

Japan Economics Weekly

Hurdles for wage increases

- **Wages are key for 2014** — Significant attention is currently being paid to whether or not wages – more accurately base salaries – are raised in the wage negotiations in spring 2014. The Abe Administration decided to broaden tax incentives for companies to increase compensation and also is repeatedly suggesting that companies should reflect improving profits to employee compensation. Indeed, some of representative companies indicated their intentions to hike base salaries next spring.
- **Small firms likely will hesitate to hike base salaries next spring** — According to the MoF's *Annual Corporate Statistics*, salaries paid by large firms was only 25.9% of total salaries in FY2011 while small- and medium-sized firms account for 74.2%. Business conditions at smaller nonmanufacturers, which are heavily dependent on household spending, will likely be hit very hard by the consumption tax hike. If smaller nonmanufacturers are concerned about the negative impact from the tax hike in the new fiscal year, we think they are unlikely to increase base salary
- **A rising share of part-time workers will continue to weigh on per-capita wage** — As the average fixed salary of part-time workers is about one third of that of regular workers, a rise in the share of part-time workers pushes down average per-capita wage. According to our estimates, year-on-year changes in measured per-capita fixed salary were pushed down as much as 0.5% points by the rising proportion of part-time workers in the third quarter. This trend may continue even from now.
- **Disappointment regarding wages might have implications for monetary policy** — Continued modest growth in wages would have implications for economic outlook and monetary policy. We expect that policymakers will decide on an additional easing action in the wake of likely disappointing wage data for April 2014 (to be published in late May) and the negative impact from the consumption tax hike.

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Hurdles for wage increases

Significant attention is currently being paid to whether or not wages – more accurately base salaries – are raised in the spring wage negotiations in 2014 (conducted mostly in February and March). The Abe Administration decided last month to broaden tax incentives for companies to increase compensation¹ and also is repeatedly suggested that companies should reflect improving corporate profits to compensation. Indeed, some of representative Japanese companies already indicated their intention to hike base salaries next spring, probably in order to show their will to cooperate with the Administration's economic policy. In our view, however, there remain important hurdles for wages to rise in a way that shows up clearly in the aggregate economic data. We expect a pickup in wages next year to be very modest and far from enough to offset the negative impact from the consumption tax hike (slated in April 2014).

Given the recent media coverage, some large companies appear likely to hike base salaries in the upcoming wage negotiation in next spring. However, large companies account for only a small proportion of Japan's corporate sector in terms of compensation. According to the MoF's *Annual Corporate Statistics*, which is a much broader survey than the *Quarterly Corporate Statistics*, salary paid by large firms (with capital of ¥1 billion and more) was ¥33.7 trillion in FY2011, only 25.9% of total salaries paid by the survey universe, with a share of large manufacturers only 11.9% and that of large nonmanufacturers 13.9% (see Figure 1). Meanwhile, small- and medium-sized firms account for 74.2% of total salaries, of which almost 80% is paid by nonmanufacturers. These numbers show that developments at smaller firms, especially nonmanufacturers, are much more important than those at large firms, especially manufacturers.

Figure 1. Total Salary by Size of Firm and by Industry in FY2011 (Yen Value: ¥bn, Share: %)

| 1) Yen value | | | | 2) Share | | | |
|--|----------------|---------------|------------------|--|----------------|---------------|------------------|
| | All industries | Manufacturers | Nonmanufacturers | | All industries | Manufacturers | Nonmanufacturers |
| Large firms (with capital of Y1 billion and more) | 33,663 | 15,529 | 18,134 | Large firms (with capital of Y1 billion and more) | 25.9% | 11.9% | 13.9% |
| Medium-size firms (with capital of Y100 million to less than Y1 billion) | 20,263 | 5,251 | 15,012 | Medium-size firms (with capital of Y100 million to less than Y1 billion) | 15.6% | 4.0% | 11.5% |
| Small firms (with capital of less than Y100 million) | 76,176 | 14,663 | 61,513 | Small firms (with capital of less than Y100 million) | 58.6% | 11.3% | 47.3% |
| Total | 130,102 | 35,444 | 94,658 | Total | 100.0% | 27.2% | 72.8% |

