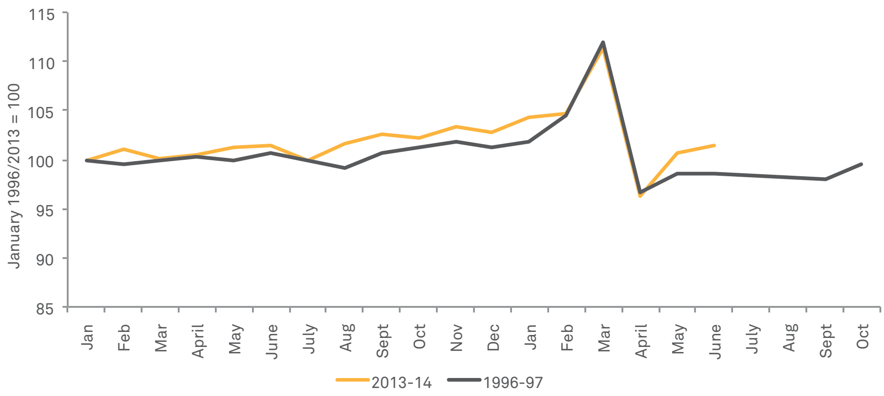
Today, Japan's economy and banking system are in better shape[18]. Its monetary authorities are also conscious of their duty to offset any possible deflationary side-effects from the fiscal tightening[19].

The immediate effect of the tax increase was, of course, quite the opposite of deflationary. To avoid paying the extra 3%, people brought forward their purchases, boosting retail sales. This pre-tax pickup in spending was followed by a predictable post-tax pull-back. Broader measures of activity followed a similar zig-zag pattern: real GDP grew at an annual pace of 6.1% in the first quarter, then shrank by 6.8% in the second[20].The prospect of all this choppiness put off shorter term investors, in our opinion, contributing to the stock market declines of the first four months of 2014.

The ill effects of the tax hike do appear to be passing, however. Consumer confidence rose in the three months after the hike, according to the Cabinet Office[21]. The rebound in retail sales was stronger than anything consumers mustered in the months after the 1997 hike, suggesting that Japan is not doomed to repeat that unhappy experience (see figure 4). Investors have also taken heart: by the end of July, the TOPIX had increased by over 13% from its mid-April lows.

15 http://zlgc.swfc.edu.cn/syjx/hgjjx/Fiscal%20Policy%20Effectiveness%20in%20Japan.pdf. For a counterargument see: http://www.computer-services.e.u-tokyo.ac.jp/p/seido/output/Fujiwara/fujiwara25.pdf
16 http://www.bis.org/publ/bppdf/bispap06.pdf
17 In November 1996, six months before the consumption-tax hike, the Governor of the Bank of Japan said "[T]he risk of a deflationary spiral, which was an issue of concern last year, has been practically eliminated". https://www.boj.or.jp/en/announcements/press/koen_1996/ko9612a.htm
18 https://www.boj.or.jp/en/research/brp/fsr/fsr140423.htm
19 "If, through this summer, the upward momentum of the CPI weakens due to ... the decline in demand following the consumption tax hike, due attention should continue to be paid to how this will affect inflation expectations", according to Yoshihisha Morimoto, member of the Bank of Japan's policy board. http://www.boj.or.jp/en/announcements/press/koen_2014/data/ko140709a.pdf
20 These figures, widely reported in the press, exaggerate the volatility of GDP by expressing quarter-on-quarter growth at an annualized rate (i.e., raised to the power of four). Year-on-year comparisons are less melodramatic: compared with the same quarter a year earlier, Japan's second-quarter GDP hardly budged. http://www.esri.cao.go.jp/en/sna/sokuhou/sokuhou_top.html
21 http://www.esri.cao.go.jp/en/stat/shouhi/shouhi-e.html#cci
22 Bloomberg

Figure 4: Retail sales, then and now



Source: Thomson Reuters, based on Capital Economics.

3. CAN JAPAN MAKE PROGRESS WITHOUT STRUCTURAL REFORM?

Since returning to office, Abe has proposed an eclectic mix of structural reforms, which together represent the third arrow of Abenomics. As well as increasing female participation in the labor market and consolidating Japan's fragmented farmland, he has expressed a miscellany of other ambitions, such as rebranding the country as "Cool Japan" (so as to boost tourism) and increasing research into robotic surgical assistants, part of the country's aim to turn healthcare into a growth industry.

The revised growth strategy

In June 2014, Abe released details of his revised "Japan Revitalization Strategy", updated a year after its initial release. The revised strategy concentrates on ten "key" reforms (see figure 5). Five of these aim to improve the profitability of Japanese companies. They include a plan to cut corporate tax from 35% to less than 30% within "several years", offsetting the lost revenue by broadening the tax base[23]. The government also hopes to improve corporate governance, making managers more attentive to the interests of shareholders, by obliging firms listed on the Tokyo Stock Exchange to adopt a code of corporate governance next year or explain why not.

In pursuit of shareholder interests, the government will exercise its influence as an owner as well as a legislator. The Government Pension Investment Fund, which holds ¥126.6 trillion ($1.2 trillion) of assets, has said it will invest some of its money according to the new JPX-Nikkei 400 stock market index[24]. This index favors companies that offer a strong return on equity and other investor comforts, such as independent directors and disclosure of their earnings in English[25].

Figure 5: Japan's updated Revitalization Strategy, June 2014 - 10 "key" reforms

Improvements in profitability

1. Improve corporate governance
2. Improve the management of public (and 'quasi-public') funds, such as the Government Pension Investment Fund (GPIF)
3. Promote new ventures and new entrants
4. Cut corporate taxes
5. Encourage technological innovation, especially in robotics

Labor reform

6. Increase women's participation in the job market and progress within it
7. Encourage flexible working practices
8. Attract skilled foreigners

New engines of growth, especially in lagging regions:

9. Reform agriculture
10. Reform healthcare and other high-end services

Source: http://www.kantei.go.jp/jp/singi/keizaisaisei/pdf/10challenge02shousaiEN.pdf

23 http://www.kantei.go.jp/jp/singi/keizaisaisei/pdf/honbunEN.pdf
24 http://www.gpif.go.jp/topics/2014/pdf/gpifs_selection_en.pdf
25 http://www.tse.or.jp/english/market/topix/jpx_nikkei.html

Abe's revitalization strategy hopes to transform Japan's demographic problems into an opportunity, turning people's sunset years into a sunrise industry.

Three other reforms aim to offset Japan's declining population by attracting more women and skilled foreigners into the workforce. Japan's tax and benefits code now discourages married women from earning more than ¥1.03 million a year[26]. Those who earn less than that sum escape income taxes and social-security taxes. If they earn less than the higher threshold of ¥1.3 million a year, they remain eligible for healthcare and a pension through their husband's coverage[26]. The government describes these two thresholds as a "policy wall" which it is keen to tear down.

The growth strategy also aims to make Japan's workforce a little more cosmopolitan. Of all the people working legally in Japan, only about 1.1% of them are foreign[27]. In June, Abe's government revised the country's immigration law to allow highly skilled foreigners to become permanent residents after three years rather than the usual ten[28]. It will also ease restrictions on trainees from developing countries. From next year, interns in construction will be able to work in Japan for 2-3 years after their training. Similar provisions will apply to shipbuilding.

These twin efforts to attract more women and more foreigners into the workforce will combine in Japan's six designated "special zones", model cities where people may be allowed to hire foreign housekeepers, relieving career women of some of the chores that normally fall on their shoulders.

The final two reforms aim to unshackle a pair of industries—agriculture and healthcare—that are important both to Japan's elderly (over 30% of farmers are aged 75 or more[29]) and to its outlying regions, such as Miyazaki, a southern prefecture famous for its beef and mango, which began making caviar in November 2013 after almost three decades of R&D[30].

