

# Economic Outlook

April 30, 2013

## Japan's Necessary Gamble

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- “Abenomics” is a three-pronged strategy to end deflation in Japan: (1) aggressive monetary easing; (2) fiscal stimulus and flexibility; and (3) structural reforms.
- Debt monetization and exchange rate depreciation should succeed in extricating Japan from persistent deflation.
- The program’s ultimate success is likely to depend on yet-to-be proposed structural reforms to boost productivity growth and corporate profit and investment rates.
- To appreciate the opportunity in Japan, consider that a control investor need only increase the typical business’ Ebitda/Sales ratio to European levels over the course of three years to generate an unlevered internal rate of return of 12.8%.

The aggressive, three-pronged macroeconomic strategy dubbed “Abenomics” represents the last, best chance Japan has to escape the persistent deflation that has plagued the economy for over 15 years. The strategy presents several risks, with two of particular concern: (1) monetary reflation will work “too well” and deflation will be replaced by accelerating inflation or an asset price bubble; and (2) necessary structural reforms will not be pursued with the same vigor as monetary and fiscal stimulus, resulting in stagflation. Despite these risks, market participants seem to regard Abenomics as a genuine pathway to economic regeneration, as evidenced by the 50% increase in Japanese equity prices since the fall election campaign. Should Abenomics succeed in spurring divestitures of legacy firms’ non-core assets and boost the corporate sector’s badly-lagging profitability, Japan will prove to be one of the world’s most attractive investment markets over the next several years. While the related challenges of demographic decline and a huge fiscal imbalance would remain as daunting as ever, the country would be immeasurably better prepared to confront them with an economy growing at a nominal rate of 3% instead of the current trend of -0.6%.

### “Three Arrows” of Abenomics

Prime Minister Abe assumed office at the end of 2012 pledging to fire “three arrows” to end Japan’s stagnation: (1) aggressive monetary easing; (2) fiscal stimulus and flexibility; and (3) structural reforms.<sup>1</sup> While the first concrete policy action came in January with a ¥10.3 trillion infrastructure program (\$115 billion or 2% of Japan GDP), Abenomics’ true revolutionary character was not revealed until April 4’s Bank of Japan (BOJ) monetary policy meeting. Aware that the initial optimism surrounding prior attempts to fight deflation soon gave way to cynicism,<sup>2</sup> newly-installed BOJ Governor Haruhiko Kuroda sought to *exceed* market expectations through aggressive “Quantitative and Qualitative Monetary Easing.” Specifically, the BOJ pledged to achieve positive inflation of 2% per year in the Consumer Price Index (CPI) by the end of 2014 through a program to: (1) double the monetary base through unsterilized asset purchases of ¥60 trillion to ¥70

<sup>1</sup> “Three arrows cannot be broken” is a Japanese proverb.

<sup>2</sup> “Abe and Japan’s Deflation,” *Wall Street Journal*, January 22, 2013.

trillion per year (\$750 billion per year or 15% of GDP); (2) purchase longer-dated Japanese Government Bonds (JGBs) so as to increase the average maturity of the BOJ portfolio from three to seven years; and (3) explicitly target asset prices by purchasing Japanese exchange-traded funds (ETF) and real estate investment trusts (REITs) at an annual rate of ¥1 trillion and ¥30 billion, respectively (\$10.75 billion and \$322 million).

To put this announcement in context, consider that, as a share of GDP, the BOJ's scheduled monthly purchases are more than twice those of the Federal Reserve's "QE3" program (the equivalent of \$192 billion relative to the Fed's \$85 billion, per month). Moreover, the BOJ has committed to maintain this pace in a way that the Fed has not: whereas the Fed's asset purchases are framed as temporary and contingent on incoming labor market data, the BOJ has committed to maintain this pace for two full years. There is also an important qualitative difference in that the size of the BOJ purchases raised genuine questions about the program's technical feasibility, as reflected in the spike in the volatility of yen and cross-currency interest rate cash and derivatives following the policy announcement.<sup>3</sup>

