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JAPAN: THE QUEST FOR GROWTH AND INFLATION

with Michael Hasenstab, Ph.D.

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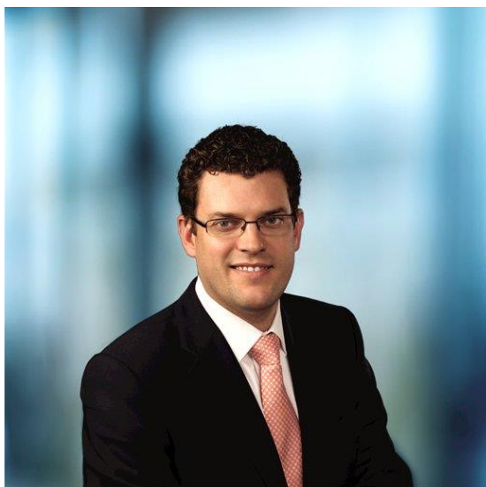
Japan: The Quest for Growth and Inflation



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Global Macro Shifts is a research-based briefing on global economies featuring the analysis and views of Dr. Michael Hasenstab and senior members of Templeton Global Macro. Dr. Hasenstab and his team manage Templeton's global bond strategies, including unconstrained fixed income, currency and global macro. This economic team, trained in some of the leading universities in the world, integrates global macroeconomic analysis with in-depth country research to help identify long-term imbalances that translate to investment opportunities.

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Overview

This edition of Global Macro Shifts focuses on Japan, the world's third largest economy. Japan has embarked on an unprecedented economic policy shift to finally break out of nearly two decades of low growth and deflation. Whether or not the new strategy succeeds will have substantial implications for the global economic outlook.

In 2012, the administration of Prime Minister Shinzo Abe launched a comprehensive policy dubbed "Abenomics," articulated in three "arrows": The first arrow targets a far more extensive and aggressive monetary easing than previous monetary expansions. With this new quantitative and qualitative easing (QQE) program, the Bank of Japan (BOJ) has more than doubled the monetary base since the start of 2013, it has significantly extended the residual maturity of the Japanese government bonds (JGBs) in its portfolio, and it has undertaken important direct purchases of riskier assets. This strategy has triggered important portfolio reallocations in Japanese financial institutions and has sent an unambiguous signal of the BOJ's determination to maintain a powerful monetary stimulus until inflation rises to about 2% on a sustainable basis.

The 2% inflation target has not yet been reached, partly because the sharp decline in global commodity prices has provided a formidable headwind and partly because breaking the inertia of entrenched expectations of near-zero inflation and changing wage-setting behavior have proved harder than expected. QQE, however, has succeeded in establishing core inflation solidly in positive territory, after remaining almost always below zero for over 15 years. QQE has also had a major impact on asset prices, causing the yen to depreciate by nearly 40% against the US dollar (USD) and equity valuations to more than double.

The second arrow consists of a prudent fiscal policy that walks a fine line between supporting higher growth and inflation targets and securing debt sustainability. After a courageous consumption tax hike in April 2014 caused growth to stall, fiscal policy has focused on providing a credible medium-term consolidation framework, while supporting near-term growth with reductions in the corporate income tax over 2015–2016.

Japan's gross public debt stands at a staggering 245% of gross domestic product (GDP) and is unsustainable under current policies. So far, extremely favorable conditions have ruled out any adverse impact on financial stability: Japan's debt is backed by high domestic savings, with less than 10% held by foreign investors; QQE provides additional demand support and has helped keep interest rates near zero. These favorable conditions, however, cannot be assumed to remain in place indefinitely.

While higher inflation is a necessary condition, Japan also needs to boost real GDP growth. The third arrow therefore encompasses a broad range of structural reforms. While potential GDP growth has declined over time, and now runs at a meager 0.5% rate, Japan's productivity growth has remained healthy, on a par with advanced economy peers such as the US and Germany. Structural reforms can give productivity growth a further push, but they also need to raise the level of both capital and labor in order to have a sufficient impact on the overall GDP growth rate. In particular, additional reforms will be needed to offset the impact of Japan's demographics—the rapid pace of aging is set to shrink the labor force by several million workers by 2030. The government will need to take additional steps to achieve a further rise in female participation, incentivize older workers to remain in the labor force, increase selected immigration and boost labor market flexibility.

Abenomics constitutes a true regime change and has already had a significant impact—but the road to sustainably higher growth and inflation is still long. Prime Minister Abe convincingly won a second term in the December 2014 snap elections, indicating that support for the ongoing reform effort remains solid. The government, however, will need to boost efforts across key structural reform areas, notably on the labor market. Meanwhile, we expect the BOJ will have no alternative but to maintain an extremely easy monetary stance, possibly boosting QQE further, resulting in a prolonged period of a weak(er) yen and low interest rates.

The remainder of this paper is organized as follows. Section 1 provides our global economic outlook, focusing on the US, the eurozone and China; Section 2 begins the discussion of Japan, starting with an overview of the lost decades and how they relate to the challenges of today; Section 3 covers the new era and the rise of Abenomics; Section 4 assesses the progress of Japan's new policies; and Section 5 concludes the paper with a summary of Japan's road to restoring growth and inflation.

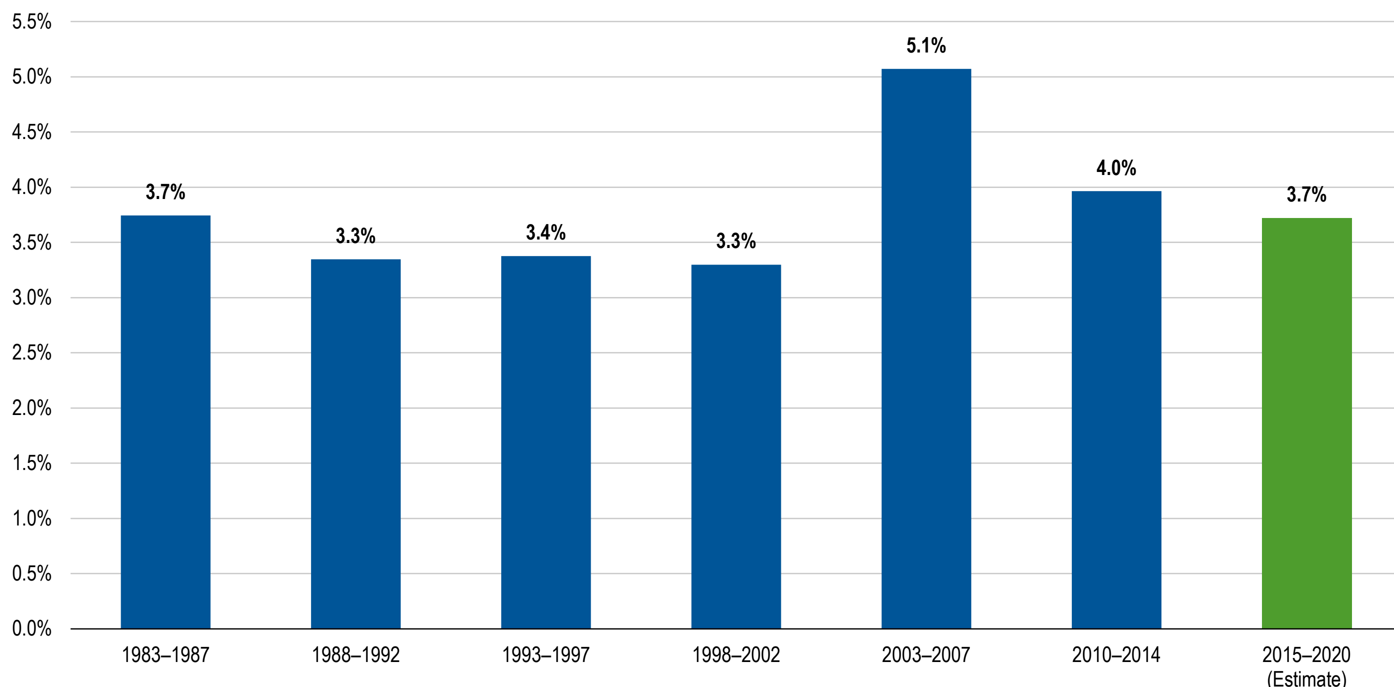
1. Global Environment

Before taking a deep dive into Japan, it is useful to take stock of the current global economic outlook. Global growth has weakened in 2015 from 2014, but we should attempt to separate the noise from the reality. As we go to print, the International Monetary Fund (IMF) has just completed its annual meetings in Lima, with eye-catching headlines warning about the extreme fragility of the global economy. The IMF revised its headline global growth forecast for 2015 lower to 3.1%.[1] We would note that market consensus has been fearful about global catastrophe for the past five years, a catastrophe which has curiously never occurred. Taking a few steps—or years—back, we recall when we were cautioned about an imminent double-dip recession in the US. Except—it didn't happen, as we are 24 quarters into the recovery and counting. And then, we recall the eurozone collapse, with the disintegration of the world's largest single currency zone. Except again—it didn't happen; indeed the euro bloc has expanded its membership in the intervening period. Global deflation, on the back of falling commodity prices, has not happened either; some claim the jury is out, but we would assert that once again it is extremely unlikely to materialize. The doomsayers have not given up, however, and their latest buzzwords are *secular stagnation* and an *economic collapse* in emerging markets (EMs).

We find such generalizations simplistic. Undoubtedly some EMs are going through a painful process of adjusting to lower commodity prices. Undoubtedly all EMs have not been equally prudent in the last seven years of easy money. However, it is a leap to generalize from here to a broad-based EM crisis. So in sum, the doom and gloom we read everywhere do not reconcile with the hard data. Most crisis proponents do not seem to acknowledge that the five years before the global financial crisis represented an unsustainable credit-fueled growth bubble. The aberration in global growth occurred then, not now. We think the chart below says it all.

Global Growth Was Unsustainable Before the Financial Crisis, More to Trend Now

Exhibit 1: Global GDP Growth (% Purchasing Power Parity)
1983–2020E



Source: International Monetary Fund, *World Economic Outlook Database*, October 2015.

United States

We remain constructive on US economic growth. A healthy household sector that continues to spend on consumption goods at a robust pace and non-energy business investment continue to support underlying activity. Housing construction is on an uptrend, and business investment in structures has also been very healthy. There remains a sufficient amount of pent-up demand in residential investment and household durable consumption to support above-trend growth for the next several quarters. Importantly, the negative impact of lower oil prices on drilling activity appears to be largely behind us. Second-quarter (Q2) GDP growth expanded by a strong 3.9% quarter-on-quarter annualized, while the latest data also indicate that Q1 saw a 0.6% expansion in GDP, rather than the small contraction initially estimated. While the first estimate of Q3 GDP decelerated to 1.5%, the headline masks solid fundamentals. In particular, underlying final demand remains very solid, led by a 3.2% rise in consumer spending.

