



August 23, 2014

Bank of Japan

## **Deflation, the Labor Market, and QQE**

*Remarks at the Economic Policy Symposium  
Held by the Federal Reserve Bank of Kansas City*

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## **Introduction**

I am honored to have been invited to this policy symposium hosted by the Federal Reserve Bank of Kansas City.

One of the key topics of the symposium is the cyclical and structural effects of the global financial crisis and the recovery from the crisis on the labor market in each country. To talk about Japan's experience in this regard, however, I have to take you back to long before the crisis. Almost a quarter of a century ago, at the beginning of the 1990s, Japan suffered the burst of a major asset bubble, forcing firms and financial institutions to repair their balance sheets, which had been substantially impaired. From the second half of the 1990s, Japan experienced about 15 years of deflation. At the same time, Japan experienced rapid population aging at a pace that put it ahead of other countries. What problems have these developments given rise to in Japan's labor market? How is Japan overcoming these problems and where is Japan's economy headed? These are the issues I would like to talk about.

### **I. The Labor Market under Deflation**

The unemployment rate in Japan is now 3.7 percent. That means it has fallen to the level of the structural unemployment rate, which is estimated to be around 3.5 percent (Chart 1). The number of discouraged workers and hence what can be called *hidden unemployment* has also been decreasing. According to a business survey conducted by the Bank of Japan, the number of firms suffering from a shortage of workers has been exceeding that of firms suffering from an excess of workers (Chart 2). In fact, in some industries, a shortage of workers is now acting as a constraint on firms seeking to expand their business. This situation is quite different from that in the United States and Europe, where unemployment is the problem.

However, this does not mean that all is well and there are no concerns regarding Japan's labor market. Although Japan's labor market is now on its way to escape from the problems brought about by the aforementioned balance sheet adjustments and prolonged deflation, there still remain important challenges to be addressed. In what follows, let me

share with you Japan's experience concerning changes in the labor market brought about by the protracted deflation and their macroeconomic consequences.

In the 2000s, reflecting increasing deflationary pressure, firms were unable to raise sales prices. Faced with stagnant sales, firms resorted to cutting expenses, including labor costs, to secure profits. Efforts to restrain labor costs first took the form of a shift to the use of non-regular employees. The share of part-time workers in total employees consistently increased in the 1990s following the burst of the asset bubble at the beginning of the decade, and the increase continued unabated in the 2000s (Chart 3). Efforts to restrain labor costs also took the form of restraining wages. Wages of non-regular employees are largely determined on an ad hoc basis and fluctuate reflecting changes in supply and demand conditions. By contrast, wages for regular employees are largely determined based on long-term implicit contracts. In the face of protracted deflation and severe labor conditions, employees were put at a disadvantage and accepted employers' demand to reduce wages rather than lose their job. Thus, unlike in the United States and Europe, where unemployment tends to increase during a recession, in Japan unemployment did not increase substantially, but instead wages declined considerably. The year-on-year rate of change in wages was above that in the consumer price index (CPI) until the late 1990s, but has generally been below it since then (Chart 4). Consequently, on a macro basis, Japan's labor share declined noticeably in the 2000s. Although the labor share fluctuated considerably during and immediately after the global financial crisis, the average for the decade was lower than that for the 1990s (Chart 5).

Furthermore, deflation significantly affected firms' investment behavior. The prospect of deflation reduced the discounted present value of investment returns and lowered firms' investment appetite. In addition, it led firms to hoard cash to prepare for potential losses in the future. As a result, firms, which used to be net investors, turned into net savers and have stayed in that position (Chart 6). Following the burst of the asset bubble, Japanese firms were forced to save in order to reduce excess debt. However, they continued to save even after the excess debt problem had been resolved in the 2000s. Particularly in recent years, net saving in the corporate sector has become much larger than net saving in the household sector.

This change of firms into net savers has thrown the economy into a contractionary equilibrium through the *paradox of thrift*. If firms use profits obtained through wage cuts to build up internal funds rather than for investment, aggregate demand in the economy will shrink. And since a decline in aggregate demand will lower corporate profits, firms will be forced to cut wages further. This is a typical example of the *fallacy of composition*. The vicious cycle of declining wages and declining aggregate demand was initially set in motion by the balance sheet adjustments following the burst of the asset bubble, but it became entrenched due to the spread of deflationary sentiment.