### **A Larger Dose of the Same Medicine?**

While the size of the program is impressive, by any measure, skeptics argue that Abenomics amounts to a much larger dose of the same medicine that has failed to cure the economy previously. Abe's proposed stimulus is the 17<sup>th</sup> such program announced since 1990 with a cumulative cost equal to 31% of GDP.<sup>4</sup> A doubling of the monetary base is also nothing new: the BOJ's balance sheet doubled between July 1997 and December 1999 and then again between April 2000 and December 2005.<sup>5</sup> Why should anyone anticipate the same policy achieved more rapidly would achieve qualitatively different results?

The answer lies in the January 22, 2013 "Joint Statement" issued by the BOJ and Ministry of Finance. The document itself is unimpressive, but its message of "strengthened policy coordination" is an unambiguous signal to market participants that the days of BOJ independence are over. The BOJ may retain "operational independence" in policy implementation, but it no longer possesses autonomy over the policy target itself.<sup>6</sup> This shift is hugely consequential considering that the prior BOJ regime was skeptical of monetary policy's capacity to end deflation and contemptuous towards the kind of fiscal-monetary policy coordination required to achieve it.<sup>7</sup>

The basic framework for Abenomics was first proposed by current Fed Chairman Ben Bernanke in a speech before the Japan Society of Monetary Economics in 2003.<sup>8</sup> Bernanke argued that debt-financed stimulus failed because Japanese households recognized that the cost of servicing that debt would increase future tax burdens. Bernanke urged Japan to "break the link between expansionary fiscal actions today and increases in the taxes that people expect to pay tomorrow" through explicit coordination between monetary and fiscal authorities to finance spending through money creation rather than debt issuance. The program would boost aggregate demand by replacing expected (explicit) future taxes with an "inflation tax" that places upward pressure on the price level.

<sup>3</sup> In response, Governor Kuroda pledged to adjust implementation as necessary to reduce volatility but would not back away from the program. "BOJ's Kuroda says will stick to 2 percent inflation target," *Reuters*, April 25, 2013.

<sup>4</sup> Between 1990 and 2008, Japan launched 15 stimulus packages with a total cost of 28% of GDP consisting of massive infrastructure spending (50% of the total), credit guarantees to businesses (30%), temporary tax cuts (12%), and employment assistance (8%). Japan then responded to the decline in output following the global financial crisis by launching another round of stimulus in 2009 equal to 3% of GDP. See: Brückner, M. and Tuladhar, A. (2010), "Public Investment as a Fiscal Stimulus: Evidence from Japan's Regional Spending During the 1990s," IMF Working Paper. "Aso to Unveil 15.4 Trillion Yen Japan Stimulus Plan," *Bloomberg*, April 9, 2009.

<sup>5</sup> Bank of Japan data accessed through Bloomberg.

<sup>6</sup> The IMF distinguishes between "operational" and "target" independence under the new regime, See transcript: <http://www.imf.org/external/np/tr/2013/tr040913.htm>.

<sup>7</sup> C.f. Shirakawa, M. "Path toward overcoming deflation," meeting with business leaders, Nagoya, 26 November 2012.

<sup>8</sup> Bernanke, B. (2003), "Some Thoughts on Monetary Policy in Japan," Japan Society of Monetary Economics, May 31, 2003.

Active embrace of debt monetization may seem radical, but Abenomics is predicated on the belief that chronic deflation lies at the root of the country's economic difficulties. Japan has experienced persistent deflation since 1997, with the overall price level falling by between 4% (Consumer Price Index) and 17% (GDP deflator) during that time.<sup>9</sup> Total compensation paid to Japanese workers has fallen by 13%, cumulatively, over the same period.<sup>10</sup> Persistent deflation is so insidious because it erodes incentives to spend and invest, makes monetary policy ineffective as a stabilization tool, reduces velocity by increasing the attractiveness of idle cash balances, and reduces credit demand by creating expectations that the yen repaid to creditors tomorrow will be worth more than the yen borrowed today.