While the September labor market report brought some disappointment at the pace of job creation, the trend continues to improve. The economy has almost eliminated the slack generated during the global financial crisis, with the unemployment rate essentially at full employment,[2] as estimated by the Congressional Budget Office. Moreover, other signals of labor market health, such as increasing churn (hirings, firings and quits) also show that conditions are greatly improving. Overall, wage and income growth pressures are consistent with improving labor market fundamentals and diminishing slack, and we would anticipate wage pressure to build as labor markets continue to improve.

Headline inflation fell early in the year due to a decline in oil prices and the appreciation of the USD. The appreciation of the USD also dampened core inflation somewhat. However, the base effects of the drop in oil prices will fade quickly, supporting an increase in inflation toward the US Federal Reserve's (Fed's) 2% target, during the first half of 2016. On the whole, we remain confident in the economic outlook for the US and continue to expect the Fed to start the process of normalizing rates by year-end.

Eurozone

The euro area continues to enjoy a broad-based pick-up in activity and is currently growing above potential, though with differences across countries. The expansion is supported by the European Central Bank's (ECB's) ongoing quantitative easing program, which has brought an easing of financial conditions in the area as well as some improvement in bank lending. Loose monetary policy also helps growth by keeping the euro exchange rate at a competitive level.

Inflation remains low in the euro area as well, partly as a reflection of weak commodity prices, especially in energy, the impact of which we estimate at 0.4 percentage points. The ECB still expects inflation to converge to its 2% target in the medium term, but it has stated clearly that it stands ready to take additional monetary easing action should it become necessary. We anticipate a new round of quantitative easing in the coming months.

The Greek crisis, which still loomed large at the time of our last Global Macro Shifts, has been averted. After prolonged brinkmanship, Greek Prime Minister Alexis Tsipras caved to the demands of the European Union (EU) and the IMF, and signed a new bailout program that included substantial adjustment measures and no debt forgiveness. This last point proved extremely controversial and caused a sharp disagreement between the IMF—which insisted debt restructuring was essential to guarantee debt sustainability—and the EU, notably Germany, which remained adamantly opposed. Prime Minister Tsipras and his left-of-center coalition remain in place after a snap election in September. Concerns about program implementation remain, and the issue of debt sustainability is likely to come back to the fore eventually.

For the time being, however, the risk of Greece exiting the euro area and the attendant concerns of possible contagion have been taken off the table. Looking forward, we expect continued monetary accommodation from the ECB, supporting growth and further weakening the euro into 2016.

China

When the Fed chose not to raise rates in September, it focused its concerns on China, where the pace of economic activity seems to have decelerated somewhat below what financial markets expected and what policymakers were aiming for. China's stock market corrected after valuations had more than doubled over the previous 12 months—a risk that we had flagged in our previous issue of Global Macro Shifts. The government adopted a number of administrative measures to halt the fall of stock prices. The measures had only limited success and led China-skeptics to argue that the government was reverting to interventionist policies rather than sticking with reforms.

Subsequently, in mid-August, China implemented a devaluation of the renminbi's parity to the USD, of about 3%, and announced that going forward market forces would play a bigger role in determining the exchange rate. In a free-floating exchange rate regime, a shift of this magnitude would not be of particular note, but given China's quasi-peg to the US dollar, it was considered large. A number of observers interpreted the devaluation as a signal that policymakers were deeply concerned about the growth slowdown and would aim to engineer a substantial depreciation to boost growth through exports. They warned this would likely trigger a round of currency wars, with disruptive consequences to global growth and the global financial system. We disagree. Consistent with the analysis in our previous Global Macro Shifts, we believe China's policymakers will most likely stay the course. Regarding the renminbi's depreciation, we would note that China's currency had appreciated by over 12% on a real effective basis in the preceding 12 months.[3] Furthermore, China had experienced some "hot money" outflows during the first half of the year, which also clearly influenced policymakers' actions. After a modest 3% depreciation, the renminbi has remained stable over the past two months, and we do not believe that the move was a precursor to a large uncontrolled weakening, as had been feared by markets.

On the whole, underlying conditions in the Chinese economy are fundamentally more stable than markets have recently indicated. We still believe that China's policymakers have both the tools and the financial firepower to counter the recent slowdown and keep growth on track at 6%–7%.

Rest of the World

China's slowdown and the persistent weakness in commodity prices have fueled a renewed round of concerns that the global economy suffers significant downside risks and that the pace of global economic activity might weaken substantially. The weakness in commodity prices has attracted special attention and is being linked by some to the risk of a systemic crisis in EMs. While downside risks do exist, we find concerns of a global secular stagnation or of a systemic EM crisis due to commodity price weakness exaggerated.

As we noted above, growth in the US and Europe is running above potential, still supported by easy monetary policy. It is true that the overall pace of growth in EMs has slowed. This, however, needs to be put into context. Following the global financial crisis, EMs enacted a strong and synchronized expansion in macro policies; this fueled a V-shaped recovery, with growth accelerating above potential. Since 2011, most EMs have been decelerating toward more sustainable growth rates. This is part of a healthy cyclical adjustment. More recently, some EMs have also contended with specific problems. Commodity exporters are adjusting to lower prices, as well as to excess capacity built up during the boom. In some countries, for example Turkey, political volatility has had an adverse impact. Some EMs are paying the price of past mistakes in either macro policies (to some extent Russia) or structural policies (South Africa). In some cases, however, policies have begun to turn.

Many of the EMs that have suffered this year seem to be approaching bottom and should enjoy a stronger pace of activity in 2016. Other EMs, moreover, are improving policies and reaping the benefits. India stands out as the fastest growing among large economies, and Mexico will benefit from its strong links to the US economy. Commodities are a major input in global growth, and the global economy has more commodity importers than exporters. Lower commodity prices, therefore, are a net positive for global growth. Moreover, the IMF's own analysis notes that commodity exporters have managed the most recent price boom better than in previous occasions (for example, with smaller increases in fiscal spending) and are therefore—on average—better placed to manage the downturn.

Despite downward revisions to global growth by the IMF, conditions are far from a global recession or global deflation. Global growth remains broadly on trend while projections in the major economies remain healthy.

2. Japan: The Lost Decades and Today's Challenges

About three years ago, at the end of 2012, Japan's recently elected Prime Minister, Shinzo Abe, launched a regime change in economic policy dubbed "Abenomics." To understand why this regime change was needed, and to better assess the progress to date and the chances of success, it is helpful to begin with a brief retrospective of Japan's performance over the past few decades. This will illustrate the genesis, nature and magnitude of the challenges that Japan faces today.

Japan's Lost Decade(s)

After a prolonged period of extremely strong growth, Japan's economy lost momentum in the 1970s. One reason was that Japan had by then exhausted the easy gains of the catching-up phase of growth, sustained by the quick and successful adaptation of imported technologies. Japan, however, also encountered two major headwinds:

1. As the global fixed exchange-rate regime collapsed, the **yen** experienced two major waves of appreciation, and its value against the USD doubled. The currency weakened in the 1980s, but following the 1985 Plaza Accord it resumed a prolonged appreciation phase. Between 1970 and 1995, the yen's real effective exchange rate appreciated by 150%.

Japan Had Prolonged Periods of Currency Appreciation in Prior Decades

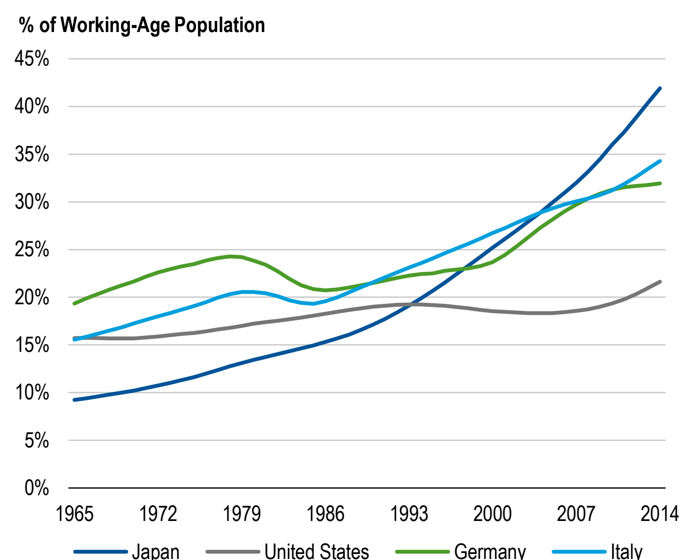
Exhibit 2: JPY/USD Exchange Rate
4 January 1971–9 October 2015

Source: Bloomberg.

2. Hard as it is to believe today, in 1980 Japan had the lowest **elderly dependency** ratio (the ratio of retirement age population to working age population) in the G7. The pace of population aging then accelerated dramatically, and by 2005 its elderly dependency ratio had become the highest in the G7 and remained on a steep climbing path.

Dependency Ratio Is Now the Highest among Major Economies

Exhibit 3: Old Age Dependency Ratio
1965–2014



Source: The World Bank: World Development Indicators, as at 9/10/15.

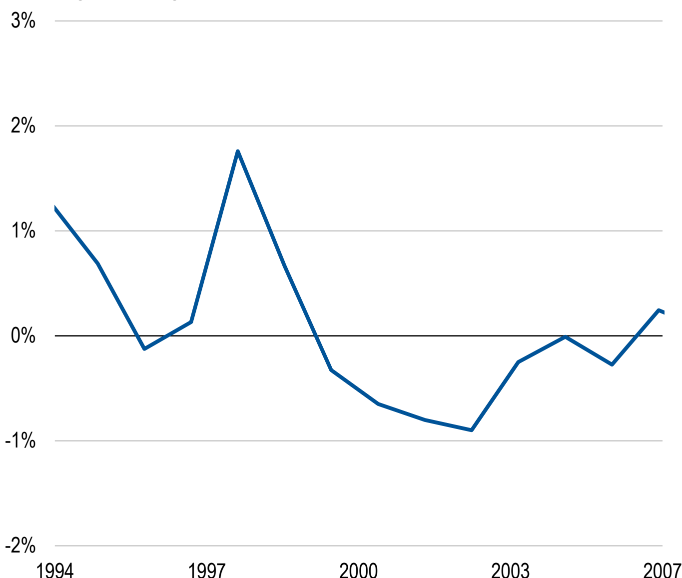
In the late 1980s, thanks in part to easy monetary policy, Japan enjoyed a spurt of strong growth: Real GDP expanded by an average of 5.5% between 1987–1990. This fueled unrealistic expectations of sustained strong economic expansion; together with easy monetary conditions, this helped set the stage for a massive **asset price bubble** in stocks and real estate. The bubble then burst, and stocks and land values collapsed. Japan entered a period that is now commonly referred to as its lost decade(s): Real GDP expanded on average by a meager 1.1% per year during 1991–2000 and by a slightly better 1.4% during 2001–2007, before the global financial crisis hit.

