

Global macro matters

Japan: The long road back to inflation

Vanguard research | Joseph Davis, Ph.D. | April 2015

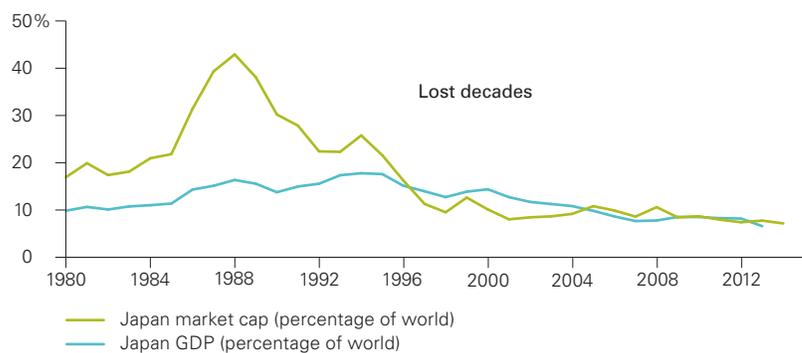
Japan has suffered two lost decades of weak growth and poor equity performance

Following a massive run-up in real estate values and stock prices during the late 1980s, Japanese asset prices collapsed dramatically in the early 1990s. The aftermath was two decades of economic stagnation marked by several recessions and, by 1999, broad-based consumer price deflation. Although policy-makers have tried a number of tools to revive the languishing economy and banking system, they have proved ineffective.

To date, the Japanese economy has failed to recover from the decline that began 25 years ago. This is in sharp contrast to China, which overtook Japan as the second-largest world economy in 2010 and the second-largest stock market in 2014.

Japan's global economic and equity market shares have fallen

Global share of nominal GDP and equity market cap since 1980



Sources: Vanguard, based on data from Thomson Reuters Datastream and International Monetary Fund.

Sustained inflation expectations and wage growth are keys to reflating Japan's economy

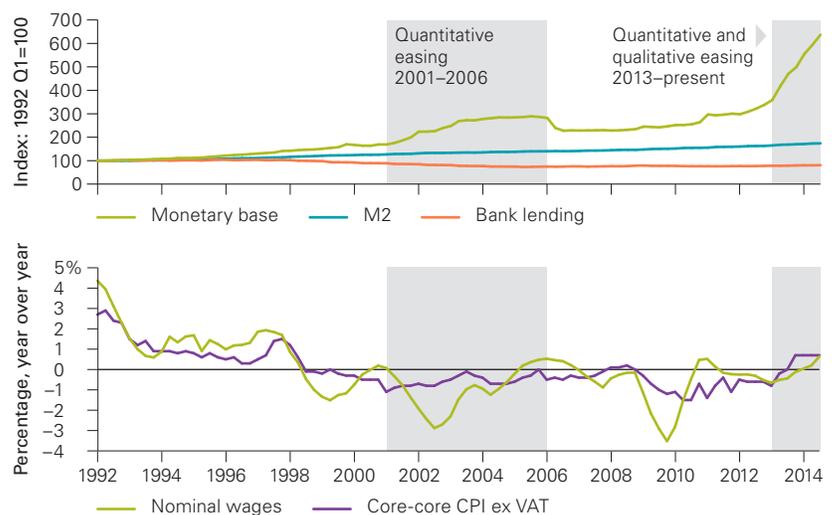
Quantitative easing in Japan during the 2000s failed to revive the economy. The additional liquidity led to a meaningful increase in neither the money supply nor bank lending, since the private sector was reluctant to borrow.

The latest round of monetary easing is more aggressive, and the deflationary mindset is waning. A significant weakening in the yen and the closing of the output gap initially stoked inflation, but the pressure eased recently as a result of falling oil prices.

A decomposition of inflation reveals that wage and inflation expectations are significant long-run drivers of future inflation. Although oil prices and the strength of the yen matter, they are more cyclical in nature. To anchor inflation expectations, the Bank of Japan remains firmly committed to monetary easing and is counting on higher wage growth to achieve its ambitious inflation target.

Aggressive monetary policy aims to stoke inflation

Monetary statistics, wage growth, and CPI



Notes: Core-core CPI is measured as inflation ex fresh food and energy (year-over-year percentage); effects of value-added tax (VAT) hike are also excluded. Wage growth is 12-month moving average of total cash-earnings growth.

Sources: Vanguard, based on data from CEIC.