Since deflation took hold in 1997, private nonresidential investment and capital formation have fallen by 18.5% and 30%, respectively, in nominal terms.<sup>11</sup> The problem is not the price or availability of external finance, as business investment consistently falls well short of internal cash flow. Between 2002 and 2012, the gap between internal cash flow and business investment averaged 5% of GDP (¥20 trillion or \$250 billion in 2012). The excess cash was used to pay down debt by ¥94 trillion (\$908 billion) and acquire ¥130 trillion (\$1.26 trillion) of financial assets, especially bank deposits.<sup>12</sup>

The decline in investment and credit demand is also reflected in bank balance sheets. Total loans have fallen from 120% of deposits in 1997 to just 69% in 2012,<sup>13</sup> while loans to nonfinancial corporations now account for less than 50% of banks' assets.<sup>14</sup> Government bonds have filled the gap, growing from 5% of banks' assets in 1997 to over 20% by 2010.<sup>15</sup> In the deflationary equilibrium, Japanese banks' key function is to recycle excess corporate savings into Japanese government bonds. The result is a 2012 nominal GDP 9% below the 1997 peak and a doubling of the gross public debt ratio to more than 230% of GDP (134% of GDP when measured net of financial assets).<sup>16</sup>

### Reversing Japan's Internal Devaluation

Deflation took hold in Japan due to the 1991 collapse of the bubble in stock and land prices and the concomitant banking crisis of 1997-1998. However, shifts in the foreign exchange value of the yen have played a huge role in cementing the "liquidity trap" equilibrium.<sup>17</sup> Between 1985 and 1995, the foreign exchange value of the yen more than tripled, as external pressure from trading partners and multilateral institutions caused the yen/dollar exchange rate to move from 260 in 1985 to 80 in 1995.<sup>18</sup> To regain competitiveness after this currency appreciation, Japan engaged in an "internal devaluation" similar to the one now urged on peripheral euro area economies. The conscious effort to restrain price growth and reduce economic exposure to foreign exchange risk fostered negative inflation expectations among households. To escape from deflation, the yen must now become a one-way (downward) bet so as to establish the confidence necessary for domestic investment, higher wages, and improved portfolio allocation.

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<sup>9</sup> The GDP deflator includes items like investment goods (capital equipment) excluded from CPI and also adjusts the reference basket dynamically to account for changes in purchases. Since prices of investment goods have fallen faster than consumer goods, the overall fall in the price level is greater as measured by the GDP deflator. See: "Why is the Rate of Decline in the GDP Deflator So Large?" *Bank of Japan Economic Commentary Number 2003-02*.

<sup>10</sup> OECD, Economic Annex 92.

<sup>11</sup> Japan Economic and Social Research Institute.

<sup>12</sup> Bank of Japan Flow Funds data accessed through Bloomberg.

<sup>13</sup> Bank of Japan data accessed through Bloomberg.

<sup>14</sup> Lam, W.R. and Tokuoka, K. (2011), "Assessing the Risks to the Japanese Government Bond (JGB) Market," *IMF Working Paper*.

<sup>15</sup> Bank of Japan data accessed through Bloomberg.

<sup>16</sup> IMF WEO, 2013.

<sup>17</sup> McKinnon, R. and Ohno, K. (2000), "The Foreign Exchange Origins of Japan's Economic Slump and Low Interest Liquidity Trap," Bank of Japan, *IMES Discussion Paper Series 2000-E-19*.

<sup>18</sup> Federal Reserve, H.10 Foreign Exchange Rates.