Low growth was compounded by **entrenched deflation**. Average annual consumer price index (CPI) inflation was zero on average between 1994 and 2007 and remained below zero between 1999 and 2005.[4]

Inflation Has Remained at or below Zero for Extended Periods

Exhibit 4: Japanese Inflation

1994–2007

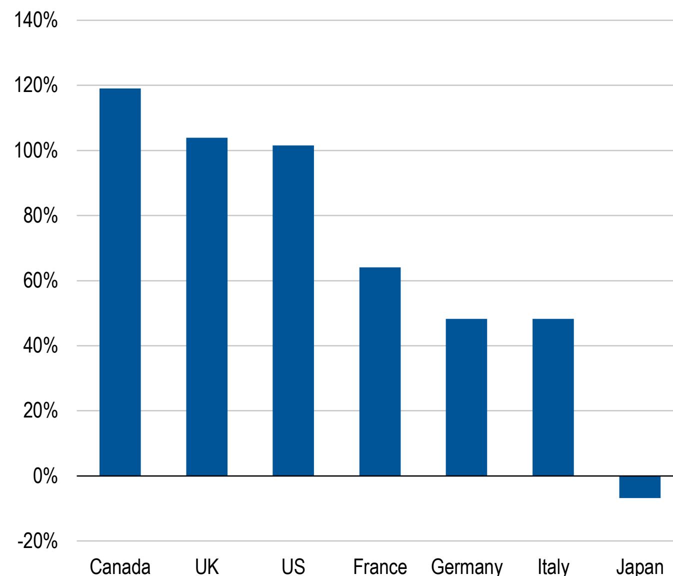


Source: International Monetary Fund, *World Economic Outlook Database*, October 2015. (Note: The spike in inflation in 1997 relates to the increase in the consumption tax.)

Nominal Growth in Japan Has Fallen Rather than Risen

Exhibit 5: Nominal GDP Growth (Local Currency)

1997–2014



Source: International Monetary Fund, *World Economic Outlook Database*, October 2015.

Today's Challenges

The lost decade of the 1990s was due in part to the long, painful and frequently delayed process of deleveraging following the asset price boom and bust: Corporations needed to deleverage, financial institutions needed to repair balance sheets, and both households and corporates needed to rebuild their net worth. The decision to allow the process to be protracted—in sharp contrast to the US experience after the global financial crisis—did not help. To make matters worse, the 1997–1998 Asian financial crisis temporarily reduced external demand in the region.

Since then, balance sheet problems have been largely resolved. Today, industrial corporates are cash rich, and the financial system is in good health.[5] The corporate sector reduced its debt-to-equity ratio from about 200% to less than 100% between 2002 and 2007; during the same period, non-performing loans declined from 8.4% to 2.5% and have since remained low, strengthening the position of the banking sector.[6]

Weak Growth and Deflation

Japan's struggle with weak growth and deflation/zero inflation has continued, however. **As of 2014, Japan's nominal GDP (in local currency) was 7% *below* the 1997 level.** By comparison, nominal GDP doubled in the US and UK and rose by nearly 50% in Germany and Italy during the same period. The decline in nominal GDP is especially troubling in view of Japan's **extremely high public debt stock**—a stagnant or falling denominator in the debt-to-GDP ratio makes debt sustainability all the more challenging, as we will discuss later in this paper.

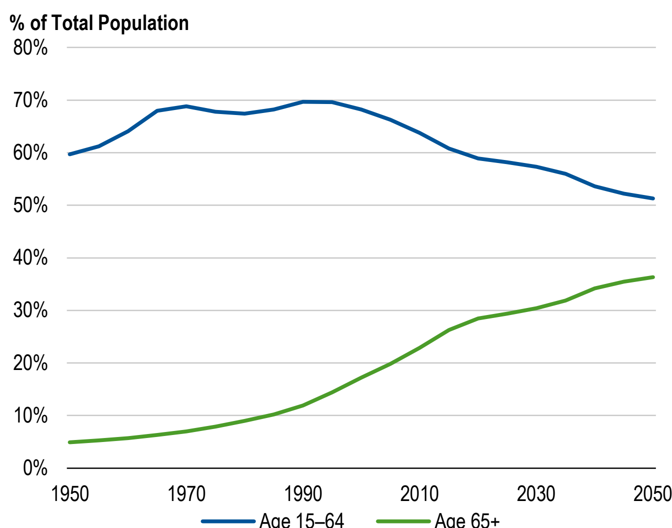
Meanwhile, entrenched deflation contributed to discouraging investment and consumption. Companies began to hire workers on temporary contracts, creating a duality that still hobbles the labor market today. And the process of shifting portfolio allocation toward safer assets began.

Demographics

Demographics have played—and continue to play—a key role in holding back Japan's growth performance. Japan's population keeps aging at a rapid pace. **In 1980, only 9% of Japan's population was aged 65 or older; today it is over 26%;** 20 years from now nearly one in three Japanese will be in this older age bracket. Conversely, the share of the Japanese population in the 15–64 age bracket peaked at nearly 70% two decades ago and has now declined to just over 60%; it will continue to decline until 40 years from now when only one Japanese in two will be of working age.[7]

The Working Age Population Has Declined at a Rapid Pace

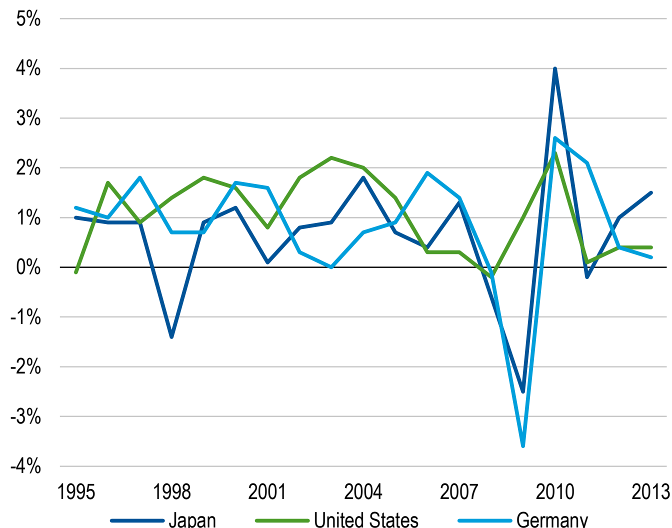
Exhibit 6: Japan Population Aged 15–64 and Aged 65+ as % of Total
1950–2050E



Source: United Nations, Department of Economic and Social Affairs, Population Division (2015). World Population Prospects: The 2015 Revision, DVD Edition, as at July 2015.

Japan's Productivity Growth Has Kept Pace with the US and Germany

Exhibit 7: Multifactor Productivity Growth
1995–2013



Source: Organisation for Economic Co-operation and Development (OECD), Growth in GDP per Capita Productivity and ULC Database.

The rapid pace of population aging has important implications for pension and health care expenditure. Most relevant to this part of our discussion, however, is the fact that it **reduces the size of the available labor force**. The Japanese government projects that in a favorable scenario (stronger growth and a rising participation rate), the labor force would shrink from 66.3 million in 2010 to 62.9 million by 2030, a loss of 3.4 million workers in 20 years. In an adverse scenario, without a pickup in growth or the participation rate, the reduction would amount to 9.5 million workers, lowering the labor force to just 56.8 million over the same period. Under the same adverse scenario, the government estimates that the number of people in employment would decline from 63.0 million in 2010 to just 54.5 million in 2030.[8]

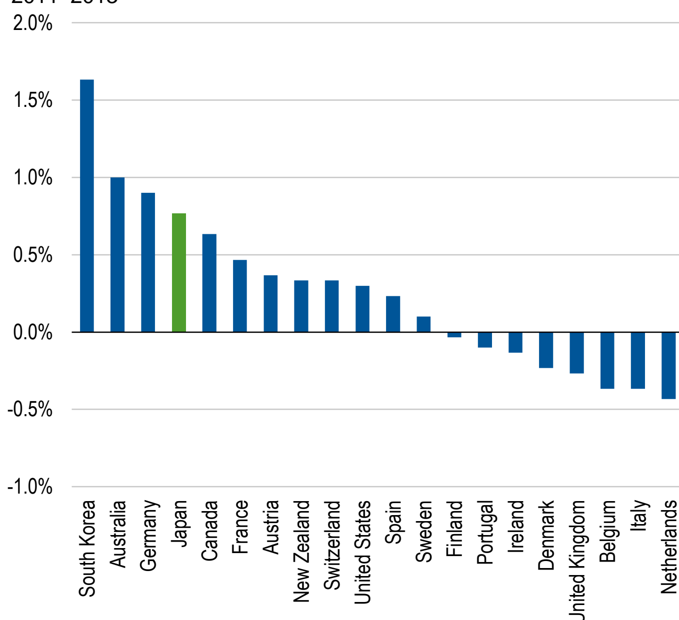
The shrinking of the labor force is compounded by labor market inefficiencies, resulting in a duality between established and temporary workers, and by an apparent skills mismatch. In a recent paper, Ganelli and Miake (2015) note that Japan's Beveridge curve has shifted to the right, so that the same unemployment rate is now associated with a higher level of job vacancies. The BOJ's Tankan survey indicates that all companies are suffering from labor shortages, with small and medium enterprises particularly affected. A recent survey by the ManpowerGroup revealed that 81% of Japanese companies reported difficulties in filling jobs in 2014, by far the highest share among all countries surveyed, and more than twice the global average.[9] Job vacancies as a percent of the labor force are also significantly higher than in many other advanced countries.[10]

The adverse demographics trend has been countered in part by a healthy pace of productivity growth. Growth in multifactor productivity has kept pace with other advanced economies such as the US and Germany.

In fact, following the global financial crisis (and abstracting from the recovery spike of 2010), the average growth rate of multifactor productivity in Japan has been the fourth-highest in the OECD, well ahead of the US and the UK.

Japan's Multifactor Productivity Has Been High Compared with Other Major Economies

Exhibit 8: Multifactor Productivity Growth Average
2011–2013



Source: OECD, Growth in GDP per Capita Productivity and ULC Database.

Thanks to this healthy productivity performance, per capita growth in Japan has almost kept pace with other major advanced economies. During the period 1990–2014 (and excluding 1998, when Japan was hit by the Asian financial crisis), per capita GDP in local currency terms at constant prices has increased at an average pace of 1.1% in Japan, compared to 1.3% in the US and 1.4% in Germany.[11]

Japan's healthy productivity performance is both good and bad news. On the positive side, it shows that the combination of technological improvements and a well-educated labor force allows Japan's economy to maintain a good degree of efficiency and competitiveness. On the other hand, however, it tells us that further productivity improvements can play only a limited role in boosting Japan's overall GDP growth.

