

# Japan Economics Weekly

**Research Analysts**

Hikomichi Shirakawa  
 + 81 3 4550 7117  
[hiromichi.shirakawa@credit-suisse.com](mailto:hiromichi.shirakawa@credit-suisse.com)

Takashi Shiono  
 +81 3 4550 7189  
[takashi.shiono@credit-suisse.com](mailto:takashi.shiono@credit-suisse.com)

## Focus of the week.....2

### Official population projections revised upwards

The National Institute of Population and Social Security Research (IPSS) has published new population projections reflecting the 2010 Population Census of Japan results and other recent demographic data. Future population estimates have been revised slightly upwards to reflect a recent recovery in the birth rate. The IPSS now expects Japan's population to contract at an average annual pace of 0.73% between 2010 and 2055 (down from its previous forecast of -0.80% p.a.), with the percentage of the population aged 65+ now estimated at 39% as of 2055 (down from 41%). These very small revisions had already been factored into our own economic model, and therefore leave our projections substantially unchanged. While Japan may have now have a slightly higher population beyond FY2025 than had previously been anticipated, this will have no bearing on the government's goal of moving the primary balance out of deficit by FY2020.

## Policy update .....5

**Local governments' FY12 fiscal plans included about ¥2.4trn for reconstruction projects for the earthquake and disaster prevention projects**

## Business cycle update .....7

**Production rebounded from Thai floods-affected prior month, but the increase was possibly overestimated**

## Money and credit update ..... 14

**Growth in monetary base winds down**

## Major Economic Data

## Japan Economic Forecasts

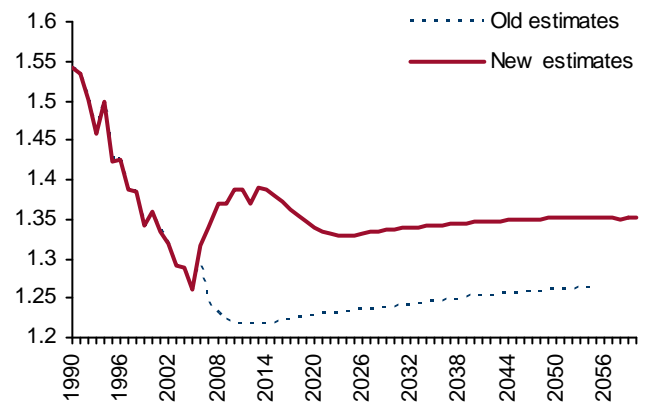
## Focus of the week

### Official population projections revised upwards

- The National Institute of Population and Social Security Research (IPSS) has published new population projections reflecting the 2010 Population Census of Japan results and other recent demographic data.
- Future population estimates have been revised slightly upwards to reflect a recent recovery in the birth rate.
- The IPSS now expects Japan's population to contract at an average annual pace of 0.73% between 2010 and 2055 (down from its previous forecast of -0.80% p.a.), with the percentage of the population aged 65+ now estimated at 39% as of 2055 (down from 41%).
- These very small revisions had already been factored into our own economic model, and therefore leave our projections substantially unchanged.
- While Japan may now have a slightly higher population beyond FY2025 than had previously been anticipated, this will have no bearing on the government's goal of moving the primary balance out of deficit by FY2020.

The National Institute of Population and Social Security Research (IPSS) has published new population projections reflecting the 2010 *Population Census of Japan* results and other recent demographic data. Previous estimates published five years ago had assumed a total fertility rate of around 1.24, but this has risen to around 1.35 in line with a recent recovery in the overall birth rate, as a result of which future population levels are now projected to be somewhat higher than before (Exhibit 1).

**Exhibit 1: Total fertility rate**



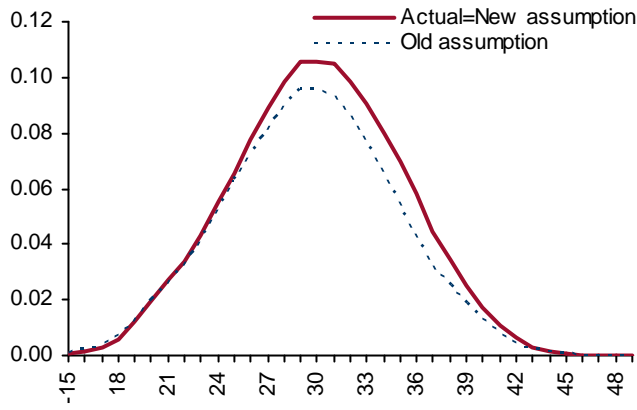
Source: MHLW, IPSS, Credit Suisse

### Birth rate assumptions

**Upward revision reflects later (30+) onset of motherhood**

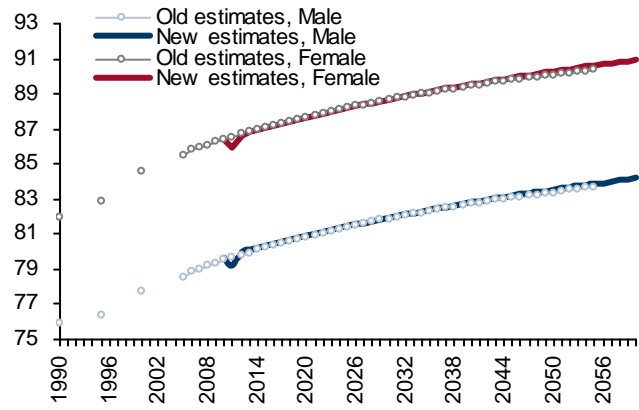
As should be evident from Exhibit 2, the upward revision of the overall fertility rate is primarily due to a higher-than-before birth rate for the 30–39 age group as of 2010. This cohort had previously been responsible for the fertility rate plunging from 1.36 in 2000 to 1.26 as of 2005, but whereas the 2006 IPSS projections had assumed that women who had not given birth during their 20s would generally remain childless, there has instead been a tendency for these women to bear their first child somewhat later in life. The latest projections do however assume that the birth rate will have peaked for this generation around age 30–34. Survival rates for each age group have been revised very slightly upwards, as a result of which the average life span over the 2010–2055 period has risen from 81.9 to 82.0 for men and from 88.7 to 88.8 for women (Exhibit 3).

**Exhibit 2: Birth rate by age of mother**



Source: MHLW, IPSS, Credit Suisse

**Exhibit 3: Survival rate by age**



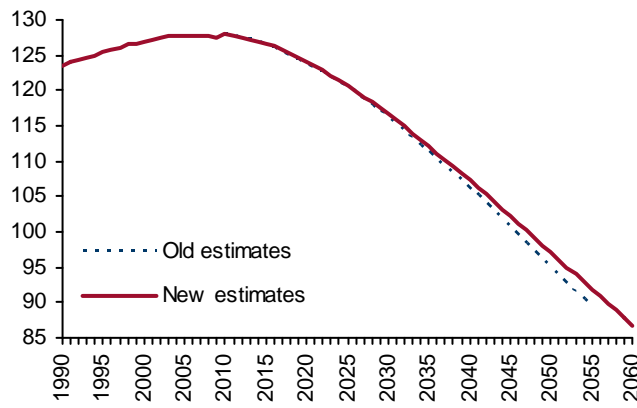
Source: MHLW, Credit Suisse

**New estimations**

**Population forecast to shrink at average pace of 0.7% p.a. over 2010–2055 (previous: -0.8% p.a.)**

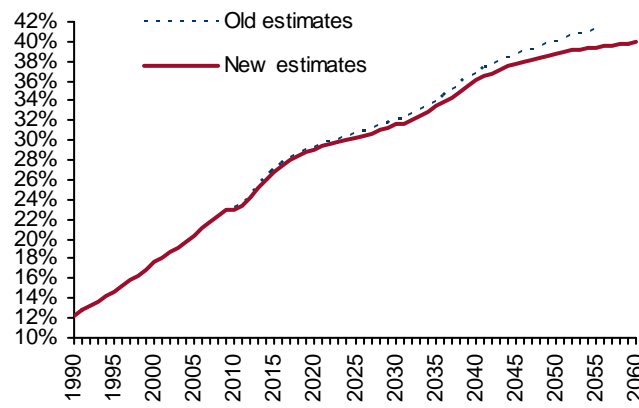
As shown in Exhibit 4, future population estimates have been revised upwards to reflect these changes in underlying assumptions. The total population as of 2055 had previously been estimated at 89.35 million, but this has been hiked to 91.93 million due to the expectation of a slower pace of contraction beyond 2025 (when women born in or after 2010 will start to reach childbearing age). The IPSS now expects Japan's population to contract at an average annual pace of 0.73% between 2010 and 2055, or slightly slower than its previous forecast of -0.80% p.a. The percentage of the population aged 65 or over—of particular importance when considering the outlook for social security spending—is now projected to reach 39% in 2055, down from 41% in the previous projections.

**Exhibit 4: Population forecasts by scenario (million)**



Source: MIC, MHLW, IPSS, Credit Suisse

**Exhibit 5: Share of aged above 65 by scenario**



Source: MIC, MHLW, IPSS, Credit Suisse

**Implications for our own long-term projections**

**Revised estimates have negligible impact on our forecasts**

In [Japan Economic Analysis No. 27](#) we presented our own population projections based on the assumption that the IPSS would upwardly revise its future population estimates to reflect the recent recovery in the overall birth rate. Our own forecasts were only slightly more optimistic than the updated IPSS estimates, pointing to 0.70% p.a. population shrinkage for 2010–2055 and 39% of the population aged 65+ as of 2055. Our medium- to long-term forecasts derived from our *Credit Suisse Japanese Economic and Fiscal Model* (CS-JEFM) are largely unaffected by the latest revisions, in as much as they will only start to have a significant impact on population levels from around 2025. For example, whereas

the simulation results presented in [Japan Economic Analysis No. 29](#) for our "baseline scenario" of largely unchanged economic conditions showed the current account balance dropping into deficit (-0.053% of GDP) in FY2014, updated projections based on the new IPSS population forecasts point to an only slightly larger deficit (-0.085% of GDP).

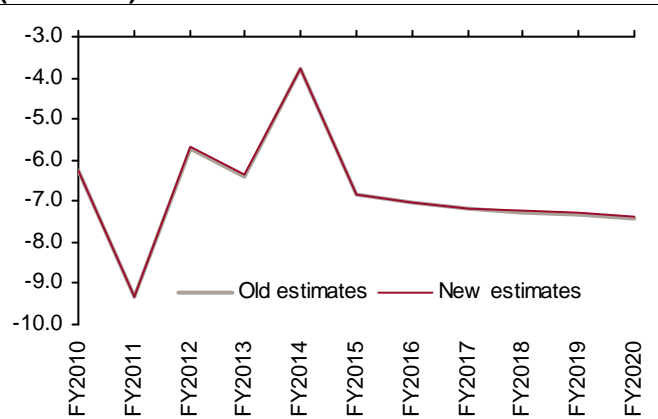
### Implications for Japan's fiscal position

**Higher population projections beyond FY2025 virtually irrelevant in terms of government's target of primary balance equilibrium by FY2020**

A number of recent media reports have suggested that the government may be viewing the latest IPSS projections as an indication that future social security outlays could be somewhat lower than previously anticipated. However, analysis based on our CS-JEFM model indicates that future spending levels are likely to be largely unaffected.

