

## Lifting the cap? The importance of interactions between public and private sector wage growth in the UK

Political pressure is mounting to lift the cap on public sector pay. Since pay restraints were introduced in 2010, real personal disposable income has been squeezed and the gap between public and private sector wage growth has widened. A key question is what the effects of a public pay increase will be on the wider economy, in particular on inflation and monetary policy. To gauge these effects, it is crucial to understand the interactions between public and private sector wages. An ongoing research project at NIESR analyses this feedback mechanism in more detail.

In our last Review, we discussed the details of wage determination in the public sector relative to private sector bargaining. Pay rises will benefit workers in the public sector, where average rates of pay have fallen in real (RPI-deflated) terms by 10 per cent since 2009. Higher pay will also help alleviate hiring difficulties that have developed in some parts of the public sector. On the other hand, even a small increase in public sector pay has the potential to put substantial pressure on the government's fiscal position (Cribb, 2017). If lifting the public sector pay cap had sizeable spillover effects on private sector wages, it could revive currently anaemic wage dynamics but would add to inflationary pressure in the current low-productivity, low-unemployment environment. The monetary response would be stronger than if spillovers were absent.

We analyse which sector acts as the wage leader in the UK and whether an exogenous shock to public sector wages has the potential to spill over into the private sector. We reach two conclusions:

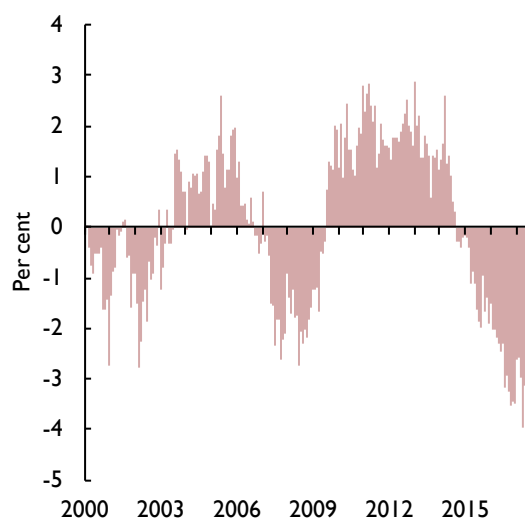
1. In the long term (around five years), the level of wages in the UK economy as a whole is determined in the private sector, reflecting productivity growth and changes to the international terms of trade.
2. In the short term however (within one year), changes to public sector pay have a statistically significant effect on private sector earnings.

Following the literature (Lindquist and Vilhelmsson, 2006; Lamo *et al.*, 2012), we estimate the determinants of wage growth in both sectors and test for convergence to an equilibrium defined by the relative wage level (error correction) and spillovers in the short run from one sector to the other (Granger causality). Using non-seasonally adjusted data at monthly frequency allows us to estimate spillovers directly for different months of the year.

Figure 1 depicts the deviation of the level of public sector wages from an equilibrium defined by private sector wages and a constant wedge, which captures differences in the skills composition across sectors. It shows that, after the financial crisis, public sector wages rose above the historically defined equilibrium as private sector wage growth fell sharply during the recession. After 2014, however, public sector wage growth increasingly fell behind that of the rest of the economy. As of 2017, we estimate the deviation from equilibrium to be more than 3 per cent in absolute terms – higher than what has been observed over the past fifteen years. This implies that if pay restraints were lifted and public sector wages were allowed to be determined by the dynamics of the economy, substantial catch-up would take place.

Figure 2 provides estimates for spillover effects from the public to the private sector. On average, we estimate that an increase in annual public sector wage growth of 1 percentage point translates into *monthly* private sector wage growth of between 0.03 and 0.12 per cent during the following month. This is a sizeable effect given that only 17 per cent of all employees are employed in the public sector. Figure 2 also shows that the timing of spillovers varies significantly over the course of the year, with the largest effects being estimated for January, when wages are

Figure 1. Deviation of public sector wages from the long-run equilibrium



Source: ONS data on average weekly earnings excluding bonuses and arrears, author's calculations.

Note: Residual from a regression of the log of public sector wages on the log of private sector wages and monthly dummies (long-term equation).

## Lifting the cap? (continued)

being re-negotiated in parts of the private sector. It also illustrates that results depend on whether bonus payments, which drive large variations in earnings in the private sector, are taken into account.

What are the implications for our forecasts? Taking both results together, we find that public sector wages may have to increase by around 3 per cent more than private sector wages if the historical equilibrium relationship is to be restored. In the long term, the equilibrium level of wages in both sectors will depend crucially on productivity and the global price level. However, if pay restraints on public sector wages were to be lifted completely, we would expect additional spillover effects on wages in the private sector. This would revive wage dynamics in the whole economy. If wage increases were not accompanied by productivity growth, we would expect inflationary pressure to build up. With headline inflation above target, the Bank of England is monitoring wage dynamics closely, for which, as we show, interactions between public and private sector wage growth are of high importance.

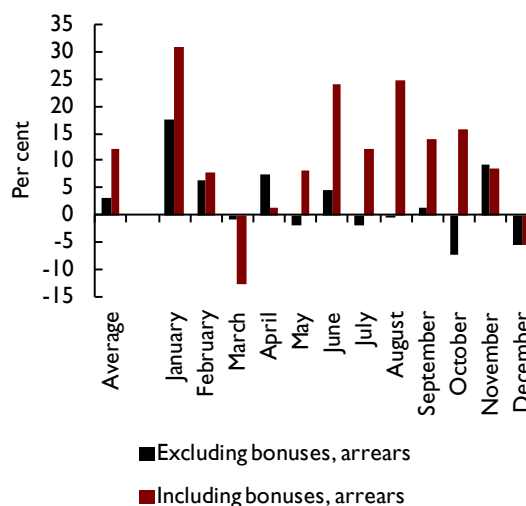
Given that our analysis is based on the historical relationship between aggregate wages, a number of caveats need to be highlighted. Spillovers may vary strongly across sub-sectors of both the private and public sector, and aggregate results may be underestimated. In an extended analysis we will study wage interactions at the micro level. In addition, our sample stretches from 1990 to 2017 and therefore only captures a period of moderate wage growth. Furthermore, the historical relationship between both sectors may have changed more fundamentally after the financial crisis and during the period in which public pay was frozen or constrained, which could lead to an overestimation of spillover effects and the deviation of public sector wages from equilibrium.

### REFERENCES

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This box was prepared by Arno Hantzsche.

Figure 2. Short-run spillovers from public sector wages to the private sector



Source: ONS data on average weekly earnings, author's calculations.  
 Note: Estimates for lagged terms of annual public sector wage growth in an equation of monthly private sector wage growth determinants are reported as well as estimates for interactions between public sector wage terms and monthly dummies.