Debt Sustainability

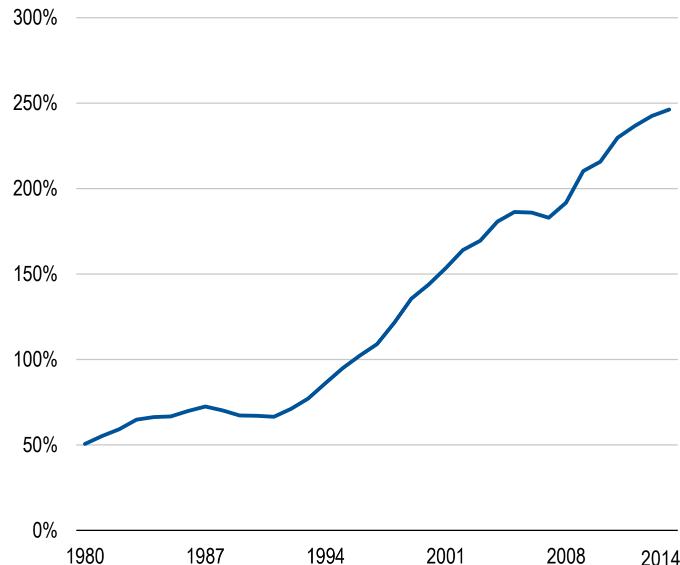
Japan's debt-to-GDP ratio hovered around 50%–70% during the 1980s. As the lost decade began, debt levels climbed steeply, as the government tried in vain to revive growth through loose fiscal policy—the general government fiscal deficit averaged 6% of GDP between 1995 and 2005, and the debt ratio more than doubled, to over 180%.

After edging down briefly during 2006–2007, the debt ratio resumed its upward trajectory and now stands at a staggering 245%, unmatched among advanced economies. Even with record low interest rates, Japan's gross financing requirement stood at 56% of GDP in 2014.[12]

Our debt sustainability analysis shows that this extremely high level of debt is unsustainable under current policies. While it has not yet been a source of financial instability, bringing it back onto a sustainable trajectory is probably Japan's most important ultimate goal. In a later section we will analyze this issue in far greater detail.

The Ratio of Debt-to-GDP Has Reached Unsustainable Levels

Exhibit 9: Debt/GDP
1980–2014



Source: Calculations by Templeton Global Macro using data sourced from the International Monetary Fund, *World Economic Outlook Database*, October 2015.

3. A New Era: Abenomics

The analysis developed in the previous sections clearly illustrates the magnitude of the challenges that Japan still faces: an ongoing demographic decline that is reducing the size of the labor force while putting additional pressure on public spending, notably on health care; entrenched deflationary expectations; and an extremely high and rising public debt burden. Repeated attempts to tackle these challenges during the 1990s and the 2000s have failed.

At the end of 2012 and beginning of 2013, the government of Prime Minister Abe launched a new and comprehensive policy program, articulated in **three policy "arrows":**

1. **A renewed aggressive monetary easing:** The BOJ switched its monetary policy target from interest rates to the monetary base, aiming to double it by 2014; it also decided to increase the residual maturity of its JGB purchases to 40 years, and to increase direct purchases of riskier assets, doubling the pace of exchange-traded fund purchases.
2. **Prudent fiscal policy:** The government has aimed to strike the right balance between supporting a growth recovery and helping to bring public debt onto a sustainable path. The strategy emphasizes a credible medium-term path, reducing the burden on short-term adjustment.
3. **Wide ranging structural reforms:** The government planned reforms encompass labor markets, energy policy, health care and agriculture, among others.

Abenomics acknowledged that a successful strategy would require an "all hands on deck" approach to (1) strike simultaneously on all fronts, encompassing macroeconomic policies as well as a wide array of structural measures; and (2) implement a clear and forceful acceleration in monetary policy to break out of deflation.

Entrenched expectations of near-zero inflation and very weak growth have been recognized as part of the problem, and Abenomics was intended as a visible break with the past, a regime change that could turn expectations around.

Three years later, what is Abenomics' record?

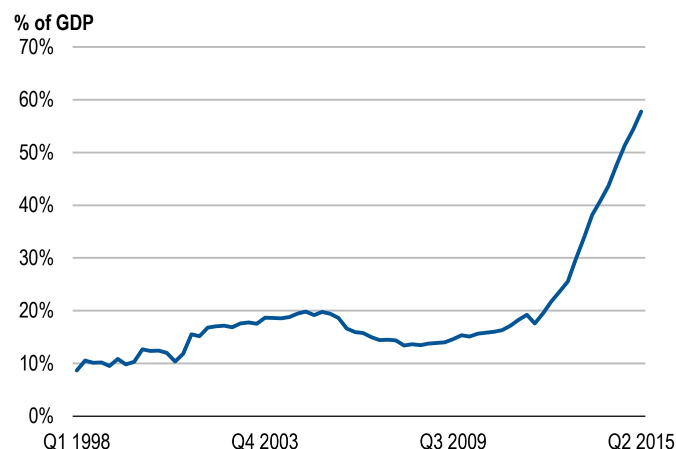
Monetary Policy, the First Arrow: Firing on All Cylinders

Monetary policy, the first arrow, has so far played the biggest role in Japan's new strategy. BOJ Governor Haruhiko Kuroda marked a clear break with the incremental monetary strategy of past years with a new quantitative and qualitative easing (QQE) policy. QQE aimed to achieve 2% inflation on a stable basis within two years, supported by a substantial program of purchases and forward guidance aimed at conveying that the BOJ would do "whatever it takes" to achieve its goal. The credibility of QQE was also bolstered by its role as one component of a comprehensive policy approach.

As planned, the BOJ's balance sheet doubled in size between end-2012 and end-2014; as of mid-October 2015 the balance sheet had increased by 130% compared to its end-2012 level, reaching 73% of GDP.[13]

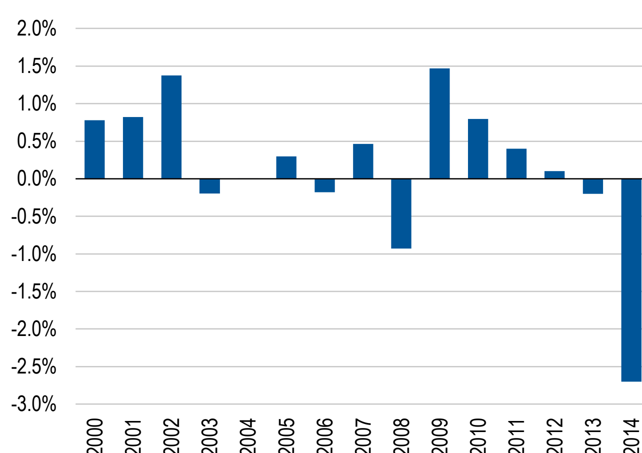
Extraordinary Monetary Policy Has Increased the BOJ's Balance Sheet and Cut Real Interest Rates

Exhibit 10: BOJ QE
Q1 1998–Q2 2015



Source: Calculations by Templeton Global Macro using data sourced from Japan Cabinet Office, Bank of Japan.

Exhibit 11: Real Interest Rates
2000–2014

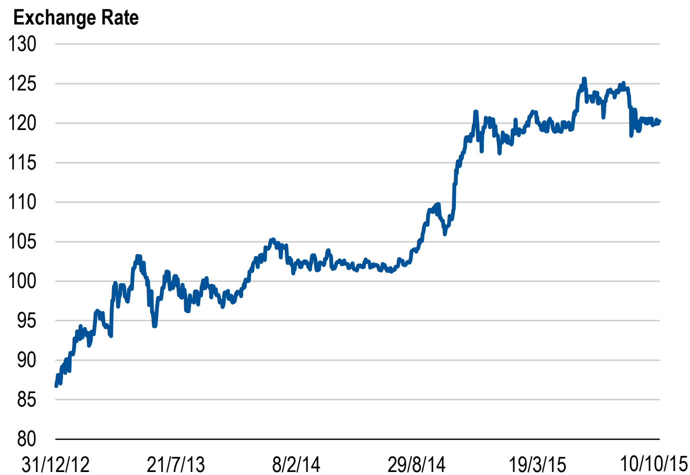


Source: Calculations by Templeton Global Macro using data sourced from Bloomberg, Bank of Japan.

QQE has successfully impacted asset prices. **The yen has depreciated by nearly 40% against the USD since end-2012,**[14] playing an important role in improving export competitiveness and providing some lift to inflation rates.

A Depreciating Yen Supports Exports and Boosts Inflation

Exhibit 12: JPY/USD Exchange Rate
31 December 2012–10 October 2015

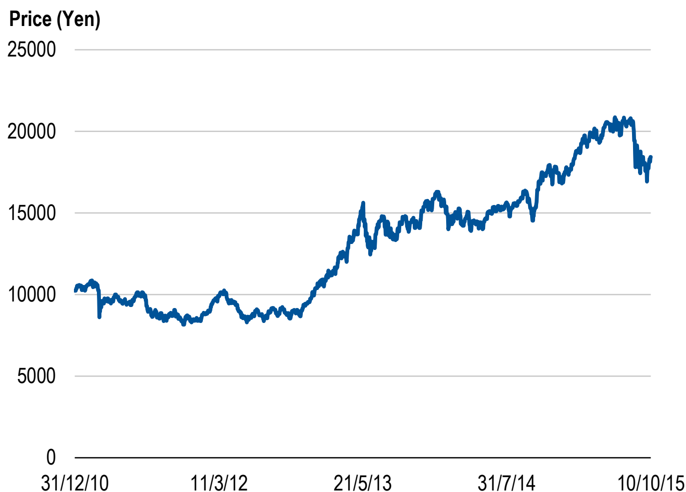


Source: Bloomberg.

Stock prices have more than doubled since the launch of QQE. The stock market performance has reflected several factors besides the direct impact of QQE, including expectations of higher corporate profitability thanks to a more competitive yen and to corporate governance reform measures, and a portfolio allocation shift on the part of the Government Pension Investment Fund. Finally, land and real estate prices appear to have bottomed out in most areas.

QQE Has Supported Japanese Stock Prices

Exhibit 13: Nikkei 225 Index
31 December 2010–10 October 2015



Source: Bloomberg, Nikkei 225 Index.

