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Economics Group

Special Commentary

Sarah House, Economist
sarah.house@wellfargo.com • (704) 410-3282
Alex V. Moehring, Economic Analyst
alex.v.moehring@wellfargo.com • (704) 410-3247

Job Openings vs. Turnover: Mixed Messages from JOLTS

Executive Summary

The labor market seems to be the least of the Fed's concerns lately as global and financial conditions have come to the forefront and a pickup in inflation is now further away following recent movements in the dollar exchange rate and commodity prices. Over the past year, nonfarm payrolls have continued to grow on average north of 200,000 per month, the unemployment rate has fallen within the Fed's estimated range for full employment and initial jobless claims are hovering near 40-year lows. Adding to the impressive reads on the labor market are job openings, which are sitting at the highest levels since the Bureau of Labor Statistics (BLS) began tracking them in late 2000. Typically a rise in job openings would be accompanied by a pickup in gross hiring, as more workers shift jobs and new positions are filled. Yet, turnover in the labor market remains stubbornly low, leading to a breakdown in the historical pattern between job openings and hirings (Figure 1). Is this the result of employers having difficulty filling open positions, or has turnover in the labor market permanently decreased for other reasons following the past recession?

Turnover in the labor market remains stubbornly low.

We find little indication that the relatively high rate of job openings relative to gross hiring is due to a structural mismatch between job openings and workers' skills or location. The varying rate of job growth across industries and states appears fairly typical, while job openings are historically high compared to hiring among all industries. Instead, companies appear to be more cautious in general, and research finds recruiting intensity among firms has yet to reach effort levels of the previous expansion. On the supply side, lower labor turnover has also contributed to the breakdown, as layoffs have been exceptionally low in recent years and workers are still somewhat reluctant to quit their jobs. The lower level of turnover looks to be a contributing factor to a number of issues that continue to plague the economy, including the disappointing pace of wage growth, weak productivity growth and the low rate of labor force participation.

JOLTS and the Fed's Expanded Look at the Labor Market

As members of the Federal Open Market Committee widened their net of labor market indicators, the profile of the Job Openings & Labor Turnover Survey (JOLTS) has risen. The JOLTS report adds to labor market readings from the more high-profile monthly Employment Situation released by the BLS by providing a snapshot of job vacancies at the end of the month, which can be interpreted as the demand for labor. The turnover side of the report provides data on the total number of hires and separations over the month. Gross hiring and separations are typically looked at to derive net job creation. However, given the timing of the JOLTS report, which comes out a little over a month after the employment report, the turnover data are typically viewed through the lens of overall churn, which can indicate a level of dynamism in the labor market.

Job openings have been one of the more encouraging signs for the labor market over the past year. According to JOLTS data, the number of job openings in July reached the highest level since the BLS began keeping track in the early 2000s. Job openings are now up more than 22 percent over the past year.

As job openings are measured on an end-of-month basis, they have historically run roughly one million jobs below the gross level of hiring that occurs over the course of a month. While some jobs can take months to fill, others, particularly lower-skilled positions where employers need few specific skills, can be filled within a few short weeks, meaning that some vacancies may never be captured in the JOLTS job opening figures. Yet as illustrated in Figure 1, the surge in job openings has not been accompanied by a similar strengthening in hires, and the number of available jobs at the end of the month has surpassed gross hiring.

Figure 1

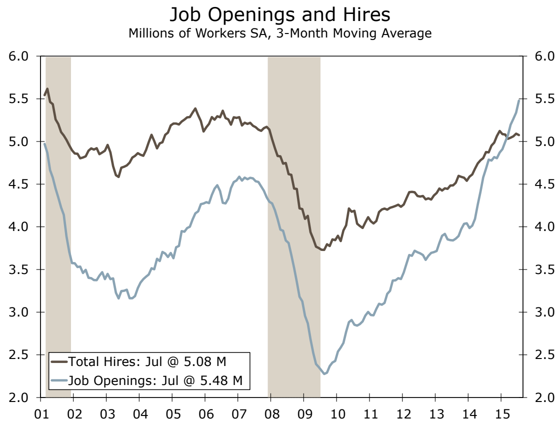
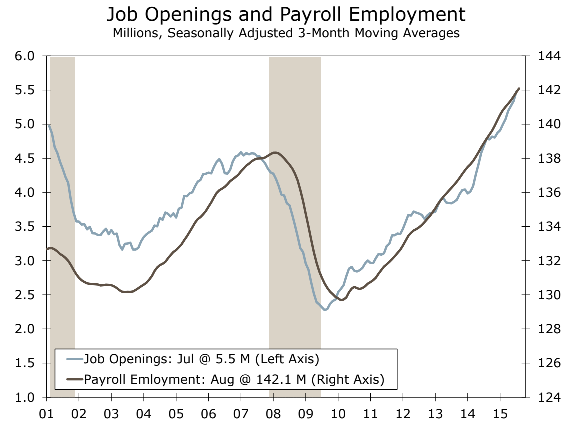


