Can Abenomics Succeed in Reviving Growth in Japan?

By Maria Vassalou, Ph.D. and Thomas Cooley, Ph.D.

Japan has failed to produce robust growth since the 1990s. Following thirty years of 6% average GDP increases between 1960 and 1989, Japanese asset prices fell dramatically starting in 1990 and economic growth stagnated. Since then Japan’s more than two decades of anemic growth stand in stark contrast to the earlier era.

Soon after Shinzo Abe was elected Prime Minister in December 2012, he announced a three-pronged approach to tackle the deflationary pressures and economic malaise of his country. His plan involved “three arrows” of economic policy: fiscal stimulus, monetary easing, and structural reforms. Three years later, and after unprecedented quantitative easing and fiscal stimulus, growth has continued to remain subdued and inflation has failed to return to its 2% targeted range. The prevailing view is that the structural reforms announced in June 2014 are of critical importance if “Abenomics” is to succeed in reviving the Japanese economy. They involve regulatory changes in the healthcare and energy sectors, pension system reforms, as well as initiatives to make it easier for women to enter and remain in the workforce. All of these are aimed at making the Japanese economy more flexible and competitive and the Japanese labor market less sclerotic.

Will these measures be enough to unleash growth? What is really holding Japan back?

Japan’s growth is mainly inhibited by the following factors:

- An aging population
- A falling contribution of capital to growth
- High levels of public debt
- Deflationary pressures

In what follows, we discuss these four main factors that are holding back Japan’s growth and provide an assessment of whether Abenomics is likely to succeed in reversing the economic trajectory of the country.

Adverse demographics

Japan’s fertility rate has been steadily declining since the mid-20th century while the population’s life expectancy has greatly improved. Table 1 illustrates these trends that have resulted in an increasingly graying population.
During the same time period, fertility rates have also been declining in the developed world and in populous countries such as China and India, while life expectancies have improved globally, and these trends are more pronounced in Japan, as Figures 1a and 1b show. At a projected fertility rate of 1.35, much below the necessary 2.1 to maintain the size of a population, and a life expectancy likely to exceed 89 years for females and 83 for males by 2045, Japan’s population is shrinking, and the distribution by age is becoming skewed heavily towards senior citizens. Figure 2 provides a representation of this distribution shift over time.

**Table 1: Fertility Rates and Life Expectancy in Japan**

<table>
<thead>
<tr>
<th>YEAR</th>
<th>1947</th>
<th>1955</th>
<th>1985</th>
<th>2015</th>
<th>2045</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Fertility Rate</td>
<td>4.54</td>
<td>2.37</td>
<td>1.75</td>
<td>1.38</td>
<td>1.35</td>
</tr>
<tr>
<td>Life Expectancy Females</td>
<td>54.0</td>
<td>67.8</td>
<td>80.5</td>
<td>87.1</td>
<td>89.9</td>
</tr>
<tr>
<td>Life Expectancy Males</td>
<td>50.1</td>
<td>63.6</td>
<td>74.8</td>
<td>80.3</td>
<td>83.2</td>
</tr>
</tbody>
</table>

Sources: United Nations Population Division Department of Economic and Social Affairs

During the same time period, fertility rates have also been declining in the developed world and in populous countries such as China and India, while life expectancies have improved globally, and these trends are more pronounced in Japan, as Figures 1a and 1b show. At a projected fertility rate of 1.35, much below the necessary 2.1 to maintain the size of a population, and a life expectancy likely to exceed 89 years for females and 83 for males by 2045, Japan’s population is shrinking, and the distribution by age is becoming skewed heavily towards senior citizens. Figure 2 provides a representation of this distribution shift over time.

**Figure 1a: Fertility Rates of Major Countries**

**Figure 1b: Life Expectancy in Major Countries**
The aging and shrinking of Japan’s population implies that, as time goes by, a smaller proportion of the workforce will be comprised of young and middle-aged workers, whereas the ranks of pensioners in need of senior care and healthcare will swell.