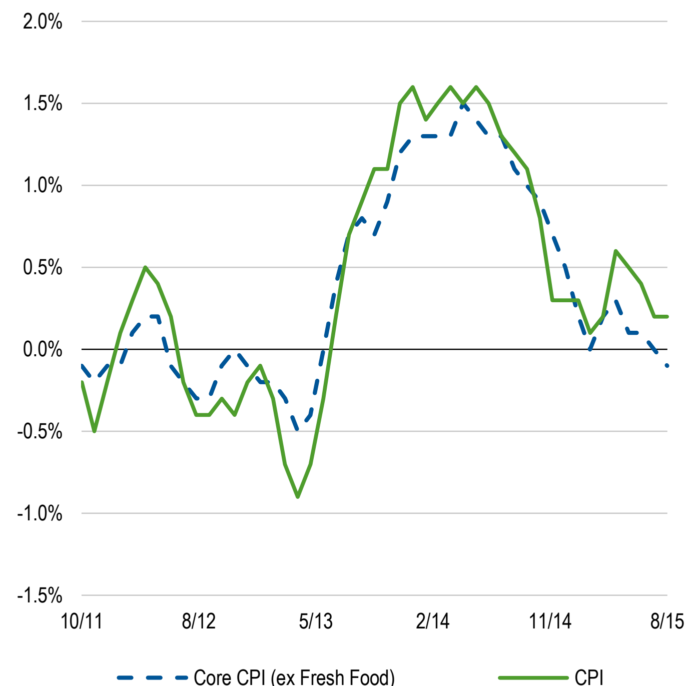
While QQE has successfully enabled pension funds and households to rebalance and diversify their portfolios toward riskier assets, its impact on lending has been more limited. Banks have reduced their holdings of JGBs, but this has only partially translated into greater lending to the non-manufacturing corporate sector, with the rest going into higher excess reserves levels. Lending to the manufacturing sector has remained broadly flat, but this seems to reflect mostly a demand effect, as most manufacturing corporates hold ample cash balances.

QQE has, however, not yet delivered the targeted 2% inflation rate. After a spike during Q2–Q3 2014, which reflected in large part a VAT hike in April 2014, consumer inflation has steadily declined, languishing at 0.2% during September and October. A significant element of "bad timing" has been at play, however, in the form of the sharp decline in the price of oil and other commodities, which has brought about a strong disinflationary bias in Japan, as well as in other countries. The core inflation rate registered a more encouraging 0.8% in October, but also remains well below the 2% target.

In October 2014, seeing the decline in inflation, the BOJ surprised financial markets with a further expansion of its QQE framework: It raised its net annual purchases of JGBs to 80 trillion yen, lengthened the average maturity of JGB purchases to 7–10 years, and decided to triple its purchases of private assets.

Inflation Has Moved to Positive Territory

Exhibit 14: Japan: Inflation
October 2011–August 2015



Source: Statistics Bureau, Ministry of Internal Affairs and Communications. (These data have been adjusted to exclude the effect of the consumption tax hike in April 2014.)

It is important to acknowledge that the current environment, in which declining commodity prices have contributed to keeping inflation rates very low across a large part of the global economy, creates an especially challenging environment for the BOJ. However, against this background, **core inflation appears to have established itself firmly in positive territory, after remaining almost always below zero between 1998 and 2012.**

After nearly two decades of deflation, changing inflation expectations and wage-setting behavior is proving difficult, but Japan has been making progress. In this year's round of negotiations, companies have raised base salaries by 0.7%, significantly more than the 0.4% granted last year,[15] though not enough to materially accelerate a virtuous spiral of higher wages and higher consumption.

Policymakers, including Prime Minister Abe and BOJ Governor Kuroda, have repeatedly called on companies to grant higher wage increases and to increase the share of employees hired on a permanent basis rather than on temporary contracts. As corporate profitability has improved, policymakers will continue to put pressure on the corporate sector to reduce its cash balances in favor of higher employment, wages and investment.

Underlying conditions are improving: Labor market conditions have tightened further, with the unemployment rate dropping to 3.4% from 4.1% at the launch of Abenomics as the output gap has been closing. As a consequence, broader wage pressures are gradually increasing.

Fiscal Policy, the Second Arrow: Treading a Fine Line

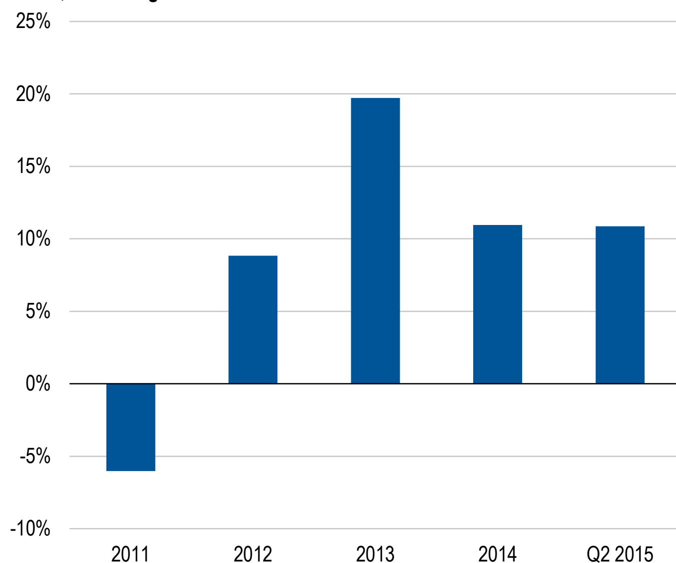
Accelerating growth and defeating deflation are the most urgent priorities. Without success on both fronts, no amount of fiscal consolidation will ensure debt sustainability. With this in mind, the government launched a tax reform package that will reduce the statutory corporate tax rate by a cumulative 3.3 percentage points over 2015–2016. At the same time, the reform will gradually reduce the deduction limitation for loss carry-forwards, with the intent of limiting the negative revenue impact of the rate cut while maintaining incentives for innovation and profitability.

Additionally, the government has launched a medium-term fiscal consolidation plan that aims to achieve a primary surplus for national and local governments by Fiscal Year 2020. As we mentioned earlier, a credible medium-term fiscal adjustment path is essential to buttress credibility while minimizing the need for near-term fiscal tightening.

To underscore its commitment to fiscal sustainability, the government courageously moved forward with a planned VAT rate hike in April of last year, raising the base rate from 5% to 8%. The tax hike did not derail Japan's economic recovery, but it did cause a temporary setback, contributing to a marginal GDP contraction in 2014. The government has decided to delay the next planned increase until April 2017, when the rate should rise to 10%. This second increase was initially scheduled to take effect in October 2015.

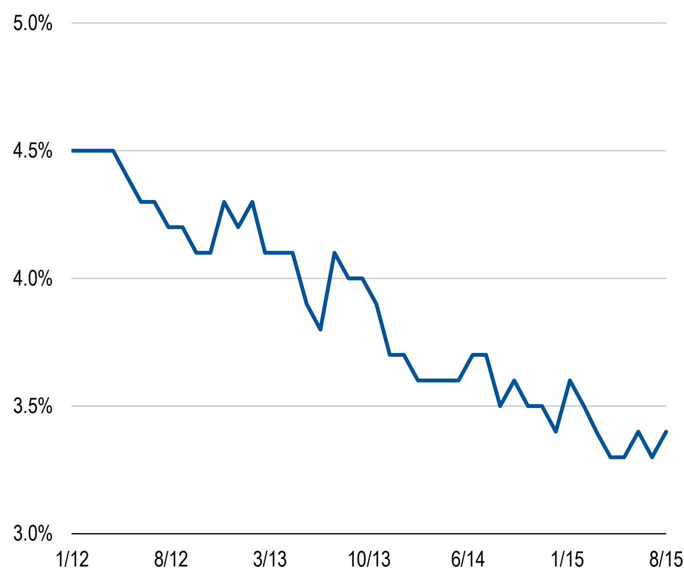
Corporate Profitability and Labor Market Conditions Have Improved

Exhibit 15: Growth in Corporate Profit
As at 30 June 2015



Source: Bloomberg, Ministry of Finance, Japan.

Exhibit 16: Unemployment Rate
January 2012–August 2015



Source: Statistics Bureau, Ministry of International Affairs and Communications.

Structural Reforms, the Third Arrow: Moving Gradually Ahead

Structural reforms are slated to play a fundamental role in boosting Japan's potential growth rate, which the IMF currently estimates at a mere 0.4%.[16]

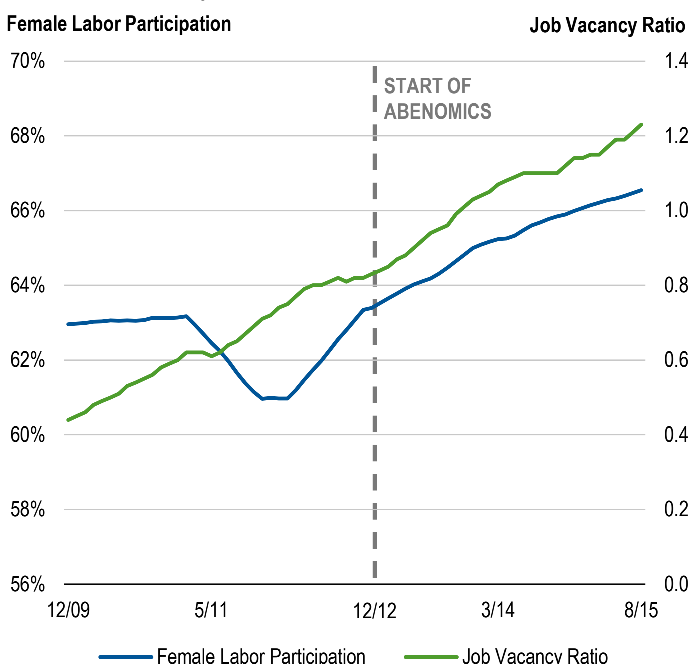
As we saw above, Japan's total factor productivity growth is already relatively high; while it could be boosted further, an acceleration in overall GDP growth will need to rely primarily on a boost to both labor and capital.

Given the projected decline in the size of the labor force, **the government's first priority on the labor front** has been to raise the female participation rate. The government has increased the number of available childcare facilities and the amount of cash transfers to families with children. The female labor force participation rate, which had increased from about 59% in 1994 to about 63% at the launch of Abenomics, has since climbed further to over 66%.

Abenomics Has Increased Women's Participation in the Labor Force

Exhibit 17: Female Labor Participation

December 2009–August 2015



Source: Calculations by Templeton Global Macro using data sourced from Statistics Bureau, Ministry of International Affairs and Communications.

This constitutes important progress, but further steps are needed. The government could encourage a continued increase in female participation by deregulating childcare facilities, thus boosting their availability, and reviewing tax and social security benefits for households with full-time housewives. In addition, the government could take steps to make it more attractive for older workers to remain in employment. Given the projected aging of the population, raising the share of people who remain actively employed in the older age cohorts would have a positive impact on the overall size of the labor force, and it might contribute to reducing the pressure on the health care system. A third step to boost the labor force would be to relax current restrictions on immigration—although this remains one of the most politically controversial areas.