IS THE THIRD ARROW THE ONLY ONE THAT COUNTS?

What should investors make of these efforts? Abe's revitalization strategy is full of promising ideas. Most of its proposals are eminently desirable and many are long overdue. Some of the slated reforms are sorely needed to make Japan's economy more efficient and equitable, depriving monopolies, such as the regional electricity utilities, of unearned profits and enlarging opportunities for women and the elderly. Some measures, such as the corporate tax cut, will help firms' bottom lines directly. Others will help them indirectly, by encouraging more people into the workforce and extending working lives, thereby offsetting labor shortages[31]. The strategy even hopes to transform Japan's demographic problems into an opportunity, turning people's sunset years into a sunrise industry.

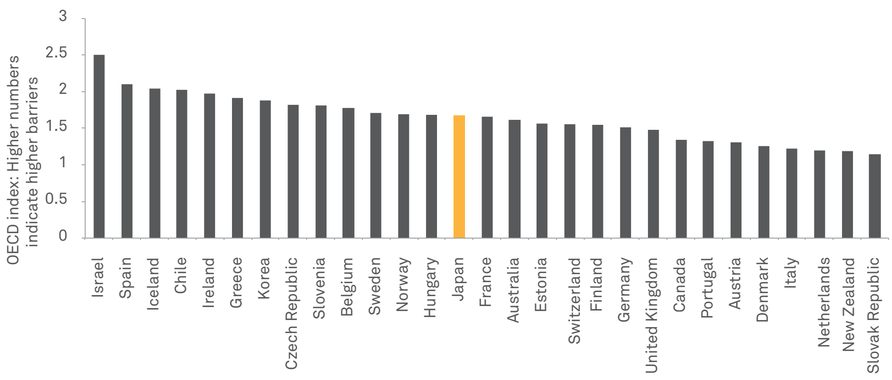
Many commentators go further. They argue that Abe's third arrow is the only one that really matters. Monetary and fiscal stimulus are mere palliatives. At best, they can mask the pain of structural reform. At worst, they might mask the need for it.

These reform champions are right to point out that Japan's economy is hobbled by unhelpful regulations, such as limits on building heights in big cities, barriers to competition (rice imports above a quota face prohibitive tariffs of 341 yen per kilogram[32]) and inflexible working practices, which keep men in the office for longer than necessary and women out of the labor force altogether.

26 Ibid.
27 "Japan: new growth strategy no game-changer", JP Morgan, May 9th, 2014
28 http://www.japantoday.com/category/national/view/highly-skilled-foreigners-to-be-allowed-to-stay-permanently-in-japan
29 http://www.e-stat.go.jp/SG1/estat/ListE.do?bid=000001037762&cycode=0
30 http://fukuoka-now.com/news/miyazaki-caviar-to-go-on-sale-next-month/ https://www.boj.or.jp/en/announcements/press/koen_2014/data/ko140206a.pdf
31 The number of Japanese of working age has declined by over 3.2m in the past five years http://www.e-stat.go.jp/SG1/estat/OtherListE.do?bid=000001007603&cycode=1
32 It is often reported that Japan imposes a 777.7% tariff on rice. This is true only if the market price of rice imports happens to be ¥43.85, as it was when the WTO calculated the percentage equivalent ("ad valorem equivalent") of Japan's yen tariff. http://www.japantimes.co.jp/news/2005/06/10/business/rice-tariff-778-with-new-wto-formula/#.U8ZBGZSSySo

But Japan is hardly alone in this regard. Most of Japan's neighbors and peers have structural problems of varying severity. France has cumbersome limits on the blue-collar workweek. Italy has limited female participation in the workforce. South Korea and Hong Kong have low fertility rates (although their populations are not yet as grey as Japan's). The United States has unattractive corporate tax rates and ruinous healthcare costs. Barriers to entrepreneurship are no worse in Japan than in many other mature economies, according to indicators devised by the Organization for Economic Co-operation and Development (see figure 6). Indeed, these barriers have fallen faster in Japan than in any other OECD country[33].

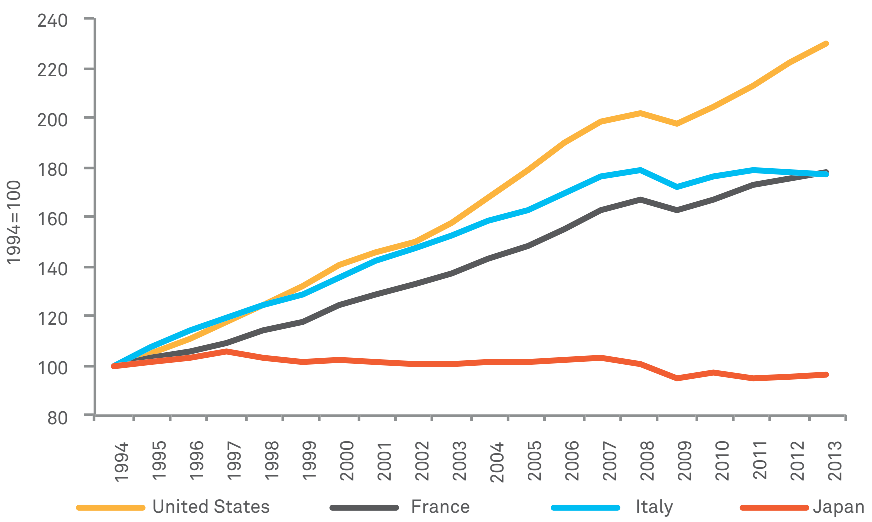
Figure 6: Barriers to entrepreneurship (2013)



Source: OECD. As of December 2013.

But these other flawed countries all share one important economic accomplishment that distinguishes them from Japan. In all of them, despite their various structural shortcomings, nominal GDP has nonetheless managed to grow over the past 20 years. In Japan, incredibly, it has not. That is the peculiar syndrome that sets the country apart (see figure 7).

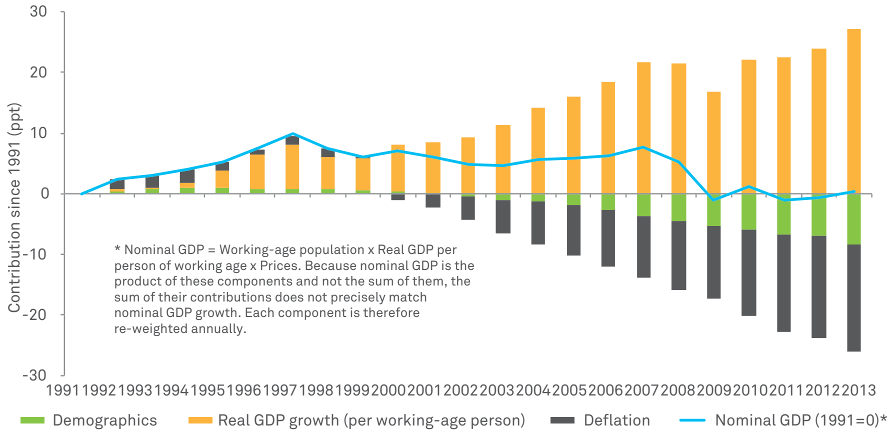
Figure 7: Nominal GDP



Source: IMF

33 An index of regulations created by Japan's Cabinet Office and extended by Takeo Hoshi and Anil Kashyap also fell from 1995 to 2005, although regulations fell faster in manufacturing than outside of it. http://www.nira.or.jp/pdf/1002english_report.pdf

Figure 8: Nominal GDP growth (cumulative since 1991)



Source: BNY Mellon calculations, based on IMF and OECD data.

