SPECIAL REPORT

TD Economics

September 20, 2016

HELICOPTER MONEY NO PANACEA FOR JAPAN

Highlights

- The perception that monetary policy is reaching its limits in Japan has led to speculation about whether Japan would engage in a helicopter drop of money to lift the economy out of its multi-year stagnation.
- The idea of “helicopter money” boils down to fiscal stimulus financed by the central bank. This is equivalent to the Bank of Japan increasing its current quantitative easing program in line with the government’s planned fiscal stimulus in the fall.
- The government’s latest fiscal stimulus package is expected to boost growth somewhat, but it is not likely big enough nor sustained long enough to lift inflation expectations and growth over the longer term.
- It will take bolder stimulus, which needs to be followed through with further structural reforms to break the cycle of false dawns for the Japanese economy.

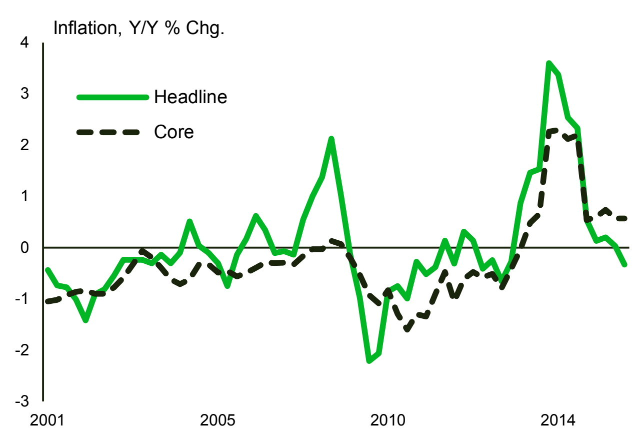
Over the past 25 years, Japan has been a case study in secular stagnation. Per capita income is about 14% below where it was in 1990. Repeated attempts by policymakers to stimulate aggregate demand enough to reduce the output gap and generate inflationary pressures have disappointed (see Chart 1). With its population in outright decline, Japan faces a steep challenge to increase the potential growth of its economy, and to shift the entrenched deflationary mindset. The country needs significant reforms on multiple fronts.

One potential tool that gained attention over the summer is the idea of “helicopter money”, which originates from visions of stimulating consumption by dropping money on consumers out of helicopters. Like most central banks, the Bank of Japan (BoJ) is not legally allowed to mail cheques directly to households. In practical terms, helicopter money is achieved through fiscal stimulus, which is funded by debt issuance that is purchased by the central bank. This serves to counteract an increase in the debt burden that would typically raise bond yields, thereby dampening the impact of fiscal stimulus.

The government has recently announced a new fiscal stimulus package aimed at boosting growth. If the increased fiscal stimulus is accompanied by a corresponding increase in quantitative easing by the BoJ, Japan would effectively be engaging in a helicopter drop – even if officials didn’t call it that. However, the current scale of the fiscal package does not provide the sort of sustained boost to aggregate demand required to generate notable inflationary pressures, even if accommodated by central bank purchases. So while visions of helicopters dropping money from the sky may have caught market imaginations, on its own it is not a panacea for what ails Japan.

That is not to say helicopter money will fail to stimulate aggregate demand. But, the current stimulus is too short-term, and

CHART 1: CORE INFLATION REMAINS TEPID



Source: Bank of Japan, TD Economics.

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does not contain enough growth-enhancing reforms to lift longer-term inflation expectations, which have become accustomed to a deflationary back drop. That's because the structural reforms Japan needs will take time to bear fruit. The success of a "helicopter" fiscal boost would depend on whether it succeeded in stimulating aggregate demand in the short run; to sufficiently bridge the gap before deeper reforms can take root and permanently boost growth.