As shown in Exhibit 6, whereas simulation analysis based on the previous IPSS population estimates had shown the ratio of the primary balance to GDP falling from -6.86% as of FY2015 to -7.42% in FY2020, the updated estimates point to an almost identical deterioration from -6.85% to -7.36%. This reflects the fact that population estimates are very similar through 2025, with differences in the assumed total fertility rate only starting to kick in beyond that point. The

**Exhibit 6: Primary balance of central government (% of GDP)**



Source: BoJ, Cabinet Office, METI, MIC, MHLW, IPSS, the BLOOMBERG PROFESSIONAL™ service, Credit Suisse

government has set itself the task of moving the primary balance back into equilibrium by FY2020, and should not assume that this fiscal rebuilding target will be any easier to achieve simply because the overall birth rate has partially reversed previous declines. Indeed, our analysis indicates that the consumption tax rate required to wipe out the primary deficit has fallen just 0.1pp, from 20.0% to 19.9%, as a result of the latest IPSS revisions, implying that current plans to merely double the consumption tax from 5% to 10% are well short of what is needed to put Japan back on a sounder fiscal footing.

## Policy update

- **Local fiscal plans for FY12 show that annual expenditures and revenues will each fall 0.8% from the previous fiscal year to ¥81,864.7bn. ¥1,778.8bn for reconstruction and recovery projects following the Great East Japan Earthquake and ¥632.9bn in disaster prevention projects will be included in the FY12 plan as a separate account.**
- **The government plans to systematically reduce the number of government employees to reach the target specified in the DPJ manifesto of a 20% cut in national government employee spending.**
- **Tepco's proposed corporate rate hike is expected to be lower than the 17% initially announced.**

### Political situation and fiscal policy

On 31 January, the Cabinet finalized the FY12 local fiscal plans that serve as the guidelines for local governments' fiscal management, and submitted them to the Diet. Annual expenditures and revenues will each fall 0.8% from the previous fiscal year to ¥81,864.7bn, marking the first decline in two years. In a separate account from these usual accounts, the FY12 plan included ¥1,778.8bn for reconstruction and recovery projects following the Great East Japan Earthquake and ¥632.9bn in disaster prevention projects (*Nikkei*).

At its first meeting, held on 31 January, the government's administrative reform task force decided on a policy to systematically reduce the number of government employees to cut national government employee spending by 20%. This was the target specified in the DPJ's manifesto during the 2009 Lower House elections. New employee hiring will be cut in half and the central government's branch offices will be moved to local government entities. The government is reducing the number of government employees because the approximately 8% salary cut that the DPJ, LDP and New Komeito are currently discussing would not be enough to reach the manifesto's 20% target (*Nikkei*).

Prime Minister Yoshihiko Noda stated that the government would not release funding estimates for the new pension system that is the basis for the guaranteed minimum pension proposed by the DPJ. Noda stated that "We had clearly planned to include it as part [of the social security and tax reforms premised on a consumption tax hike], but we want to discuss the framework for pension reform while presenting accurate estimates [of the necessary funding] that reflect new population data." Noda also stressed that "A transition period would be required when adopting a new pension system, so demand for additional funding would not increase dramatically by 2015. I do not think that this is an obstacle to the current discussion of social security and tax reforms" (*Nikkei*).

### Fiscal monitor No.3: When will the cost of JGB debt servicing exceed national tax revenues? (published on 27 January 2012)

As the interest in Japan's fiscal sustainability among market participants has heightened, we have launched this product to analyze Japan's public debt financing from a variety of angles. This issue is the third of the series and examines future paths for JGB debt servicing and national tax revenues. The first and second issues looked at recent developments in the current account balance, a critical variable for long-term JGB yields over the medium term.

In *Japan Economic Analysis No. 29* (published on 28 December 2011) we presented a simulation analysis in which we found that an extrapolation from current economic

conditions (the baseline scenario) would see Japan's current balance run a small deficit by FY2014 and 10-year JGB yields rise to 1.7% by FY2015.

However, such an analysis focuses solely on the process by which the long-term interest rate is determined by purely macroeconomic factors, and ignores the potential for markets to react to symbolic events.

In this report, we explore this possibility by considering when the cost of JGB debt servicing could exceed revenues from national taxes (including stamp duties).

Under our baseline scenario that assumes a continuation of recent economic trends, our simulation points to the cost of JGB debt servicing exceeding national tax revenues in FY2024.

We also found that a doubling or tripling of the consumption tax rate to 10% or 15% could delay the aforementioned symbolic event significantly, although it would be insufficient to move Japan's primary balance into surplus.

Under our pessimistic scenario, whereby the Japanese economy faces global stagflation (weak growth and rising commodity prices) and a rapid contraction of domestic supply capacity mainly due to adverse demographics and a slowdown in technology innovation, the simulation estimated that the cost of JGB debt servicing could overtake national tax revenues in FY2019, and then could snowball rapidly as interest rates rise.

Click [here](#) to see the full report.

## Energy related

On 31 January, Tepco President Toshio Nishizawa stated that the company intended to revisit the proposed corporate rate hike to take effect in April with a view to lowering it in the fall. On 17 January, Tepco announced that it would raise rates on corporate customers, which it can do without government approval, by an average of 17% in April (*Asahi Shimbun*).

On 31 January, Environment Minister Goshi Hosono held a press conference to discuss the legislation requiring that nuclear reactors that have operated for more than 40 years be decommissioned. Hosono, who also serves as minister of state for nuclear policy, asserted that "There is no possibility that reactors that have already operated for more than 40 years will be allowed to resume operations." This means that two 42 year-old reactors will likely be shut down: the No.1 reactor at Japan Atomic Power Co.'s Tsuruga power plant and the No. 1 reactor at Kansai Electric Power Co.'s Mihama power plant. However, asked about Hosono's comment that there is "no possibility" reactors that have operated for over 40 years could be allowed to operate, Chief Cabinet Secretary Osamu Fujimura stated that "[decisions on] resumptions would be made on a case-by-case basis," suggesting that nuclear reactors would not necessarily be shut down once they have operated for 40 years (*Nikkei*).

## Business cycle update

### First annual trade deficit since 1980

- December industrial production rebounded +4.0% mom relative to November (-2.7% mom), which was negatively affected by the floods in Thailand
- The total number of employed persons fell 30,000 mom in December
- The Family Income and Expenditure Survey for November showed a 1.0% mom seasonally adjusted fall in real spending

#### First annual trade deficit since 1980

#### Foreign demand and external balance (Exhibits 7-12)

The December trade balance was a seasonally adjusted ¥567.6 billion deficit, deteriorating from November's ¥534.2 billion deficit. CY2011 recorded a ¥2.5 trillion yen trade deficit, which is about 0.5% to GDP, and the first annual deficit since 1980, which was during the second oil shock. The December real export index (BoJ) turned positive at +1.1% mom (Nov: -2.7%). That for the October-December quarter was -3.9% qoq, the first negative in two quarters. This suggests to us that real GDP exports will likely record negative growth too. However, real exports are expected to start growing again in the January-March 2012 period, since global leading indicators, such as US ISM and China PMI, have shown a steady recovery since October 2011.

#### Industrial production (Exhibits 13-16)

#### Production rebounded from Thai flood affected prior month, but the increase was possibly overestimated

December industrial production rebounded +4.0% mom relative to November (-2.7% mom), which was negatively affected by the floods in Thailand. METI's survey of production forecasts points to a gradual uptrend, with increases of 2.5% mom and 1.2% mom projected for January and February, respectively. These figures are basically consistent with recent improvements in the ISM new orders index for US manufacturers and the European PMI index. It should be noted, however, that industrial production data deviate from export volume. The BoJ's real export index was weak at +1.0% mom in December, despite the flood damage in November (-2.7%). This discrepancy was likely caused by differences in seasonal adjustments. The BoJ re-estimates the seasonal factor every month to match present movements more precisely, while METI uses the seasonal factors estimated at the end of last year to avoid backward revision every month. Following the BoJ, we estimated the seasonality factor for industrial production, and the resulting figure for December was +1.2% mom. This is more consistent with export volume, so the METI's results seem to be too strong.

#### Corporate sentiment (Exhibits 17-18)

#### December BoJ *Tankan* showed deterioration of corporate sentiment

The December 2011 *Tankan* results showed deterioration of corporate sentiment, with the headline business conditions DI for large manufacturing firms dropping from +2 to -4. We believe that weakening of domestic consumer demand for electric appliances, the recent softening of global demand, and continued strength of the exchange rate are the main backgrounds. The three-month ahead index slipped 1pt to -5, seemingly reflecting concerns over Europe. In our judgment, however, the index for March could turn out to be better given that leading indicators for exports have improved lately.

**Corporate capex (Exhibits 19-22)**

**Fourth straight contraction in corporate capex**

Investment in plant and equipment (excluding software) marked a third successive decline by falling 2.7% qoq on an all-industries basis (excluding the finance and insurance sectors). Capital spending by manufacturers rose 3.0% qoq after falling quite sharply in 2Q, which points to a resumption of investment that had previously been delayed by the Great East Japan Earthquake of March 11. However, this was more than offset by a fifth consecutive contraction in investment by non manufacturers (-5.8% qoq). November core machinery orders (orders from the private sector excluding shipping and electrical power) rose 14.8% mom, which was much stronger than the Bloomberg consensus forecast (+5.1%). The background was strong orders from abroad (+20.3% mom), while both the manufacturing sector (+4.7% mom) and non-manufacturing sector (+4.7% mom) also contributed. On an unadjusted basis, core machinery orders continued to rise, growing 12.5% yoy, maintaining a moderate growth path.

**Employment (Exhibits 23-27)**

**Employment has yet to show clear signs of recovery**

The total number of employed persons fell 30,000 mom in December, with the seasonally adjusted unemployment rate rising to 4.6% with a 10,000 mom increase in the labor force. Employment continued to fall for the manufacturing (-90,000 mom), wholesale & retail trade (-40,000 mom), and academic & professional service (-180,000 mom) sectors. Also, weak employment in the construction sector (-10,000 mom) indicates that the effect from rebuilding activity in the earthquake-devastated areas was limited.

**Consumer sentiment (Exhibits 28-30)**

**Consumer sentiment remains seesaw**

The December Economy Watchers Survey reported a 2.0pt month-on-month increase in the household activity-related DI. The rise in the retail-related DI (+5.0ppt) and service-related DI (+1.0pt) outweighed the effects of weaker drinking and eating-related (-0.3pt), and housing-related (-5.2pt) DIs. Meanwhile, the DI for future economic conditions was down -0.5pt month on month at 43.8. Consumer sentiment stayed almost flat, although it may deteriorate going forward. The December Consumer Confidence Survey reported a 0.8 point mom rise in the Consumer Confidence Index for households to 38.9. The indices for overall livelihood (up 0.3pts), income growth (up 1.8pts) and willingness to buy durable goods (up 1.2pts) improved, while income growth (down 0.4pts) fell slightly.

**Consumer spending (Exhibits 31-32)**

**Consumption likely to have fallen slightly in 4Q 2011**

The Family Income and Expenditure Survey for November showed a 1.0% mom seasonally adjusted fall in real spending, marking the second consecutive month of decline and leaving the average for October-December down 0.3% from 3Q. Average real retail sales for October-November were down 1.2% from 3Q. These data are broadly consistent with our own forecast of a slight decline in real GDP household consumption for 4Q 2011 (-0.3% qoq).