Source: Ministry of Finance, Citi Research

Some large companies already indicated the possibility of increasing base salaries next spring. For example, the chairman of Hitachi stated at the government meeting on October 17 that “raising base salary is one of our options.” However, even assuming all large companies increase base salaries by 2%, which is obviously an excessively optimistic assumption, the contribution to overall salary is just 0.5%

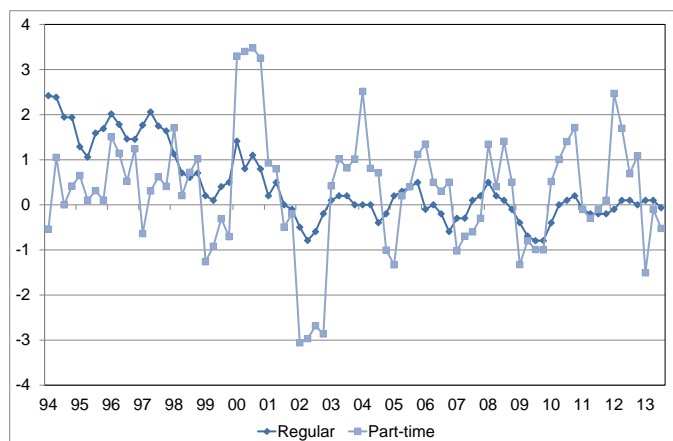
¹ Under the current framework that started in this fiscal year, if companies increase total compensation by 5% or more, they can deduct 10% of increased compensation from tax burdens. However, the threshold of 5% is too high and as a result, the administration decided to cut this threshold to 2% through FY2014 to provide more incentives to increase compensation.

points (2% times 25.9%). If small- and medium-sized firms do not increase base salaries, wages on a macro basis are unlikely to pick up in a meaningful manner.

We believe there are compelling reasons for small firms, especially smaller nonmanufacturers, to hesitate to increase base salaries next spring: the upcoming consumption tax hike from 5% currently to 8% in April 2014 is likely to have a significant negative impact on household spending by eroding real purchasing power of household nominal income. The 3%-point hike in the tax rate will push up Japan's CPI by 2%, while inflation is already approaching the 1% mark mostly thanks to higher energy prices. Business conditions at smaller nonmanufacturers, which are heavily dependent on household spending, will likely be hit very hard accordingly. If smaller nonmanufacturers are concerned about the negative impact from the consumption tax hike in the new fiscal year, as is already shown by some surveys², they are unlikely to increase base salaries (i.e., fixed costs).

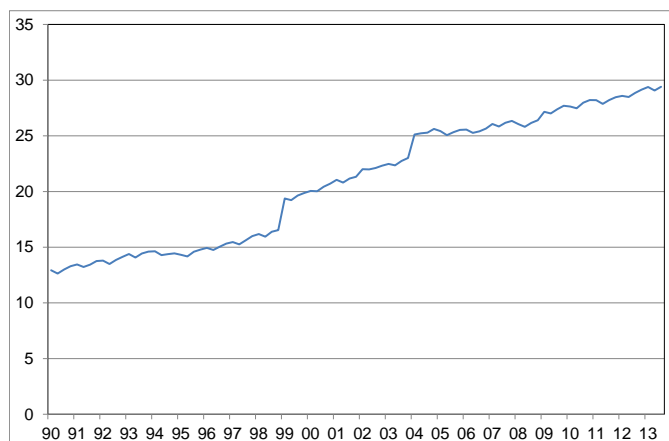
Meanwhile, while a bit of a technical factor, an increasing share of part-time workers as a percentage of total workers continues to push down measured per-capita wage (i.e. the weighted average of regular workers' wages and part-time workers' wages). As the average fixed salary of part-time workers is about one third of that of regular workers, a rise in the share of part-time workers pushes down average per-capita wage (see Figure 3). According to our estimates, year-on-year changes in measured per-capita fixed salary were pushed down as much as 0.5% points by the rising proportion of part-time workers in the third quarter of this year, while the fixed salaries of regular workers was virtually flat year-on-year (see Figure 2). Assuming a share of part-time workers continues to rise at the recent pace, fixed salaries for regular workers and part-time workers should rise meaningfully in order for measured wages to pick up.

