»» Japan: Is record low unemployment finally bringing back inflation?

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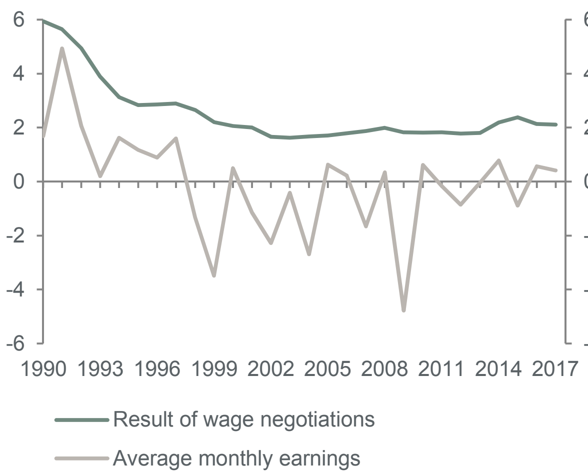
Japan's labour market is in excellent shape, with low unemployment and abundant job openings. This raises hopes of higher wage agreements which will ultimately translate into higher inflation as well since the inflation rate continues to remain below the Bank of Japan's target of 2 %. The tight labour market will help drive up inflation but a more vigorous inflationary push is unlikely. The link between inflation and unemployment is by now too weak for that to occur.

At the end of last year, Japan's labour market was in excellent shape. Unemployment is at its lowest level since the end of 1993, standing at 2.5 % in April 2018. The jobs-to-applicants ratio is 1.59, a level last seen in early 1974. The cyclical weakness of late 2017 / early 2018 has not affected the labour market (yet). A record high number of job openings and low unemployment should generate sufficient upward pressure on wage growth. The first results of this year's wage negotiations provide union members of the large car manufacturers with a pay rise of at least 3 %.[1] Despite the demonstrative effect these agreements have, initial surveys reveal that the average monthly wage will increase by 2.54 % in large enterprises and by 2.10 % overall.[2] Although this is higher than in previous years, it missed the 3 % target for wage increases announced by Prime Minister Abe, as already anticipated by observers.[3]

Figure 1: Wage negotiations and earnings

Year-on-year variation in per cent



Sources: The Japan Institute for Labour Policy and Training, Ministry of Health, Labour and Welfare, own calculations.

In 2017 the wage increase negotiated with large corporations was 2.11 %, lower than in previous years (2016: 2.14 %). This also translated into a lower average monthly pay increase of 0.4 % on the previous year (2016: 0.5 %).

Box 1: Wage negotiations in Japan[4]

Annual wage negotiations between companies and labour unions in Japan take place synchronised in spring (Shunto). They are conducted for (regularly employed) union members. The trade unions focus their demands on the monthly salary. Pay rises are composed of two elements: the first is a regular pay rise resulting from, among other things, the seniority principle according to which pay increases with the number of uninterrupted years of employment in the company. The second is an increase in the basic salary influenced by the inflation rate and other factors. Various allowances and the bonuses paid in summer and winter are added to the monthly salary.

The tariff agreements have a signalling effect on pay levels overall but the increase in the collectively negotiated monthly wage is not equal to the variation in monthly pay. This is because average pay refers to all employees and not just to union members.

Structural changes in the labour market overlap cyclical development

Collective wage negotiations are only a first indicator of how wages are evolving. First, the negotiations only determine a portion of annual wage increases. Second, only 17 % of workers are still union members. This is also due to structural changes in the labour market. The share of regular employees has fallen from around 85 % at the beginning of the 1980s to around 63 % in mid-2014 and has remained at this level since.

Box 2: Regular employment[5]

There is no legal definition of what constitutes regular employment. Regular employees are defined as workers who are hired directly by an employer without a predetermined length of employment and for a fixed number of working hours. In order to be counted as a regular employee, the employment must be permanent, direct and on a full-time basis. The latter, however, does not apply universally. In publications by the Japanese Statistics Bureau, part-time employees are classified as non-regular employees while data from the Ministry of Health, Labour and Welfare also includes part-time employees as a category of regular employees. Regular employees then enjoy workplace accident, unemployment and health insurance, as well as pension benefits within the public systems.