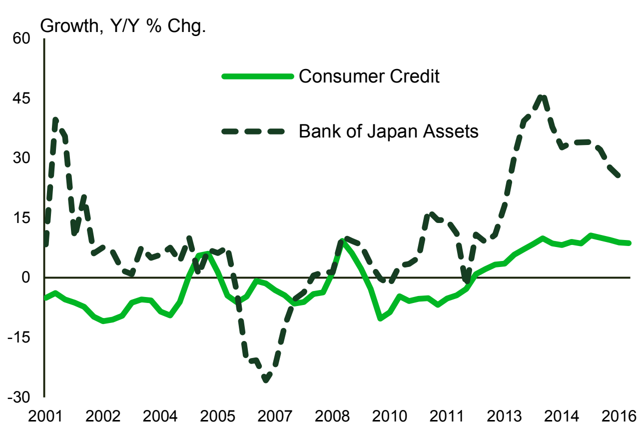
Perceived limits of monetary policy triggered "flights of fancy"

Even though Japan has not managed a sustained break out of its deflation trap, policymakers have certainly not been idle. The Bank of Japan's latest wave of quantitative easing began in 2013 (Japan has been experimenting with asset purchases since the early 2000s). It further expanded the program in October 2014, and earlier this year it took interest rates into negative territory. There has been some economic response. Consumer credit started expanding in 2013 and has sustained positive growth since (see Chart 2).

But, despite increased monetary stimulus, real interest rates have not been low enough to generate the spark to aggregate demand that would help boost inflation. Moreover, the strong yen acts to provide some evidence of high real interest rates (see Chart 3). The yen has appreciated nearly 20% versus both the US$ and the euro over the past year. A stronger yen is counterproductive to the Bank of Japan's goals, since it lowers the price of imports, reducing inflationary pressures. So despite the significant stimulus undertaken, the BoJ's actions thus far have been insufficient.

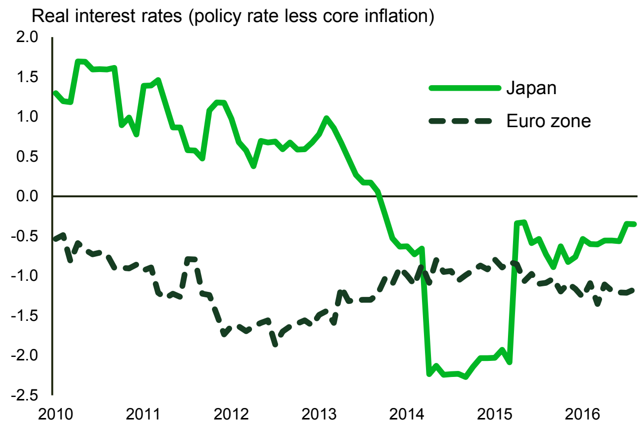
To boot, some argue that the Bank of Japan is reaching the limits of bond purchases, which will inhibit its ability to continue with quantitative easing. The BoJ is currently

CHART 2: SUSTAINED GROWTH IN CONSUMER CREDIT



Source: Bank of Japan, TD Economics.

CHART 3: REAL POLICY RATES



Source:Bloomberg, TD Economics.

purchasing more Japanese Government Bonds (JGBs) than are being issued. As of June 2016, the BoJ owned 37.4% of outstanding JGBs. That is just shy of the 40% share of the gilt market the Bank of England held at the peak of its quantitative easing campaign that began in 2009. However, at the current pace of purchases and issuance, the BoJ's dominant position in the government bond market beyond 2016 will be unprecedented among major advanced economies. Research by the IMF argues that under plausible assumptions, the BoJ will own more than 60% of the JGB market by the end of 2019, which could affect liquidity and hence volatility in JGB yields .

The view that monetary policy is reaching its limits of being an effective tool in Japan has led to speculation about whether the BoJ should engage in a helicopter drop of money to stimulate the economy. Rumors were further fueled by a visit to Tokyo policymakers from former Federal Reserve Chair, Ben Bernanke, who was nicknamed "helicopter Ben" due to his past comments on helicopter money.

The concept of "helicopter money" originates with an example used by Milton Friedman in the 1960s, where money is dropped on households from helicopters, arguably making consumers very likely to spend the windfall. The concept was revived by Ben Bernanke in a 2002 speech , where he described how it could work in practical terms. In reality, a central bank cannot legally write cheques to consumers in most countries (Japan included). However, the same effect could be achieved by combining two separate operations – a debt-funded fiscal expansion coupled with a monetary expansion that replaces the debt with liabilities on the balance sheet of the central bank. This is akin to monetizing the debt.