Figure 2. Fixed Salary of Regular Workers and Part-time Workers (Yr-Chg, Percent)



Source: Ministry of Labour, Health and Welfare, Citi Research.

Figure 3. Share of Part-time Workers as % of Total workers (%)



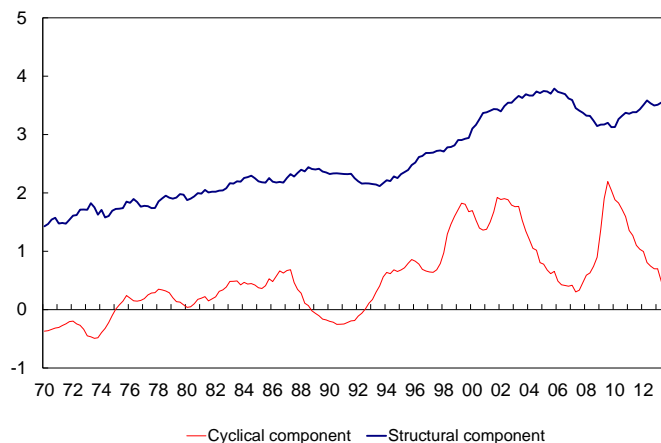
Source: Ministry of Labour, Health and Welfare, Citi Research.

As we have long been pointing out, Japan's labor market is steadily approaching an inflection point where upward pressure on wages eventually materializes. The cyclical unemployment rate, which is linked to the output gap of the economy and a determinant factor for wage, has been declining constructively over the past four years or so and if the recent pace of declines continues, this would go down to zero and fall into negative territory next year (see Figure 4). However, given the

² According to the survey conducted by Shoko Chukin Bank, 39.4% of small firms expect declines in demand driven by payback to frontloaded demand ahead of the tax hike while 22.3% answered "payback will be limited."

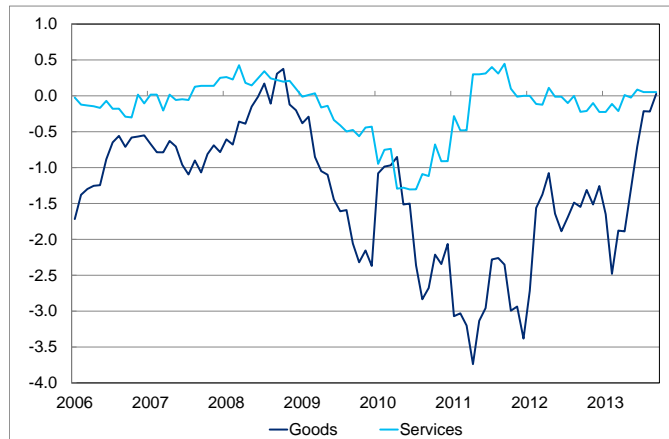
discussions above, any pickup in wage next year will likely be relatively modest even if some representative companies hike base salaries.

Figure 4. Breakdown of Unemployment Rate into Cyclical and Structural Components (%)



Source: Ministry of Internal Affairs and Communications, Citi Research.

Figure 5. Breakdown of CPI Excluding Food and Energy into Goods and Services (Yr-Yr-Chg, %)



Source: Ministry of Internal Affairs and Communications, Citi Research.