The growth in non-regular employment has diminished the importance of collective wage agreements for the development of average earnings. The growing share of non-regular employees has also reduced average wage growth, as these employees are paid less. According to the OECD, they earn around 63 % of the average hourly wage of a regular employee. The seniority principle hardly provides any additional income benefits for them. The hourly wage of non-regular employees varies between 54 % in the age group of 20 to 24-year-olds and 71 % in the 60 to 64 age group. By comparison, the hourly wage of regular employees in the 50 to 54 age group is 126 % of the average, which is the maximum.

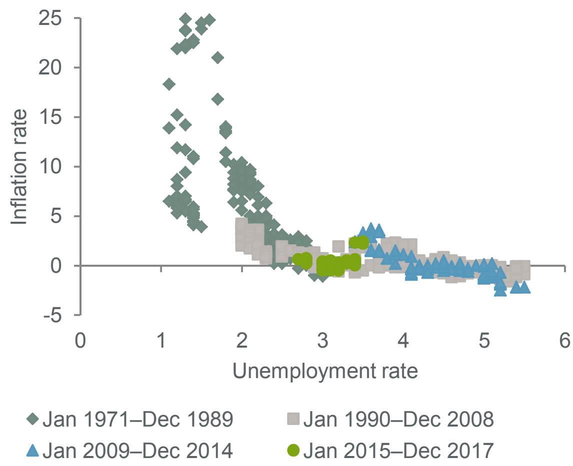
Tight labour market raises hopes of inflation

The tight labour market is expected to finally translate into faster wage growth and, subsequently, higher inflation. A look at the historical link between inflation and unemployment shows that both variables are moving towards an area in which a further decline in the unemployment rate suggests significantly higher inflation rates (see Figure 2).

The strikingly high inflation rates amid very low unemployment, however, fall into the 1970s and the time of the first oil price shock. Since the 1980s, in contrast, inflation has responded less – if at all – to the difference between current and structural unemployment than in the 1970s.

Figure 2: Inflation and unemployment

Monthly figures, inflation rate based on the general consumer price index.



Sources: Japanese Ministry of Health, Labour and Welfare, Bureau of Statistics, own calculations.

This applies not just to Japan, however, but to a number of industrialised countries.[6] The reasons given for this are:

- **Increased international competition and globalisation**[7]

Increased international competition, trade and international labour mobility limit companies' scope for setting prices. Prices of goods have to respond less strongly to domestic demand conditions and domestic wages have to respond less to the domestic labour market situation.

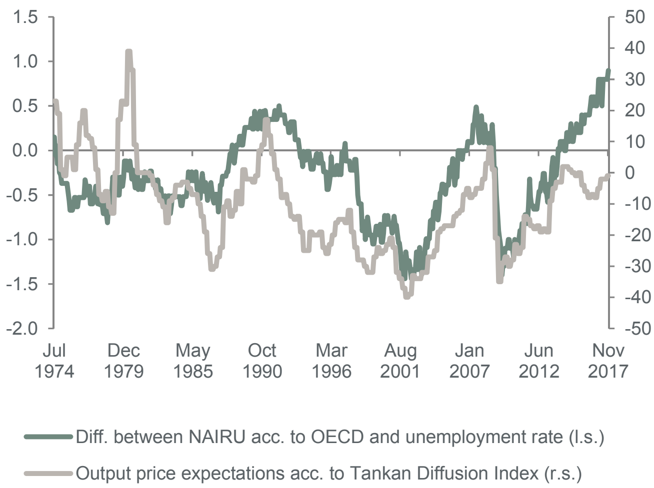
- **Stable inflation expectations**[8]

First, a credible monetary policy can anchor inflation expectations to the inflation target. As the inflation target of central banks is fairly stable, so too, therefore, are inflation expectations. Second, the experience of low and stable inflation may lead to a situation in which it receives no attention anymore and thus no longer plays a role in wage negotiations either. In both cases, the link between the situation on the labour market and inflation weakens.

Inflation expectations receive a great deal of attention in the context of monetary policy. Thus, inflation expectations of Japanese companies and the difference between the structural and the actual level of unemployment have experienced a relatively parallel development for a long time (Figure 3). At the current margin, as the labour market becomes increasingly tighter, the difference between the unemployment rate and its structural level is widening fairly continuously. Inflation expectations, however, do not appear to follow such an upward trend.