Figure 2



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

Record Job Openings but Hiring Still Recovering: What Gives?

Job openings in the past cycle led turning points in net hiring by seven months.

What's behind the breakdown between gross hiring and job openings and what does it signal about the post-Great Recession labor market? The number of job openings measured at the end of the month is a function of two components. The first is outright labor demand, the primary aim of measuring job openings in the first place. As businesses look to add new positions, the number of job openings will rise alongside total payrolls (Figure 2). Job openings in the past cycle led turning points in net hiring by seven months, making it a more-forward looking gauge of the labor market. Therefore, the jump in job openings may simply be signaling that a pickup in hiring is around the corner.

A second factor influencing the number of jobs available at the end of the month, which would make the vacancy figures less telling about near-term job growth, is the length of hiring times. If companies are taking longer to fill vacancies, openings previously missed by the end-of-month snapshot may now be getting picked up in the vacancy figures. Using the JOLTS data on hirings and job openings, researchers find that hiring times are indeed lengthening.[1] The average time it took employers to fill a job opening was 29 days in July, nearly six days longer than the peak of the last cycle (Figure 3).

Longer Hiring Times: Is It Structural Unemployment?

Why are employers taking so much longer to fill positions? One explanation could be an increase in structural unemployment following the Great Recession, a debate that has raged on for some time now. Many have argued that the increased use of automation or structural imbalances resulting from the Great Recession have left a large number of workers without the necessary skills that employers are seeking.

One piece of evidence in favor of higher structural unemployment is the Beveridge curve, which illustrates the negative relationship between the unemployment rate and the vacancy rate. There has been a clear outward shift in the Beveridge curve since the Great Recession (Figure 4). Many have claimed this shift represents an increase in structural unemployment, because for a given vacancy rate, there is a higher unemployment rate, implying that the labor market is less efficient in matching workers with available jobs. This could plausibly be a result of a skills mismatch or a

[1] Davis, Steven J., Jason Faberman and John Haltiwanger. (2013). "The Establishment-Level Behavior of Vacancies and Hiring." *Quarterly Journal of Economics*, 128 (2): 581-622.

lack of geographical mobility, indicative of structural unemployment. Other plausible causes that have also been proposed include policies that alter the trade-off between work and leisure.

Figure 3

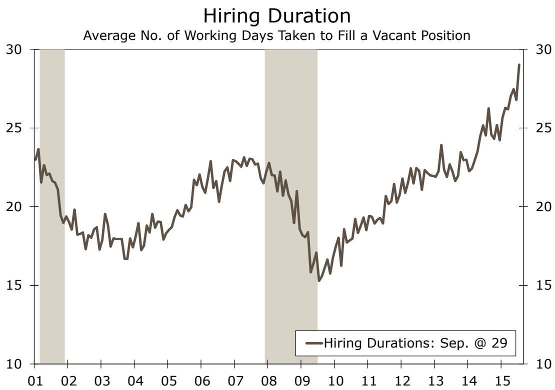
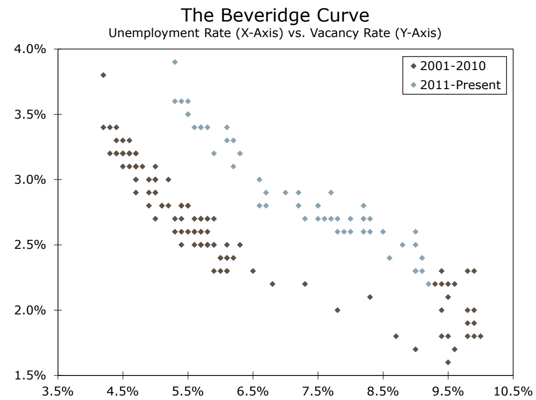


Figure 4



Source: DHI Group, Inc., U.S. Department of Labor and Wells Fargo Securities, LLC

The evidence regarding structural unemployment from the Beveridge curve is mixed.