Finally, the government could consider further labor market reform measures to reduce the current duality between permanent and temporary contracts. Currently over 40% of the employed labor force has temporary contracts, with significantly lower salaries than workers with permanent contracts. Permanent contracts also come with far greater job security, with long-term employment essentially guaranteed. The ratio of temporary contracts has been steadily increasing to its current levels since 1985, when it stood at about 16%.[17] Reducing this duality would increase labor market flexibility and mobility, and could therefore lead to a better allocation of human capital and raise labor productivity growth.

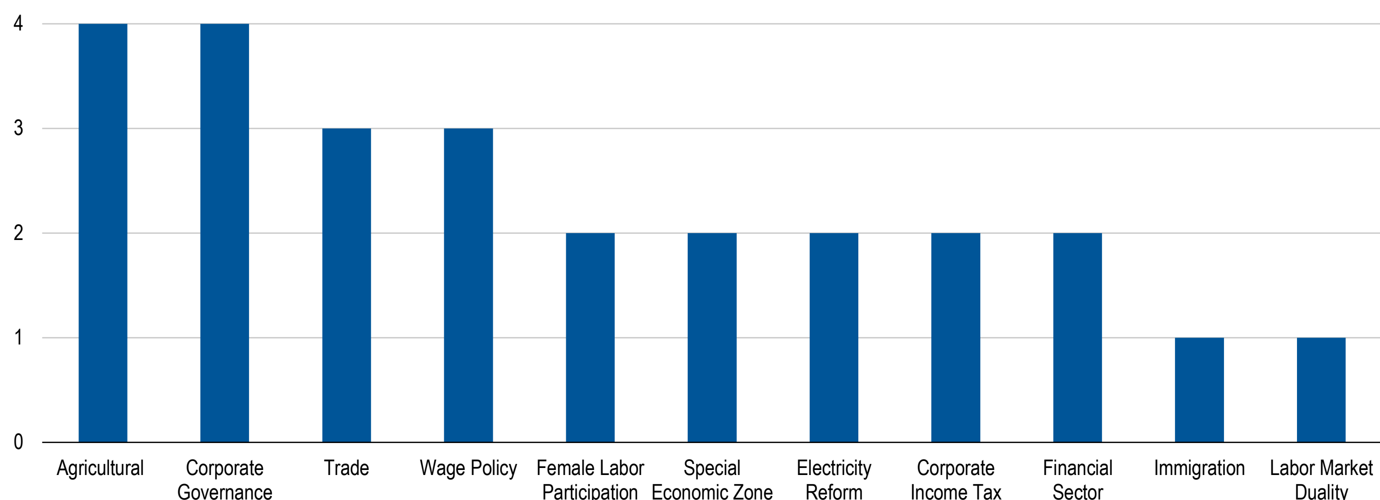
In order to boost investment and the capital stock, the government has implemented an initial set of reforms aimed at improving corporate governance: (1) the Stewardship Code, which aims to bolster the active involvement of shareholders; (2) the Corporate Governance Code, which requires listed companies to appoint outside directors on their board; and (3) the launching of a new JPX-Nikkei Index 400 that will include only companies with good corporate governance and disclosure.

The corporate income tax reduction described above is also aimed at supporting an increase in investment.

Here as well there is ample scope for additional progress: In particular, the government could consider disincentives to stop corporates from holding large cash balances; establish new regulations to discourage cross-shareholdings; and simplify bankruptcy procedures.

Some Structural Reforms Have Advanced More than Others

Exhibit 18: Report Card for Structural Reform (Scale of 1 to 4)
Since the Start of Abenomics in December 2012 (as at July 2015)



Source: Qualitative assessment of reforms by Templeton Global Macro, where 1 indicates the least progress and 4 indicates the most progress. Data sourced from International Monetary Fund, "Japan 2015 Article IV Consultation – Staff Report."

As the report card chart shows, beyond corporate governance and female labor force participation, the government has also made important progress on agricultural reform, pushed also by the Trans-Pacific Partnership (TPP) trade agreement negotiations (discussed further below). Progress on addressing labor market duality, however, has been much more limited.

4. Assessing Progress to Date

Abenomics has brought about a true regime change. It is a comprehensive and well-structured policy effort to bring Japan back to sustained growth, sustained positive inflation and a sustainable public debt trajectory. However, the jury is still out on whether this is a permanent shift in regime, able to meet its goals and capable of successfully establishing a new economic path for the country.

Monetary policy has done the heavy lifting so far. Governor Kuroda's BOJ has left the previous incrementalist approach behind: Its QQE, boosted further in October 2014, shows that the central bank is determined to do whatever it takes to bring inflation to 2% on a sustained basis. The impact on both the yen exchange rate and Japanese equity valuations has been powerful.

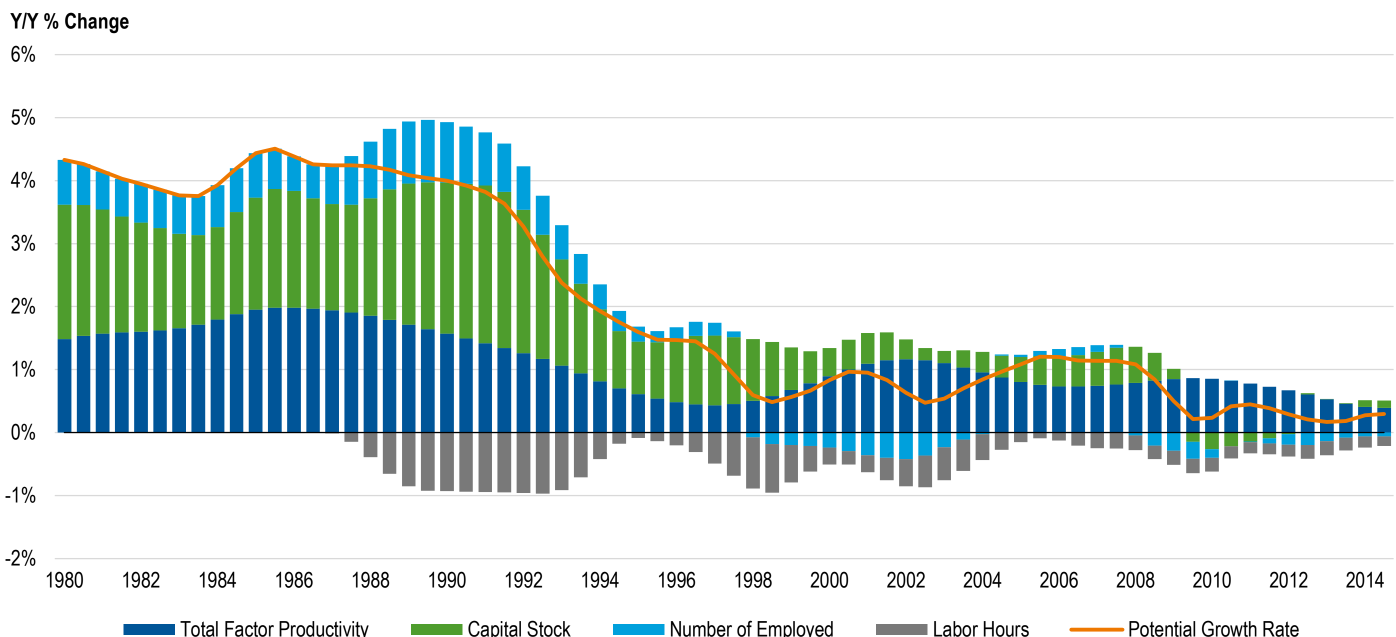
Fiscal policy has meanwhile strived to strike a fine balance: After the courageous VAT hike of April 2014, fiscal policy has focused on encouraging investment while outlining a credible medium-term path for fiscal consolidation.

The third arrow, structural reforms, has started later and has proceeded more gradually. Important steps have been taken, notably in encouraging female labor market participation and in corporate governance reform. More remains to be done.

So far, Abenomics has met with mixed success, partly because of the magnitude of the domestic challenges, and partly because of adverse external circumstances. On the inflation front, the sharp decline in commodity prices has brought headline CPI growth back close to zero, negating some of the early success of QQE. On the growth front, a slowdown in growth in the rest of the world, notably in China, has reduced the positive impact of the weaker yen on exports. Japan's pace of activity has correspondingly weakened of late. The economy contracted in Q2 at an annualized pace of 1.2%, and the pace of activity remained weak in Q3. Importantly, the third arrow has so far had a limited tangible impact, lifting potential growth only marginally, and entirely through an increase in the capital stock with no effect on total employment or total factor productivity.

The Potential Growth Rate Has Not Meaningfully Increased Yet

Exhibit 19: Potential Growth Rate
Fiscal Years 1980–2014

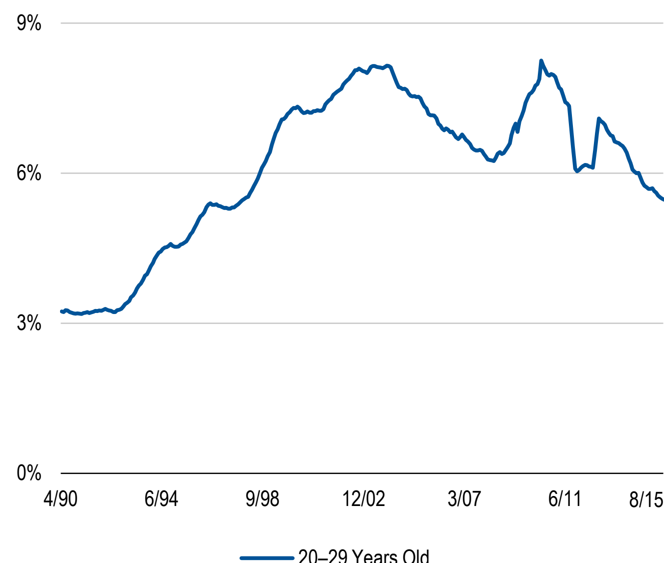


Source: Bank of Japan, "Japan's Economy and Monetary Policy: Speech at a Meeting with Business Leaders in Kumamoto," 25/7/15.

Labor market data show some positive changes in the structure of the labor market. The unemployment rate for young workers has improved significantly, to the lowest level it has been since the early 2000s. As mentioned above, we have seen a gradual increase in labor market participation among women. Note that an increase in the female labor participation rate to the average G7 level combined with a rise in old age participation could raise Japanese GDP by 0.25% per year, according to the IMF.[18]

Falling Rates of Unemployment Among the Young Are a Positive Sign for Labor Conditions

Exhibit 20: Unemployment Rate for Young People
April 1990–August 2015



Source: Calculations by Templeton Global Macro using data sourced from the Statistics Bureau, Ministry of Internal Affairs and Communications.