**Residential investment (Exhibits 33-34)**

**A strong increase after the post "housing eco points" pullback**

Housing starts fell 5.0% mom seasonally in December, falling back into negative growth (November: +5.5% mom). Housing starts totaled 782,820 units on a seasonally adjusted basis, reflecting decreases for all four categories: owned (-0.9% mom), rented (-0.8% mom), built for sale (-10.5% mom), and issued (-80.7% mom). Housing starts were down 9.8% qoq in October-December in a sharp reversal from the gains in July-September (+7.2%) reflecting last-minute demand before the termination of the "housing eco points" incentive scheme.

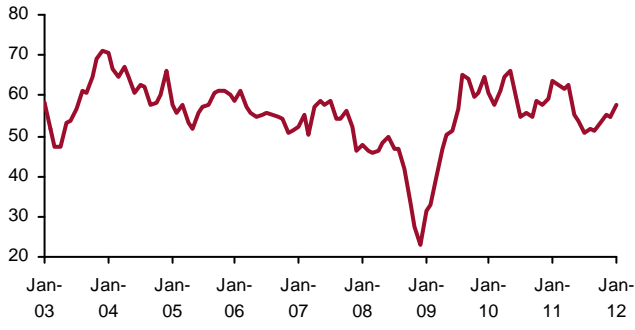
**Public demand (Exhibit 35)****Second supplementary budget consists primarily of financing support for SMEs and employment measures**

Real public works spending rose 9.3% in FY2009, for the first time in 15 years, thanks to the formulation of a large-scale supplemental budget and the decision to bring forward the public works budget as an additional stimulus measure. However, the DPJ government froze about ¥3tn worth of projects in the first supplementary budget, and the second supplementary budget for fiscal 2009 consists almost entirely of financing support for SMEs and employment measures. Public works spending amounts to only ¥500bn for regional infrastructure development. On a GDP basis, real public works spending has fallen quarter on quarter since autumn 2009.

**Wage and price indicators (Exhibits 36-38)****Upward pressure on wages and prices remains limited**

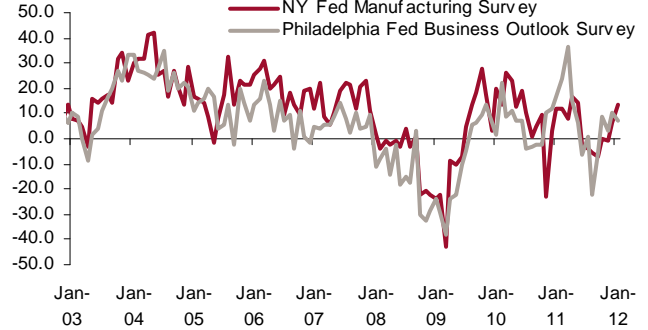
The December Labor Force Survey showed that total cash wages continued to register negative growth with a 0.2% mom decline (November: -0.2%) due to a 0.1% yoy decline in contractual earnings (-0.3%) and a slight 0.3% yoy decline in bonuses and other special earnings. The nationwide core CPI inflation rate was unchanged at -1.1% yoy in December. The contribution of energy prices to the year-on-year inflation rate rose 0.02pt from November as electricity prices increased by more than gasoline prices fell, but household durables (-0.03pt) and televisions (-0.04pt) fell in November. The December Corporate Goods Price Index rose 1.3% yoy, clearly slowing from the 1.6% increase in November. The decline in the price of raw materials such as iron and steel and chemicals was a contributing factor.

**Exhibit 7: US Manuf. ISM Survey New Order Index**



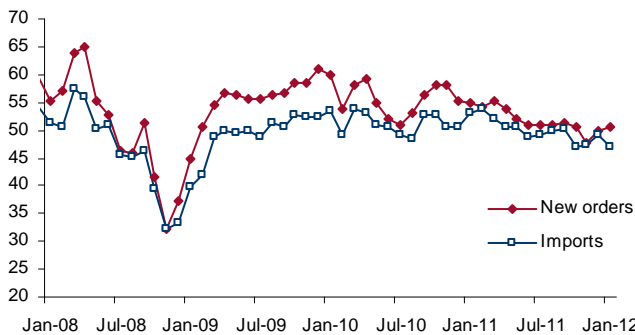
Source: the BLOOMBERG PROFESSIONAL™ service, Credit Suisse

**Exhibit 8: Manufacturing Survey New Order Index**



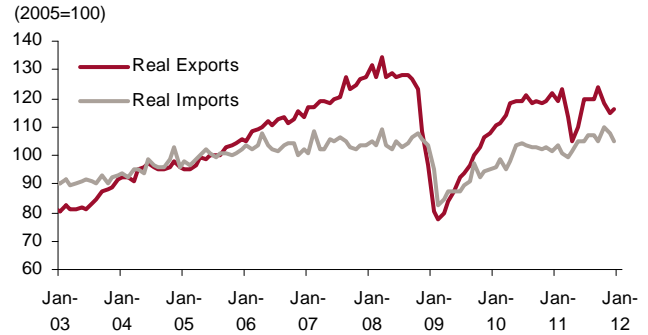
Source: NY Fed, Philadelphia Fed, Credit Suisse

**Exhibit 9: China PMI Manuf. Survey**



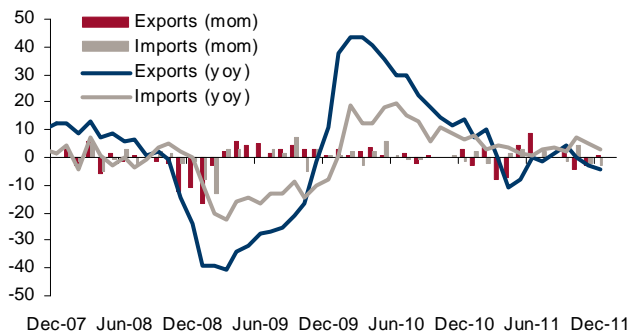
Source: Thomson Reuters DataStream, Credit Suisse

**Exhibit 10: Real Trade Indices**



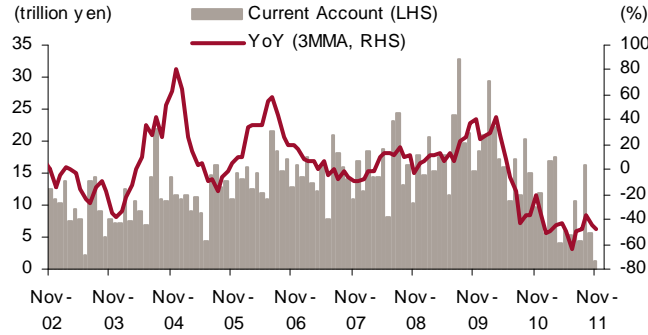
Source: BoJ, Credit Suisse

**Exhibit 11: Customs-Cleared Trade Indices**



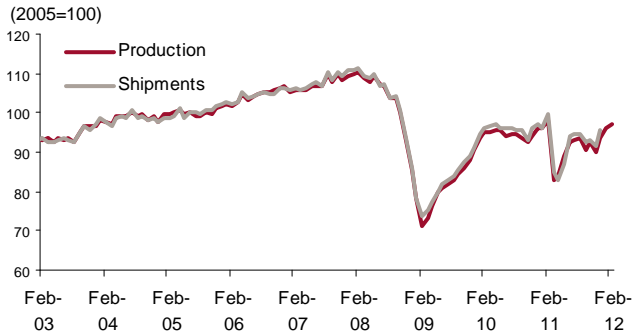
Source: MoF, Credit Suisse

**Exhibit 12: Current Account Balance**



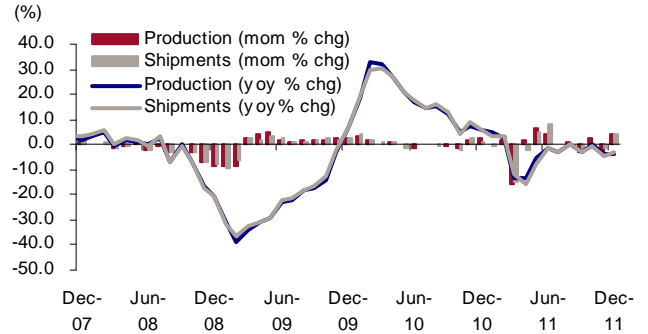
Source: BoJ, Credit Suisse

**Exhibit 13: Industrial Production and Shipments**



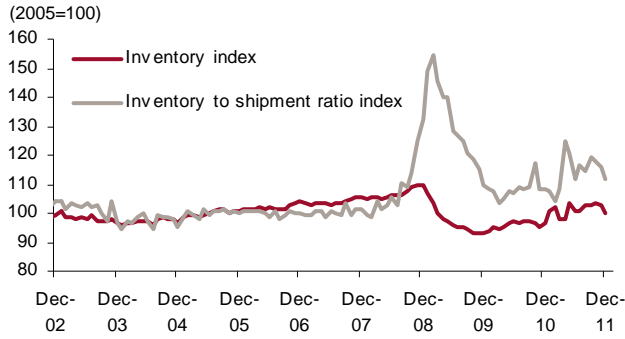
Note: Production data in December and January are METI's forecasts.  
Source: METI, Credit Suisse