The unbearable flatness of nominal GDP

Why has Japan's nominal GDP failed to grow? Nominal GDP can be unpacked into three components: output per worker, the number of workers, and prices. The flatness of Japan's nominal GDP disguises considerable ups and downs in these components.

Real output per worker has enjoyed some respectable periods of growth, especially during the Koizumi boom from 2003 to 2007. Its performance has been a "sawtooth, not a flatline", as Adam Posen, President of the Peterson Institute for International Economics, has put it[34]. In recent years, this growth was partially negated by demographic decline. If the number of 15-64 year olds had remained constant since 1991, Japan's GDP would now be more than 8% higher (see figure 8)[35].

Demographic decline was not, however, anything like the biggest drag on nominal GDP. That honor belongs to Japan's stubborn deflation. If prices had remained flat since 1991, Japan's nominal GDP would now be 20% higher. If prices had instead risen by 2% a year, consistent with international norms of price stability, nominal GDP would be over 80% bigger[36].

What sets Japan apart, then, is the flatness of its nominal GDP, and the biggest cause of this flatness is deflation. But what explains Japan's persistent deflation? And does it matter?

Debating deflation

Economists have offered a variety of explanations for this macroeconomic anomaly. The appendix provides a guide to their thinking. But as a first pass, their arguments can be divided into three.

One school of thought argues that deflation is merely a reflection of deeper problems. "Trying to cure Japan's malaise by generating inflation is like trying to cure a fever by putting ice on the thermometer," as Richard Katz recently put it[37].

34 http://www.piie.com/publications/wp/wp10-7.pdf
35 BNY Mellon calculations based on national and OECD statistics available on the Federal Reserve Economic Database.
36 Ibid.
37 http://www.foreignaffairs.com/articles/141480/richard-katz/voodoo-abenomics

A second camp believes deflation is one big cause of those problems. It is "not only a result of economic stagnation but also a cause of that protracted economic stagnation," as the Bank of Japan governor said in a speech last year[38]. Deflation increases the real value of cash and debts, discouraging borrowing and encouraging hoarding. It can also emasculate monetary policy, weakening the central bank's ability to protect the economy against downturns.

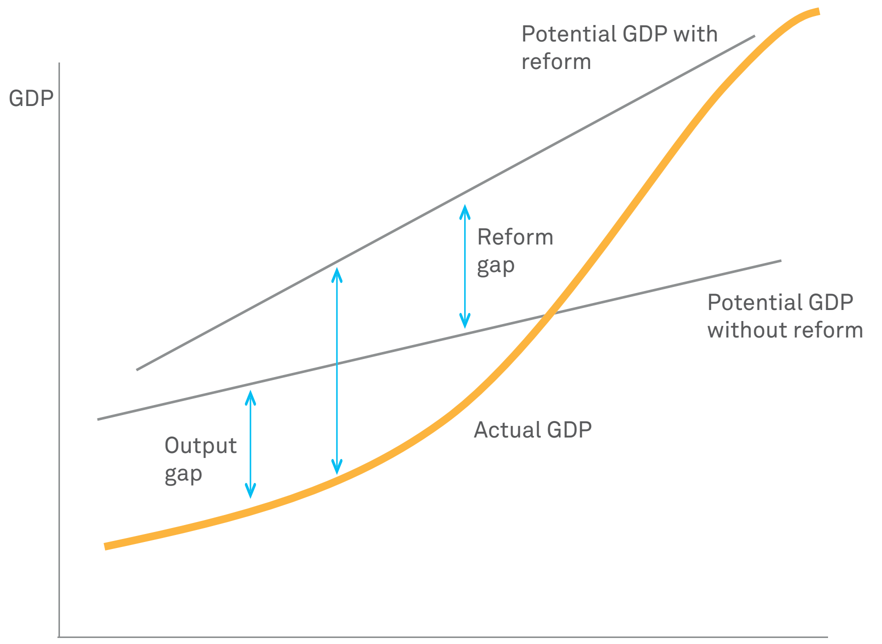
A third strand of thinking departs from both of these views, arguing that falling prices are no longer a major cause or consequence of economic weakness. According to this view, deflation, whatever its origins, has now taken on a life of its own. It persists largely because people expect it to do so, and it does little harm, because the economy is now accustomed to its continuance.

Two gaps

To adjudicate between these arguments requires a quick excursion into basic macroeconomic logic, guided by the chart below. The chart is similar to one provided in recent speeches by Kikuo Iwata, one of the Bank of Japan's deputy governors. It makes an elementary distinction between Japan's actual GDP and its potential GDP, between what the economy does produce and what it could produce, if it were firing on all cylinders.

Potential GDP is a measure of a country's productive capacity. It reflects underlying fundamentals, such as the size and skill of its workforce, coupled with the scale and sophistication of its plant, equipment and infrastructure. These fundamental "supply-side" factors set a ceiling on the amount an economy can potentially produce. But the amount an economy actually does produce is determined elsewhere. It is governed by the strength of demand—by what consumers, firms, the government and foreigners are able and willing to spend on a country's goods and services. When demand is weak and spending inhibited, capacity is idled and workers underemployed. Actual GDP falls short of potential, opening up what economists call an "output gap".

Figure 9: Three arrows, two gaps



Source: BNY Mellon, adapted from "Japan's Growth Potential and Quantitative and Qualitative Monetary Easing", speech by Kikuo Iwata, Bank of Japan Deputy Governor, June 3rd 2014. For illustrative purposes only.

38 www.boj.or.jp/en/announcements/press/koen_2013/data/ko131225a1.pdf

When actual GDP exceeds potential, the economy is at full stretch. Workers are fully employed, capacity fully utilized. Eventually wages and prices are bid up, generating inflation. Conversely, when actual GDP falls short of potential, wage pressures abate and prices weaken. Deflation is the eventual result.

Japan's potential GDP is certainly lower than it should be. Only a structural overhaul, the third arrow, can fill this "reform gap", raising potential GDP on to the higher growth path shown on the chart. But Japan's deflationary slump is evidence of a different gap: an output gap. The persistent downward pressure on prices suggests the economy has consistently fallen short of its existing potential.

The third arrow, structural reform, is not required to fill this output gap. Indeed, by itself, structural reform could make the output gap bigger. Immigration, for example, would increase the supply of labor, putting downward pressure on wages, thereby strengthening Japan's deflationary tendencies[39].

In his speech, Iwata echoed this point.

"[Structural reform] is supply-side policy that enhances the production capacity of Japan's economy. Unless there is aggregate demand to meet such new capacity, it will end up aggravating the deflationary pressure. It is for this reason too that monetary easing needs to alleviate deflationary pressure stemming from structural reform.

Japan's fallacy of composition

Why has Japanese demand proved too weak to make full use of its productive powers? Why has it suffered from a chronic output gap? The Bank of Japan's current governor, Haruhiko Kuroda, argues that Japan has fallen foul of a "fallacy of composition". This fallacy is the belief that what is true for an individual must also be true for a bigger group. If an individual stands in the theatre, he will enjoy a better view. But it does not follow that if the whole audience stands, everyone will see better[40].

What is the fallacy of composition at work in Japan? Each individual firm believes that if it hoards profits, it will improve its balance sheet and prosper accordingly. But what is true for the individual firm is not necessarily true for all firms combined. One firm's capital spending is another firm's income. One firm's wage hikes are spent on another firm's products. Therefore when each company cuts back, it deprives others of sales. That puts additional strain on their finances, prompting further cutbacks. Economists call this the "paradox of thrift".