Inflation expectations in Japan are shaped relatively strongly by past inflation. In the last few years, including in the course of the aggressive monetary policy of Abenomics, inflation expectations of professional forecasters have been more closely aligned with the Bank of Japan's inflation target[9] and companies' inflation expectations have also increased.[10]

Figure 3: Inflation expectations and unemployment rate



Sources: Japanese Ministry of Health, Labour and Welfare, OECD, Bank of Japan, own calculations.

The declining inflation rates since 2014, however, are also influencing inflation expectations. Companies' inflation expectations remain below the Bank of Japan's target inflation of 2 %[11] and enterprises are exercising wage restraint.[12]

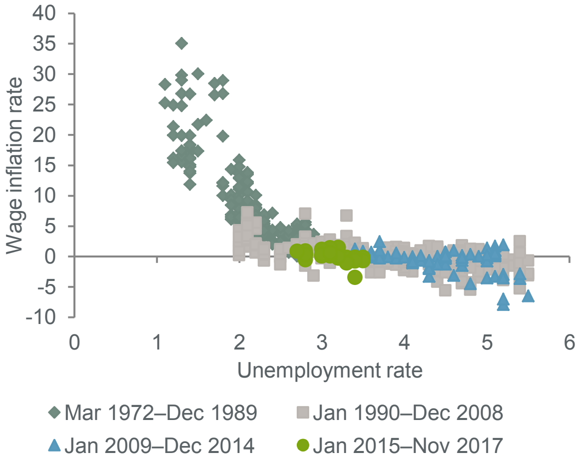
With low unemployment, wage growth is expected to pick up

When companies set their prices on the basis of average labour costs, then wage inflation – combined with productivity growth – determines price inflation. The link between unemployment and wage inflation then corresponds to the link between unemployment and consumer price inflation. Wage pressure normally increases when unemployment increases (or when the gap between actual unemployment and its structural level closes). In principle, this also applies to Japan although the correlation has been less pronounced since the 1990s at the latest. The corresponding illustration in Figure 4 is very similar to the link between consumer price inflation and the unemployment rate.

The previously mentioned structural changes on the Japanese labour market have kept average wage growth low. Now the very low jobless rate and abundance of job openings are expected to drive wage levels of regular employees. Available data on average incomes of regular full-time employees only go back to the beginning of 1993. But even for this shorter period of time, a lower unemployment rate is coupled with higher wage inflation for this group of employees (see Figure 5). What cannot be established, however, is whether inflationary pressure would rise significantly more if the unemployment rate declined further, as was seen in the general wage inflation of the 1970s and 1980s.

Figure 4: Wage inflation and unemployment

Wage inflation as variation of average monthly cash earnings on the same month of the previous year.



Sources: Japanese Ministry of Health, Labour and Welfare, Bureau of Statistics; own calculations.

Alternative point of view: output gap and inflation

At 2.7 % at the end of 2017, Japan's unemployment was significantly below the structural unemployment rate which the OECD estimated at 3.6 %. Instead of analysing the situation on the labour market, the gap between aggregate economic output and its long-term level (output gap) can be alternatively used to map capacity utilisation of the economy. The various methods for determining the output gap result in different assessments of capacity utilisation for Japan. Thus, the OECD has estimated the output gap for 2018 at 1.6 % of potential GDP, the IMF at -0.75 %. The Bank of Japan also sees the output gap in the third quarter of 2017 in positive terrain at 1.35 %.

A positive output gap suggests higher inflationary pressure than a situation in which the current production output is just nearing its potential. Accordingly, the output gaps stated by the Bank of Japan and the OECD point towards higher inflationary pressure than would be identified by the output gap estimated by the IMF. But even the output gap estimates by the OECD and the Bank of Japan do not need to indicate severe inflationary pressure.[13] Studies show that rising inflation rates would only be expected if a positive output gap occurs that is above 2 %, as estimated by the Bank of Japan. This is roughly the difference between the estimates of the IMF and the Bank of Japan.

Outlook

In January the inflation forecast of the Bank of Japan[14] for the fiscal year 2018 was still 1.3 to 1.6 % and 1.5 to 2 % for the following year, after adjusting for the effect of the planned VAT increase. This was explained with a continuing improvement of the output gap, gradually rising inflation expectations and the consequences of the Yen depreciation.