The evidence regarding structural unemployment from the Beveridge curve is mixed. When plotted in a different manner, the picture does not look as grim. Figure 5 shows the number of unemployed per job opening, and we can see this ratio is now at a historically low level. In addition, the outward shift in the Beveridge curve is not unprecedented following a recession. Moreover, there is evidence that previous outward shifts in the Beveridge curve did not lead to higher "terminal" unemployment rates for the cycle's trough as would be predicted by the structural unemployment explanation.[2]

If the outward shift were in fact due to mismatches in the labor market, we would expect the imbalances to be a result of uneven job growth, as certain sectors grow rapidly and others shed jobs.[3] Economists at the Federal Reserve Bank of San Francisco used the weighted standard deviation as a rough measure of this dispersion. As shown in Figure 6, the dispersion of job growth increases during recessions, as jobs are shed at an uneven rate across states and industries—conditions ripe for structural unemployment. However, our extension of the series shows the balance of job growth has been quickly restored, with a fairly typical dispersion in job growth across industries and states. This would be consistent with unemployment remaining somewhat high due to a slow labor market recovery in general rather than structural factors.

Figure 5

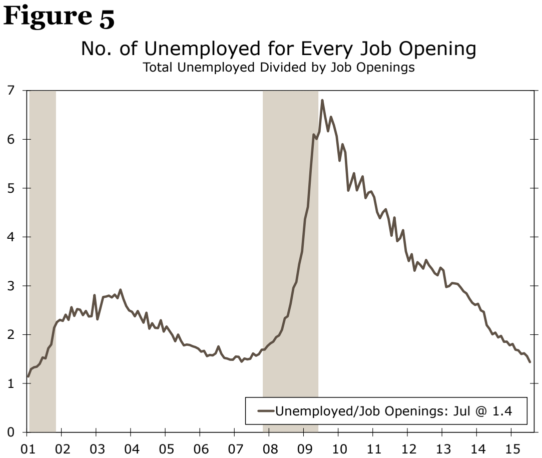
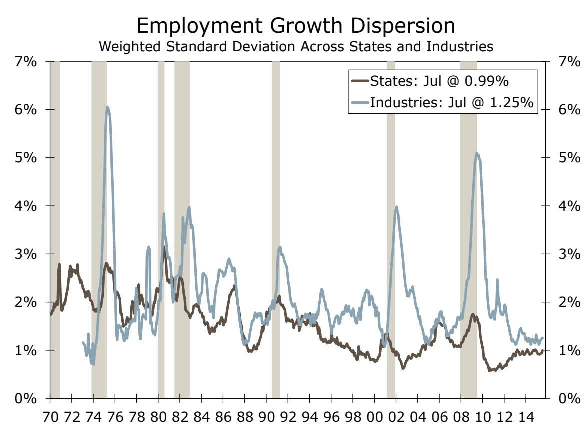


Figure 6



Source: U.S. Department of Labor, Valletta and Kuang (2010) and Wells Fargo Securities, LLC

[2] Diamond, Peter and Aysegul Sahin. (2014). "Shifts in the Beveridge Curve."
[3] Valletta, Rob and Katherine Kuang. (2010). "Is Structural Employment on the Rise?" Federal Reserve Bank of San Francisco *Economic Letter*, 2010-34.

That said, similar measures of the dispersion in the unemployment rate remained elevated for some time following the recession, although they have since recovered. This would imply that, although there was less dispersion in employment growth, the recovery was initially too slow in certain sectors and states to bring down the unemployment rate evenly, as certain industries and localities were hit disproportionately by the recession. This provides evidence for the persistence of at least some structural unemployment in the economy, as many of these workers may need to gain new skills to be competitive in industries with tighter labor markets. These measures have since recovered, weakening the argument for increased structural unemployment.

Perhaps the most convincing evidence that structural unemployment is not as widespread as many have feared is that there has been no significant pickup in labor costs. If the amount of structural unemployment in the economy had increased noticeably, economic theory tells us we would see an increase in employment costs in areas were adequate labor is scarce. In addition, one would expect to see significant variation between industries if labor markets for skilled workers, for example, are tighter than labor markets for unskilled workers.

