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Economics Group

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Seasonal Distortions Linger in Q1 Nonfarm Payrolls Data

Seasonal distortions in Q1 nonfarm payrolls data obscure analysts' interpretation of the labor market. Looking through the recent monthly variation, payroll growth is expected to slow only moderately this year.

Payroll Whiplash

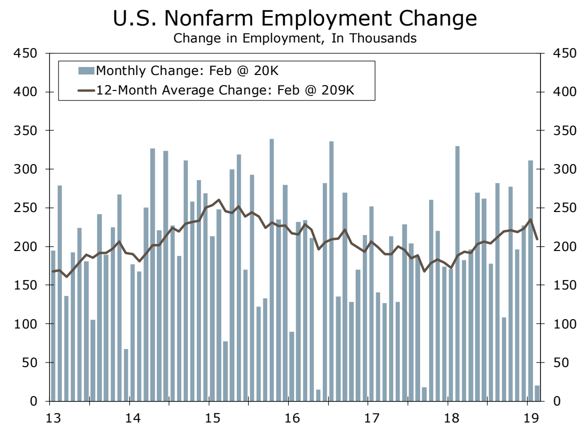
Employers added an average of roughly 225,000 employees per month in 2018. While that was the fastest annual pace since 2015, we expect the pace of hiring to slow this year as economic growth moderates and the tight state of the labor market makes it difficult for firms to fill vacant positions. Indeed, finding qualified labor remains the most-cited problem among small businesses, and job openings remain near a record high.

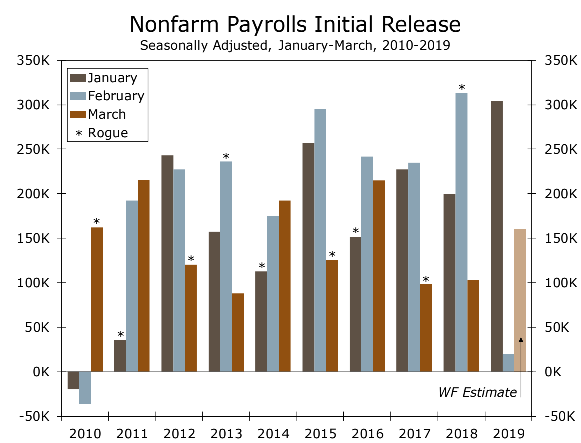
But, as the calendar flipped to 2019, job growth surprised to the upside—employers added an initially reported 304,000 jobs in January. Fast forward a month, and that January gain was upwardly revised to 311,000. Hiring in February, however, slowed to a crawl as employers added only 20,000 jobs, the lowest gain in a year and a half (top chart). While January payrolls likely overstated the strength of the job market this year, payroll growth in February has understated it. Transitory factors, such as the government shutdown and unseasonably mild weather in the first month of the year, could partly be to blame for recent volatility. But even considering these factors, the whiplash between these two reports has raised some eyebrows regarding the reliability of these estimates.

In a special report last year, we argued there is evidence of seasonal distortions in the initial estimate of Q1 nonfarm payrolls data. Seasonal adjustment aims to rid a series of a predictable pattern, such as weather, holidays or business cycles. Since 2010, one month of Q1 nonfarm payrolls data has typically had a much larger or smaller change in payrolls then the other two months. We categorize this outlier as the rogue month and notate it "*" in the middle chart.

The variation in the timing of winter storms and holidays are two factors that are likely causing seasonal distortion across the three months. But, since the pattern developed in 2010, we suspect the 2.3 million drop in payrolls in Q1-2009—the largest drop in a single quarter since 1945—may have also disrupted the seasonal adjustment process for Q1 payrolls.

After the two volatile months to start this year, we suspect seasonal distortion is still affecting nonfarm payrolls data. If, as we expect, Friday's employment report shows employers added 160,000 jobs in March, the January payroll change would be traditionally categorized as the rogue payroll print for Q1-2019 (bottom table). But, with the absolute difference between January and February (284,000) being the largest gap in our sample period, both months may be considered rogue. Even as the expansion is on pace to become the longest on record, the increasing variability between the initial monthly payroll estimates suggests the magnitude of seasonal distortion in the first quarter may be increasing and obscuring analysts' interpretation of the labor market. Looking through these monthly variations, payroll growth is expected to slow only moderately this year as the labor market continues to tighten.





Seasonal Distortion in Nonfarm Payrolls

Year	Absolute Difference J&F	Absolute Difference F&M	Absolute Difference J&M	Outlier
2010	16K	198K	182K	Mar
2011	156K	24K	180K	Jan
2012	16K	107K	123K	Mar
2013	79K	148K	69K	Feb
2014	62K	17K	79K	Jan
2015	38K	169K	131K	Mar
2016	91K	27K	64K	Jan
2017	8K	137K	129K	Mar
2018	113K	210K	97K	Feb
2019	284K	*140K*	*144K*	*Jan*

* Red values = Lowest absolute value
* Italicized vales = WF Forecast Values

Source: Bloomberg LP, U.S. Department of Labor and Wells Fargo Securities

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