**What are the consequences of these demographic changes on Japan’s economic growth?**

Using a growth accounting framework, we decompose Japan’s GDP into contributions to growth from the following sources: a. capital intensity, b. total factor productivity (TFP), c. population growth, d. labor force participation growth, and e. increases in hours worked. Table 2 reports the results.

**Table 2: Japan’s Growth Decomposition**

<table>
<thead>
<tr>
<th></th>
<th>Growth Output</th>
<th>Capital Intensity</th>
<th>Total Factor Productivity</th>
<th>Population Growth</th>
<th>Labor Force Participation</th>
<th>Hours of Work</th>
</tr>
</thead>
<tbody>
<tr>
<td>Japan 1990-2006</td>
<td>1.427%</td>
<td>1.109%</td>
<td>0.675%</td>
<td>0.219%</td>
<td>-0.117%</td>
<td>-0.460%</td>
</tr>
<tr>
<td>Japan 2007-2011</td>
<td>-0.195%</td>
<td>0.415%</td>
<td>0.660%</td>
<td>0.005%</td>
<td>-0.522%</td>
<td>-0.754%</td>
</tr>
</tbody>
</table>

The last three columns capture the demographic contributions to growth. Beginning in 1990 both labor force participation and hours of work declined significantly and that lowered the growth rate by more than half a percent. From 2007 to 2011 demographics have pulled Japan’s growth rate down by nearly 1.3%. This is a huge headwind for an economy. This tendency is likely to get worse given the projected evolution of its population, as we discussed above.

**Notes:** (1) A similar decomposition was used in Maria Vassalou, “Good Growth, Bad Growth, and the ECB’s Balancing Act”, PWP Global Macro Insights, December 2013.
Is there an antidote to deteriorating demographics?

The obvious public policy response to deteriorating demographics is encouraging more female labor force participation, more births, and opening the doors to immigration. The third arrow of Abenomics aims to support child bearing and rearing and make female labor force participation easier. There is not widespread support for increased immigration.

The alternative way to respond to a shrinking and aging population is through increasing the contributions to growth of capital intensity and TFP so as to counter the reduction in the labor force and its reduced productivity due to aging. Unfortunately, that’s not what we observe. As Table 2 shows, while the contribution to growth of TFP has remained essentially unchanged over time, the contribution of capital intensity to growth since 2007 is only 37% of what it was in the period from 1990 to 2006. This is a massive decrease in the contribution of capital and augments the headwinds to growth from the shrinking and aging population. It has occurred despite the fact that the amount of capital per worker or the capital-to-output ratio has not fallen. This phenomenon likely indicates a misallocation of capital over time to less productive activities that contribute little to economic growth.

Figure 3 provides the year-by-year decomposition. Since 2003, and well before the onset of the financial crisis, the contribution of capital intensity to growth in Japan has declined sharply. The combination of deteriorating demographics and a declining contribution of capital intensity does not bode well for a pickup in economic growth going forward.

**Figure 3: Factor Contributions of Japan’s GDP Growth (1990-2011)**

Figures 4a and 4b show the decomposition of Japan’s GDP for manufacturing and services separately. We can see that the contributions of capital intensity and TFP growth have declined, particularly in the services sector. As services account for an increased share of GDP in developed economies, failure to improve efficiency in this sector can greatly hamper GDP growth, especially in the case of an aging population. Services account for over 72% of GDP in Japan, and it is generally the case that they comprise between 70-80% of GDP for most developed economies, according to data from the World Bank.
Another headwind to Japan's growth: public debt sustainability approaches its limits

When organic growth in the economy is withering, a way to bolster it is through expansionary fiscal and monetary policies. Abenomics encompasses both. But when it comes to fiscal expansion, Japan faces constraints in terms of how much more public debt it can issue to support its economic growth.