Moreover, if job openings have strengthened significantly ahead of total hiring due to structural unemployment, we would expect to see the breakdown in only some industries. However, job openings are elevated relative to hirings across all industries. Therefore, companies may simply be exerting more caution when filling new positions in light of the slow growth environment, rather than having trouble finding qualified workers.

The intensity with which firms look to fill open positions may also be drawing out hiring times.

The intensity with which firms look to fill open positions may also be drawing out hiring times. Even if the workforce has the skills demanded by employers, finding the right candidate takes effort. Firms need to advertise for open positions, whether internally or externally. Many firms keep a vacancy open for a set amount of time before beginning the interview process, even if qualified candidates have already applied. Scheduling interviews with the appropriate parties can take time, and then job offers may not be immediately accepted.

Firms can signal their recruiting intensity through the number of places job vacancies are posted, how much money is spent on those advertisements, as well as how much firms are offering in compensation. Davis et al. also use JOLTS data to develop an index on recruiting intensity, although the index does not separate out the quality of applicants—or a skills mismatch—as a reason for longer hiring times.[4] As shown in Figure 7, recruiting intensity has improved over the past few years as the economy has strengthened, but still remains below levels reached when the labor market was in full swing in the past expansion.

Figure 7

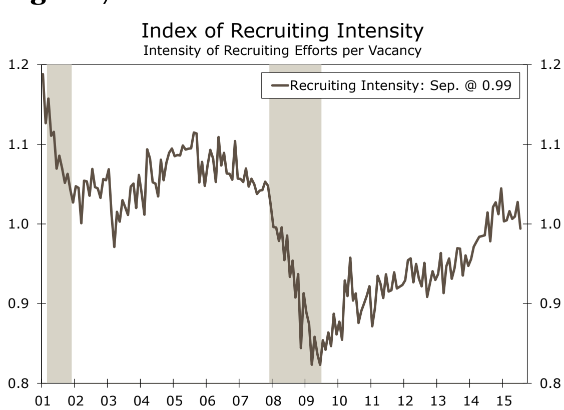
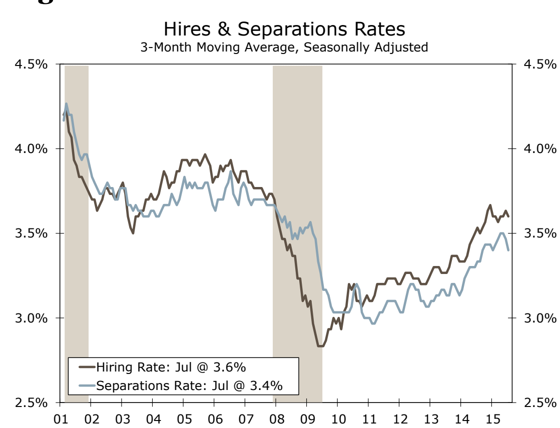


Figure 8



Source: DHI Group, Inc., U.S. Dept. of Labor and Wells Fargo Securities, LLC

[4] Davis, Steven J., Jason Faberman and John Haltiwanger. (2010). "Recruiting Intensity during and after the Great Recession: National and Industry Evidence." ***American Economic Review*****, 102 (3): 584-88.**

Low Labor Market Turnover All Around

The longer implied hiring times generated by JOLTS data in part stem from the relatively low rate of gross hiring that has persisted more than five years into the labor market recovery. Total churn in the labor market remains depressed relative to the previous expansion (Figure 8). Even as the total number of jobs in the economy has more than recovered, the hiring rate—or the share of jobs filled by a different worker each month—is still below the levels that prevailed in the mid-2000s.

The strong rate of payroll growth over the past year, despite the low rate of hiring, comes as the separation rate between workers and jobs has also been subdued. Separations can be viewed as good or bad for the economy. Involuntary separations, such as layoffs and firings, are a negative sign for labor demand, while voluntary separations, such as quits, are a sign that workers feel confident in their job prospects.

Involuntary separations have been exceptionally low in the current expansion.[5] Although fewer layoffs do not directly equate to increased job growth, the favorable business conditions that would warrant low layoffs would also support additional hiring. While JOLTS data on involuntary separations only date back to the early 2000s, the weekly initial jobless claim figures have been a prime illustration of the low level of layoffs. Initial jobless claims are hovering near 275,000 per week, a level only briefly seen in early 2000 and, prior to that, unseen since 1973. Considering the workforce is nearly double its 1973 size, that puts the rate of jobless claims at a historic low.