Given the significant attention being paid to wages, any disappointment on this front should impact financial markets and have important implications for the outlook for the economy and policies. The comprehensive data set for wages in April 2014, a first month of the new fiscal year and right after the spring wage negotiations, will be published in late May. If as we anticipate, fixed salaries increase only modestly, financial markets may receive the results negatively.

Continued modest growth in wages should have implications for the inflation outlook. Wages – or more accurately, the unit labor costs -- are one of the important determinant factors for service prices. In Japan, core service prices have been virtually flat in recent year while year-on-year declines in core good prices narrowed quite rapidly this year mostly thanks to the earlier yen depreciation (see Figure 5). Because a share of services is much higher than that for goods in the CPI basket excluding food and energy (66.5% and 33.5%, respectively), higher core service inflation is probably necessary for inflation excluding food and energy to rise clearly going forward. However, if the pickup in wages is modest next year as we anticipate, a clear rise in service inflation seems unlikely, especially given that the consumption tax hike will have a negative impact on service spending as well.

To the extent that wages have implications for an inflation outlook, it may also have an impact the BoJ's monetary policy. We expect that policymakers will decide on an additional easing action in the wake of likely disappointing wages data for April 2014 (to be published in late May) and the negative impact from the consumption tax hike. In our view, a concrete timing of an additional action will likely be June or July (in July, policymakers make an interim review of their semiannual economic outlook).

As for concrete policy measures, we expect the next action will be centered on increased purchases of risk assets, in particular ETFs. We saw significant unintended consequences in the JGB markets, namely significantly lower liquidity and surge in volatilities, this spring in the wake of the BoJ's decision to purchase a full spectrum of JGBs on an unprecedented scale. As a result, policymakers appear

to be cautious about increasing JGB purchases further on a large scale even if they should take an additional easing action in the future. More specifically, we assume that the BoJ will increase monthly JGB purchases by ¥1 trillion (annualized ¥12 trillion yen) and annual ETF purchases by ¥2-¥4 trillion, so from ¥1 trillion currently to ¥3-¥5 trillion. These actions will probably lead to renewed yen depreciation and higher equity prices.