Source: JIP 2014 Database and Penn World Table 8.1
As Figure 5 shows, Japan's public debt has grown from 10% of GDP in 1970 to over 200% today. While 95% of debt is held domestically by financial institutions, the ability of domestic creditors to finance Japan's public debt will soon be tested as these creditors will eventually run out of financial assets to use against this debt. Since the 1970s, Japan has been running a budget deficit which, since 2000, has averaged above 7% of GDP per annum. These budget deficits add to the pace of public debt increases, ceteris paribus. Unless they are reversed, under most scenarios, Japan's public debt is expected to be considered unsustainable by 2024.\(^2\)

The purpose of Abe’s “second arrow” of economic policy was to increase government spending in order to promote robust growth. To give credibility to the idea that Japan’s debt will remain sustainable, in spite of the high level of debt and deficits, the government legislated an increase in the consumption tax from 5% to 8% in 2014, and a further increase to 10% in 2017 (postponed from this year). The first tax increase caused a sharp drop in consumption and output, hence the postponing of the second increase. The hope is that the next increase will not have as sharp a negative impact as the first one because the tax hike is already built into people’s expectations. Nevertheless for the debt to remain sustainable the economy will have to grow again.

Why is there a need for a “third arrow”?

Budget deficits can be eliminated through a combination of austerity, rationalization of the public sector and structural reforms that improve economic efficiency and unleash growth. Austerity is antithetical to an expansionary fiscal policy. That is why Abenomics combined fiscal stimulus with a series of reforms aiming to restructure key sectors of the economy, such as healthcare and energy, as well as pension reforms and labor law reforms to improve economic efficiency.

Structural reforms, such as Abe’s “third arrow”, are always politically difficult to effect and take time to implement. Reducing the budget balance by over 7% of GDP is a non-trivial task. As a result, the ability of the “third arrow” to succeed in the near-term, so as to convince the markets that Japan’s public debt will remain sustainable, is questionable. In addition, in a developed economy increasingly dominated by services and investments in intangible assets, traditional economic policy tools are rendered less effective in achieving their goals than in the past.\(^3\) We remain cautious about the ability of Abenomics to change the course of growth in Japan.

Japan’s inflation remains stubbornly low

Japan’s inflation dipped below zero in 1986 and for almost ten years has been negative or zero, with short breaks of positive inflation in between. The latest unprecedented quantitative easing (QE) of April 2013 boosted inflation temporarily to 3.7% before it gradually fell to 0.4% in June of 2015. Figure 6 depicts the path.

Notes:  
\(^3\) For a discussion on this topic, see” Vassalou, Maria and John Donaldson, “This Time IS Different: Of Interest Rates and Economic Growth, or How Monetary Policy Has Become Less Potent Over Time”, PWP Global Macro Insights, June 3, 2015
The temporary effects of Japan’s QEs reveal that monetary policy tools have limited ability to generate inflation if the underlying economy is not demonstrating robust growth. Especially for a country like Japan, which is saddled with excessive public debt, some degree of positive, well-controlled inflation is highly desirable, as it helps reduce the real value of its nominal debt.

**Can Abenomics succeed?**

The above discussion suggests that Abe’s three-pronged approach to Japan’s economic revival may have limited potential to succeed. As discussed earlier, at the heart of Japan’s economic malaise are the main issues of adverse demographics, the inability of the country to counteract an aging labor force with increased productivity and advanced technology, high public debt and low inflation. To the extent that at least some of these issues are not resolved, in our view, Japan is unlikely to grow steadily going forward.

The first two prongs, fiscal expansion and monetary accommodation, are traditional policy tools typically deployed as a means to improve a country’s terms of trade. In the case of Japan, they had the effects of depreciating the yen and fueling an equity rally. The structural reforms, dubbed the “third arrow”, are part of the usual reforms a lot of developed and emerging countries with slow growth have found themselves forced to implement. Typically, an overblown public sector, an expansive welfare state or an aging population lead to a pension system that is not sustainable in the long-run and needs to be reformed and/or trimmed down. Labor laws instituted prior to the proliferation of globalization now often seem to hinder competitiveness and therefore growth, leading to the need for a further liberalization of the labor markets. In the process, key sectors of the economy may need support or restructuring in order to become accretive to an economy’s growth dynamics.