**Exhibit 14: Industrial Production and Shipments (2)**



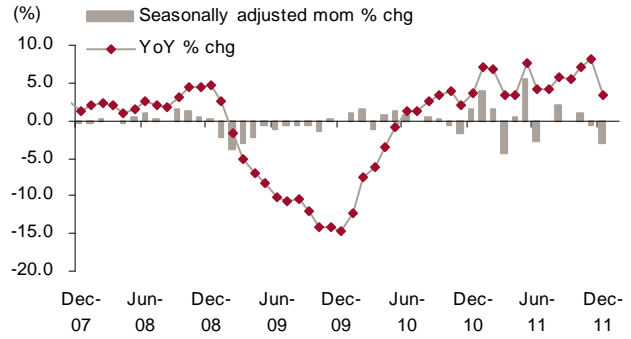
Source: METI, Credit Suisse

**Exhibit 15: Industrial Inventory Index and Inventory to Shipment Ratio**



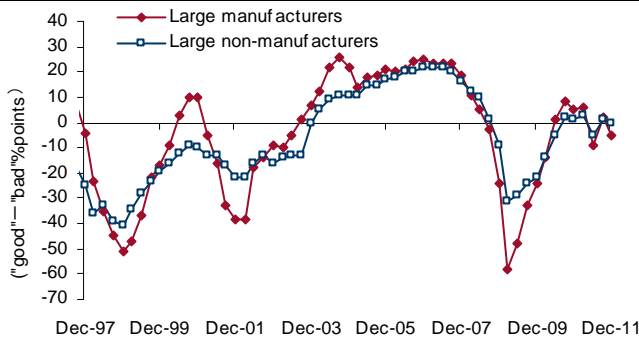
Source: METI, Credit Suisse

**Exhibit 16: Industrial Inventory Changes**



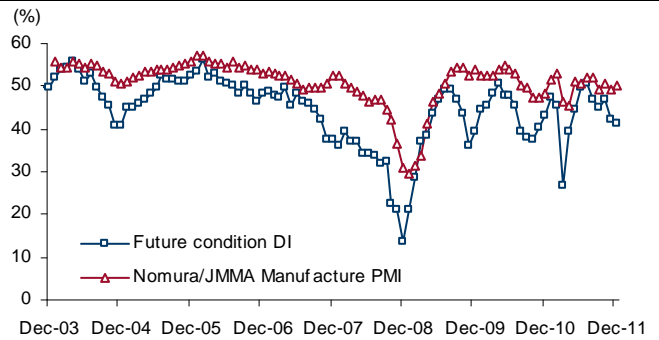
Source: METI, Credit Suisse

**Exhibit 17: BoJ *Tankan* Survey (Business Conditions DI)**



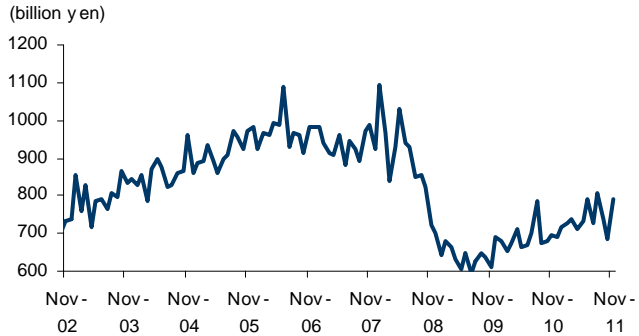
Source: BoJ, Credit Suisse

**Exhibit 18: Business Watchers’ Survey for Manufacturers and the Nomura PMI**



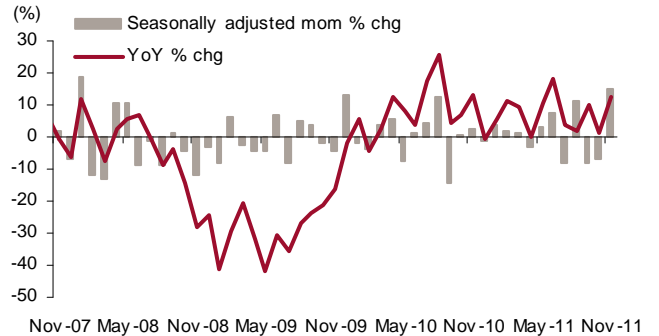
Source: Cabinet Office, the BLOOMBERG PROFESSIONAL™ service

**Exhibit 19: Core Machinery Orders (1)**



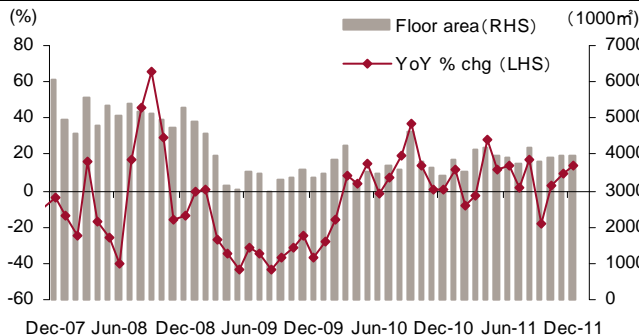
Source: Cabinet Office, Credit Suisse

**Exhibit 20: Core Machinery Orders (2)**



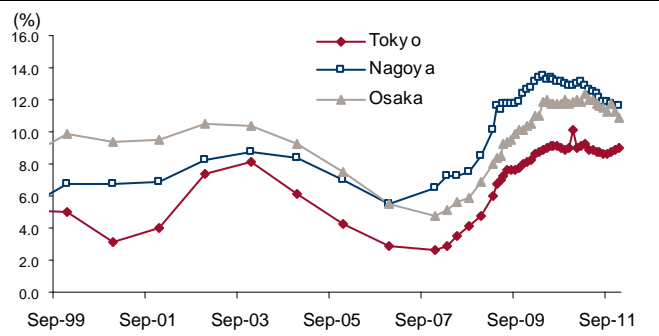
Source: Cabinet Office, Credit Suisse

**Exhibit 21: Floor Area of Construction Started (non-residential)**



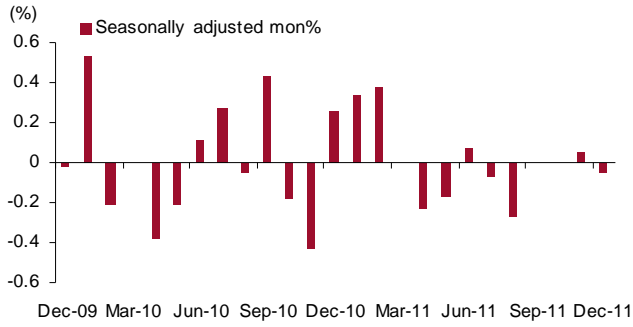
Source: MLIT, Credit Suisse

**Exhibit 22: Average Office Vacancy Rates**



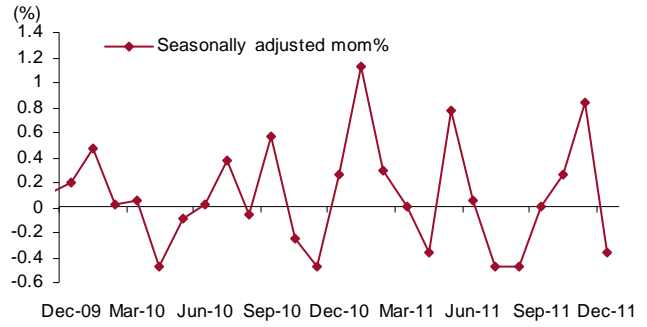
Source: Miki Shoji, Credit Suisse

**Exhibit 23: Changes in the Number of Workers**



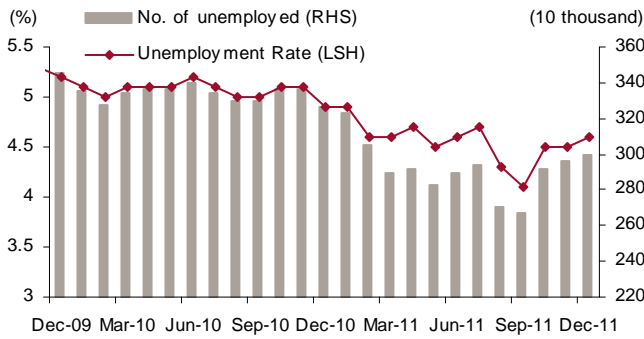
Source: MIC, Credit Suisse

**Exhibit 24: Changes in the Non-Farm Payroll Number**



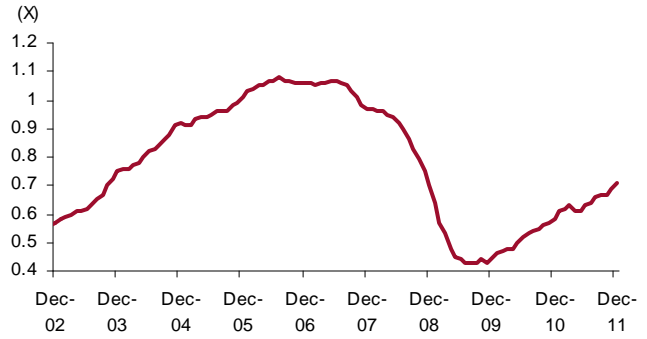
Source: MIC, Credit Suisse

**Exhibit 25: Unemployment Rate**



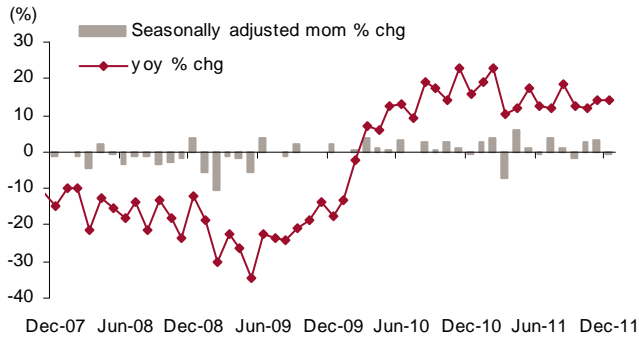
Source: MIC, Credit Suisse

**Exhibit 26: Job Offers to Applicants Ratio**



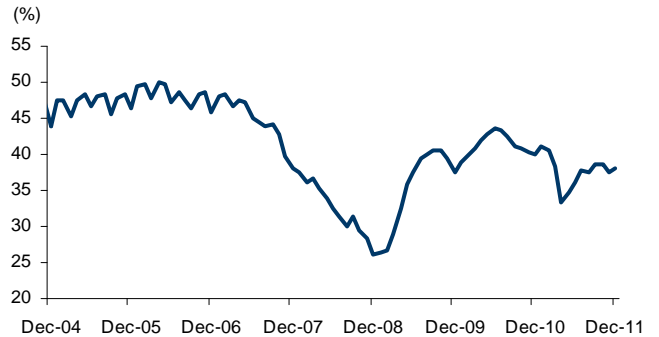
Source: MLHS, Credit Suisse

**Exhibit 27: New Job Offers (Including Part-Time Employees)**



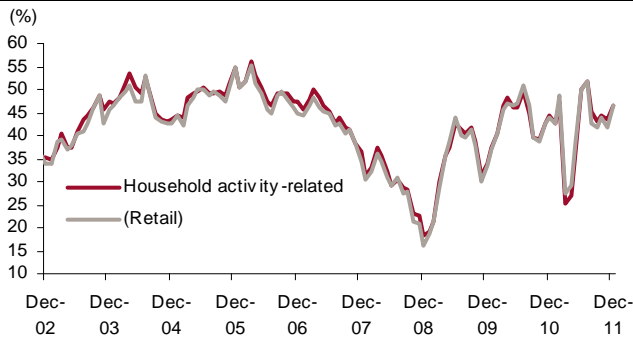
Source: MHLW, Credit Suisse

**Exhibit 28: Consumer Sentiment Index**



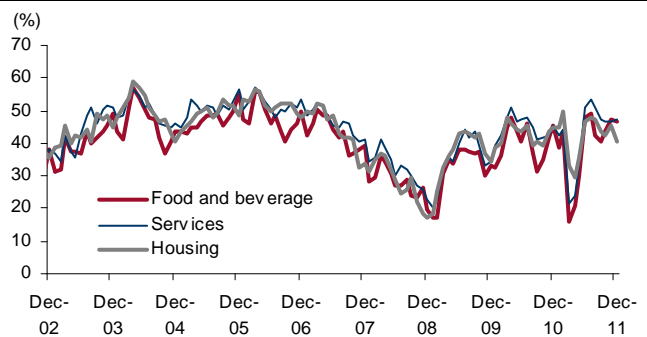
Note: Data before April 2004 use old base.  
Source: Cabinet Office, Credit Suisse