The paradox of thrift is an old idea. But it remains counterintuitive. People quite naturally reject the notion that a country can simply spend its way to prosperity. Prosperity, they intuitively feel, is the cumulative result of more fundamental forces, such as ingenuity, innovation and industriousness. But this basic wisdom is incomplete. Ingenuity, innovation and hard work add to a country's productive capacity, determining its potential GDP. They do not, however, ensure that a country actually will produce all that it potentially can. Whether or not a country puts its capacity to full use depends instead on the strength of demand.

39 This counterintuitive result is known as the "paradox of toil". http://www.princeton.edu/~pkrugman/debt_deleveraging_ge_pk.pdf
40 Hiroshi Yoshikawa offered a similar metaphor in a recent interview. http://blogs.wsj.com/japanrealtime/2014/03/12/behind-pm-abes-wage-push-in-japan-dueling-economists/

This simple macroeconomic logic has a powerful implication for Abenomics. It implies that the Bank of Japan must first raise spending by enough to ensure the country makes full use of its existing capacity. Only then will it become strictly necessary to increase that capacity through structural reforms. To offer a physiological metaphor, Japan must first improve its circulation. Only then need it worry about strengthening its muscles.

The Bank of Japan must first raise spending by enough to ensure the country makes full use of its existing capacity.

4. DOES THE BANK OF JAPAN HAVE ANYTHING MORE TO OFFER?

The above analysis raises two questions. How big is Japan's output gap? And can the Bank of Japan close it? The central bank's asset purchases have kept securities' prices high and nominal yields low, both for the securities it has bought and their close substitutes. But the Bank of Japan is also trying to reduce real interest rates, i.e. after inflation. Its strategy is to convince Japan, by word and deed, that prices and spending will henceforth grow at a faster pace. Higher inflation expectations will, in turn, lower the perceived cost of borrowing (because borrowed yen will be worth less when the time comes to repay) and the perceived benefits of holding cash, which loses value when prices rise. This, combined with more optimistic expectations for future growth, should then motivate companies to invest and consumers to spend.

Just as a deflationary mindset is self-reinforcing, so reflationary sentiment can feed on itself. Consumers will rush to make their purchases before prices go up. Companies will hasten to take advantage of growing markets before their competitors steal a march on them. People once paralyzed by the dangers of moving first, will be animated instead by the danger of moving last.

Some observers believe the Bank of Japan will take additional steps later this year to convince the public of its determination to raise inflation[41]. It has already promised to increase the monetary base (which includes currency and cash reserves held at the central bank by commercial banks) to about 270 trillion yen by the end of 2014, roughly twice its size two years before. But there is nothing to stop it doing more if necessary.

The full scope of the central bank's power is not always well understood by market participants. In principle, it can print any amount of money it likes. If it prints too much, its money will, of course, eventually lose value as prices go up: inflation sets a natural limit on the central bank's power. But in Japan's case, higher inflation is not a constraint; it is an objective.

Since the Bank of Japan can issue currency without limit, it can also raise the price level. The second proposition follows directly from the first. If the Bank of Japan were powerless to lift prices, nonsensical results would ensue. The institution's money would retain its purchasing power no matter how much of it the central bank created. That would allow the central bank to buy every asset in the country and beyond[42].

How big is Japan's output gap?

If the Bank of Japan's strategy works, how much does the economy stand to gain from stronger demand alone? Official estimates suggest the answer is relatively little. The Bank of Japan's own measure of the output gap was less than zero in the first quarter: in other words, actual GDP now exceeds Japan's potential[43]. If that is true, then as demand strengthens, Japan's economy will soon rub up against supply-side constraints.

41 http://en.nikkoam.com/files/english_press_releases/2014/release_140530_e.pdf
42 One former central banker who was not afraid to state this obvious point is Ben Bernanke http://www.princeton.edu/~pkrugman/bernanke_paralysis.pdf
43 http://www.bloomberg.com/news/2014-07-16/demand-exceeds-supply-in-japan-for-first-time-since-2008.html, https://www.boj.or.jp/en/announcements/press/koen_2014/data/ko140801a2.pdf

But the Bank of Japan's measure of potential GDP is too conservative, in our view, resulting in an underestimation of the output gap. As a result, it is understating the potential benefits of the first arrow.

For one thing, the Bank's measure of the output gap reflects the difference between the country's actual GDP and its average output, not its maximum output. As a result, its estimate of Japan's economic potential tends to shrink to fit its actual performance. In the face of persistently weak demand, many people stop working full-time, or stop looking for work at all. In these circumstances, the Bank's measure of potential labor input also falls in tandem[44].

If the economy picks up, however, many such people may be tempted back into work[45]. Japan's potential labor supply would then grow in line with employer demand. In that case, the Bank of Japan's measure of the economy's potential would stretch to fit its expanding actual size.

44 Japan's labor-force participation rate has fallen significantly since the early 1990s. Many people attribute this to the aging of its population. But participation rates have fallen even within age groups. In 1992 about 38% of men aged 65 or over belonged to the workforce. By 2011 that proportion had fallen to only 28.4%.

45 More elderly people and women have already joined Japan's workforce in response to labor shortages in retail and elsewhere, according to Yoshihisa Morimoto of the Bank of Japan's policy board. https://www.boj.or.jp/en/announcements/press/koen_2014/data/ko140709a.pdf

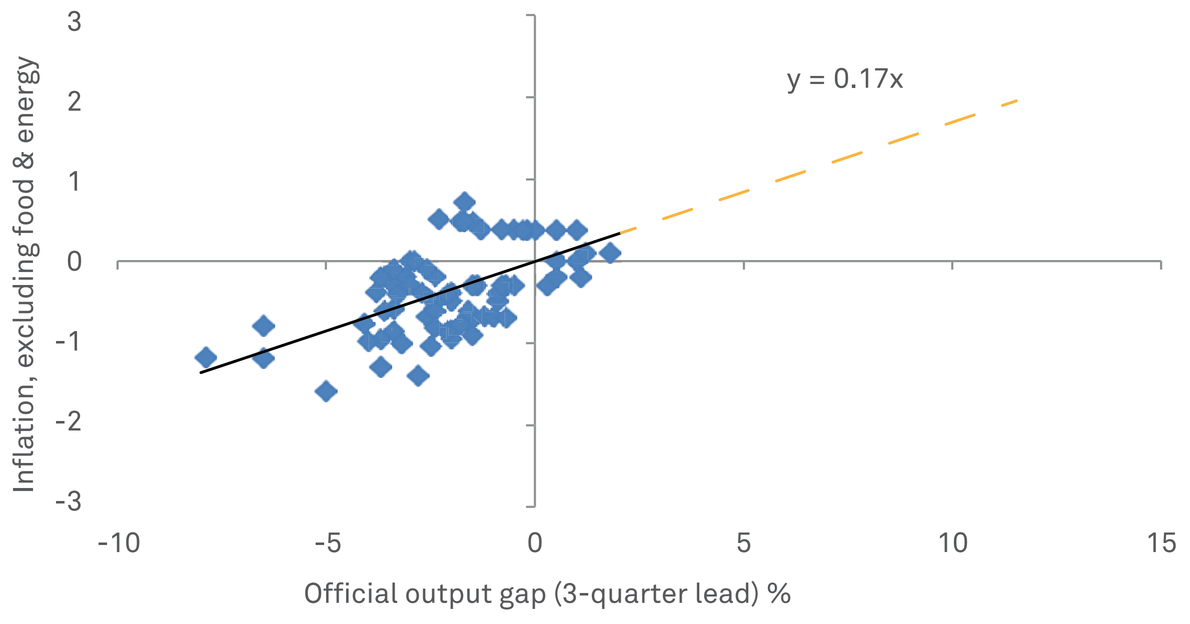
JAPAN'S SPEED LIMIT

Since an economy's potential output cannot be observed directly, one way to identify it is by the price pressure that results when that limit is exceeded. You know when an economy is overheating by the inflationary steam it generates.