## **II. Quantitative and Qualitative Monetary Easing and the Labor Market**

Let me now turn to how Japan is in the process of escaping from this state of contractionary equilibrium. If uncertainty and concern over the future were the cause of the decline in wages, then for wages to rise, it is necessary that both employers and employees see brighter prospects for the future. Therefore, the first step is to change Japan's economy from one suffering from stagnation under deflation to one that grows sustainably under moderate inflation. In this regard, the Bank of Japan's quantitative and qualitative monetary easing (QQE), which I explained in detail at this symposium last year, has been producing its intended effects. And as a result of these effects, Japan's labor market situation has shown improvement, as mentioned earlier.

However, closer inspection shows that the Japanese labor market still suffers from some of the problems that arose during the period of deflation. For example, there has been no reversal in the growing reliance on part-time workers. In fact, the recent increase in the number of workers is due mainly to an increase in the number of part-time workers (Chart 7). In general, in the early stages of economic recovery, it is demand for marginal workers such as part-time workers that increases first. In addition, the current economic recovery is led by the nonmanufacturing sector, where the share of part-time workers is higher than in the manufacturing sector. Furthermore, the continuing shift to a service economy means that demand for part-time workers has increased over time. That being said, most recently, there has been an acceleration in the increase in the number of full-time workers, which is a welcome sign. This shift from growing demand for marginal labor such as part-time workers to growing demand for permanent workers suggests that firms' growth prospects

have started to improve. If economic growth is sustained and thus underpins firms' growth prospects, Japan is likely to experience a full-fledged increase in the number of full-time workers.

A more troublesome problem is that wage-setting practices have changed during the prolonged period of deflation. Because of low labor mobility due to relatively widespread lifetime employment, wages of regular employees in Japan tend to reflect labor market conditions only insufficiently, at least in the short term. Therefore, some kind of mechanism, a "visible hand," is necessary for wages to rise. Prior to the period of deflation, the so-called *spring offensive* of the practice of simultaneous wage negotiations between management and labor at major firms in spring served as such a mechanism for negotiating wage increases. However, as deflation continued, this mechanism stopped working effectively. That is, firms needed to cut wages in order to reduce costs against the background of falling prices, while it was rational for workers to accept a decline in wages in exchange for job guarantees. As a result, in the past decade or so, the practice of raising base wages through the spring offensive had more or less disappeared.

This spring, however, has seen increases in base wages and/or bonuses not only among large firms but also among small and medium enterprises, partly reflecting calls by the government. For wages to increase at an appropriate pace in the future, it is necessary to have some kind of coordination mechanism to bring about wage increases. In such a mechanism, the Bank of Japan's price stability target can serve as a benchmark for firms in their wage setting. That is, once the Bank has succeeded in firmly anchoring inflation expectations at 2 percent, this could provide the basis on which wage negotiations between management and labor are conducted. Firms and households can then base their economic decisions firmly on the expectation that prices will rise at a rate of around 2 percent. Thus, creating an appropriate wage-setting mechanism plays an important part in anchoring inflation expectations at 2 percent.

### **Concluding Remarks**

I have so far talked about the effects of balance sheet adjustments and deflation on the labor market, but there is one topic I have yet to touch on. This is an issue that concerns the

supply of labor, namely, demographic changes. Reflecting the aging of Japan's population, the labor force participation rate has been on a downtrend, and serious labor shortages are likely to emerge in the future. The downtrend in the labor force participation rate is due to Japan's demographic composition and therefore does not come as a surprise. However, until recently, this did not manifest itself in the form of labor shortages, since labor demand has been sluggish, so that the problem was not sufficiently addressed. Fortunately, during the current economic recovery, labor force participation rates, in particular those of women and the elderly, have been rising (Chart 8). It is critical to ensure that this phenomenon is not a cyclical one, but becomes permanent by creating a work environment favorable to women and the elderly in order to mitigate labor force shortages over time. Utilization of foreign workers also deserves consideration. Another way to mitigate future labor shortages is to prompt investment in labor-saving technology and research and development for such investment. All of these issues are incorporated in the government's growth strategy. If, despite the delays, the strategy is implemented in a steady fashion, Japan's economy will regain its vitality and achieve sustained growth.