When the foreign exchange value of the yen peaked in 1995, Japan was the most expensive country in the world, a fact not lost on Japanese households. The IMF estimates the price level in Japan was 1.85x higher than that of the U.S. that year.<sup>19</sup> The less rigorous “Big Mac Index” found much the same thing, as the dollar-price of a Big Mac in Japan was twice that of a Big Mac in the U.S.<sup>20</sup> A 1993 Japanese government report suggested that the economy would actually benefit from deflation<sup>21</sup> and several mid-1990s Japanese media reports tended to support the idea that prices should be slashed.<sup>22</sup>

**Figure 1: Evolution of Dollar-Yen Foreign Exchange Rate, 1971-2013<sup>23</sup>**



Public awareness of the “excessive” price level allowed Japanese businesses to demand significant wage concessions. Between 1993 and 1998, total compensation expenses in Japan grew by just 1.5% per year, or less than one-fourth the average among other advanced economies.<sup>24</sup> Foreign exchange appreciation also led Japanese businesses to move production out of high-cost Japan and to match the geography of production and sales. This offshoring placed downward pressure on the prices of domestic capital goods and land.<sup>25</sup> Finally, financial institutions with yen liabilities like banks, pension funds, and life insurers demanded sizeable risk premia to compensate for potential declines in the yen-value of foreign securities holdings. With a 70% of GDP net international investment position and gross foreign assets of \$666.8 trillion yen (\$6.45 trillion), the cross-border allocation decisions of Japanese institutions dominate yen-dollar return differentials.<sup>26</sup> Between 1985 and 2008, the 10 year Treasury yield exceeded that of the 10 year JGB by 3 percentage points, on average.<sup>27</sup>

Japan could only maintain negative differentials in compensation expenses, the price of physical capital, and interest rates in the context of a growing global economy with high expected foreign returns. These ingredients were in place during the global expansion of the 2000s when Japan’s real GDP increased at an

<sup>19</sup> IMF, World Economic Outlook Database.

<sup>20</sup> *The Economist*, 1995 Big Mac Index. In 1995, the cost of a Big Mac in the U.S. was \$2.32 compared to ¥391 in Japan. At the market exchange rate of 84.2, it would have taken \$4.65 to buy a Big Mac in Japan. Conversely, if the ¥391 were converted into dollars, it would be enough to buy two Big Macs.

<sup>21</sup> Annual Report on Japan’s Economy (FY1993).

<sup>22</sup> Nishizaki, K. et al. (2012).

<sup>23</sup> Federal Reserve, H. 10 Foreign Exchange Rates.

<sup>24</sup> OECD, Annex 92.

<sup>25</sup> *Bank of Japan Economic Commentary Number 2003-02*.

<sup>26</sup> IMF, Bank of Japan.

<sup>27</sup> Bloomberg.

annual average rate of 1.5% on the back of 1.4% productivity growth.<sup>28</sup> Between 2003 and 2008, Japan's CPI actually increased by 1.4% cumulatively, or an average of 0.5% per year.<sup>29</sup> Domestic investment rebounded, with new factory construction doubling between 2002 and 2006 while Japanese multinationals' construction of new foreign factories declined by 58%.<sup>30</sup> The development of a "yen carry trade" in global financial markets also supported Japanese reflation by placing downward pressure on the yen exchange rate.<sup>31</sup>

The global financial crisis dealt a sudden and especially acute end to these positive dynamics. Between July 2007 and November 2009, the yen appreciated by 37% against the dollar, as global asset prices collapsed and the carry trade unwound. The subsequent decline in global growth required Japanese interest and inflation rates to turn sharply negative to maintain the required differentials. The consumer price level and GDP deflator fell by 2.7% and 5.3%, respectively, between 2009 and 2012, but the zero lower bound on nominal interest rates prevented the 10-year JGB from declining to -1.2%, as would be required to maintain the -3% differential relative to the 10-year Treasury note. Higher relative yields at home and repatriation flows to cover damages following the 2011 Tsunami caused the yen to appreciate by an additional 17% (59% cumulatively from 2008), further intensifying the deflationary spiral.