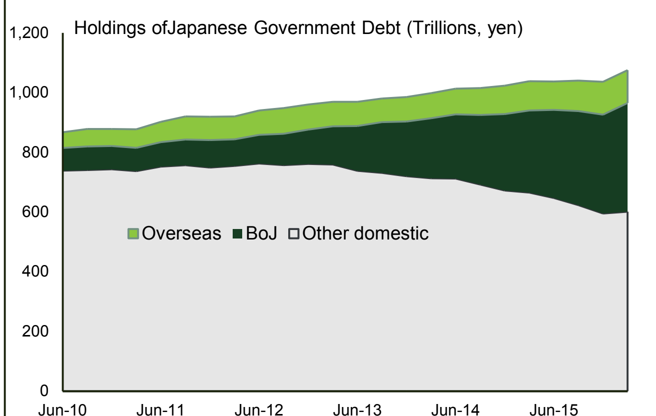
If the BoJ expands its QE program in concert with greater JGB issuance by Abe's government to fund a fiscal stimulus package, in practice it would be the same thing as a helicopter drop. Increased BoJ bond purchases would help to offset the increase in yields that would typically occur with higher debt burdens. And, the Japanese market is particularly well suited to this type of stimulus. There is a high degree of home bias in the Japanese government bond market, with only about 10% of outstanding JGBs held by overseas investors (see Chart 4). This home bias for JGBs by Japanese investors offers some insulation to volatility from investor sentiment shifts. Furthermore, there are few concerns about negative "crowding out" implications of this sort of coordinated stimulus, as complete accommodation by the BoJ would work to relieve any upward pressure in borrowing costs for all sectors of the economy. Lastly, increased JGB purchases by the central bank would have the added bonus of being preferred by Japan's financial sector relative to moving deeper into negative rate territory – the deposit rate already has a floor at -10 basis points.

While the BoJ can play a role in accommodating a needed fiscal stimulus, and Japan is well placed to use this strategy, this does not in and of itself trigger inflation. The scope of the fiscal stimulus, and how it is ultimately spent by governments will determine its success.

Planned fiscal stimulus falls short

Recently, Abe has announced another round of fiscal stimulus that is sizeable, but not as large as the package in early 2013. The announced package is worth ¥28 trillion over several years, with fiscal measures amounting to ¥13.5 trillion. Of the fiscal measures, ¥6 trillion is for infrastructure (government loans) and about ¥7.5 trillion in new, direct spending over the next two years, with ¥4.6 trillion expected to be spent in the current fiscal year. There is one measure that echoes a pure "helicopter drop" – in the form of cash sent out (equivalent to $147 USD each) to 22 million low-income individuals. The government also plans to bring more workers into a public pension system by easing admission criteria, and offer more college scholarships. The plan also promises more child care facilities and money to help employers provide longer maternity leave.

CHART 4: JAPANESE GOVERNMENT BONDS LARGELY DOMESTICALLY HELD



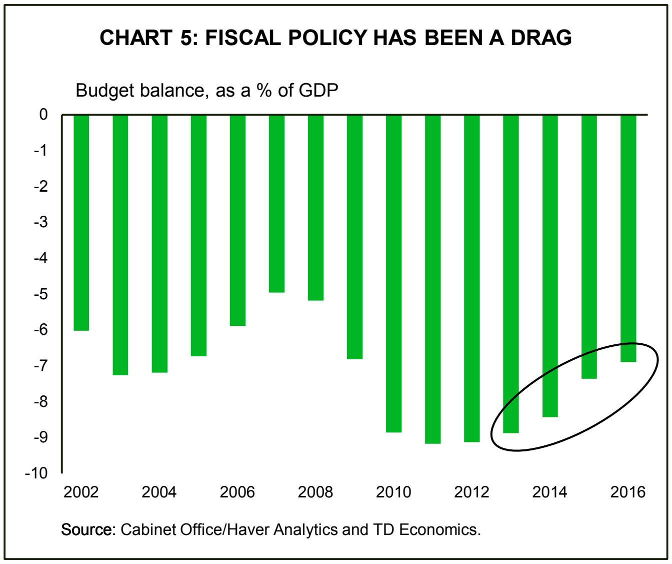
Source: Bloomberg/Bank of Japan

The plan is expected to have a positive impact on our growth outlook for Japan. We estimate that the package will work to support Japanese GDP growth by adding about 0.2 percentage points in calendar 2016 and 2017. This is pretty good for an economy with annual trend growth between 0.3 and 0.5%. However, the boost to inflation that would normally be anticipated from fiscal stimulus is likely to be offset by the dampening impact from a stronger yen over the past year. The somewhat underwhelming fillip to economic growth is likely why the news of the stimulus failed to influence market expectations, despite Japanese authorities attempt at framing the fiscal package as a game changer. On its own, the plan will do little to spur aggregate demand sufficiently to generate inflation and help bring down real interest rates below current estimates of the real neutral rate of about -1.50%.