The rate at which workers are voluntarily leaving their job has been somewhat less impressive. Quits rebounded strongly between early 2010 and 2014 but have been little changed this year. At 1.9 percent, the share of workers quitting their job remains noticeably below the previous expansion, indicating only mediocre confidence among workers in their prospects for other jobs.

Workers are still relatively reluctant to switch employers.

The low quit rate partly reflects demographic changes to the workforce, and therefore, it may be unreasonable to expect the quit rate to return to previous levels. Employee tenure tends to rise with age, as older workers are less likely to switch jobs (Figure 9). With workers age 45 and over now accounting for the largest share of the employment base, the ageing of the workforce may be leading to a secular decline in the quits rate. That said, the protracted recovery in quits looks at least partly due to the cyclical factors given the severity of the past downturn. Within individual age cohorts, average job tenure in 2014 remained above levels that prevailed in the mid-2000s, indicating workers may still be relatively reluctant to switch employers. In addition, quits do not look out of line with the unemployment rate, which has continued to improve even if not yet indicating a tight labor market (Figure 10).

Figure 9

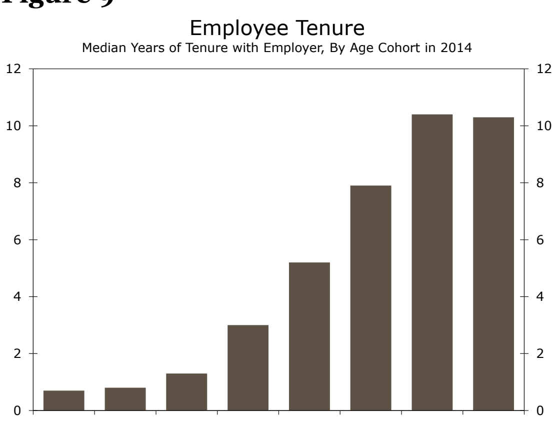
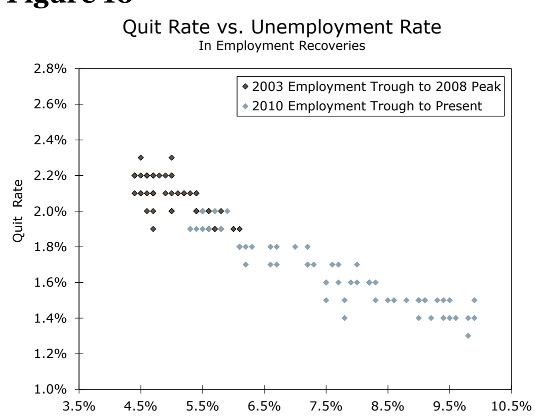


Figure 10



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

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[5] According to the BLS, layoffs and discharges include layoffs with no intent to rehire; formal layoffs lasting or expected to last more than seven days; discharges resulting from mergers, downsizing, or closings; firings or other discharges for cause; terminations of permanent or short-term employees; and terminations of seasonal employees.

The Problems With Low Turnover

On the surface, low turnover in the labor market may not seem problematic as long as net hiring remains strong. Yet, the lower level of churn is likely contributing to some of the more vexing issues that have continued to plague the economy more than five years into the expansion, including low wage growth, weak productivity growth and depressed labor force participation.

The lower level of churn is likely contributing to some of the more vexing issues that have continued to plague the economy.

The labor market has improved noticeably across a broad range of measures over the past several years, but wages are not one of them. Wage growth has been stuck around 2 percent since 2010. The lack of wage acceleration has kept real earnings virtually stagnant and has generated little upward pressure on inflation, much to the disappointment of Federal Reserve policy-makers. Job switching, however, is an important source for an individual's wage growth. Research finds workers moving from one job directly into another typically see an 8.6 percent increase in earnings from the switch, and job-switching accounts for about one-third of early career wage growth.[6] Therefore, a higher rate of voluntary separations would help generate higher wage growth and help boost inflation.