But the Bank of Japan's speed limit is different. When the economy hits it, no steam is visible. The relationship between the output gap, as measured by the Bank of Japan, and inflation is plotted in the chart below*. It shows that when the output gap is zero (by the Bank's measure) inflation is entirely absent. Indeed, according to the Bank's calculations, the economy could exceed its potential by 1% and core inflation would be only 0.17%, hardly a sign of overheating.

On a simplistic reading of this chart, Japan's economy would have to exceed its potential by 11.7% in order to achieve the Bank's inflation target of 2%! This suggests the Bank of Japan's vision of the economy's potential is too conservative.†

Relationship between inflation and output gap in Japan 1996Q1-2014Q1



Source: Bank of Japan, Cabinet Office. Dotted line denotes extrapolation by BNY Mellon.

A recent academic study also argues that Japan's output gap is rather bigger than the Bank of Japan calculates. A paper by Joshua Hausman of the University of Michigan and Johannes Wieland of the University of California, San Diego, reckons that Japan's real GDP might be 4.5% or more below full capacity.

If 4.5% does not sound like a lot, compare it to the estimated gains from structural reform. A controversial initiative such as the consolidation of Japan's fragmented farmland would add only 0.3% to Japan's GDP, according to the IMF, because agriculture accounts for such a small share of its economy (about 1%). Or consider trade liberalization. Japan is now negotiating the Trans-Pacific Partnership (TPP), a proposed trade agreement with 11 other countries, which reformers see as a crucial test of the government's commitment to liberalization. But eliminating tariffs under this agreement would add only 0.66% to Japan's GDP, according to estimates by the Cabinet Office.

* See chart 9 in a presentation by Haruhiko Kuroda: https://www.boj.or.jp/en/announcements/press/koen_2014/data/ko140623a2.pdf

† Kuroda argues that higher inflation expectations have shifted the line upwards, so that any given amount of slack in the economy is associated with a higher inflation rate.

Corporate hoarding

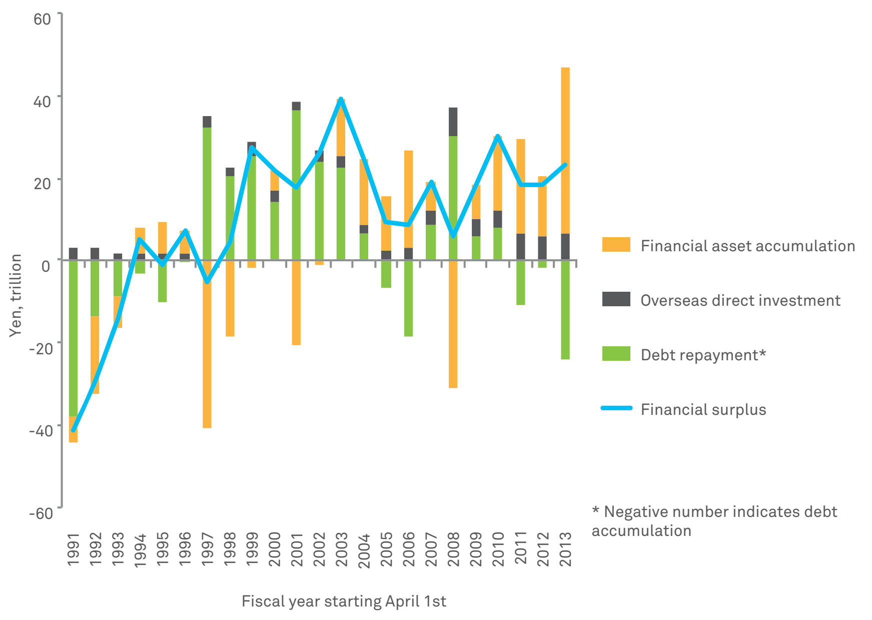
Japan's discouraged, underemployed workers will not regain their gumption until its corporations do the same. But nowhere is Japan's deflationary mindset more evident than in its peculiar corporate finances. In other economies, such as the euro area or the United States, corporations typically plough most of their retained earnings into capital expenditure. In good years, they might also take a loan or issue bonds, borrowing additional funds from other parts of the economy to invest in promising entrepreneurial opportunities. That is how capitalism is supposed to make progress.

But in Japan, the country's private, non-financial corporations boasted a financial surplus of over 23 trillion yen, or 4.8% of GDP, in the 2013 fiscal year (see figure 10). Their combined outlays on new plant and equipment were not enough even to exhaust their retained earnings. And they felt no compelling need to return more money to shareholders or pay more to their workers.

The chart below also shows the changing composition of this surplus. From 1997 to 2004, corporates used their surplus funds to reduce their debts and other liabilities aggressively. In more recent years, such as 2011 and 2013, they have simultaneously added to their financial liabilities and their financial assets, raising funds and accumulating them at the same time. Japan's "non-financial" firms have, in other words, operated a bit like financial intermediaries.

In the fiscal year ending on 31 March 2014, they raised about 24 trillion yen of funds from other parts of the economy. But this borrowing was more than offset by their accumulation of 47 trillion yen of assets. (These assets include 6.6 trillion yen in overseas direct investment, but the bulk of them, about 40 trillion, were purely financial securities of one kind or another.) Corporations are supposed to put an economy's excess saving to good use. In Japan, they generate more of it.

Figure 10: Japan's private non-financial corporations



Source: Bank of Japan.

5. WILL JAPAN'S PUBLIC DEBT CRUSH THE ECONOMY?

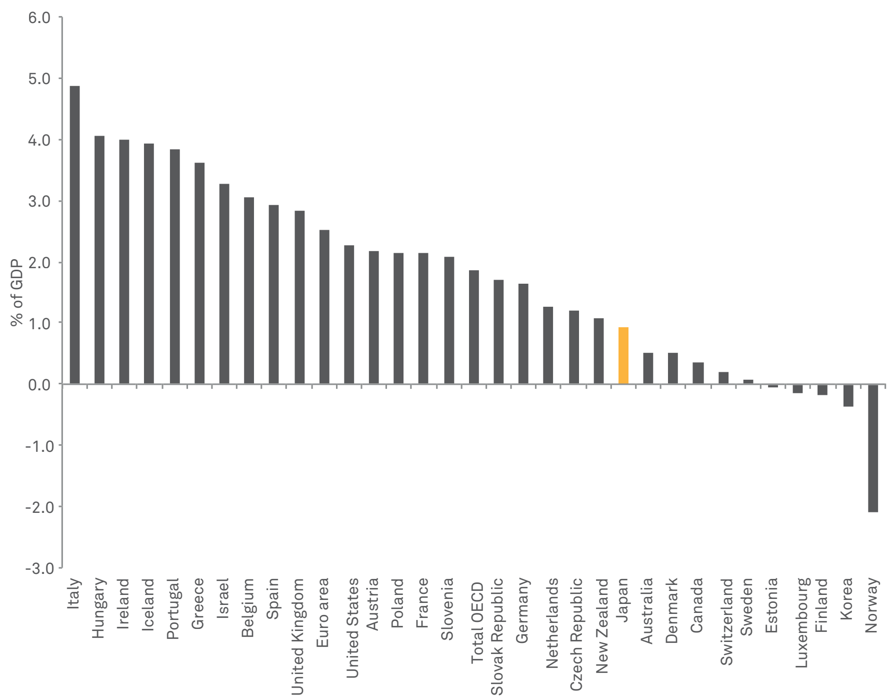
Since corporations have abdicated their traditional role as net borrowers, that role has fallen instead to Japan's government. Its chronic deficits are the flipside of the private sector's persistent financial surpluses. Instead of borrowing from banks, corporations amass deposits in them, and instead of lending to companies, banks lend to the government.