Export growth has not reacted as strongly to the yen depreciation as could have been expected—including before the more recent weakness in external demand. The main driver appears to have been offshoring; over the past two decades, a number of Japanese companies have expanded production overseas to exploit either proximity to fast-growing markets or lower labor costs. The IMF has estimated that exports by Japanese overseas subsidiaries exceeded exports from Japan by more than 40% in 2014.[19] Increased uncertainty about domestic energy costs is also likely to have played a role, following Japan's decision to shut down its nuclear power plants in the wake of the Fukushima disaster in 2011.

However, the substantial exchange rate depreciation, the decision to restart nuclear power generation, and the planned deregulation of the electricity market in 2016 have changed the terms of the equation, and these factors could support a reversal of the offshoring trend. While strong export performance from the offshore operations of Japanese corporates still helps their profitability and stock market performance, re-shoring would give a stronger boost to domestic growth.

Notwithstanding the new obstacles encountered and the only partial progress achieved so far, Japan's policymakers are staying the course. Prime Minister Abe convincingly won a second term in the December 2014 snap elections. This gives him another three years to guide the country, with solid support for his ongoing reform efforts. Three years into Abenomics, there is no sign of reform fatigue. While progress is gradual, rather than of the "big bang" variety, all sectors of Japanese society appear convinced that significant change along the direction of Abenomics is needed.

The government is likely to take additional measures to strengthen corporate governance and to encourage labor force participation, in order to boost both the labor force and the capital stock. Better corporate governance could also raise productivity growth further—and measures to reduce the current labor market duality would help in this respect.

Growth in productivity and real GDP is also likely to be boosted by the recent signing of the TPP trade agreement. As part of the TPP, Japan has undertaken to implement liberalization measures in agriculture and to open up services sectors; these steps are likely to result in greater efficiency and productivity. Moreover, the TPP will increase Japan's trade integration in a dynamic part of the global economy. In addition, Japan's government has already approved liberalization measures in the electricity sector, which are slated to take effect starting in 2016. These measures will increase competition in the sector and are expected to reduce energy costs for domestic enterprises. Finally, Japan's economy could benefit from innovation and reforms in the health care sector, which are likely to be spurred by the cost pressures exerted by population aging.

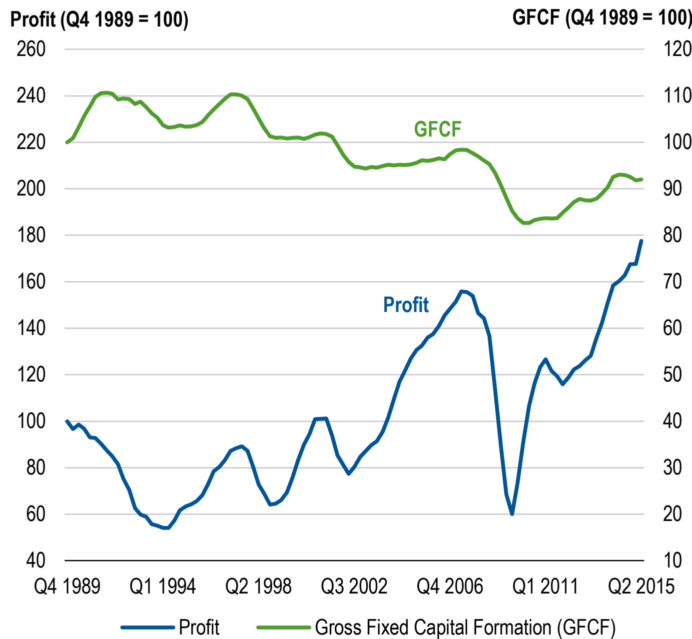
Conditions for the Success of Abenomics

For the long-run success of Abenomics, two key conditions need to be met. First, we need to see the firm establishment of a "virtuous income cycle," namely a cycle of corporate profit flowing to increases in income, to consumption and to investment. Second, we need fiscal sustainability.

On the first condition, recent macro data support our view that a positive income cycle has been initiated. One of the reasons for weak investment in Japan in the 1990s was weak profit growth. Japanese corporate profits stagnated for more than 10 years after the bubble burst. Conditions started improving in the latter part of the 2000s but then suffered a sharp setback with the onset of the global financial crisis. Since 2013, however, we have seen some indications that the higher corporate profits induced by the yen depreciation resulting from BOJ monetary policy have led to higher capital expenditures. A significant positive change can be seen in household income as well. While private consumption never really declined, labor income had been dropping since the 1990s. As the charts on the next page show, there are indications that this trend has started reversing. Note that the recent decline in consumption reflects

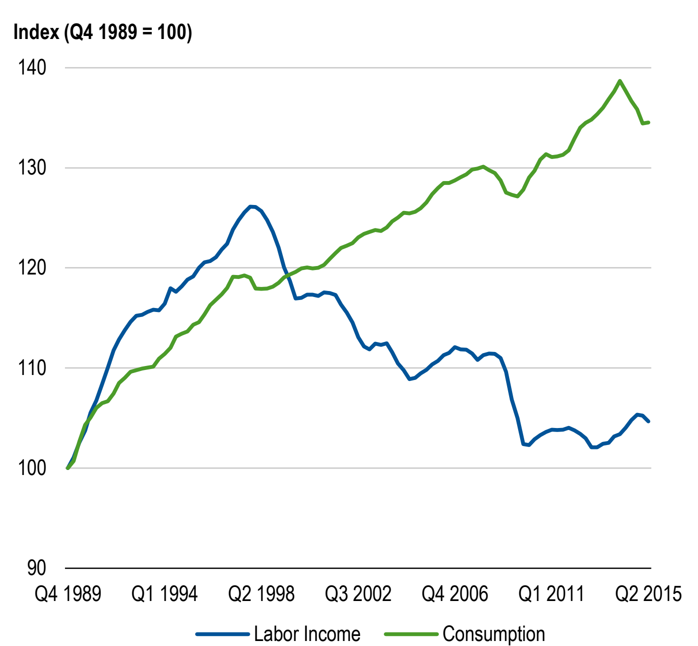
Higher Corporate Profits Have Been Leading to Higher Corporate Spending, Along with Increased Household Income and Spending

Exhibit 21: Cycle of Corporate Profit and Spending
Q4 1989–Q2 2015



Source: Calculations by Templeton Global Macro using data sourced from Japan Cabinet Office, Ministry of Finance, Japan.

Exhibit 22: Cycle of Household Income and Spending
Q4 1989–Q2 2015



Source: Calculations by Templeton Global Macro using data sourced from the Statistics Bureau, Ministry of Internal Affairs and Communication, Japan; Ministry of Health, Labour and Welfare, Japan.

the implementation of the consumption tax, an important element of the second arrow.

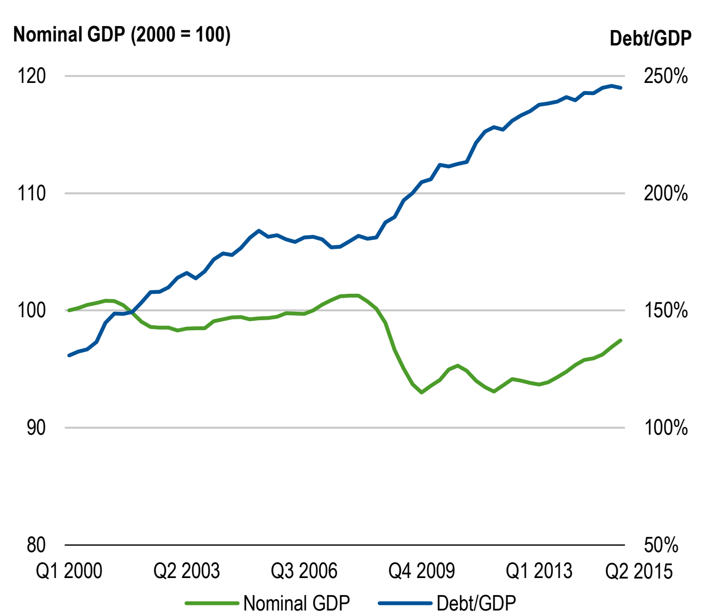
The second condition regarding fiscal sustainability is more problematic. As the chart to the right shows, Japan's debt problem is clearly due to a lack of nominal growth. The debt-to-GDP ratio has ballooned as nominal GDP has fallen (as noted in the sections above).

So far, Japan has been able to sustain its record level of debt without significant difficulty, thanks to a combination of extremely favorable factors: very high domestic savings that have provided ample coverage, so that less than 10% of JGBs are held by foreign investors; quantitative easing by the BOJ that has provided additional demand; and low inflation and extremely accommodative monetary policy, including the zero interest rate policy in place since early 1999, that have further contributed to maintaining interest rates at extremely low levels. At the 10-year maturity, JGBs currently yield 0.30%, compared to 2.14% for US Treasuries of the same maturity, and 0.52% for German Bunds, as at 30 October.

An extremely high debt ratio and very large gross financing requirements leave Japan's debt outlook especially exposed to adverse shocks, notably on interest rates and GDP growth rates.

Japan's Debt Problem Has Worsened as Nominal Growth Has Languished

Exhibit 23: Nominal GDP vs. Debt-to-GDP
Q1 2000–Q2 2015



Source: Calculations by Templeton Global Macro using data sourced from Japan Cabinet Office, Bank of Japan.

A shock on interest rates still appears to be a remote possibility, given the current environment of still low inflation and extremely loose monetary policy. However, Japanese authorities have noted that liquidity in the JGB market has declined recently, partly as a consequence of the heavier BOJ intervention under its new QQE program. In 2014, for example, the BOJ purchased about 40% more than total net JGB issuance for the year and about 30% of gross issuance. For 2015 as a whole, the BOJ plans to buy even more, a total of 80 trillion yen against a total of 58 trillion yen in 2014.[20] More likely and more imminent is the danger of additional pressure on public health care spending as a consequence of the ongoing population aging.

While there appears to be no immediate threat to financial stability, it cannot be assumed that these favorable conditions will remain in place forever, notably as Japan's debt ratio is expected to deteriorate further. While there has clearly been a monetary regime shift under Abenomics, Japan's debt remains unsustainable under current policies. The IMF expects Japan's debt ratio to accelerate its ascent after 2020, reaching 290% by 2030.[21]

Debt sustainability depends on the relationship of the existing stock of debt, the government's primary fiscal balance (i.e., the fiscal balance net of interest payments), the real interest rate on public debt and the real GDP growth rate. It can be shown that debt dynamics satisfy the following identity:

$$d(t)-d(t-1) = (r-g) * d(t-1) - pb(t)$$

where d is the debt-to-GDP ratio at date t, r the real interest rate, g the real GDP growth rate, and pb the primary fiscal balance. The identity immediately yields the following simple implications:

- If the real rate of growth (g) exceeds the real rate of interest (r), and the primary balance is zero, the debt ratio will decline over time.
- If the real rate of growth (g) is lower than the real interest rate (r), then in order to stabilize the debt ratio (i.e., ensure that d(t) = d(t-1)) the government will need to run a primary fiscal surplus. The size of the required surplus increases the larger the existing debt ratio and the greater the magnitude of the difference between the real interest rate and the real growth rate.