**Exhibit 29: Business Watchers' Survey – Current Business Conditions for Households (1)**



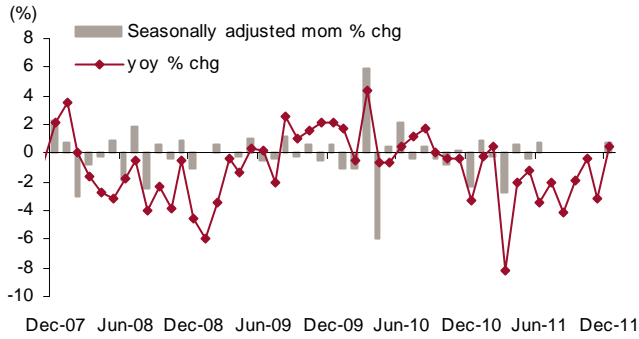
Source: Cabinet Office, Credit Suisse

**Exhibit 30: Business Watchers' Survey – Current Business Conditions for Households (2)**



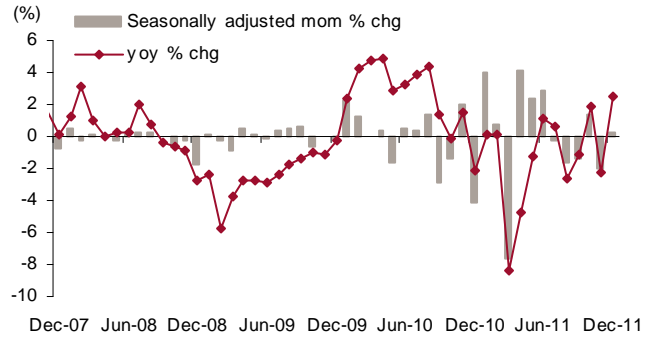
Source: Cabinet Office, Credit Suisse

**Exhibit 31: Real Household Spending**



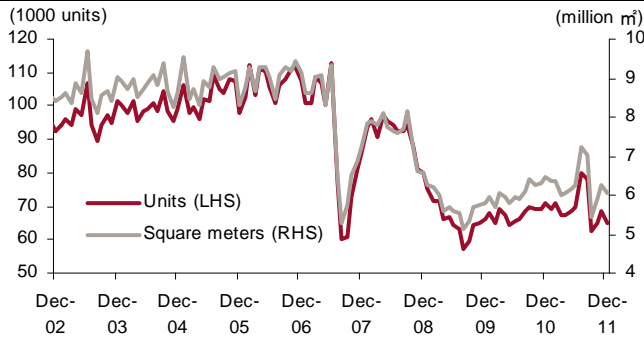
Source: MIC, Credit Suisse

**Exhibit 32: Retail Sales**



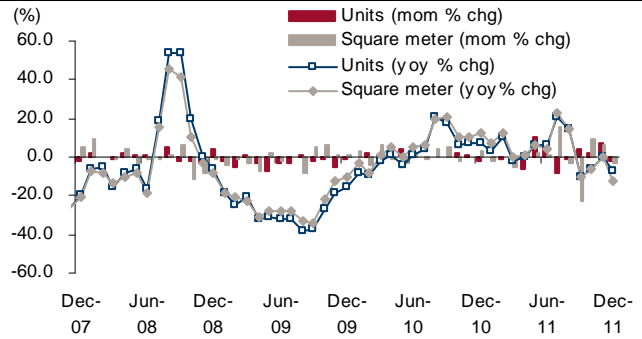
Note: Retail sales indices, % mom chg.  
Source: METI, Credit Suisse

**Exhibit 33: New Housing Started**



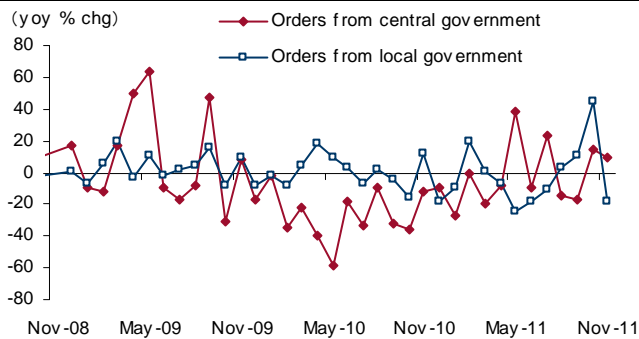
Source: MLIT, Credit Suisse

**Exhibit 34: New Housing Started (2)**



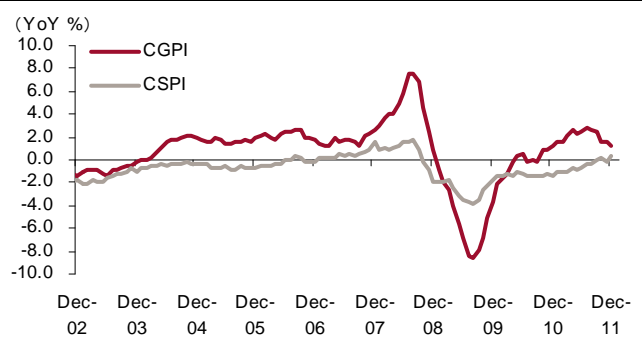
Source: MLIT, Credit Suisse

**Exhibit 35: Construction Orders from Public Sector**



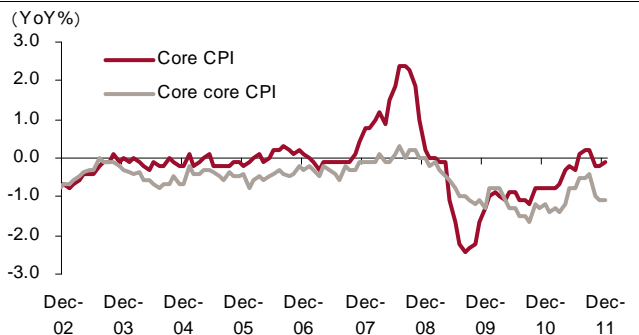
Note: Quarterly base, but monthly base for 2009.  
Source: MLIT, Credit Suisse

**Exhibit 36: Corporate Prices**



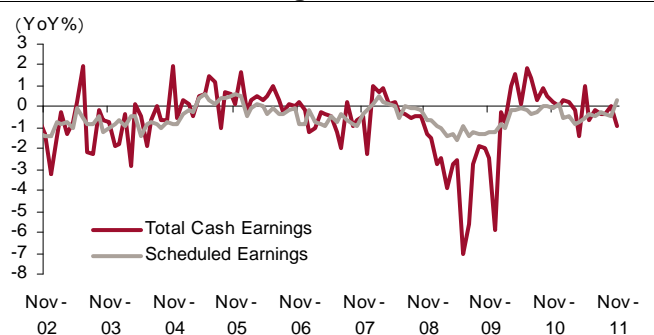
Source: BoJ, Credit Suisse

**Exhibit 37: CPI**



Source: MIC, Credit Suisse

**Exhibit 38: Nominal Wage Indices**



Source: MHLW, Credit Suisse

## Money and credit update

### Monetary base rebounded

- **The monetary base rose 20.3% mom (seasonally adjusted, annualized) in January from December's sharp drop (-36.3% mom)**

The BoJ lowered its economic and price activity forecasts at its 24 January monetary policy meeting. The BoJ revised its FY11 forecast for real economic growth downward from +0.3% to -0.4%, and also lowered its forecast for FY12 from +2.2% to +2.0% growth. The BoJ slightly raised its forecast for FY13 (+1.5% to +1.6%) to reflect the drop in the FY12 forecasts. The core CPI forecast was lowered from 0.0% to -0.1% for FY11, acknowledging slight deflation, but the BoJ kept its forecasts for FY12 and FY13 unchanged at +0.1% and +0.5%, respectively. The bank pointed to several external demand factors as risks to its economic outlook: (1) the impact of the sovereign debt problem on global financial markets; (2) continuing balance sheet adjustments in the US; and (3) uncertainty about whether price stability and economic growth can be achieved at the same time.

#### BoJ current account and monetary base (Exhibit 39)

The monetary base rose 20.3% mom (seasonally adjusted, annualized) in January after December's sharp drop (-36.3% mom). The pace of year-on-year growth stayed at a high 15.0%. Rising 2.3%, the growth in banknotes in circulation was flat from the previous month. The growth in current account balances was 69.8% yoy, confirming the BoJ's accommodative position.

#### Money stock (Exhibit 40)

The December money stock data published by the BoJ showed M2 growth up 3.1% yoy, up slightly from a 3.0% gain in November. M2 was up 1.6% mom, seasonally adjusted, for the fourth straight month of positive growth. M3 and M1 increased 2.6% yoy and 5.1% yoy, respectively. Liquidity is also picking up slightly, in correlation with the increase in bank lending. Broadly defined liquidity accelerated somewhat with 0.4% yoy growth and rose 0.5% mom in seasonally adjusted terms for the second straight month of positive growth.

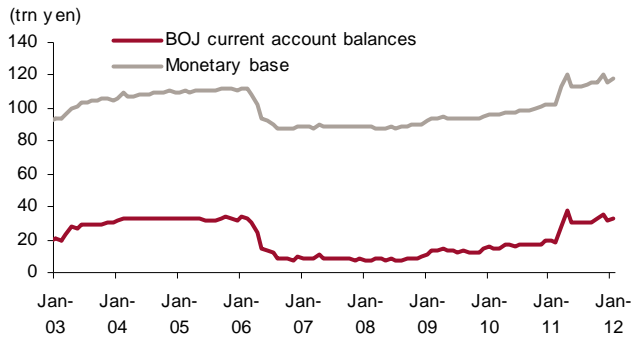
#### Bank lending (Exhibits 41-43)

The December Principal Figures of Financial Institutions show average outstanding loan and discount amounts increasing 0.5% yoy for the banking sector, recording the third consecutive month of positive growth. The outstanding loan balance for regional banks and tier 2 regional banks rose 2.0%, sustaining positive growth, while the city banks' loan balance was up 1.0%, a clear improvement over the 1.4% decrease in November. This suggests that reconstruction loan disbursement, which had been slow to get started, is finally getting under way.

#### Credit markets (Exhibits 44-46)

Spreads in the credit market are widening somewhat as a result of heightened risk aversion induced by anxiety over the US and European economies and expectations for enhanced monetary easing. With LIBOR standing firm, the LIBOR-OIS spread has widened slightly as the OIS has dropped. The spread between corporate bonds and JGBs is widening. In particular, the spread between A-rated corporate bonds and JGBs is currently 19.94, the highest level since May 2011. That said, this is about 30% of the spread at its peak just after the financial crisis, and remains stable, in our view.