Figure 5: Wage inflation of regular employees and unemployment

Wage inflation as variation of regular full-time employees' average monthly cash earnings on the same month of the previous year.

Sources: Japanese Ministry of Health, Labour and Welfare, Bureau of Statistics; own calculations.

Wage and price increases of companies resulting from increasing aggregate capacity utilisation were also mentioned. In April the Bank of Japan's inflation forecast for the fiscal year 2018 in particular was more cautious, at 1.2 to 1.3 %.

All these developments of the output gap, inflation expectations and exchange rate effects should drive up inflation. How high it may rise crucially depends on how much slack actually exists on the labour market and in the economy as a whole. The high proportion of non-regular employees is a possible indication that the labour market is not yet as tight as the low unemployment rate suggests. Although the share of involuntary part-time employees has fallen, it remains at around one fifth of part-time employees according to the OECD. Besides, surveys show that a substantial portion of non-regular employees have not found a regular job and have therefore accepted non-regular employment.[15] When non-regular employment is involuntary, this puts downward pressure on wage growth. Moreover, a further reduction in the unemployment rate alone will hardly be sufficient to revive inflation more strongly. The link between inflation and unemployment is too weak for that to occur. In addition, wage growth is expected to remain unsatisfactory. But all factors that contribute to achieving the inflation target are welcome. ■

[1] See **https://uk.reuters.com/article/uk-japan-economy-wages/japan-inc-to-raise-wages-but-many-short-of-pm-abes-three-percent-target-idUKKCN1GQ087**

[2] Ministry of Finance (2018), Japanese Government Bonds, Monthly Newsletter of the Ministry of Finance, Japan, May 2018.

[3] Z.B. **www.businesstimes.com.sg/government-economy/japan-inc-to-announce-pay-hikes-seen-short-of-pm-abes-3-per-cent-target**

[4] Japan Institute for Labour Policy and Training, The 2017 Shunto, Wage Rise in SMEs and Non-Regular Employment, Japan Labour Issues, vol. 1., no. 1, 2017; Ministry of Health, Labour and Welfare, Survey on Wage Increase, Definition of Major terms, **http://www.mhlw.go.jp/english/database/db-l/wage-increase.html**

[5] Asao, Y. (2011): Overview of Non-regular Employment in Japan, JILPT Report No. 10.

[6] Iakova, D. (2007), Flattening of the Phillips Curve: Implications for Monetary Policy, IMF Working Papier WP/07/76; Rusticelli, E. (2015), Rescuing the Phillips curve: Making use of long-term unemployment in the measurement of the NAIRU, OECD Journal: Economic Studies Vol. 2014.

[7] Iakova, D. (2007), Flattening of the Phillips Curve: Implications for Monetary Policy, IMF Working Papier WP/07/76.

[8] Blanchard, O. (2018), Should we reject the natural rate hypothesis? Journal of Economic Perspectives 32 (1), 97–120.

[9] Hattori, M. and Yetman, J. (2017), The evolution of inflation expectations in Japan, BIS Working Paper No. 647.

[10] Kaihatsu, S. and Shiraki, N. (2016), Firms' Inflation Expectations and Wage-setting Behaviors, Bank of Japan Working Paper No.16-E-10.

[11] Bank of Japan (2018), Tankan Summary of "Inflation Outlook of Enterprises", 176th Short-Term Economic Survey of Enterprises in Japan.

[12] Porcellacchia, D. (), Wage-Price Dynamics and Structural Reforms in Japan, IMF Working Paper No. WP/16/20.

[13] Gagnon, J. E. (2017), There is no inflation puzzle – Japan edition, realtime economic issues watch, Peterson Institute for International Economics, 8. December 2017, piie.com/blogs/realtime-economic-issues-watch/there-no-inflation-puzzle-japan-edition.

[14] Inflation refers to consumer price inflation without fresh food. Bank of Japan (2018), Outlook for Economic Activity and Prices, January 2018.

[15] Result of a survey of men and unmarried women aged 25 to 45. Source: JILPT, Labor Situation in Japan and Its Analysis; Detailed Exposition 2016/2017, p. 7.