I have talked about Japan's labor market, focusing on the effects of balance sheet adjustments, deflation, and demographic changes. While some of these problems are unique to Japan, the issues I discussed may nevertheless be of relevance for the challenges faced by other countries today or in the future. I hope that Japan's experience can provide a helpful reference in this regard.

Thank you for your attention.

# Deflation, the Labor Market, and QQE

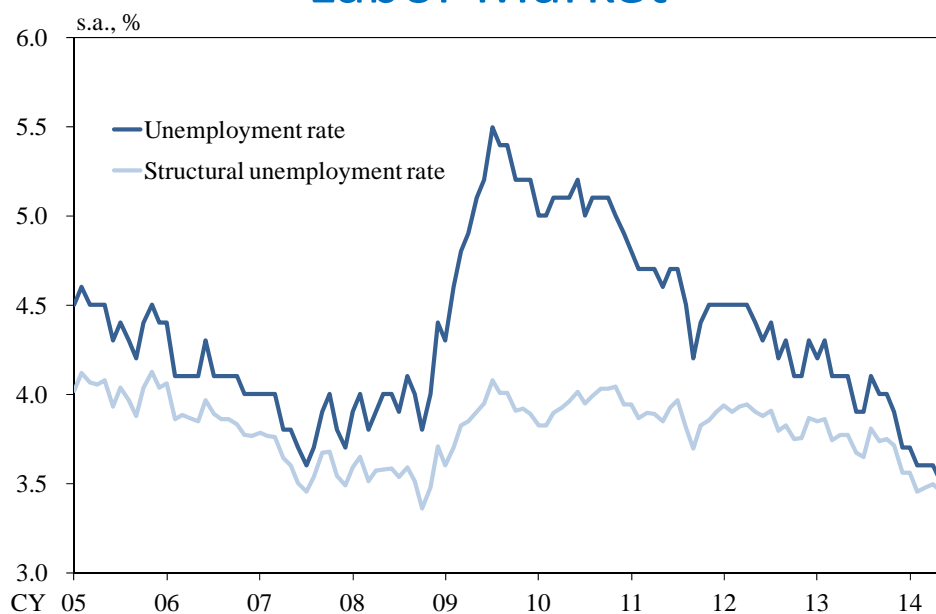
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Chart 1

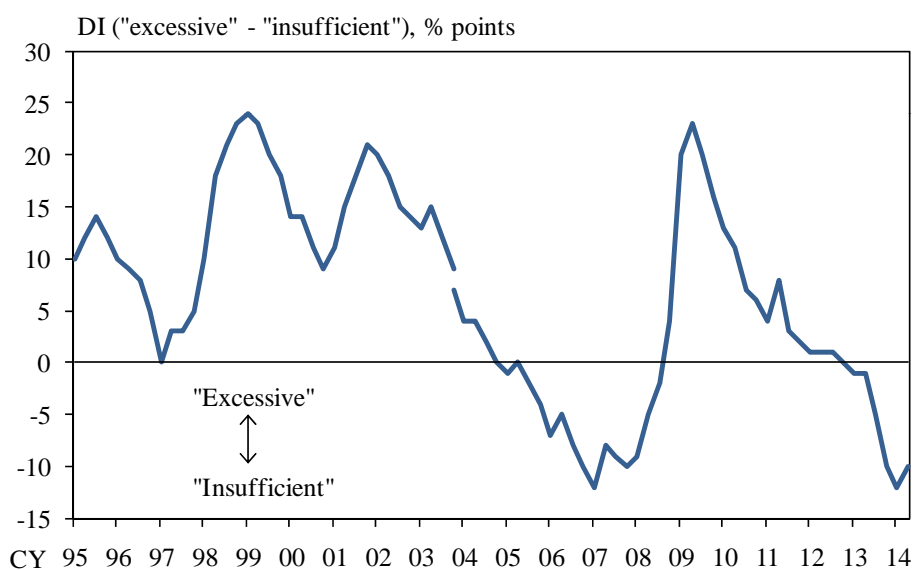
## Labor Market



Note: The structural unemployment rate is defined as the level of the unemployment rate where the number of vacancies equals that of the unemployed, given the empirical relationship between job vacancies and unemployment (estimation by the Research and Statistics Department, Bank of Japan). It captures frictional unemployment and unemployment caused by the mismatch between supply and demand in the labor market.