Debt sustainability can therefore be pursued through several channels: (1) a tighter fiscal policy, meaning a larger primary surplus; (2) a lower real interest rate; (3) a higher real rate of growth; and/or (4) a higher inflation rate, which acts by increasing nominal GDP and thereby reducing the debt-to-GDP ratio through the denominator.

Our own analysis shows that to merely stabilize Japan's debt-to-GDP ratio through tighter fiscal policy, the government would need to eliminate the current primary deficit of some 5% of GDP. Such a draconian fiscal policy would probably be politically unfeasible for any government. Moreover, it might also backfire through an adverse impact on real GDP growth, which would in turn make the consolidation insufficient to stabilize the debt trajectory.

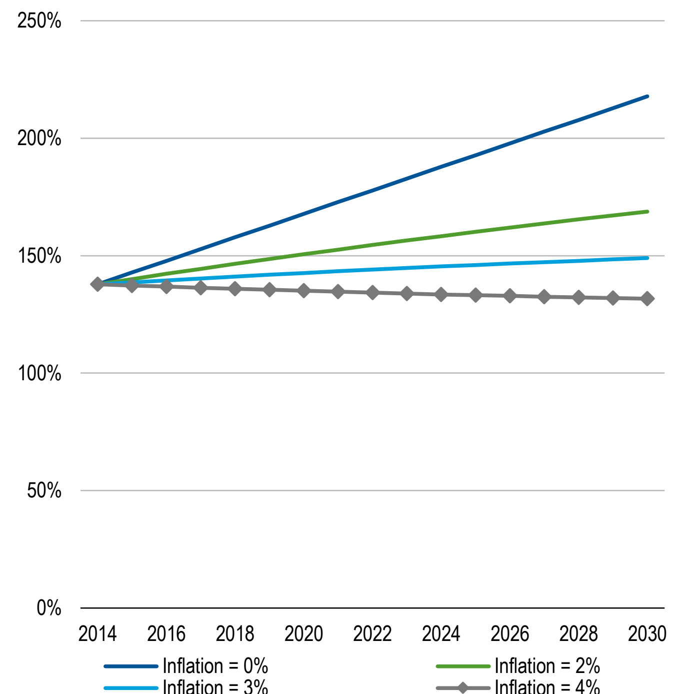
This implies that to guarantee debt sustainability, Japan needs higher nominal growth and/or a further reduction in the real interest rate. Higher nominal growth can be achieved through some combination of real GDP growth and higher inflation. Real GDP growth over the long term can potentially be addressed by the third arrow. However, nominal growth can be more easily affected through inflation and the first arrow. Higher inflation is also the only way to further reduce the real interest rate at this stage, given that nominal interest rates on debt are close to zero.

Our analysis, illustrated in the graph below, indicates that to stabilize net debt-to-GDP at its 2014 level Japan would need inflation to be between 3%–4% every year, assuming that real GDP continues to run at its current potential rate of about 0.5%.

Japan Needs 3%–4% Inflation per Year to Stabilize Debt

Exhibit 24: Net Debt/GDP Stabilizing Inflation

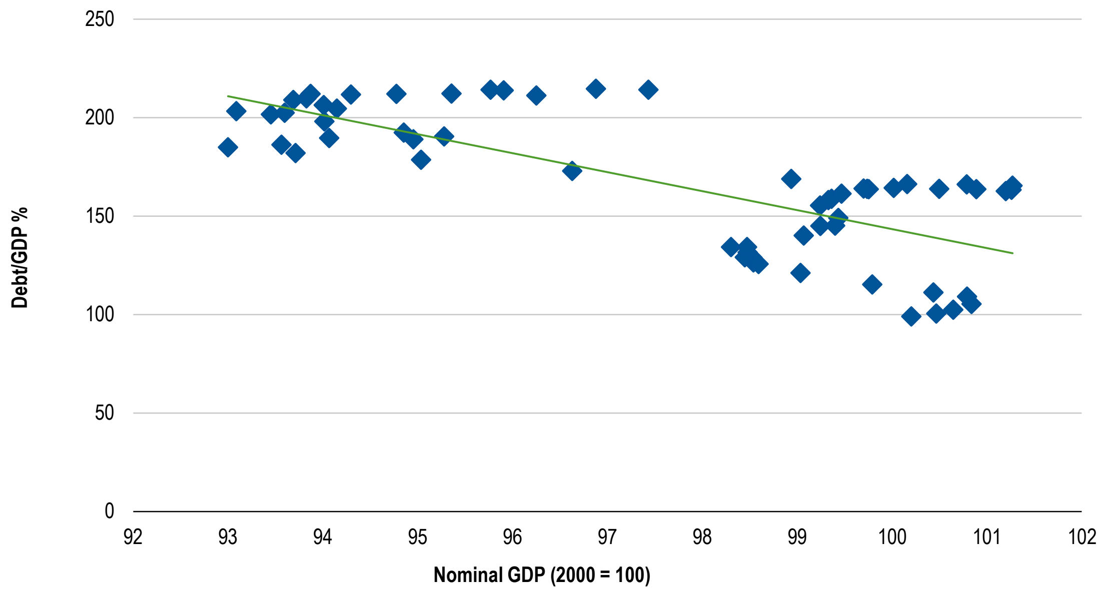
2014–2030E



Source: Calculations by Templeton Global Macro using data sourced from Bloomberg, International Monetary Fund, *World Economic Outlook Database*, October 2014.

Higher Nominal Growth Lowers Debt-to-GDP

Exhibit 25: Nominal GDP vs. Debt-to-GDP
Q1 2000–Q2 2015



Source: Calculations by Templeton Global Macro using data sourced from Japan Cabinet Office, Bank of Japan.

While structural reforms can help by raising potential real growth, it is clear that most of the action will need to come from the inflation side. The chart above, which shows a clear negative relation between Japan's nominal GDP and its debt-to-GDP ratio, supports the idea that higher nominal growth would be an effective way to achieve debt sustainability.

In other words, higher inflation in the case of Japan is not only desirable but necessary to ensure debt sustainability, especially given the inherent uncertainties attached to the success of the structural reform agenda.

5. Conclusion

As the global economy picks up pace in 2016, Japanese corporates should be in a better position to step up investment and hiring, and the already tight labor market should lead to a faster pace of wage growth. Wage pressures have already increased somewhat, and persistent moral suasion on the part of policymakers could help. In terms of the growth outlook, the recently agreed TPP trade pact should also benefit the Japanese corporate sector, supporting growth.

At the same time, headwinds remain considerable. The projected decline in the size of the labor force due to aging requires sustained, decisive effort to boost labor force participation, productivity and investment. Changing inflation expectations and wage-setting behavior after two decades of near-zero inflation is not easy and might require further monetary policy easing. Faster real growth and higher inflation are absolutely necessary to put the public debt ratio on a sustainable path.

Given the headwinds, monetary policy is likely to remain extremely loose for some time to come, with a likelihood that QQE could be stepped up further in both the size and the composition of the assets purchased by the BOJ. Additionally, given the likelihood that the Fed will embark on gradual monetary tightening during the coming months, it seems most likely that Japan's monetary policy will diverge from US policy for some time**. This should put further depreciation pressure on the yen and continue to contain yields on JGBs** until Japan achieves more decisive and convincing results on both growth and inflation.

Japan's policymakers have the right strategy in place and seem fully committed to carrying it out. While results so far have been mixed—partly due to adverse external circumstances—wage dynamics, inflation expectations and growth have been moving in the right direction. Both policies and economic indicators signal a break from the past, though the break so far is stronger for the latter than for the former. Japan's corporate sector has also begun to adjust. Given the healthy productivity growth and the global competitiveness of Japanese corporates, further boosted by a weaker yen, additional progress on both inflation and growth is likely as the global backdrop improves in 2016.

The quest for growth and inflation is hard, however, and will likely require a supportive monetary stance for a prolonged period, reflected in a weaker yen and persistently low bond yields.

WHAT ARE THE RISKS?

All investments involve risks, including possible loss of principal. Bond prices generally move in the opposite direction of interest rates. Thus, as the prices of bonds in an investment portfolio adjust to a rise in interest rates, the value of the portfolio may decline. Special risks are associated with foreign investing, including currency fluctuations, economic instability and political developments.

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1. Source: International Monetary Fund, *World Economic Outlook*, October 2015.
2. Based on the non-accelerating inflation rate of unemployment (NAIRU).
3. Source: Bloomberg, Bank of International Settlements, China REER Broad, August 2014 to August 2015 (year-over-year).
4. Apart from a brief period in 1997, when the government raised the consumption tax.
5. Source: International Monetary Fund, "Japan 2015 Article IV Consultation – Staff Report."
6. Source: Botman, Danninger and Schiff "Can Abenomics Succeed? Overcoming the Legacy of Japan's Lost Decades," IMF, 2015.
7. Source: United Nations Population Division, World Population Prospects: The 2015 Revision.
8. Source: Giovanni Ganelli and Naoko Miake, "Foreign Help Wanted: Easing Japan's Labor Shortages," IMF Working Paper, July 2015.
9. Source: ManpowerGroup, 2015 Talent Shortage Survey.
10. Source: Giovanni Ganelli and Naoko Miake, "Foreign Help Wanted: Easing Japan's Labor Shortages," IMF Working Paper, July 2015.
11. Source: Calculations by Templeton Global Macro using data sourced from International Monetary Fund, *World Economic Outlook*.
12. Gross financing requirement is defined as the sum of the government's fiscal deficit plus maturing debt.
13. Source: Bank of Japan.
14. Source: Bloomberg, from 31/12/12 through 10/10/15.
15. As reported in *The Wall Street Journal*.
16. Source: International Monetary Fund.
17. Source: Ministry of Internal Affairs and Communications, Labour Force Survey.
18. Source: International Monetary Fund, "Japan 2015 Article IV Consultation – Staff Report."
19. Source: International Monetary Fund, "Japan 2015 Article IV Consultation – Staff Report."
20. Source: Japan Ministry of Finance, Bank of Japan.
21. Source: International Monetary Fund, "Japan 2015 Article IV Consultation – Staff Report."

For Exhibits 1, 6 and 24, there is no assurance that any estimate or projection will be realized.

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