Structural reforms can always be helpful in ensuring that an economy avoids prolonged rigidities that could inhibit its growth potential. But alone, structural reforms can only help at the margin. In a world characterized by low growth and high debt overhang, competitive devaluations from central banks around the world, as well as fiscally expansionary policies which are constrained by the high public debt levels, are bound to have only a limited net effect.

Policy recipes of the type of Abenomics tend to work best when implemented by a country at a time when the rest of the world is growing at healthy rates. This is not the time we live in. Global growth rates have failed to pick up robustly since the financial crisis and despite the high level of global monetary accommodation, inflation, in most parts of the world, remains subdued and is actually falling. Furthermore, the increased shift of developed economies towards services and investments in intangible assets has greatly reduced the ability of traditional policy tools to influence economic outcomes.\(^{4}\) We therefore remain cautious about the ability of Abenomics to change the course of growth in Japan.

\(^{4}\) For a discussion on this topic, see “Vassalou, Maria and John Donaldson, “This Time IS Different: Of Interest Rates and Economic Growth, or How Monetary Policy Has Become Less Potent Over Time”, PWP Global Macro Insights, June 3, 2015

---

**Figure 6: Japan Inflation (CPI) Year-on-Year**

Source: Ministry of Internal Affairs and Communications Japan
Maria Vassalou, Ph.D.  
Partner & Portfolio Manager, PWP Global Macro

Maria Vassalou is Partner and Portfolio Manager for the PWP Global Macro strategy. Dr. Vassalou joined Perella Weinberg Partners from MIO Partners, a subsidiary of McKinsey & Company, where as a Portfolio Manager she managed a similar global macro investment strategy in a dedicated legal entity, and as Head of Asset Allocation she provided counsel on allocation for liquid assets within MIO’s portfolio. Prior to joining MIO, Dr. Vassalou was a Global Macro Portfolio Manager at SAC Capital Advisors, LP. She joined SAC from Soros Fund Management where she was responsible for global quantitative research, as well as the development and management of global quantitative trading strategies. Prior to her career in asset management, Dr. Vassalou was an Associate Professor of Finance at Columbia Business School which she joined in 1995 and where she established many of the investment principles she employs today. Dr. Vassalou is a Past President of the European Finance Association and was the Chair of the 2008 European Finance Association Meetings. She has also served as a Research Affiliate of the Centre for Economic Policy Research (CEPR) in London for many years and is a past member of the Academic Advisory Board of the Vienna-based Guttmann Center of Competence in Portfolio Management. Her research focus has been on the interrelation of the macro-economy and financial markets with applications in hedge fund strategies. A frequent speaker to both academic and practitioner-oriented seminars and conferences, Dr. Vassalou has published in leading academic journals, such as the Journal of Finance, Journal of Financial Economics, Journal of Financial and Quantitative Analysis, Journal of Business, Journal of International Money and Finance, and the Journal of Economic Dynamics and Control. While she was on the faculty of Columbia University, she also served as a consultant to many premier hedge funds and asset management institutions in the U.S. and Europe. Dr. Vassalou received a Bachelor of Arts in Economics from the University of Athens and she holds a Ph.D. in Financial Economics from London Business School.

Thomas F. Cooley, Ph.D.  
Paganelli-Bull Professor of Economics at the Leonard N. Stern School of Business, New York University