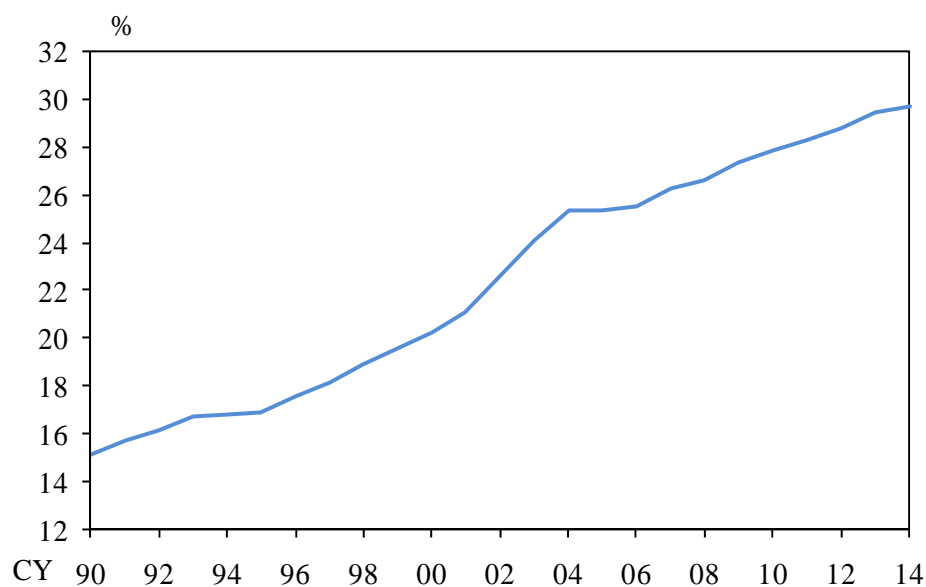
Sources: Ministry of Internal Affairs and Communications; Ministry of Health, Labour and Welfare.

## Employment Conditions DI



Source: Bank of Japan.

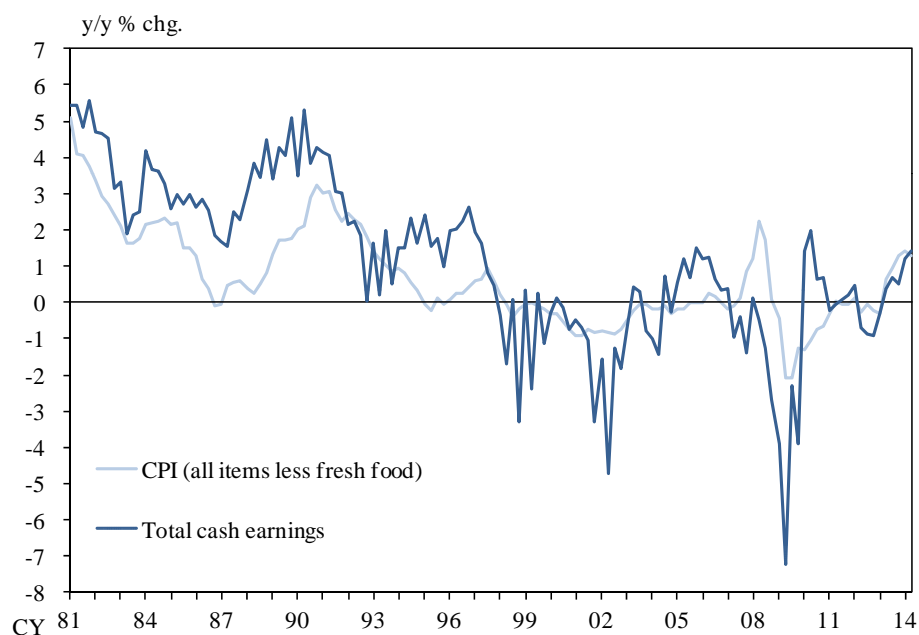
## Share of Part-time Workers in Total Employees



Note: The figure for 2014 is the Jan.-Jun. average (seasonally adjusted).  
Source: Ministry of Health, Labour and Welfare.