Economic Indicators

Figure 6. Economic Indicators

| | | |
|----------------------------|--|--|
| Nov. 11 (Mon) 8:50 a.m. | Balance of Payments, Current Account (Sep) | Forecast: ¥771.9bn NSA; ¥205.0bn SA Previous: ¥161.5bn NSA; ¥351.8bn SA |
| | We expect the seasonally-adjusted current account surplus to decrease to ¥205.0bn in September from ¥351.8bn in August with a ¥771.9bn surplus before the adjustment. The customs-clearance data indicated that the trade gap reached a record high of ¥1.0913trn (seasonally adjusted) in September. Given this, we expect September trade deficit will also expand substantially from August in the BoP data. With the positive impact of a cheaper yen, we had expected the trade gap to decrease from its peak seen in the first quarter this year. However, the improvement now seems likely to remain slower than our previous assumption because of prolonged weakness in overseas economies as well as an erosion of non-price competitiveness in Japan's ICT sector. At the same time, a decline in the current account surplus will likely remain relatively small as we expect the income balance surplus to increase and the deficit in services to narrow. If our forecast is on the mark, the current account surplus would decrease to ¥3.6trn annualized in the third quarter, less than half of the second quarter (+¥8.9trn). | |
| Nov. 12 (Tue) 8:50 a.m. | Tertiary Industry Activity Index (Sep) | Forecast: 0.2% MoM; 1.5% YoY Previous: 0.7% MoM; 0.8% YoY |
| | The tertiary industry activity index likely climbed 0.2% MoM (+1.5% YoY) in September, for a second consecutive monthly rise. Based on already available retail sales and the CPI, retailers' activity index likely increased 0.4% MoM in the month, for a second consecutive monthly gain. With a 1.5% MoM rise in September industrial production, we also expect higher readings for some transport and wholesale trade sectors that are closely correlated with the manufacturing sector. If we are on the mark, the tertiary industry activity index would stand at 0.0% QoQ in the third quarter (likely dragged down by a 1.2% QoQ fall in retail trade). Stalling growth of consumer spending in the third quarter, among other factors, probably led to a pause in the sustained upward trend since the fourth quarter of 2012, in our view. | |
| Nov. 12 (Tue) 8:50 a.m. | Money Stock, M2 (Oct) | Forecast: 3.8% YoY Previous: 3.8% YoY |
| | Money Stock, M3 | Forecast: 3.1% YoY Previous: 3.1% YoY |
| | We expect M2 to increase 3.8% YoY in October (+3.8% YoY in September) along with a 3.1% YoY gain in M3 (+3.1% YoY). According to already available monetary base data, banknotes/coins in circulation increased 3.3% YoY in October, at the same rate as in September. We expect similar growth (+3.1%) for currency in circulation in the money stock data for September. Credit creation by the banking sector is unlikely to pick up notably, in our view. According to the Bank of Japan's Senior Loan Officer Opinion Survey on Bank Lending Practices at Large Japanese Banks (October), demand of funds increased mainly among consumers and smaller firms in the last three months while it decreased at local public entities. For reference, domestic banks' loan-deposit rate stood at 68.8% in September (data from the BoJ's Principal Figures of Financial Institutions with our seasonal adjustment), stabilizing but not turning around yet. | |
| Nov. 13 (Wed) 8:50 a.m. | Machinery Orders, Private Excl. Ships and Elec. Power Sep) | Forecast: -0.8% MoM; 14.5% YoY Previous: 5.4% MoM; 10.3% YoY |
| | Private machinery orders excluding ships and power plants (private core orders) likely decreased 0.8% MoM in September (+14.5% YoY), for the first drop in two months. Despite an expected fall, partly as a reaction to the strong gain in August (+5.4% MoM), the underlying trend has likely remained upward after having hit bottom in the first quarter, in our view. If we are on the mark, private core orders would increase 4.7% QoQ in 3Q after a 6.8% QoQ rise in 2Q and a 0.0% QoQ dip in 1Q, well above a 5.3% QoQ decrease projected by the Cabinet Office. | |
| Nov. 13 (Wed) 8:50 a.m. | Preliminary Corporate Goods Price Index, Domestic (Oct) | Forecast: -0.1% MoM; 2.6% YoY Previous: 0.3% MoM; 2.3% YoY |
| | We expect October domestic corporate goods price index to decline 0.1% MoM (+2.6% YoY). However, this probably reflected the end of a summer surcharge for electricity (we expect a 2.6% MoM fall in electricity, city gas and water, which pushes down the overall index by 0.2ppt). The moderate upward trend of the index likely remained intact, in our view. Prices of iron and steel and nonferrous metals likely increased gradually in October. We think an improving domestic supply/demand balance as well as yen depreciation against the US dollar will likely help support a continued rise in domestic corporate goods prices. That said, the growth is expected to remain moderate, reflecting still slow global economic recovery and weak global commodity markets. | |
| Nov. 14 (Thu) 8:50 a.m. | First Preliminary GDP (2Q) | Forecast: 0.4% SA QoQ; 1.7% SAAR Previous: 0.9% SA QoQ; 3.8% SAAR |
| | We estimate that real GDP increased 0.4% QoQ (1.7% QoQ annualized) in the third quarter, a notable slowdown from high, around-4% annualized growth in the first half of this year (see Figure 2). Furthermore, we believe quality of growth was not impressive with public demand and temporary factors (rush demand for housing) being the main drivers. First, despite enhanced price competitiveness thanks to yen depreciation against the US dollar, exports likely decreased in the third quarter for the first drop in three quarters. Weakness in overseas economies, especially in emerging nations, probably weighed heavily on Japan's exports, in our view. Second, business investment has failed to pick up meaningfully to date. Stagnant net exports are not only limiting economic growth directly but also dampening growth by way of discouraging capex at export-oriented manufacturers, in our view. Third, following sustained strong growth in the preceding three quarters, consumer spending likely remained unchanged in the third quarter on the back of stalling stock price gains and weaker real purchasing power of household income due to rising energy and other prices. | |

Source: Ministry of Finance, Ministry of Economy, Trade and Industry, Bank of Japan, Cabinet Office, Bloomberg, Citi Research.