Japan's fiscal profligacy is, therefore, the mirror image of its corporate thrift. Japan's government may be highly indebted. But Japan as a whole is not. On the contrary, it is the world's biggest creditor nation, with net foreign assets worth over $3 trillion at the end of 2013[46].

Japan's budget deficits are controversial. The government has not always put its borrowed funds to good use. But it has at least put them to some use. Without the government's additions to demand, Japan would have suffered an even deeper stagnation. When both households and corporations seek to spend less than they earn, other parts of the economy have to do the opposite. Otherwise income will ratchet downwards, until the diminished earnings of corporations and households no longer exceed what they are willing to spend.

Japan's government deficits have, therefore, been necessary to offset the private sector's surpluses. And because they have been necessary, these deficits have also proved surprisingly sustainable. Yields on Japanese government debt remains wafer thin (ten-year yields were about 0.5% at the end of July). As a consequence, although Japan's public debt-to-GDP ratio is the highest in the OECD, the burden of its interest payments remains surprisingly light.

Figure 11: Government net interest payments (2013)



Source: OECD.

46 http://www.mof.go.jp/english/international_policy/reference/iip/e2013.htm

Of course if corporate demand for loans and bond financing picks up, the government will find it harder to sell its bonds to banks. But if corporate demand picks up, the government will also have less need to issue those bonds. Its fiscal deficit can narrow as and when the private sector's surplus shrinks. It follows that Japan's deficits will be sustainable for as long as they are necessary. By the time they cease to be easily sustainable, they will also cease to be necessary.

Japan is now at a rare turning point as it makes the transition from a period of nominal GDP contraction to one of decisive expansion.

We believe the five arguments against Abenomics rest, therefore, on mistaken convictions. First, the decline in real wages masks the strengthening demand for labor, which will eventually bid up pay in line with prices.

Second, Japan is weathering this year's consumption-tax hike better than the last one, 17 years ago. The higher tax has not dented consumer confidence and, if it does hurt the economy more than expected, the Bank of Japan is ready to offset the damage.

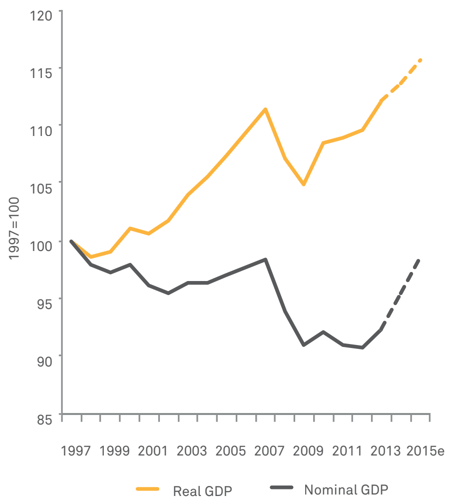
Third, Abe has made some welcome progress on structural reform, but Japan's structural shortcomings are not, in any case, the binding constraint on its growth. Fourth, it still has a lot to gain from stronger spending, which the Bank of Japan should be able to engineer. Finally, Japan's public debt looks intimidating, but the interest burden is surprisingly light. As the economy strengthens, interest rates are likely to rise. But a stronger economy will be better able to support them. Higher rates will be a consequence of success, not a cause of failure.

How will these arguments play out in the stock market as Abenomics proceeds?

THE STOCK MARKET PERSPECTIVE

Nominal GDP felt more real
As we have argued, Japan is now at a rare turning point as it makes the transition from a period of nominal GDP contraction to one of decisive expansion. This turnaround could have a profound impact on sentiment. During Japan's last two decades, Japan's shrinking nominal GDP often felt more 'real' than the inflation-adjusted number. Real GDP did grow, albeit fitfully. But when pay packets thin out and yen profits fall, it is hard to feel richer, even if prices are falling by a bigger margin.

Figure 12: GDP FY 1997-2015e

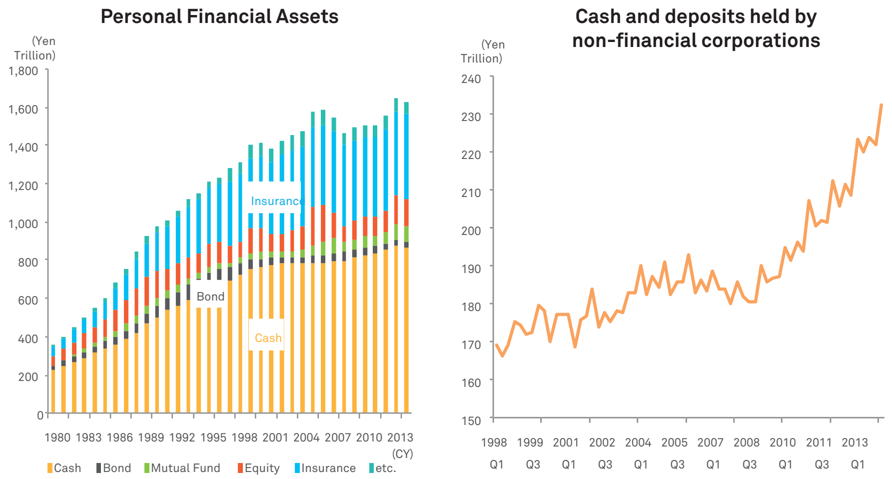


GDP Growth		
	Nominal GDP growth	Real GDP growth
1997	1.0	0.1
1998	-2.0	-1.5
1999	-0.8	0.5
2000	0.8	2.0
2001	-1.8	-0.4
2002	-0.7	1.1
2003	0.8	2.3
2004	0.2	1.5
2005	0.5	1.9
2006	0.7	1.8
2007	0.8	1.8
2008	-4.6	-3.7
2009	-3.2	-2.0
2010	1.3	3.4
2011	-1.4	0.3
2012	-0.2	0.7
2013	1.9	2.3
2014e	3.3	1.4
2015e	3.4	1.7

Source: Cabinet Office, Government of Japan.

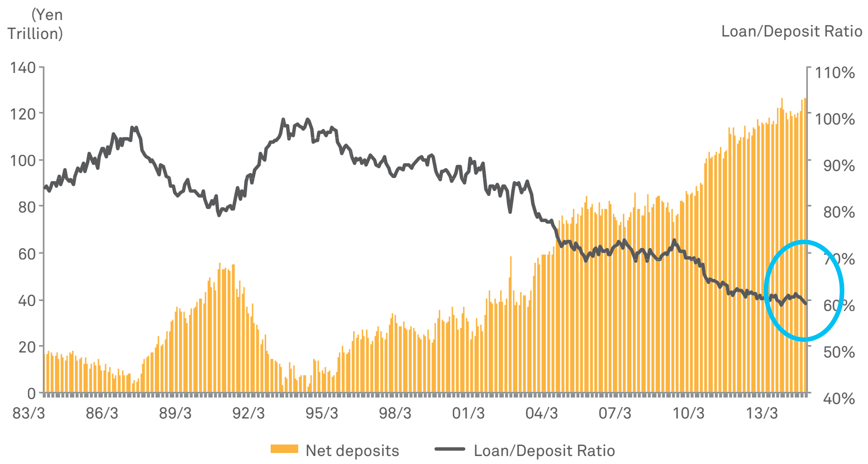
During this moribund period, households and firms hoarded financial assets, including sizeable holdings of cash. Bank balance sheets were left similarly understretched. Their current loan to deposit ratio is just 60% (see figures 13 and 14).

Figure 13



Source: Bank of Japan, as of March 2014.

Figure 14: Loan/Deposit Ratio



Source: Loan/deposit ratio: Bank of Japan, as of 31 May 2014.