Thomas F. Cooley is the Paganelli-Bull Professor of Economics at the Leonard N. Stern School of Business at New York University, as well as a Professor of Economics in the NYU Faculty of Arts and Science. He served as Dean of the Stern School from 2002 to January 2010. Cooley is known for his scholarly work in the areas of macroeconomic theory, monetary theory and policy, and the financial behavior of firms as well as for his commentary in many economic and business publications. Responding to the financial crisis of fall 2008, he spearheaded a research and policy initiative that yielded 18 white papers by 33 NYU Stern professors, published as Restoring Financial Stability: How to Repair a Failed System, (Wiley, 2009). Together with Stern colleagues he edited and wrote a second book, Regulating Wall Street, The New Architecture of Global Finance, which was published by Wiley in 2010. His book, Understanding Business Cycles, Princeton University Press 1995, is a widely cited reference on macroeconomic fluctuations. Cooley is a Research Associate of the National Bureau of Economic Research and a member of the Council on Foreign Relations. He is also the former President of the Society for Economic Dynamics, a Fellow of the Econometric Society, holds an honorary doctorate from the Stockholm School of Economics. In the corporate sector, Cooley has been a senior advisor and member of the board of Managers of Standard & Poor’s, served on the Board of Directors of Thornburg Mortgage and has been an advisor to Ameriprise, eTrade Securities, and Cedar Consulting. Cooley received his Ph.D., and M.A. in Economics from University of Pennsylvania. He received his B.S. in Engineering Science from Rensselaer Polytechnic Institute. Before joining Stern, he was a Professor of Economics at the University of Rochester, University of Pennsylvania, and UC Santa Barbara.
Perella Weinberg Partners Asset Management

Perella Weinberg Partners Asset Management is a leading institutional asset manager. With approximately $8.9 billion in assets under management and over 350 investors globally, the firm seeks to deliver a diversified suite of alternative investment strategies, as well as comprehensive investment solutions based on the outsourced CIO investment model. Perella Weinberg Partners Asset Management invests on behalf of pensions funds, endowments, foundations, sovereign wealth funds, family offices, high net worth individuals, and fund of funds, and the Firm invests in most major asset classes, including equities, fixed income, asset based securities, distressed securities, private investments, and real estate.

Legal Disclosures:

The Information has been provided to you by Perella Weinberg Partners and its affiliates (collectively “Perella Weinberg Partners” or the “Firm” or “PWP”) solely for informational purposes and is not an offer to buy or sell or a solicitation of an offer to buy or sell any security or to participate in any trading strategy. If any offer of securities is made, it will be pursuant to the Confidential Offering Memorandum (the “Memorandum”) prepared on behalf of Perella Weinberg Partners which contains material information not contained herein and which supersedes this Information in its entirety. Any decision to invest in the investments described herein should be made after reviewing the Memorandum, conducting such investigations as the investor deems necessary and consulting the investor's own investment, legal, accounting and tax advisors in order to make an independent determination of the suitability and consequences of an investment.

The Information including, but not limited to, Perella Weinberg Partner's organizational structure, investment experience/views, returns or performance, risk analysis, sample trade plans, idea filtration process, benchmarks, investment process, investment strategies, risk management, market opportunity, representative strategies, portfolio construction, capitalizations, expectations, targets, parameters, guidelines, and positions may involve our views, estimates, assumptions, facts and information from other sources that are believed to be accurate and reliable and are as of the date this information is presented—any of which may change without notice. We have no obligation (express or implied) to update any or all of the Information or to advise you of any changes; nor do we make any express or implied warranties or representations as to the completeness or accuracy or accept responsibility for errors.

Perella Weinberg Partners and its affiliates do not provide tax advice. Accordingly, any discussion of U.S. tax matters contained herein (including any attachments) is not intended or written to be used, and cannot be used, in connection with the promotion, marketing or recommendation by anyone unaffiliated with Perella Weinberg Partners of any of the matters addressed herein or for the purpose of avoiding U.S. tax-related penalties.

Please refer to the Memorandum for more information on fees including early withdrawal charges and other important information. The investments discussed herein, including any pooled investment vehicle, may be speculative and involve a high degree of risk; could involve possible loss of your entire principal; may be leveraged which can potentially increase investment risk; may have volatile performance; can be highly illiquid and investors may be required to retain their exposure to investments for an indefinite period of time; do not have a secondary market for the investor's interest and none is expected to develop; may have restrictions in transferring interests of the assets; may not be required to provide periodic pricing or valuation information to investors; may include international investments that are subject to political influences, currency fluctuations and economic cycles that are unrelated to those affecting the domestic financial markets and may experience wider price fluctuations; are not subject to the same regulatory requirements as mutual funds; may involve complex tax structures and delays in distributing important tax information; and, may have high fees and expenses offsetting profits.