Figure 7. Actual GDP and our forecast for Q3 (unless otherwise stated, QoQ %)

| | 2012 | | | 2013 | | |
|---------------------------------|--------------|--------------|--------------|--------------|--------------|----------------|
| | 2Q Actual | 3Q Actual | 4Q Actual | 1Q Actual | 2Q Actual | 3Q Forecast |
| Real GDP | -0.3 | -0.9 | 0.3 | 1.0 | 0.9 | 0.4 |
| SAAR | -1.2 | -3.5 | 1.1 | 4.1 | 3.8 | 1.7 |
| Domestic demand (contribution) | -0.1 | -0.2 | 0.3 | 0.6 | 0.7 | 0.8 |
| Net exports (contribution) | -0.2 | -0.7 | -0.1 | 0.4 | 0.2 | -0.4 |
| Private consumption | 0.1 | -0.4 | 0.5 | 0.8 | 0.7 | 0.0 |
| Residential investment | 2.1 | 1.6 | 3.6 | 1.9 | -0.3 | 3.2 |
| Business investment | -0.7 | -3.2 | -1.2 | 0.0 | 1.3 | 1.0 |
| Inventory change (contribution) | -0.3 | 0.1 | -0.2 | 0.0 | -0.2 | 0.2 |
| Government consumption | 0.1 | 0.4 | 0.6 | 0.0 | 0.7 | 0.3 |
| Public investment | 4.8 | 3.4 | 3.2 | 1.4 | 3.0 | 7.5 |
| Exports | -0.2 | -4.5 | -2.7 | 4.0 | 3.0 | -0.4 |
| Imports | 1.3 | 0.0 | -2.0 | 1.0 | 1.5 | 2.2 |
| GDP deflator (YoY) | -1.0 | -0.8 | -0.7 | -1.1 | -0.5 | -0.4 |
| Domestic demand deflator (YoY) | -0.7 | -1.0 | -0.8 | -0.8 | -0.3 | 0.5 |
| Nominal GDP | -0.9 | -0.9 | 0.1 | 0.6 | 0.9 | 0.5 |
| SAAR | -3.4 | -3.5 | 0.5 | 2.6 | 3.7 | 2.0 |

Source: Cabinet Office, Citi Research

Main Forecasts

Currency and interest rate forecasts

| | Current | Q4 13 Forecast | Q1 14 Forecast | Q2 14 Forecast | Q3 14 Forecast | Q4 14 Forecast |
|-------------------------|---------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Japan: Yen/US\$ | 98 | 99 | 102 | 104 | 105 | 105 |
| Call money | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 |
| Long-term benchmark JGB | 0.64 | 0.65 | 0.60 | 0.50 | 0.60 | 0.70 |

Source: [Global Economic Outlook and Strategy - October 2013](#), Citi Research. (October 23).