The swing from negative to positive nominal GDP growth should provide the feel-good factor that prompts firms and individuals to borrow and spend. Japan may then benefit from a steady and extended releveraging of household finances and corporate balance sheets. Some positive signs are already evident: interest-bearing debt of listed companies increased by more than 10% in December 2013, compared with a year earlier[47].

The prospects for growth in corporate profits have improved significantly: earnings of listed companies are expected to reach record highs this financial year. Japan's turnaround is also evident in land and property prices. The National Land Agency's survey of prime real-estate locations revealed price increases in 79% of sites in the first quarter of the year; prices fell in fewer than 3%[48]. Tokyo office vacancies have continued to decline this year to 6.5% from almost 10% in June 2012[49].

47 Nikkei Newspaper March 16, 2014. Calculation based on approximately 1700 listed companies with a March year end, excluding financials and electric utilities.
48 http://tochi.mlit.go.jp/english/wp-content/uploads/2014/06/f444672ca1c9bea08a5117bdd46b20971.pdf
49 Source: Miki Shoji. http://www.e-miki.com/market/download/sikyo/F1407_TO.pdf

THE JAPANESE EQUITY MARKET STILL LAGS THE EARNINGS RECOVERY

Considering the significance of these changes, the stock market's performance so far has been quite modest. In most stock markets, share prices reflect the growth or decline in earnings per share (see figure 15). In Japan, despite the strong rally in 2013, the market recovery still lags the earnings recovery by a wide margin. The TOPIX would have to rise by 40% to catch up with the recovery in earnings per share (see figure 16).

In Japan, despite the strong rally in 2013, the market recovery still lags the earnings recovery by a wide margin.

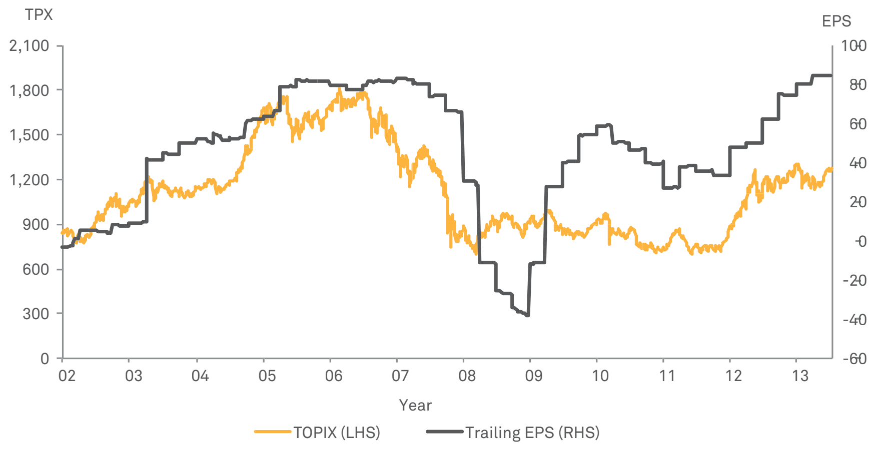
Investors have not yet shrugged off the series of disasters that befell Japan in the past half-decade: the biggest earthquake in 1,000 years; the worst flood for 50 years in Thailand, where about 500 Japanese companies own production facilities; as well as three years of rule by a very weak Democratic Party of Japan.

Previous stock market rallies have largely reflected global developments such as the internet bubble at the turn of this century or the worldwide boom prior to the financial crisis. Japan is now enjoying its first proper "homegrown" recovery, reflecting Japan-specific causes. We believe that investors have yet to fully recognize the upside potential in Japan's domestic, inward-oriented economy, which, after all, accounts for over 85% of its GDP[50].

Figure 15: MSCI World vs Trailing Weighted EPS

Source: Bloomberg, Nomura, as at 17 July 2014, using 12 months trailing EPS.

Figure 16: TOPIX vs Trailing Weighted EPS



Source: Bloomberg, Nomura, as at 17 July 2014, using 12 months trailing EPS.

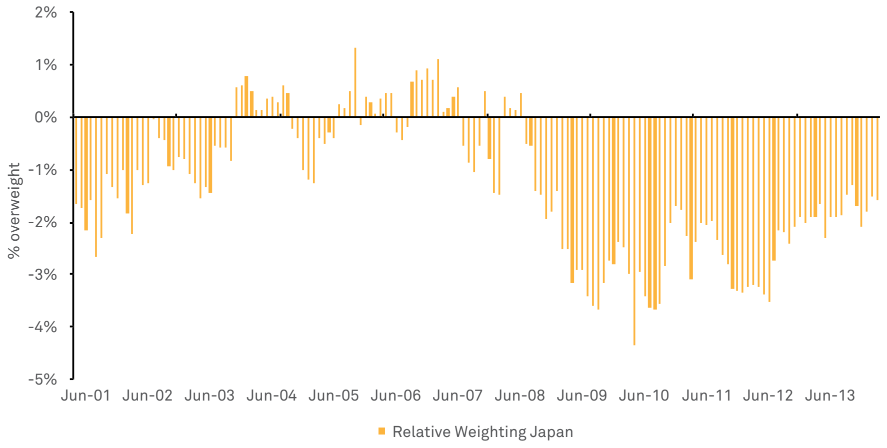
50 Gross exports equaled 14.9% of Japan's 2013 GDP. However the gross figure includes imported parts and components, which would subtract about 2.2 percentage points from this figure, according to the World Trade Organization and the OECD. On the other hand, some of Japan's domestic investment (which accounts for about 24% of GDP) is export-oriented. http://www.oecd.org/sti/ind/TiVA_JAPAN_MAY_2013.pdf

The Government Pension Investment Fund, the world's largest public pension fund, is expected to increase its long-term holdings of Japanese shares.

STILL UNLOVED

Global investors are still underweight Japan—despite its much improved outlook (see figure 17). By contrast, some Japanese institutions seem poised to invest more in local equities. The Government Pension Investment Fund, the world's largest public pension fund (with about $1.2 trillion of assets), is expected to increase its long-term holdings of Japanese shares[51]. Individuals, who traditionally kept less than 10% of their portfolios in equities, have turned active buyers in 2014[52]. In the first three months of 2014, they ploughed over 1 trillion yen into NISAs, the new tax-friendly investment accounts[53]. Their net purchases of stocks in January were the largest ever recorded (although they subsequently became net sellers as the market turned).

Figure 17: Japan's weight in the global strategies of international investors



Source : Nomura Securities Co. Ltd.

WHY THE STOCK MARKET WEAKNESS YEAR TO DATE?

After rising by more than 50% in 2013, Japan's TOPIX was down 2% over the first half of this year[54]. That may seem disappointing for a country undergoing such a dramatic economic turnaround. But after the surge last year, such a pull-back is perfectly understandable.

One reason for the set-back, in our opinion, is April's increase in the consumption tax from 5% to 8%. This unusual event forced companies to provide highly conservative earnings estimates for the new financial year starting in April, depressing the consensus growth outlook for the subsequent 12 months.

Some investors were also disappointed that the Bank of Japan did not announce further easing in the first half of the year. Such easing was always unlikely given that inflation figures are in positive territory. But after the Bank of Japan surprised the market in April 2013, investors had convinced themselves that Kuroda, the Bank of Japan's governor, was a man who likes to exceed market expectations, however high those expectations might be.

As things stand, this year's stock market setback offers an attractive entry point into the market. In the second half of the year, Japan will have put the consumption-tax hike behind it. Investors will therefore be able to refocus on Japan's transition to a phase of nominal GDP expansion.