By the time of Abe's election, trading partners and multilateral institutions had come to understand that the exchange rate was a key driver of deflation in Japan. Since the campaign, the yen has declined by 20% in response to expectations of policy easing and the sizeable net portfolio outflows among Japanese institutions in the first quarter of 2013.<sup>32</sup> Normally, one might expect a foreign exchange move of this magnitude to generate widespread condemnation or retaliatory action. Instead, the April 2013 G-20 communique interpreted "Japan's recent policy actions" as "intended to stop deflation and support domestic demand," rather than an attempt to achieve export competitiveness at the expense of trading partners. Similarly, the IMF applauded Japan's "ambitious monetary easing."<sup>33</sup> These statements have essentially sanctioned Japan's policy of making the yen a one-way (negative) bet in currency markets to end deflation.

### **The Third Arrow: Structural Reforms**

Abenomics' ultimate success will depend on the yet-to-be-proposed structural reforms. Even if Japan succeeds in breaking deflationary expectations through debt monetization and exchange rate depreciation, the 0.7% per year decline in the working age population will keep the growth rate of potential GDP uncomfortably close to zero without an increase in immigration or workforce participation rates and faster productivity growth.<sup>34</sup> Although Japan is rated as the ninth most competitive economy in the world by the Global Competitiveness Index, it ranks in the bottom quartile in terms of hiring and firing practices, tax levels, and tax compliance costs.<sup>35</sup> In addition to these problems, survey respondents cited policy instability and the uncertainty about how the government is going to close its enormous fiscal gap as key deterrents to doing business in Japan.

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<sup>28</sup> IMF WEO, 2012.

<sup>29</sup> IMF WEO, 2012.

<sup>30</sup> Hayashi (2007) cited in Yin, P. (2008), *Exchange Rate Policies and Systems in Asia*. London: World Scientific.

<sup>31</sup> A "carry trade" is generally defined as borrowing in a low-yielding currency to invest in a high-yielding currency. Although "open interest rate parity" would suggest that the yen would appreciate against low-yielding currency to close the expected return differential, the carry trade can actually cause the currency to move in the opposite direction, creating additional profits to the strategy. See: Gagnon, J. and Chaboud, A. (2007), "What Can the Data Tell Us about Carry Trades in Japanese Yen?" Board of Governors of the Federal Reserve System, *International Finance Discussion Paper Number 899*.

<sup>32</sup> Bank of Japan data accessed through Bloomberg.

<sup>33</sup> Statement of the Managing Director, IMF-World Bank Spring Meetings, 2013.

<sup>34</sup> Steinberg, C. and Nakane, M. (2012), "Can Women Save Japan," *IMF Working Paper*.

<sup>35</sup> World Economic Forum, *The Global Competitiveness Report 2011-2012*.



Prime Minister Abe has encouraged the public to consider Japan’s participation in the Trans-Pacific Partnership (TPP) trade negotiations as a first step towards more ambitious structural changes.<sup>36</sup> By increasing the economy’s openness, TPP could prove an important catalyst for reforms that increase domestic businesses’ competitiveness, profitability, and investment rates. Despite having an economy roughly one-third the size of that of the U.S., Japan generates only one-tenth as much mergers and acquisitions (M&A) activity.<sup>37</sup> Subdued M&A activity is a reflection of inadequacies in the market for corporate control, which has not proven able to shift resources away from inefficient management or legacy organizational structures.<sup>38</sup>

**Table 1: Aggregate Profitability Ratios in the G-3 Economies<sup>39</sup>**

	Ebitda/Sales (2012)	After-Tax Margin (ebit(1-Tx)/sales)	Net Margin	Ebitda/Sales (2011)
U.S.	16.7%	8.3%	7.2%	16.3%
Europe	13.5%	6.6%	5.3%	13.1%
Japan	9.4%	3.0%	2.4%	9.1%

Table 1 reports aggregate profitability among public companies in the U.S., Europe, and Japan with gross receipts in excess of \$50 million in 2012 and 2011. Japanese firms are about one-third as profitable as those in the U.S. and half as profitable as those in Europe. Although differences in tax rates and depreciation allowances explain some of the discrepancy, Ebitda, which excludes these effects, is still 43% and 30% lower than in the U.S. and Europe, respectively, when scaled by total sales.