Macroeconomic and GDP data for FY2012-2014E (YoY %)

| | 2012 | 2013 E | 2014 E |
|--|---------|--------|--------|
| Real Gross Domestic Product | 1.2 % | 2.8 % | 0.7 % |
| Domestic Demand | 1.9 | 2.4 | -0.1 |
| •Private Domestic Final Sales | 1.3 | 2.4 | -0.3 |
| ••Private Consumption | 1.6 | 2.3 | -0.9 |
| ••Business Investment | -1.2 | 2.0 | 4.3 |
| ••Residential Investment | 5.3 | 6.5 | -9.0 |
| •Government Consumption | 2.1 | 1.4 | 0.7 |
| •Public Investment | 14.6 | 10.7 | -1.8 |
| •Inventories (Contribution) ^a | -0.1 | -0.2 | 0.1 |
| Net Exports (Contribution) ^a | -0.7 % | 0.4 % | 0.9 % |
| •Exports of Goods & Services | -1.2 | 5.5 | 5.6 |
| •Imports of Goods & Services | 3.9 | 2.9 | 0.3 |
| Nominal GDP | 0.3 | 2.5 | 1.9 |
| Consumer Prices ex. Fresh Food | -0.2 % | 0.6 % | 2.5 % |
| GDP Deflator | -0.9 | -0.3 | 1.2 |
| Current Balance (Yen in Trillions) | 4.4 | 7.5 | 11.0 |
| •Pct. of GDP | 0.9 % | 1.5 % | 2.2 % |
| Trade Balance (Yen in Trillions) | -6.9 | -7.7 | -5.3 |
| Corporate Profits (Fiscal Year) | 5.0 | 40.0 | 5.0 |
| General Govt. Balance (Fiscal Year) | -10.7 % | -9.8 % | -8.0 % |

^a Contribution to GDP growth in percentage points. GDP: Gross Domestic Product.

E: Citi Research forecasts as of October 23, 2013.

Source: Economic and Social Research Institute; Ministry of Finance; Ministry of Public Management, Home Affairs, Posts and Telecommunications; Bank of Japan; *Nihon Keizai Shimbun*; Citi Research.

Major economy GDP growth forecasts, CY2012-2014E (YoY %)

| | 2012 | 2013 E | 2014 E |
|-----------------------------|--------|--------|--------|
| United States | 2.8 % | 1.6 % | 2.6 % |
| Japan | 2.0 | 1.9 | 1.8 |
| Euro Area | -0.6 % | -0.3 % | 0.8 % |
| United Kingdom | 0.1 | 1.4 | 3.0 |
| Asia | 6.1 % | 6.2 % | 6.2 % |
| •People's Republic of China | 7.7 | 7.6 | 7.2 |

E: Citi Research estimates.

Source: [Global Economic Outlook and Strategy - October 2013](#), Citi Research (October 23).

Recent economic indicators (YoY % or units as indicated, ¥bn)