## Wages and Prices



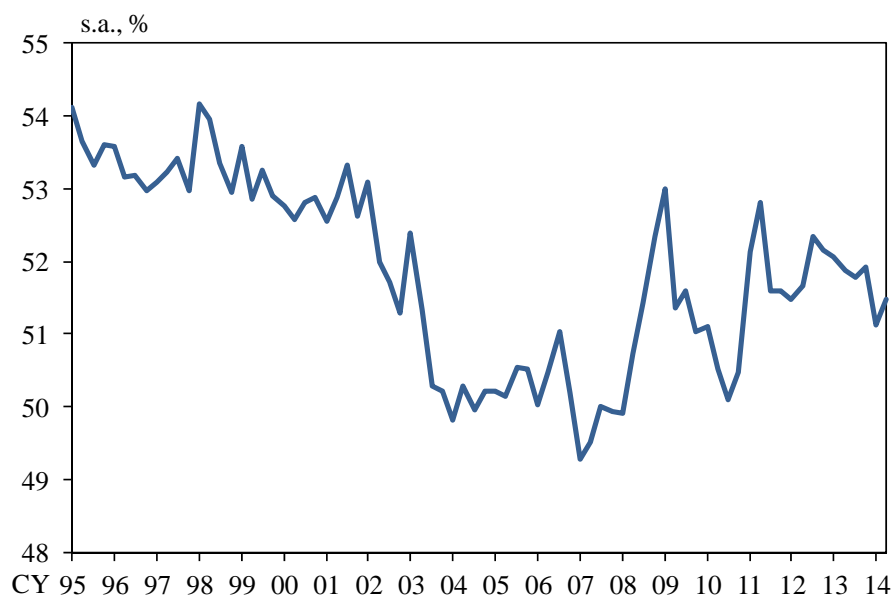
Notes: 1. Q1 = March-May, Q2 = June-August, Q3 = September-November, Q4 = December-February.

2. Figures for 2014/Q2 are those of June.

3. Figures for CPI are calculated to adjust the direct effects of the consumption tax hike.

Sources: Ministry of Health, Labour and Welfare; Ministry of Internal Affairs and Communications.