Low profits are not an inherent feature of Japanese businesses, but rather are a legacy of the pre-1991 era when restrictions on layoffs encouraged businesses to increase profits by adding new business units rather than shedding unprofitable ones.<sup>40</sup> The result was inefficient diversification that compressed profitability. During the 2000s, operating margins at legacy firms like NEC, Hitachi, and Fujitsu averaged 2%, a far cry from the 15% average among “New Japan” businesses like Softbank, Takeda Pharmaceuticals, Secom, Nippon Electric Glass, and Uniqlo and Rakuten of Fast Retailing Co.<sup>41</sup> Policies that promote economic openness and competition would improve aggregate profitability and accelerate productivity growth by leveling the playing field for the “New Japan” businesses and increasing the rate at which legacy conglomerates dispose of non-core businesses to streamline and focus core operations.

### The Investment Implications of Abenomics

If Abenomics were to usher in reforms that result in a wave of corporate divestitures, the investment opportunities would be extremely attractive. The low profits of legacy conglomerates should not be surprising, as management teams overseeing hundreds of business units and subsidiaries cannot make the swift decisions necessary to compete with global leaders. Increased global competition and a shrinking domestic market have increased the strategic importance of corporate divestitures and TPP is likely to accelerate this process. Even if nominal growth were to remain near zero, active investors that acquire control of a corporate spin-off in a deregulated environment should be able to generate large risk-adjusted

<sup>36</sup> Robles, T. (2013), “Abe's TPP strategy: Overcoming domestic division via reform.”

<sup>37</sup> Dealogic, *Global M&A Review: Full Year 2012*.

<sup>38</sup> Wolf, M. (2010), “What We Can Learn from Japan’s Decades of Trouble,” *Financial Times*.

<sup>39</sup> Data compiled from Value Line and S&P Capital IQ.

<sup>40</sup> Schaede, U. (2011), “Show Me the Money: Japan’s Most Profitable Companies in the 2000s,” University of California, San Diego Working Paper.

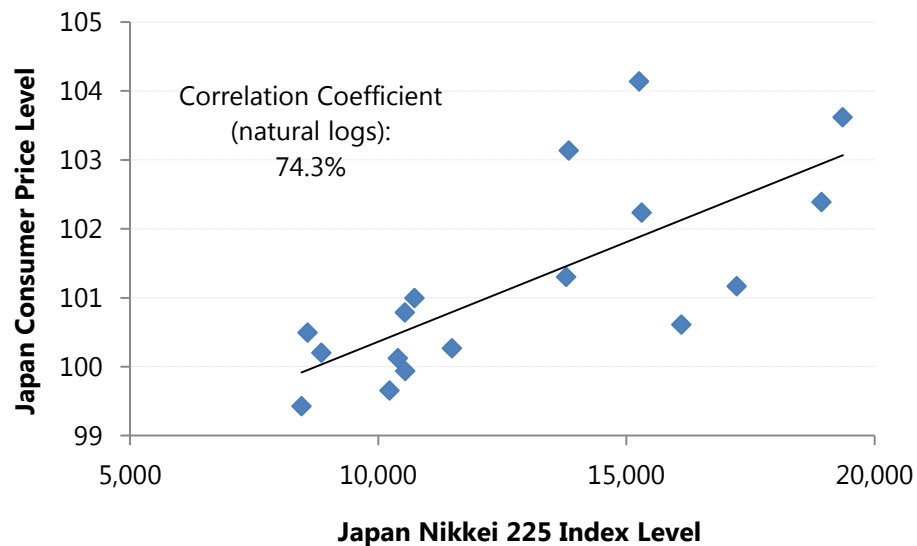
<sup>41</sup> Schaede (2011).

returns simply by increasing margins to levels prevailing in Germany or France. For example, increasing Ebitda margins from the Japanese average of 9.4% to the European average of 13.5% over three years would generate an unlevered internal rate of return of 12.8% with stagnant sales.<sup>42</sup> Even in the absence of structural reform specifics, Japanese equities have rallied by 50% since the election campaign on the back of the first two arrows, with a 10% spike on the five days following the BOJ's April 4 monetary policy announcement.