Helicopter-launched third arrow

That begs the question of what size of stimulus would be enough to set off a virtuous cycle of stronger growth and higher inflation expectations. Prime Minister Abe came closer earlier in his term with a sizeable fiscal stimulus, which helped lift inflation temporarily, but it did not last long enough. Fiscal policy subsequently tightened and the inflationary spark was snuffed out (see Chart 5).

Japan needs a Draghi moment. In 2012, during the European sovereign debt crisis, ECB President Mario Draghi announced that the ECB was "ready to do whatever it takes" to preserve the euro and the euro zone. The ECB's open commitment helped ease a rise in peripheral bond yields. Markets, consumers and businesses need to believe the Bank of Japan and the government are going to pull out all the stops to ensure Japan will reach its 2% inflation target. Policy makers need a similar level of commitment to stimulate in the short-run, while undertaking the difficult structural reforms that will raise underlying growth in the long run, to help lift inflation expectations to the 2.0% target. As the



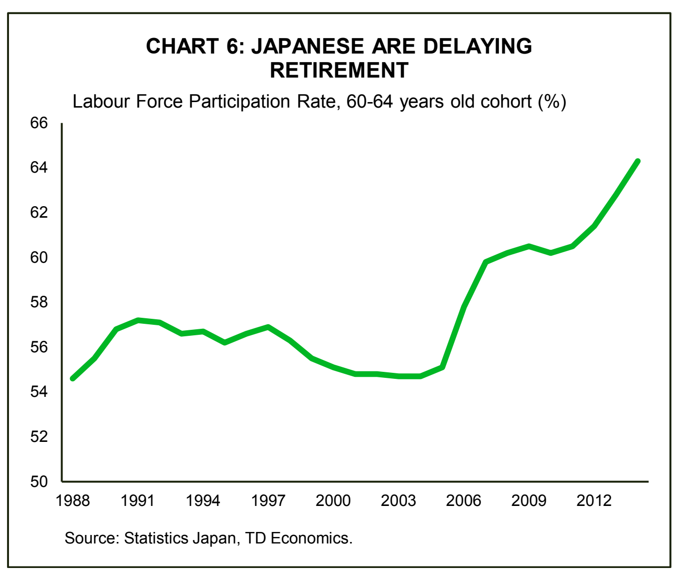
2013 experience proved, inflationary pressures can be stoked once, but to sustain them Japan needs deeper reforms to lift longer-term expectations.

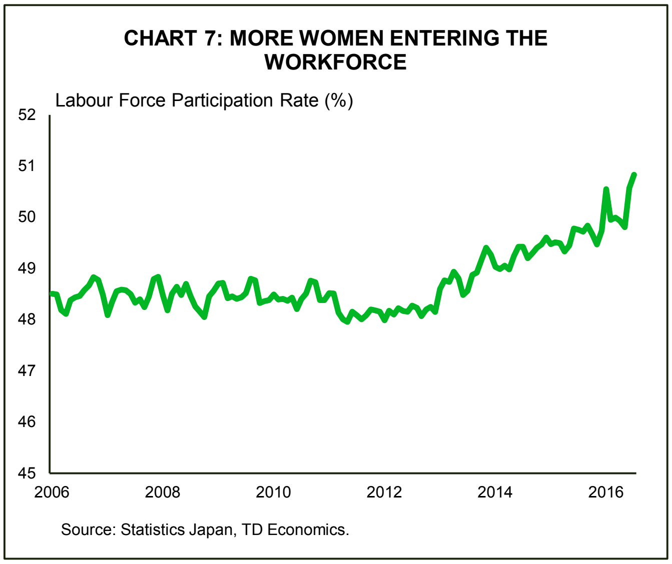
As an estimate of the size of commitment required, we approximate that the government would need to undertake fiscal stimulus equal to about 1% of GDP every year, for three to four years, in order for inflation to reach the BoJ's 2.0% target. Assuming that the fiscal multiplier is 1, this would likely work to stabilize the debt-to-GDP ratio of Japan through higher GDP growth rates; however estimates of Japan's fiscal multiplier vary. Ideally, fiscal stimulus would be focused on initiatives that will have the greatest positive economic impact. In Japan, with a deeply entrenched deflationary mindset, inflation is rather unresponsive to tightening labour markets and a closing output gap, therefore a decent sized fiscal stimulus (around ¥5 trillion per year) needs to be sustained for a few years to provide a big enough boost to inflation.