| | Jun | Jul | Aug | Sep |
|---|---------|---------|---------|----------|
| PRODUCTION | | | | |
| Industrial Production | -4.6 % | 1.8 % | -0.4 % | 5.4 % |
| Shipments | -5.1 | 1.4 | -1.3 | 4.7 |
| Inventories | -2.9 | -2.8 | -3.3 | -3.5 |
| Private Machinery Orders, Excl. Ships and Power | 4.9 | 6.5 | 10.3 | |
| Contracted Public Works Orders | 21.7 | 29.4 | 7.9 | 29.4 |
| CONSUMPTION | | | | |
| Retail Sales (METI) | 1.6 % | -0.3 % | 1.1 % | 3.1 % |
| All Household Consumption, Nominal | -0.1 | 1.0 | -0.5 | 5.2 |
| New Motor Vehicle Registrations | -10.8 | -8.0 | -1.1 | 17.0 |
| New Housing Starts | 15.3 | 12.4 | 8.8 | 19.4 |
| LABOR MARKET | | | | |
| Employment | 0.5 % | 0.5 % | 0.5 % | 0.8 % |
| Unemployment Rate (Level) | 3.9 | 3.8 | 4.1 | 4.0 |
| Job Offers/Seekers Ratio (Level) | 0.92 | 0.94 | 0.95 | 0.95 |
| New Job Offers | 3.8 | 13.0 | 4.3 | 9.2 |
| Cash Earnings (5 Workers or More) | 0.6 | -0.1 | -0.9 | 0.1 |
| PRICES | | | | |
| Nationwide Consumer Prices | 0.2 % | 0.7 % | 0.9 % | 1.1 % |
| •Excl. Fresh Food | 0.4 | 0.7 | 0.8 | 0.7 |
| Domestic Corporate Goods Prices | 1.2 | 2.2 | 2.3 | 2.3 |
| MONEY AND CREDIT | | | | |
| Monetary Base | 36.0 % | 38.0 % | 42.0 % | 46.1 % |
| M2 | 3.8 | 3.7 | 3.8 | 3.8 |
| M3 | 3.1 | 3.0 | 3.0 | 3.1 |
| L (Broadly-defined Liquidity) | 3.1 | 3.3 | 3.6 | 3.7 |
| Bank Lending | 1.9 | 2.0 | 2.0 | 2.0 |
| TRADE, CAPITAL FLOWS, AND CURRENCIES | | | | |
| Trade Balance, Customs Clearance Basis, SA | ¥-663.2 | ¥-911.1 | ¥-820.8 | ¥-1091.3 |
| Export Value Growth (Yen Basis) | 7.4 | 12.2 | 14.7 | 11.5 |
| •Volume | -7.3 | 1.8 | 1.9 | -1.9 |
| Import Value Growth (Yen Basis) | 11.8 | 19.6 | 16.0 | 16.5 |
| •Volume | -5.3 | 2.4 | -1.4 | -2.2 |
| Current Account, (SA, Billion yen) | 646.2 | 333.7 | 351.8 | |
| Yen/US Dollar Spot Rate | ¥98.87 | ¥98.06 | ¥98.33 | ¥98.05 |

Source: Bank of Japan, government and industry association statistics, Citi Research.

Net buying/selling of Japanese stocks on three main exchanges by all 58 incorporated securities firms (¥bn)

| | Individual | | | Corporate | | Investment | Securities | |
|-------------|------------|--------|---------|-----------|--------------|------------|------------|--------|
| | Cash | Margin | Total | Financial | Nonfinancial | Trusts | Foreign | Firms |
| June | -349.8 | -97.8 | -447.6 | -112.5 | 176.6 | 157.3 | 670.8 | -442.3 |
| July | -1104.6 | 210.1 | -894.4 | -270.7 | 57.2 | 79.2 | 942.1 | 136.0 |
| August | -15.8 | 189.1 | 173.3 | 23.1 | 199.2 | 121.7 | -119.4 | -375.5 |
| September | -1085.3 | -48.4 | -1133.7 | -126.1 | -87.4 | 62.2 | 806.4 | 519.0 |
| 09/30~10/04 | 23.1 | 154.2 | 177.3 | -94.4 | 30.5 | 19.4 | -11.1 | -163.7 |
| 10/07~10/11 | -135.5 | -14.0 | -149.5 | 49.0 | 19.5 | 101.1 | 235.9 | -260.4 |
| 10/15~10/18 | -350.3 | 32.2 | -318.1 | -20.8 | 40.0 | -2.4 | 266.6 | 73.4 |
| 10/21~10/25 | -67.7 | 190.7 | 122.9 | -107.9 | 15.1 | -15.9 | -24.2 | 20.8 |

Note: Data based on net buying by 58 major securities firms with seats on the exchanges.

Source: Tokyo Stock Exchange, Citi Research.

Appendix A-1

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The research analyst(s) primarily responsible for the preparation and content of this research report are named in bold text in the author block at the front of the product except for those sections where an analyst's name appears in bold alongside content which is attributable to that analyst. Each of these analyst(s) certify, with respect to the section(s) of the report for which they are responsible, that the views expressed therein accurately reflect their personal views about each issuer and security referenced and were prepared in an independent manner, including with respect to Citigroup Global Markets Inc and its affiliates. No part of the research analyst's compensation was, is, or will be, directly or indirectly, related to the specific recommendation(s) or view(s) expressed by that research analyst in this report.

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