**Exhibit 39: Monetary Base**



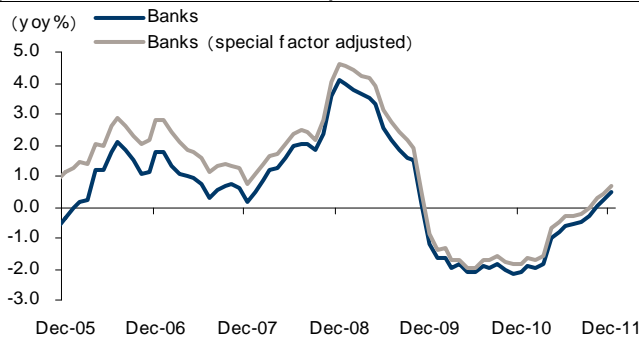
Source: BoJ, Credit Suisse

**Exhibit 40: Money Stock (M2)**



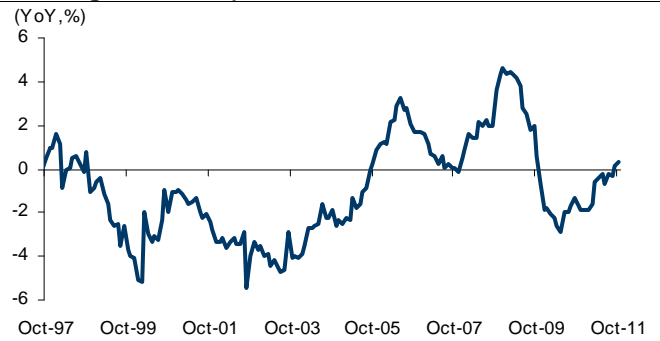
Source: BoJ, Credit Suisse

**Exhibit 41: Average Outstanding Bank Lending (Banks and Shinkin Banks)**



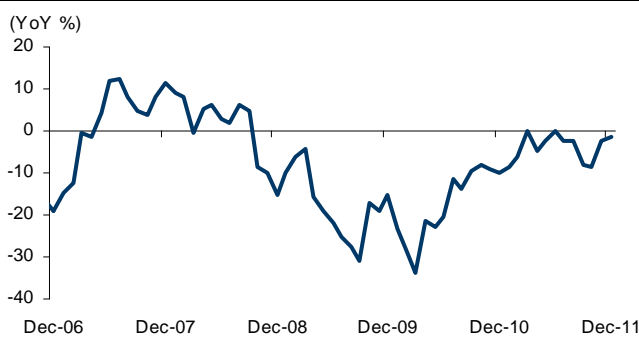
Source: BoJ, Credit Suisse

**Exhibit 42: Outstanding Bank Lending (Domestic Banking Accounts)**



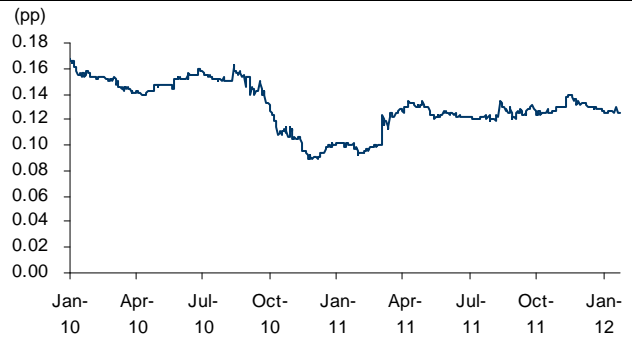
Source: BoJ, Credit Suisse

**Exhibit 43: CP Underwritten by Banks**



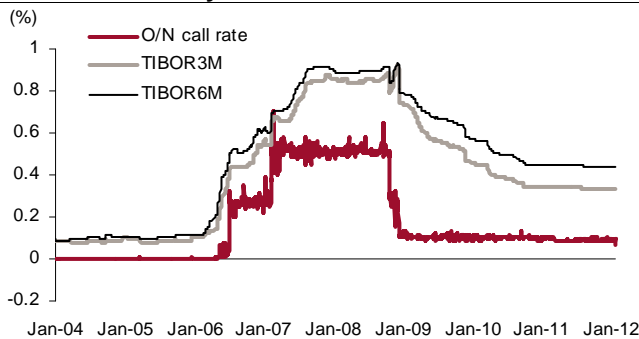
Source: BoJ, Credit Suisse

**Exhibit 44: LIBOR-OIS Spread (3-month)**



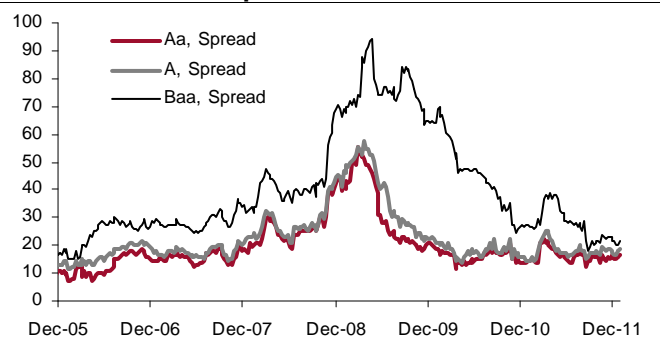
Source: the BLOOMBERG PROFESSIONAL™ service, Credit Suisse

**Exhibit 45: Money Market Rates**



Source: the BLOOMBERG PROFESSIONAL™ service, Credit Suisse

**Exhibit 46: Credit Spreads**



Note: Credit spreads are calculated using the Bloomberg Fair Market Value index and JGB5Y yields.  
Source: the BLOOMBERG PROFESSIONAL™ service, Credit Suisse

## Upcoming Indicators/Events

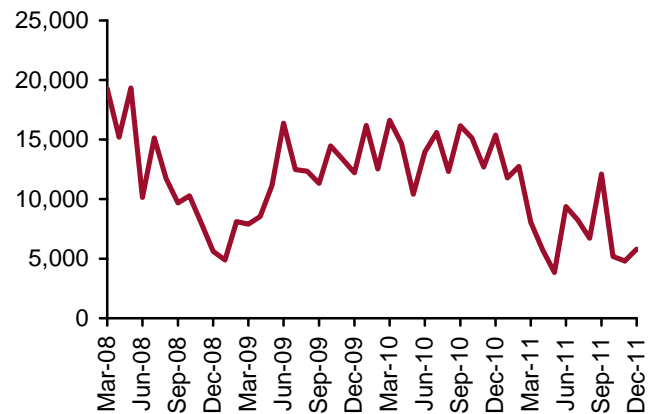
### December machinery orders: Thursday 9 Thursday

- **Credit Suisse forecast December (Core orders, mom): -5.3%**
- **Previous November (Core orders, mom): 14.8%**

We estimate that core machinery orders fell 5.3% mom seasonally adjusted in December, reverting to negative growth for the first time in two months. Core machinery orders are in a modest but steady recovery trend. This suggests that there is a good chance that orders fell in December to reflect the dramatic increase in November (up 14.8%), and will return to a gradual recovery. Leading indicators such as the US's ISM and Europe's PMI have continued to recover since October 2011, suggesting that external demand could recover as we head into the summer. That said, we expect Japanese companies' perception of excess domestic capital to remain deep-rooted as a result of forecasts of a long-term contraction in domestic demand and incentives to shift bases overseas given the yen's strength. This would make companies cautious in their capital spending. Although core machinery orders are past their worst point following the financial crisis, we believe that the pace of recovery will likely be sluggish.

The December Balance of Payments data will be released on 8 February. According to the customs-cleared trade data, the trade deficit reached ¥567.6 billion seasonally adjusted in December. Fluctuations in the service account (¥100bn deficit), income account (¥1,300bn surplus) and balance of transfer account (¥70 billion deficit) are all relatively stable, so we expect the current account balance to be about ¥560bn. As a result, the current account balance would come in at about ¥9,400bn (2.0% of GDP) for 2011 as a whole.

**Exhibit 47: Current account balance (hundred million yen)**



Source: Cabinet office, Credit Suisse

## Upcoming Indicators

		Indicator		CS Est.	Prior
Feb 7 (Tue)	14:00	Indexes of Business Conditions (Dec, prelim)	Leading CI	--	93.2
			Coincident CI	--	90.3
Feb 8 (Tue)	8:50	Balance of Payments (Dec)	Current account (nsa, ¥ bn)	449.7	(Dec 10) 1197.9
	8:50	Bank Lending (Jan)	(yoy%)	--	0.4
	14:00	Economy Watchers Survey (Jan)	DI for current economic conditions	--	47.0
Feb 9 (Tue)	8:50	Machinery Orders (Dec)	Core orders (mom%)	-5.3	14.8
	8:50	Money Stock (Jan)	M2 (yoy%)	3.2	3.1
			Broadly Defined Liquidity (yoy%)	0.4	0.4
14:00	Consumer Confidence Survey (Jan)	(yoy, pp)	--	-2.3	
Feb 10 (Fri)	8:50	Corporate Goods Price Index (Jan, prelim)	(yoy%)	1.3	1.3

Source: BoJ, Cabinet Office, Ministry of Public Management, Home Affairs, Posts and Telecommunications, MoF, METI, MHLW, MLIT, Credit Suisse

## Major Economic Data

		2011/05	2011/06	2011/07	2011/08	2011/09	2011/10	2011/11	2011/12	2012/01
Consumption-related indicators										
Real spending by all households	YoY %	-1.2	-3.5	-2.1	-4.1	-1.9	-0.4	-3.2	<b>0.5</b>	
Real spending by wage-earners	YoY %	-0.3	-3.5	-2.6	-4.7	-2.8	-1.8	-4.1	<b>0.9</b>	
Real disposable income	YoY %	-2.9	-5.9	1.1	-1.9	-1.4	-3.8	-1.2	<b>-1.0</b>	
Average propensity to consume	YoY %	74.7	73.6							
Department store sales	YoY %	-1.9	0.1	0.1	-2.0	-2.1	-0.2	-1.6	1.0	
Super store sales	YoY %	3.6	5.1	6.9	2.4	0.6	3.5	2.6	3.7	
Convenience store sales	YoY %	7.5	11.1	11.5	9.1	-2.0	16.6	10.4	7.3	
Household activity-related DI	YoY pts	-9.9	3.6	2.4	0.3	3.7	5.3	1.2	2.0	
Consumer sentiment index	YoY pts	-8.0	-7.3	-5.6	-5.0	-2.7	-2.3	-2.9	-2.0	
Monthly wages	YoY %	1.0	-0.7	-0.2	-0.4	-0.4	0.0	-0.2	<b>-0.2</b>	
Real monthly wages	YoY %	0.6	-1.0	-1.2	-1.2	-1.0	-0.4	-0.2	<b>-0.5</b>	
Labor market conditions										
Unemployment rate	s.a. %	4.5	4.6	4.7	4.3	4.1	4.4	4.5	<b>4.6</b>	
# of workers	s.a, MoM 10k	-10	4	-4	-16	30	7	2	<b>-2</b>	
# of unemployed	s.a, MoM 10k	-9	6	5	-24	-16	23	5	<b>4</b>	
# of non-labor force	s.a, MoM 10k	22	-13	0	20	-6	-27	-8	<b>-1</b>	
Job offers to applicants ratio	s.a.	0.61	0.63	0.64	0.66	0.67	0.67	0.69	<b>0.71</b>	
Job offers	s.a. MoM %	0.6	3.4	1.6	1.6	0.5	1.4	1.1	<b>2.0</b>	
Job seekers	s.a. MoM %	0.5	0.7	-1.2	-0.8	-0.5	0.2	-1.8	<b>-0.8</b>	
New job seekers	s.a. MoM %	1.1	-0.7	4.0	0.9	-1.5	2.5	3.4	<b>-0.7</b>	
Corporate-related indicators										
Industrial production										
Production	s.a. MoM %	6.2	3.8	0.4	0.6	-3.3	2.2	-2.7	<b>4.0</b>	
Production	YoY %	-5.5	-1.7	-3.0	0.4	-3.3	0.1	-4.2	<b>-4.1</b>	
Shipments	YoY %	-8.0	-1.8	-3.0	0.2	-2.9	-0.3	-4.6	<b>-3.1</b>	
Inventory	YoY %	7.7	4.0	4.1	5.8	5.5	7.0	8.2	<b>3.4</b>	
Inventory to sales ratio	s.a.(2005=100)	120.7	111.9	116.4	114.8	119.2	118.1	116.2	<b>112.0</b>	
Manufacturers' operating ratio	s.a.(2005=100)	82.1	86.4	86.9	89.0	85.8	89.3	86.7		
Machinery orders										
Core machinery orders	s.a. MoM %	3.0	7.7	-8.2	11.0	-8.2	-6.9	14.8		
	YoY %	10.5	17.9	4.0	2.1	9.8	1.5	12.5		
Foreign demands	s.a. MoM %	-6.6	-5.9	-9.8	32.3	-21.7	1.6	20.3		
	YoY %	10.6	-3.2	-13.5	10.0	-13.9	-15.6	8.0		
New housing starts	YoY %	6.4	5.8	21.2	14.0	-10.8	-5.8	-0.3	<b>-7.3</b>	
	s.a. annualized, 10k	82.5	83.6	96.1	93.9	74.9	78.1	82.4	<b>78.3</b>	
Construction starts (floor)	YoY %	11.9	13.5	2.3	16.7	-18.2	3.0	9.9	<b>14.2</b>	
	s.a. MoM %	-5.4	-1.5	-3.6	11.5	-10.0	3.8	1.3	<b>-0.3</b>	

\* Contracted rate is the number of contracts sold divided by the number of units for sale.