At the heart of the issue of maintaining the fiscal impulse over the longer term, is weak aggregate demand, with a declining population a big part of the picture. These types of structural challenges are best dealt with by government policy, and are intended to change the overall structure of the economy, while also acting to improve growth in the labour force and productivity. Prime Minister Abe has made some progress on reforms. In 2014 his reform package included corporate tax cuts, agricultural liberalization, and initiatives to overhaul regulation in the energy, environment and health care sectors and tax incentives to increase career opportunities for women. In 2015 he announced Abenomics 2.0, which centered on raising the birth rate and expanding social security. Many of his reforms call for significant adjustments in societal norms, which will no doubt take time.

There is some evidence that these reforms may be starting to bear fruit. Despite an overall decline in the population, employment has grown in recent years due to an increase in the labour force participation rate, which was arguably helped by government policy. Japan's government has raised the retirement age from 60 to 62, and plans to lift it to 65 by 2025. It is clear Japanese workers are increasingly working longer (see Chart 6). The biggest gains in labour force participation have been in the 55-plus age cohorts. But, that isn't the only story behind Japan's increasing participation rates, women are increasingly behind this trend (see Chart 7). The employment-to-population ratio and the labour force participation rate for Japanese women have risen sharply since 2012. However, it remains 4 percentage points below its G7 peers, and 13 percentage points below Canada.

Improving the underutilization of its workforce would help lift Japan's labour supply growth. The latest fiscal package also promises increased spending on child care and nursing care for the elderly, which should help further lift women's entry into the paid labour force. Increased immigration would also help offset Japan's population decline, but it remains controversial. Japan has allowed in more temporary foreign workers since Abe came to power, but there has been little wholesale change. Instead Abe is focused on lifting the birth rate through more support for child care programs. Progress on increasing participation of women and older workers in the labour force along with further reforms on immigration would help increase growth in the labour force in the long-run. Labour market reforms that encourage wage increases more broadly among workers





would also be helpful to boost income and spending.

Other reforms could help boost productivity, which would also help long-term growth. Productivity growth is proving a puzzle for many advanced economies, but there are steps Japan could take to make progress, such as increasing openness to trade (signing the Trans Pacific Partnership was a step in the right direction) and reducing domestic regulatory barriers to increase foreign direct investment. Japan has the lowest inward FDI in the OECD. These are just a few examples of the many regulatory changes that could help boost Japan's productivity.

While these deeper reforms are needed, they will take time to make a convincing impact. In the shorter-term, a slightly larger and more sustained fiscal stimulus than is currently on the table, and is accommodated by central bank purchases – effectively helicopter money – could play a role to bridge the gap until the longer-term policies can have an impact.

The Bottom line

Japanese policymakers are certainly moving in the right direction to lift Japan out of its multi-year deflationary trap. In principle, Abenomics has many of the right ideas to help Japan, but thus far, measures announced have not been enough to hit the bullseye. It will likely take bolder steps than what has been proposed thus far to break the cycle of false dawns for the Japanese economy.

Policymakers are facing an uphill battle with a stronger yen, but a larger and more sustained fiscal package accommodated by central bank purchases could lift aggregate demand in the short run and help raise inflation expectations. These shorter-term actions, "helicopter money" in all but name, would need to be accompanied by further structural reforms, such as greater openness to trade, corporate governance reforms and further labour market reforms to convince investors that Japan's underlying growth rate will be higher in the future. The pieces have started to fall in to place, but now is the time for bold action. Until then, our outlook for Japanese growth remains modest, and Japan is unlikely to reach its 2% inflation target under the current policy settings.

Endnotes

1. Arslanalp, S. and D. P. J. Botman. 2015. "Portfolio Rebalancing in Japan: Constraints and Implications for Quantitative Easing." International Monetary Fund Working Paper No. 15/186.
2. Ben Bernanke. "Deflation: Making Sure "It" Doesn't Happen Here" Before the National Economists Club, Washington, D.C. November 2002.