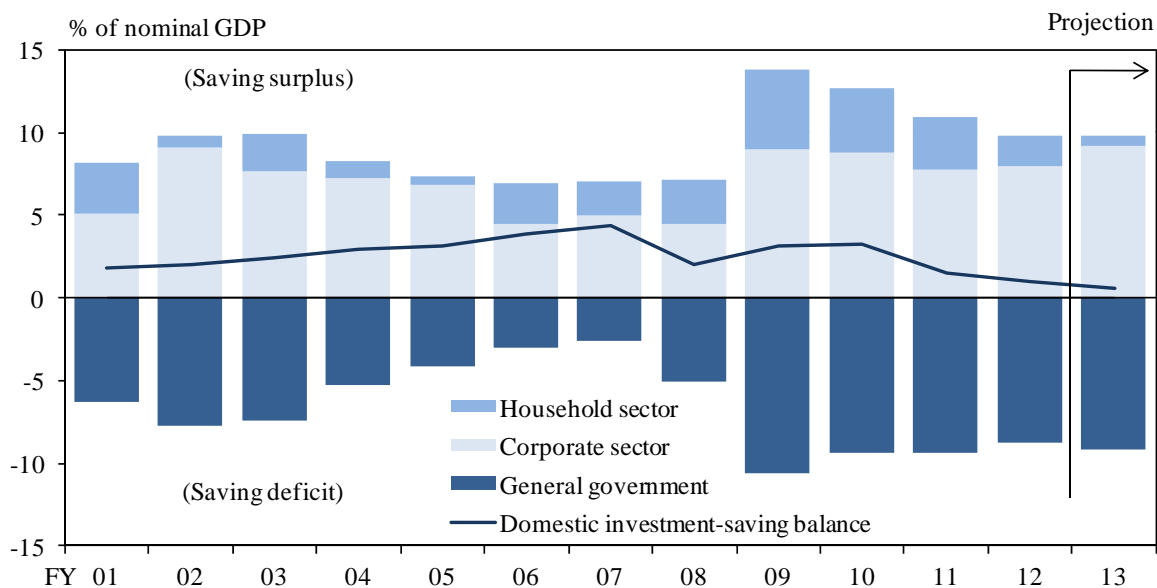
## Labor Share



Note: Labor share = compensation of employees / nominal GDP × 100

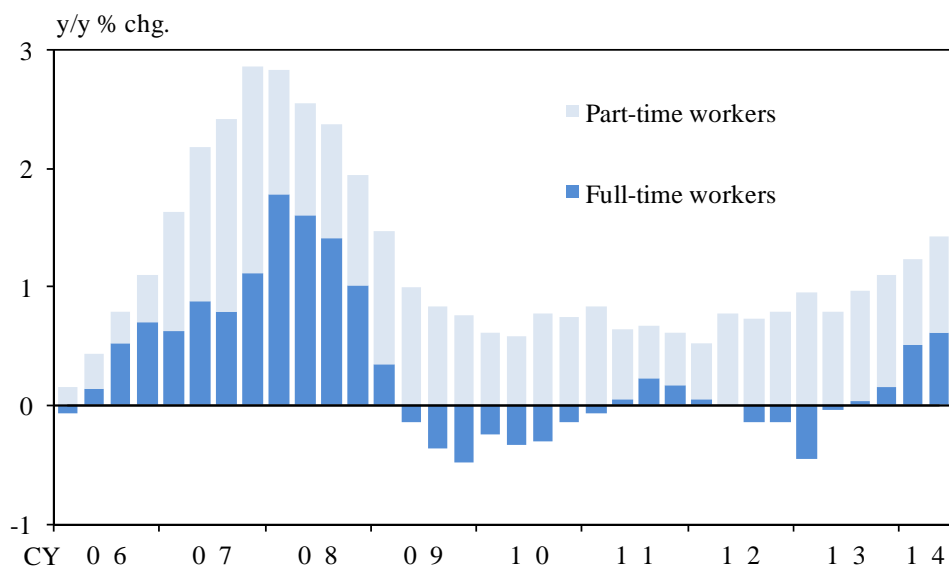
Source: Cabinet Office.

## Investment-Saving Balance



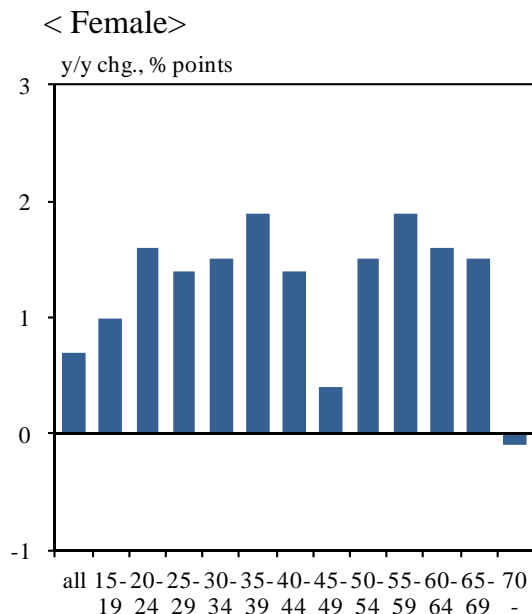
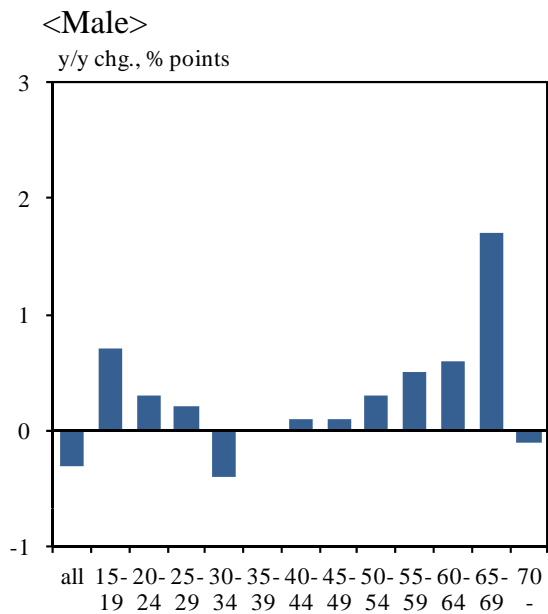
Source: Cabinet Office.

## Number of Part-time and Full-time Workers



Source: Ministry of Health, Labour and Welfare.

# Labor Force Participation Rate



Note: Figures are year-on-year changes from 2012 to 2013.  
Source: Ministry of Internal Affairs and Communications.