Source: MIAC, Department Store Assoc., Chain Store Assoc. Convenience Store Assoc., Cabinet Office, MHLW, METI, MLIT, MoF, BoJ, JREI, Credit Suisse

## Major Economic Data (continued)

		2011/05	2011/06	2011/07	2011/08	2011/09	2011/10	2011/11	2011/12	2012/01
Contracted rate for condominiums										
Tokyo metropolitan area	%	79.2	79.2	76.2	69.9	77.7	70.6	79.6	78.9	
Kinki area	%	77.6	74.9	75.1	68.2	66.2	74.1	70.2	69.3	
Prices										
Nationwide core CPI	YoY %	-0.2	-0.3	0.1	0.2	0.2	-0.2	-0.2	-0.1	
Tokyo core CPI	YoY %	-0.3	-0.4	0.0	-0.2	-0.1	-0.4	-0.5	-0.3	<b>-0.4</b>
Domestic CGPI	YoY %	2.2	2.5	2.8	2.6	2.5	1.6	1.6	1.3	
Raw materials	YoY %	18.4	20.7	22.9	22.6	19.0	21.3	16.7	14.6	
Intermediate goods	YoY %	3.3	3.7	4.3	4.0	3.8	3.0	2.7	2.0	
Final goods	YoY %	0.4	0.6	0.8	0.6	0.6	-0.4	-0.4	-0.7	
CSPI	YoY %	-0.9	-0.7	-0.3	-0.3	0.0	0.1	-0.1	0.1	
External demand										
Trade balance	billion yen	-857.3	67.3	67.9	-779.6	293.9	-281.8	-690.4	-205.6	
Exports	YoY %	-10.3	-1.6	-3.4	2.8	2.3	-3.8	-4.5	-8.0	
Imports	YoY %	12.4	9.8	9.9	19.2	12.2	17.9	11.5	8.1	
Trade volume										
Exports	YoY %	-10.8	-2.7	-5.3	0.9	1.5	-3.9	-4.4	-6.6	
Imports	YoY %	5.5	1.7	-2.6	6.0	1.0	6.0	-1.0	-0.7	
Real trade balance										
Exports	s.a. MoM %	11.4	48.5	-4.6	0.3	20.8	-30.8	-6.6	18.7	
Imports	s.a. MoM %	4.7	8.5	0.3	0.1	3.4	-4.6	-2.7	1.1	
Imports	s.a. MoM %	3.3	0.2	1.9	0.0	-1.6	4.6	-1.7	-2.9	
Balance of payments										
Current account balance	billion yen	585.9	538.9	1,053.7	436.3	1,610.7	562.4	138.5		
Current account balance	s.a. billion yen	385.7	937.2	824.5	672.6	1,210.5	518.6	480.4		
Trade and services										
Trade balance	billion yen	-790.6	25.3	-124.7	-848.1	281.9	-481.6	-700.2		
Trade balance	billion yen	-771.3	129.9	141.8	-690.3	372.3	-206.1	-585.1		
Service balance	billion yen	-19.3	-104.6	-266.4	-157.8	-90.4	-275.4	-115.1		
Income accounts	billion yen	1,453.9	604.8	1,252.2	1,353.5	1,393.0	1,121.5	934.0		
Capital and financial balance										
Capital and financial balance	billion yen	-101.3	-178.3	-783.0	3,159.1	-1,917.1	-527.7	7,704.8		
Financial account										
Financial account	billion yen	-108.2	-183.3	-784.4	3,162.8	-1,911.6	-565.4	7,699.3		
Direct investment										
Direct investment	billion yen	-614.8	-639.1	-972.0	-512.3	-1,867.2	-877.7	-1,273.5		
Portfolio investment										
Portfolio investment	billion yen	3,598.5	-4,718.8	3,705.3	3,161.9	-6,420.1	534.1	2,390.1		
Changes in reserve assets										
Changes in reserve assets	billion yen	-217.8	-30.0	-18.2	-3,995.8	-22.2	-240.0	-8,076.1		
Business conditions indices										
Coincident CI	MoM %	3.7	3.7	0.2	0.2	-1.2	1.0	-1.0		
Leading CI	MoM %	1.7	2.9	1.5	-0.3	-2.2	-0.2	1.5		

\* Contracted rate is the number of contracts sold divided by the number of units for sale.

Source: MIAC, Department Store Assoc., Chain Store Assoc. Convenience Store Assoc., Cabinet Office, MHLW, METI, MLIT, MoF, BoJ, JREI, Credit Suisse

# Japan Economic Forecasts

**As of 2 February, 2012**

		2011				2012				2013				FY				CY			
		Q1	Q2	Q3	Q4E	Q1E	Q2E	Q3E	Q4E	Q1E	Q2E	Q3E	Q4E	10	11	12	13	10	11	12	13
RealGDP qoq% annualized	Real GDP	-6.6	-2.0	5.6	-0.5	1.6	1.3	1.5	1.7	1.2	2.1	1.7	1.5	3.1	-0.5	1.5	1.5	4.4	-0.8	1.4	1.6
	Private consumption	-4.9	1.1	3.0	-0.3	-0.1	0.8	0.8	1.3	0.9	0.9	0.9	0.9	1.6	0.2	0.7	0.9	2.6	-0.2	0.7	0.9
	Private residential investment	7.3	-7.8	22.4	-9.8	1.9	5.8	3.6	1.3	1.8	3.0	2.8	4.7	2.3	3.5	2.7	2.9	-4.3	5.0	2.1	2.7
	Private non-residential investment	-3.5	-2.1	-1.6	1.2	1.8	2.5	1.8	1.5	1.3	1.9	1.5	1.1	3.5	-1.4	1.6	1.4	0.5	-0.5	1.1	1.6
	Private inventory (contribution)	-2.9	0.0	1.1	-0.4	0.3	0.1	0.1	0.1	0.0	-0.1	0.2	0.1	0.8	-0.4	0.1	0.0	0.8	-0.4	0.2	0.0
	Government consumption	1.9	2.9	0.9	5.5	2.7	-0.4	1.6	1.5	1.6	5.2	2.9	2.9	2.3	2.3	1.7	3.0	2.1	2.2	2.2	2.4
	Public investment	-7.2	29.8	-3.9	7.9	7.8	4.7	3.2	6.0	6.2	6.3	1.0	0.7	-6.8	4.5	5.1	2.9	0.4	-2.1	6.2	4.7
	Net exports (contribution)	-0.6	-3.9	2.3	-1.2	0.0	0.1	0.1	0.0	-0.3	-0.1	0.0	0.0	0.8	-0.9	0.0	-0.1	1.7	-0.8	-0.2	-0.1
	Exports	-0.2	-21.7	32.7	-7.6	0.3	5.4	3.8	0.6	0.1	3.0	3.9	3.9	17.2	-1.7	2.9	2.4	24.2	0.1	2.1	2.2
	Imports	4.5	1.7	14.9	-0.4	0.1	4.2	2.7	0.6	1.6	3.3	3.8	3.8	12.0	4.4	2.5	2.7	11.1	5.7	3.0	2.4
Nominal GDP (yoY%)		-2.2	-4.0	-2.9	-3.4	-1.6	0.0	-1.2	0.3	0.1	0.2	0.3	0.2	1.1	-2.8	-0.2	0.2	2.3	-2.8	-0.6	0.2
Industrial production (yoY%)		-13.1	-1.7	-3.3	-1.4	2.2	8.4	5.5	6.4	5.9	5.5	5.4	5.3	5.4	-1.1	6.6	5.2	16.8	-4.9	5.6	5.6
Industrial production (qoq%)		-2.0	-4.0	4.3	-0.2	1.6	1.8	1.5	1.3	1.2	1.5	1.4	1.3	-	-	-	-	-	-	-	-
CPI (core, yoY%)		-0.8	-0.3	0.2	-0.2	-0.3	-0.4	-0.4	-0.2	-0.1	-0.1	-0.1	0.0	-0.9	-0.2	-0.3	0.0	-1.0	-0.3	-0.3	-0.1
CPI (excluding food and energy, yoY%)		-1.4	-0.9	-0.5	-1.0	-1.1	-1.1	-1.0	-0.9	-0.7	-0.7	-0.7	-0.7	-1.3	-0.9	-0.9	-0.7	-1.2	-0.9	-1.0	-0.7
Unemployment rate (%)		4.7	4.6	4.4	4.4	4.3	4.4	4.4	4.4	4.5	4.5	4.5	4.5	5.0	4.4	4.4	4.5	5.1	4.5	4.4	4.5
Trade balance to GDP (%)		0.5	-1.4	-0.6	-0.9	-0.8	-0.6	-0.9	-1.0	-1.0	-1.1	-1.1	-1.2	1.1	-0.9	-0.9	-1.2	1.4	-0.6	-0.8	-1.1
Current account balance to GDP (%)		2.8	1.7	2.2	1.3	1.5	1.7	1.4	1.3	1.3	1.2	1.2	1.1	3.4	1.7	1.4	1.1	3.6	2.0	1.5	1.2
Fiscal balance to GDP (%)		-	-	-	-	-	-	-	-	-	-	-	-	-10.0	-11.8	-12.6	-14.5	-	-	-	-
Overnight call rate (%)		0.0-0.1	0.0-0.1	0.0-0.1	0.0-0.1	0.0-0.1	0.0-0.1	0.0-0.1	0.0-0.1	0.0-0.1	0.0-0.1	0.0-0.1	0.0-0.1	0.0-0.1	0.0-0.1	0.0-0.1	0.0-0.1	0.0-0.1	0.0-0.1	0.0-0.1	0.0-0.1
5yr JGB yields		0.50	0.35	0.40	0.45	0.50	0.60	-	-	-	-	-	-	0.50	0.50	-	-	0.00	0.45	-	-
10yr JGB yields		1.25	1.18	1.05	1.30	1.25	1.20	1.20	-	-	-	-	-	1.25	1.25	-	-	1.05	1.30	-	-
USD/JPY		82.3	81.6	77.7	75.3	76.1	78.4	79.8	80.0	-	-	-	-	82.3	76.1	-	-	82.6	75.3	80.0	-

Notes: 1. q/q percentage changes at annualized rates

2. IP growth is calculated by using non-seasonally adjusted actual figures, while forecast figures are calculated based on seasonally adjusted figures