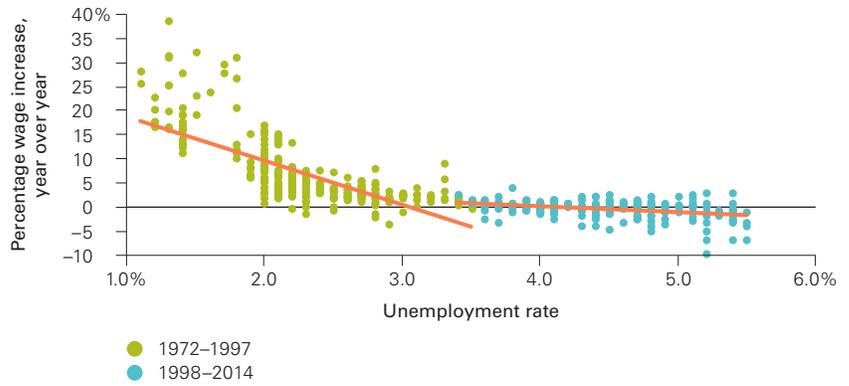
Wage growth has been sluggish, despite a tightening labor market

Japan's wage-growth puzzle is that even as the labor market is tight with the unemployment rate falling, wage growth has been modest. In particular, a large part of the recent wage hike is due to bonus payments, which are perceived to be transitory and unlikely to feed into expectations for long-term inflation.

Statistically, we found that compared to the overall trend for 1972–1997, Japanese wage growth in recent years has become much less sensitive to changes in the unemployment rate. One explanation for this is that the strength of wage growth has been constrained by structural headwinds in the labor market.

Japan's Phillips curve has flattened over the past 15 years

Phillips curve: 1972–2014



Note: Wages represented by nominal total cash earnings, including base wages, bonus payments, and overtime.

Sources: Vanguard, based on data from CEIC.

Structural factor behind weak wage growth is Japan's labor market duality

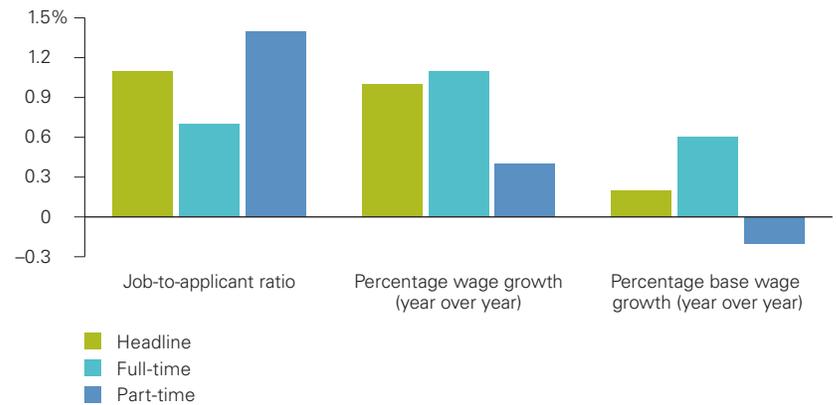
The rigidity in Japan's labor market, especially the "job for life" model, has encouraged a secular expansion of part-time workers since the mid-1990s, from 15% to 30% of total employment. This trend has accelerated since Abenomics was introduced in late 2012.

Part-time workers have much lower job security and receive less social insurance coverage. Most important, with part-time wages less than one-quarter those earned by full-time workers, this secular shift in the workforce composition is weighing down wage growth.

Japan may thus need to push forward labor market reforms to reduce this duality. Although the Bank of Japan may institute more easing, monetary policy alone could be overburdened in attempting to achieve sustainable growth and inflation.

Demand for low-paid, part-time workers is stronger than for full-time workers

Job-to-applicant ratio versus percentage wage growth



Notes: Data represent averages for 2014. Base wage growth equals total cash earnings ex bonus payments and overtime.

Sources: Vanguard, using data from Japan's Ministry of Internal Affairs and Communication; and CEIC.

Connect with Vanguard® > vanguard.com

Vanguard global economics team

Joseph Davis, Ph.D., Global Chief Economist

Europe

Peter Westaway, Ph.D., Chief Economist

Biola Babawale

Georgina Yarwood

Asia-Pacific

Qian Wang, Ph.D, Senior Economist

Alexis Gray

Americas

Roger A. Aliaga-Díaz, Ph.D., Principal and Senior Economist

Andrew J. Patterson, CFA

Vytautas Maciulis, CFA

Ravi Tolani

Zoe B. Odenwalder

Matthew C. Tufano



Vanguard®

Vanguard Research

P.O. Box 2600

Valley Forge, PA 19482-2600

© 2015 The Vanguard Group, Inc.

All rights reserved.

Vanguard Marketing Corporation, Distributor.

ISGMMJP 042015