Corporate equities are a natural “hedge” for inflation, as they represent claims on real assets – property, plant, and equipment – that generate an income stream from the production of real goods or services whose price is denominated in units that adjust with the general price level. Since year-to-year returns on a stock index like the S&P 500 or Nikkei 225 are so volatile – i.e. 38% declines followed by 22% increases – while inflation is so persistent, the variation in stock *returns* does not match changes in *inflation rates* on an annual basis. Instead, the fundamental relationship is between the evolution of the *price level* of stocks and the *price level* of consumer goods over time.<sup>43</sup>

When controlling for “asymmetric adjustment” in the price levels of assets and consumer goods, the last 60 years of U.S. data reveal that common stocks are an excellent hedge against inflation.<sup>44</sup> When the price level of goods (i.e. cumulative inflation rates) has grown faster than the price level of assets, stock returns have generally “caught up” in the subsequent period, with the same process working in reverse when the goods price level has lagged behind that of asset prices.<sup>45</sup> As shown in Figure 2, the same relationship between the two price levels is evident in Japanese data, with the (log) Nikkei level 74% correlated with the (log) CPI over the past 15 years.

**Figure 2: Relationship Between Japan’s Two Price Levels, 1997-2012<sup>46</sup>**



Should Abenomics prove “too successful” and deflation is replaced with an accelerating rate of inflation, the increase in the CPI should be matched (or anticipated by) an increase in the price level of stocks. One

<sup>42</sup> This assumes that the entry and exit price multiple are the same and sales remain the same each year.

<sup>43</sup> A large body of literature inappropriately compares unexpected inflation rates to stock returns and finds no relationship. See Bodie, Z. (1976), “Common Stocks as a Hedge Against Inflation,” *Journal of Finance*.

<sup>44</sup> Kim, J. and Ryoo, H. (2011), “Common stocks as a hedge against inflation: Evidence from century-long US data,” *Economics Letters*.

<sup>45</sup> This empirical result was anticipated in the theory of the two price levels contained in Minsky, H. (1969), “Private Sector Asset Management and the Effectiveness of Monetary Policy,” *Journal of Finance*.

<sup>46</sup> Data from IMF, WEO 2013 and Bloomberg.

challenge for Japanese policymakers could be that Japanese households – especially the large retiree population – are under-allocated to stocks and therefore exposed to a decline in purchasing power should the price level increase substantially. Corporate equities account for just 7.3% of household financial assets, about one-fourth the percentage in the U.S. (26.9%) and one-third the amount in the rest of the G7 economies (21.3%).<sup>47</sup> Should households move into equities in response to a shift in inflation expectations, the supportive bid from this portfolio shift could act as a one-time accelerant to the rally in yen-denominated asset prices.

## Conclusion

Abenomics represents a gamble, but one that is necessary for authorities to take if the Japanese economy is to be rescued from multiple decades of stagnation and falling prices. The combination of debt monetization and foreign exchange depreciation should be sufficient to change households' expectations and jar the economy from the current deflationary equilibrium. Should Prime Minister Abe propose and succeed in enacting ambitious structural reforms, one could realistically see the Japanese economy achieve a trend nominal growth rate of 3% to 3.5% and represent one of the best places to invest in the world. Growth at this pace is not sufficient to close (or meaningfully narrow) the government's fiscal gap, but it would allow policymakers to enact future programmatic reforms from a position of strength that has eluded prior governments for decades.

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<sup>47</sup> OECD, Annex 92.