3. Policy rate and JGB yields are end of period data

Source: Cabinet Office, MoF, METI, Statistics Bureau, Credit Suisse estimates

## FIXED INCOME RESEARCH > ECONOMICS RESEARCH > DEVELOPED COUNTRIES

**Dr. Neal Soss, Managing Director**  
Chief Economist and Global Head of Economics  
+1 212 325 3335

**Eric Miller, Managing Director**  
Global Head of Fixed Income and Economic Research  
+1 212 538 6480

### EURO AREA AND UK ECONOMICS

---

**Neville Hill, Director**  
Head of European Economics  
+44 20 7888 1334  
neville.hill@credit-suisse.com

**Christel Aranda-Hassel, Director**  
+44 20 7888 1383  
christel.aranda-hassel@credit-suisse.com

**Giovanni Zanni, Director**  
European Economics – Paris  
+33 1 70 39 0132  
giovanni.zanni@credit-suisse.com

**Violante di Canossa, Vice President**  
+44 20 7883 4192  
violante.dicanossa@credit-suisse.com

**Axel Lang, Analyst**  
+44 20 7883 3738  
axel.lang@credit-suisse.com

**Steven Bryce, Analyst**  
+44 20 7883 7360  
steven.bryce@credit-suisse.com

**Yiagos Alexopoulos, Analyst**  
+44 20 7883 7536  
yiagos.alexopoulos@credit-suisse.com

### US ECONOMICS

---

**Dr. Neal Soss, Managing Director**  
Head of US Economics  
+1 212 325 3335  
neal.soss@credit-suisse.com

**Jonathan Basile, Director**  
+1 212 538 1436  
jonathan.basile@credit-suisse.com

**Jay Feldman, Director**  
+1 212 325 7634  
jay.feldman@credit-suisse.com

**Henry Mo, Director**  
+1 212 538 0327  
henry.mo@credit-suisse.com

**Dana Saporta, Director**  
+1 212 538 3163  
dana.saporta@credit-suisse.com

**Jill Brown, Vice President**  
+1 212 325 1578  
jill.brown@credit-suisse.com

**Isaac Lebwohl, Associate**  
+1 212 538 1906  
isaac.lebwohl@credit-suisse.com

**Peggy Riordan, Assistant Vice President**  
+1 212 325 7525  
peggy.riordan@credit-suisse.com

### ASIA

---

#### JAPAN ECONOMICS

**Hiromichi Shirakawa, Managing Director**  
+81 3 4550 7117  
hiromichi.shirakawa@credit-suisse.com

**Takashi Shiono, Associate**  
+81 3 4550 7189  
takashi.shiono@credit-suisse.com

#### NON-JAPAN ECONOMICS

**Dong Tao, Managing Director**  
Head of Non-Japan Asia Economics  
+852 2101 7469  
dong.tao@credit-suisse.com

## Disclosure Appendix

### Analyst Certification

Hirohichi Shirakawa and Takashi Shiono each certify, with respect to the companies or securities that he or she analyzes, that (1) the views expressed in this report accurately reflect his or her personal views about all of the subject companies and securities and (2) no part of his or her compensation was, is or will be directly or indirectly related to the specific recommendations or views expressed in this report.

### Disclaimer

References in this report to Credit Suisse include all of the subsidiaries and affiliates of Credit Suisse AG operating under its investment banking division. For more information on our structure, please use the following link: [https://www.credit-suisse.com/who\\_we\\_are/en/](https://www.credit-suisse.com/who_we_are/en/).

This report is not directed to, or intended for distribution to or use by, any person or entity who is a citizen or resident of or located in any locality, state, country or other jurisdiction where such distribution, publication, availability or use would be contrary to law or regulation or which would subject Credit Suisse AG or its affiliates ("CS") to any registration or licensing requirement within such jurisdiction. All material presented in this report, unless specifically indicated otherwise, is under copyright to CS. None of the material, nor its content, nor any copy of it, may be altered in any way, transmitted to, copied or distributed to any other party, without the prior express written permission of CS. All trademarks, service marks and logos used in this report are trademarks or service marks or registered trademarks or service marks of CS or its affiliates.

The information, tools and material presented in this report are provided to you for information purposes only and are not to be used or considered as an offer or the solicitation of an offer to sell or to buy or subscribe for securities or other financial instruments. CS may not have taken any steps to ensure that the securities referred to in this report are suitable for any particular investor. CS will not treat recipients of this report as its customers by virtue of their receiving this report. The investments and services contained or referred to in this report may not be suitable for you and it is recommended that you consult an independent investment advisor if you are in doubt about such investments or investment services. Nothing in this report constitutes investment, legal, accounting or tax advice, or a representation that any investment or strategy is suitable or appropriate to your individual circumstances, or otherwise constitutes a personal recommendation to you. CS does not advise on the tax consequences of investments and you are advised to contact an independent tax adviser. Please note in particular that the bases and levels of taxation may change.

Information and opinions presented in this report have been obtained or derived from sources believed by CS to be reliable, but CS makes no representation as to their accuracy or completeness. CS accepts no liability for loss arising from the use of the material presented in this report, except that this exclusion of liability does not apply to the extent that such liability arises under specific statutes or regulations applicable to CS. This report is not to be relied upon in substitution for the exercise of independent judgment. CS may have issued, and may in the future issue, other reports that are inconsistent with, and reach different conclusions from, the information presented in this report. Those reports reflect the different assumptions, views and analytical methods of the analysts who prepared them and CS is under no obligation to ensure that such other reports are brought to the attention of any recipient of this report.

CS may, to the extent permitted by law, participate or invest in financing transactions with the issuer(s) of the securities referred to in this report, perform services for or solicit business from such issuers, and/or have a position or holding, or other material interest, or effect transactions, in such securities or options thereon, or other investments related thereto. In addition, it may make markets in the securities mentioned in the material presented in this report. CS may have, within the last three years, served as manager or co-manager of a public offering of securities for, or currently may make a primary market in issues of, any or all of the entities mentioned in this report or may be providing, or have provided within the previous 12 months, significant advice or investment services in relation to the investment concerned or a related investment. Additional information is, subject to duties of confidentiality, available on request. Some investments referred to in this report will be offered solely by a single entity and in the case of some investments solely by CS, or an associate of CS or CS may be the only market maker in such investments.

Past performance should not be taken as an indication or guarantee of future performance, and no representation or warranty, express or implied, is made regarding future performance. Information, opinions and estimates contained in this report reflect a judgement at its original date of publication by CS and are subject to change without notice. The price, value and income from any of the securities or financial instruments mentioned in this report can fall as well as rise. The value of securities and financial instruments is subject to exchange rate fluctuation that may have a positive or adverse effect on the price or income of such securities or financial instruments. Investors in securities such as ADR's, the values of which are influenced by currency volatility, effectively assume this risk.

Structured securities are complex instruments, typically involve a high degree of risk and are intended for sale only to sophisticated investors who are capable of understanding and assuming the risks involved. The market value of any structured security may be affected by changes in economic, financial and political factors (including, but not limited to, spot and forward interest and exchange rates), time to maturity, market conditions and volatility, and the credit quality of any issuer or reference issuer. Any investor interested in purchasing a structured product should conduct their own investigation and analysis of the product and consult with their own professional advisers as to the risks involved in making such a purchase.

Some investments discussed in this report may have a high level of volatility. High volatility investments may experience sudden and large falls in their value causing losses when that investment is realised. Those losses may equal your original investment. Indeed, in the case of some investments the potential losses may exceed the amount of initial investment and, in such circumstances, you may be required to pay more money to support those losses. Income yields from investments may fluctuate and, in consequence, initial capital paid to make the investment may be used as part of that income yield. Some investments may not be readily realisable and it may be difficult to sell or realise those investments, similarly it may prove difficult for you to obtain reliable information about the value, or risks, to which such an investment is exposed.

This report may provide the addresses of, or contain hyperlinks to, websites. Except to the extent to which the report refers to website material of CS, CS has not reviewed any such site and takes no responsibility for the content contained therein. Such address or hyperlink (including addresses or hyperlinks to CS's own website material) is provided solely for your convenience and information and the content of any such website does not in any way form part of this document. Accessing such website or following such link through this report or CS's website shall be at your own risk.

This report is issued and distributed in Europe (except Switzerland) by Credit Suisse Securities (Europe) Limited, One Cabot Square, London E14 4QJ, England, which is regulated in the United Kingdom by The Financial Services Authority ("FSA"). This report is being distributed in Germany by Credit Suisse Securities (Europe) Limited Niederlassung Frankfurt am Main regulated by the Bundesanstalt fuer Finanzdienstleistungsaufsicht ("BaFin"). This report is being distributed in the United States and Canada by Credit Suisse Securities (USA) LLC; in Switzerland by Credit Suisse AG; in Brazil by Banco de Investimentos Credit Suisse (Brasil) S.A; in Mexico by Banco Credit Suisse (Mexico), S.A. (transactions related to the securities mentioned in this report will only be effected in compliance with applicable regulation); in Japan by Credit Suisse Securities (Japan) Limited, Financial Instruments Firm, Director-General of Kanto Local Finance Bureau (*Kinsho*) No. 66, a member of Japan Securities Dealers Association, The Financial Futures Association of Japan, Japan Securities Investment Advisers Association, Type II Financial Instruments Firms Association; elsewhere in Asia/ Pacific by whichever of the following is the appropriately authorised entity in the relevant jurisdiction: Credit Suisse (Hong Kong) Limited, Credit Suisse Equities (Australia) Limited, Credit Suisse Securities (Thailand) Limited, Credit Suisse Securities (Malaysia) Sdn Bhd, Credit Suisse AG, Singapore Branch, and elsewhere in the world by the relevant authorised affiliate of the above. Research on Taiwanese securities produced by Credit Suisse AG, Taipei Branch has been prepared by a registered Senior Business Person. Research provided to residents of Malaysia is authorised by the Head of Research for Credit Suisse Securities (Malaysia) Sdn Bhd, to whom they should direct any queries on +603 2723 2020. This research may not conform to Canadian disclosure requirements.

In jurisdictions where CS is not already registered or licensed to trade in securities, transactions will only be effected in accordance with applicable securities legislation, which will vary from jurisdiction to jurisdiction and may require that the trade be made in accordance with applicable exemptions from registration or licensing requirements. Non-U.S. customers wishing to effect a transaction should contact a CS entity in their local jurisdiction unless governing law permits otherwise. U.S. customers wishing to effect a transaction should do so only by contacting a representative at Credit Suisse Securities (USA) LLC in the U.S.

This material is not for distribution to retail clients and is directed exclusively at Credit Suisse's market professional and institutional clients. Recipients who are not market professional or institutional investor clients of CS should seek the advice of their independent financial advisor prior to taking any investment decision based on this report or for any necessary explanation of its contents. This research may relate to investments or services of a person outside of the UK or to other matters which are not regulated by the FSA or in respect of which the protections of the FSA for private customers and/or the UK compensation scheme may not be available, and further details as to where this may be the case are available upon request in respect of this report.

CS may provide various services to US municipal entities or obligated persons ("municipalities"), including suggesting individual transactions or trades and entering into such transactions. Any services CS provides to municipalities are not viewed as "advice" within the meaning of Section 975 of the Dodd-Frank Wall Street Reform and Consumer Protection Act. CS is providing any such services and related information solely on an arm's length basis and not as an advisor or fiduciary to the municipality. In connection with the provision of the any such services, there is no agreement, direct or indirect, between any municipality (including the officials, management, employees or agents thereof) and CS for CS to provide advice to the municipality. Municipalities should consult with their financial, accounting and legal advisors regarding any such services provided by CS. In addition, CS is not acting for direct or indirect compensation to solicit the municipality on behalf of an unaffiliated broker, dealer, municipal securities dealer, municipal advisor, or investment adviser for the purpose of obtaining or retaining an engagement by the municipality for or in connection with Municipal Financial Products, the issuance of municipal securities, or of an investment adviser to provide investment advisory services to or on behalf of the municipality.

Copyright © 2012 CREDIT SUISSE AG and/or its affiliates. All rights reserved.

**Investment principal on bonds can be eroded depending on sale price or market price. In addition, there are bonds on which investment principal can be eroded due to changes in redemption amounts. Care is required when investing in such instruments.**

When you purchase non-listed Japanese fixed income securities (Japanese government bonds, Japanese municipal bonds, Japanese government guaranteed bonds, Japanese corporate bonds) from CS as a seller, you will be requested to pay purchase price only.