51 The fund may finish reviewing its portfolio by September, according to the Nikkei newspaper. According to the median projection in a survey of experts, the GPIF will cut the share of local bonds in its portfolio (from 60% at present to 40%) and increase the share of local equities (from 12% to 20%). http://www.bloomberg.com/news/2014-05-28/japan-s-gpif-to-cut-local-bonds-to-40-survey-says.html
52 Nikkei Newspaper Feb 15 2014.
53 As previously mentioned, NISA investors do not pay taxes for five years on investments of up to 1 million yen a year.
54 Bloomberg.

CONCLUSION: WHY ABENOMICS WORKS

Before Abe's return, Japan had only one prime minister in the last decade and a half who was in office for much more than a year. The country lacked proper leadership. Japan is now enjoying a rare period of political stability, with a strong Liberal Democratic Party presence in both the lower and upper house. In addition, a nation that normally dislikes rapid change now appears ready for it. Abe's popularity in polls remains reasonably high, even though he has pushed through some unpopular changes such as the consumption-tax rise; an increase, in effect, in inheritance tax; and a hike in medical fees for the elderly from 10% to 20%[55].

Abenomics is new; Abe himself is not. The fact that he is performing his second stint as prime minister is perhaps another reason for his success. He was able to skip the initiation process and get straight to work. His announcement of Abenomics happened only days after the 2012 election. Its implementation has also proceeded at the speed of light by Japanese standards.

Japan's predicament is rare. Few countries in economic history have suffered anything like its prolonged stagnation in nominal GDP. It follows that few economies have ever broken free from such a spell. No one quite knows how Japan will respond as its prices reflate, its entrepreneurial spirits lift, its workers regain ambition, its aging machinery is renewed[56], and its economy once again lives up to its full potential. As two prominent economists have pointed out, "without a clear vision [of] what Japan could achieve, it is hard to grasp what Japan is losing."[57]

What Japan could achieve, in our opinion, may surprise many people.

55 http://www.nikkei.com/article/DGXNASFS0504G_V01C13A2EA2000/
56 The capital equipment used by Japan's manufacturers is estimated to be over 16 years old on average, 3-4 years older than in the United States. http://www.imf.org/external/pubs/ft/wp/2014/wp14141.pdf.
57 'Why did Japan stop growing?' By Takeo Hoshi and Anil Kashyap. http://nira.or.jp/pdf/1002english_report.pdf

APPENDIX: KNOWING THE DOCTORS BY THEIR DIAGNOSES

Economic explanation is countercyclical, booming when times are bad. Japan's economy may have stagnated, but explanations for its predicament have flourished. This great mushrooming of interpretations has not, however, settled into a consensus. Some economists still believe that Japan suffers from a shortfall of demand, others argue it is chiefly hamstrung by inadequate supply. The "demand-side" camp subdivides into those who think monetary stimulus alone is a sufficient remedy and others who believe fiscal stimulus is necessary in addition—or instead.

Even among advocates of monetary stimulus, there are further distinctions. Some believe Japan is caught in a liquidity trap, escape from which requires a wholesale change in Japan's monetary regime, with new targets and new instruments. Others believe Japan's central bankers are trapped only by their own timidity. Some think bank lending is vital, others see it as incidental.

The supply-siders are perhaps more unified. But even within this camp, there are some who emphasize Japan's demographic decline, others who cite its corporate sterility, and still others who attribute Japan's long deflation not to corporate rigidity but, on the contrary, to its wage flexibility.

One way to sort through the competing arguments is to set out a list of questions, similar to a doctor's checklist, which an economist should consider in trying to diagnose Japan's rare economic condition. It is possible to distinguish between the rival schools of thought about Japan by their different answers to the questions below.

1. Is Japan suffering from an "output gap"? Is demand weak, capacity unused and labor underemployed, such that higher spending would result in higher GDP without excessive inflation?

If your answer is no, you are a supply-sider. Skip to question 8. If your answer is yes, you are a demand-sider. Continue with question 2.

2. If Japan suffers from an output gap, why is spending weak?

a) Because consumers delay purchases in anticipation of lower prices in future.
b) Because households and firms save in anticipation of higher taxes in the future.
c) Because firms hoard profits (e.g. by accumulating financial assets, including cash).

3. If firms hoard profits, what else should they do with them?

a) Plough profits into capital expenditure or distribute them to shareholders.
b) Pay higher wages, which workers would spend on consumer goods[58].

4. If Japan suffers from an output gap, why has monetary stimulus so far failed to close it?

a) Because companies are reluctant to borrow, however low the interest rate, until they have reduced their debts to more comfortable levels[59].
b) Because banks are reluctant to lend, however much the central bank lowers their funding costs, due to a lack of capital and a fear of non-performing loans[60].
c) Because (nominal) interest rates cannot fall below zero, and that may not be low enough to revive spending.

58 One proponent of this view is Andrew Smithers http://blogs.ft.com/andrew-smithers/2014/07/abes-third-arrow-the-second-time-round/
59 Richard Koo is famous for making this argument.
60 This argument was popular until the mid-2000s, when bank balance sheets improved. Early evidence for this view was provided by Kazuo Ogawa and Shin-ichi Kitasaka http://www.iser.osaka-u.ac.jp/library/dp/2000/dp0505.pdf
61 Paul Krugman expressed this view in a famous 1998 paper. http://www.brookings.edu/~/media/projects/bpea/1998%202/1998b_bpea_krugman_dominquez_rogoff.pdf

d) Because people do not believe the necessary expansion of the money supply will be permanent[61].
e) Because lower rates discourage consumption by people who rely on interest income, and higher property prices encourage saving by people looking to buy the costlier properties[62].

5. Could the central bank do more?

If your answer is no, you are a **fiscalist,** skip to question 7. If your answer is yes, you are a **monetarist** or a **"new Keynesian".** Continue to question 6.

6. If the central bank could do more, what more could it do?
a) Raise people's expectations of inflation (or the price level), so that 'real' interest rates, after subtracting expected inflation, fall far enough below zero to revive spending[63].
b) Convince people that the necessary expansion of the money supply will be permanent.

7. If monetary stimulus will not work, will fiscal stimulus?
a) Yes. Because companies find it easier to deleverage--spending less than they earn so as to repay debt—when the government does the opposite, spending more than it collects in taxes[64].
b) Yes. Because fiscal stimulus, as well as expanding demand directly, will also eventually restore monetary policy's grip. It will absorb savings, raising the (nominal) "natural" interest rate above zero (the natural rate is the rate that generates enough demand to keep the economy at full capacity without inflation)[65].

8. If Japan does not suffer from an output gap, why is GDP growing so slowly?
a) Because the working-age population is shrinking. Nominal GDP may be flat, but real GDP per person of working age has grown at a reasonable rate.
b) Because large swathes of the economy, especially services and agriculture, are sheltered from competition and stifled by regulation.
c) Because Japan lacks creative destruction. "Zombie" firms, kept alive by forgiving banks, trap labor and capital in dying industries, thereby withholding it from more promising industries[66].

9. If Japan does not suffer from an output gap, why have prices fallen over the past 15-20 years?
a) Because of self-fulfilling expectations. Whatever its original cause, deflation now persists merely because people have come to expect it, and they set their own prices and wages accordingly.
b) Because of flexible wages. In Japan, when demand falls, firms cut wages rather than jobs. These lower wages allow firms to cut their prices, contributing to deflation[67].

62 See John Muellbauer and Keiko Murata http://academiccommons.columbia.edu/catalog/ac%3A111219
63 Both Krugman and Lars Svensson are well known for making this argument.
64 See Koo
65 Adam Posen made this argument in 1998. He now worries that Japan's public debts leave little room for fiscal stimulus.
66 Takeo Hoshi and Anil Kashyap have documented the spread of zombie firms.
67 Masaaki Shirakawa, former governor of the Bank of Japan, emphasizes this point. http://www.bis.org/publ/bppdf/bispap77e.pdf

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