Wage gains generated from switching jobs are due, in part, to the productivity gains derived from better matching workers' skills to jobs. Productivity growth, a key factor in raising living standards and boosting the economy's potential rate of growth, has slowed dramatically in recent years. While there seem to be multiple causes for the slowdown,[7] the reduced rate of labor turnover has contributed by reducing the rate at which resources—in this case labor—flow to their most productive uses.[8] Therefore, the historically low rate of jobless claims is not quite the purely positive sign for the economy it is often portrayed.

Perhaps most troubling is the effect lower turnover has on unemployed workers. While a lower rate of separations is good in that workers have greater job stability and less chance of unemployment, the flip side is that unemployed workers have a harder time becoming employed. With longer spells of unemployment, workers are at risk of losing human capital, which would also have negative effects on productivity. Moreover, research has shown that reduced churn in the labor market leads to a lower employment rate.[9] Therefore the low rate of turnover is likely contributing to the still-elevated rate of long-term unemployment and the depressed labor force participation rate as those out of work have had a difficult time finding employment opportunities.

Bottom Line: A Less Dynamic Labor Market

The JOLTS report has provided some of the most encouraging readings on the labor market over the past year via figures on job openings, but a lack of a commensurate pickup in turnover suggests a shift in the way the labor market functions in the post-Great Recession environment. On the surface, the surge in unfilled jobs hints at structural unemployment, which may explain at least some of the breakdown between openings and gross hirings. However, a widespread increase in hiring times and only moderate recruiting intensity across all industries suggest a broader shift in the way companies hire.

Keeping gross hiring subdued is a lack of turnover in the labor market more generally. Companies are laying off workers at record low rates, but workers still show some insecurity about job prospects, as evidenced in the quit rate, which has yet to recover. The result is less movement of workers between jobs, which is in part due to secular trends in the workforce. Even as low turnover has not impeded net job growth, low turnover does indicate a less dynamic labor market.

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[6] **Lazear, Edward P. and James R. Spletzer. (2012). "Hiring, Churn and the Business Cycle." National Bureau of Economic Research Working Paper No. 17910.**
Topel, Robert H. and Michael P. Ward. (1992). "Job Mobility and the Careers of Young Men." ***Quarterly Journal of Economics,*** **vol. 107, no. 2, pp. 439-479.**
[7] **For a discussion on the slowdown in productivity, see** ***Idled: What Happened to Productivity?*** **(Jul. 6, 2015), available on request.**
[8] **Lazear and Spletzer 2012.**
[9] **Davis, Steven J. and John Haltiwanger. (2014) "Labor Market Fluidity and Economic Performance." NBER Working Paper No. 20479.**

The consequences of reduced dynamism in the labor market include weaker wage growth, slower productivity gains and an increased likelihood that the unemployed will be locked out of the labor market. As a result, the Fed has likely viewed recent JOLTS reports with mixed interpretations. Job openings, given their link to overall labor demand, continue to portend a strong rate of job growth. More modest turnover, however, is likely a contributing factor to the FOMC's shaky confidence for wages and inflation, as well as its outlook for lower productivity and potential growth.

Wells Fargo Securities, LLC Economics Group

Diane Schumaker-Krieg	Global Head of Research, Economics & Strategy	(704) 410-1801 (212) 214-5070	diane.schumaker@wellsfargo.com
John E. Silvia, Ph.D.	Chief Economist	(704) 410-3275	john.silvia@wellsfargo.com
Mark Vitner	Senior Economist	(704) 410-3277	mark.vitner@wellsfargo.com
Jay H. Bryson, Ph.D.	Global Economist	(704) 410-3274	jay.bryson@wellsfargo.com
Sam Bullard	Senior Economist	(704) 410-3280	sam.bullard@wellsfargo.com
Nick Bennenbroek	Currency Strategist	(212) 214-5636	nicholas.bennenbroek@wellsfargo.com
Eugenio J. Alemán, Ph.D.	Senior Economist	(704) 410-3273	eugenio.j.aleman@wellsfargo.com
Anika R. Khan	Senior Economist	(704) 410-3271	anika.khan@wellsfargo.com
Azhar Iqbal	Econometrician	(704) 410-3270	azhar.iqbal@wellsfargo.com
Tim Quinlan	Economist	(704) 410-3283	tim.quinlan@wellsfargo.com
Eric Viloria, CFA	Currency Strategist	(212) 214-5637	eric.viloria@wellsfargo.com
Sarah House	Economist	(704) 410-3282	sarah.house@wellsfargo.com
Michael A. Brown	Economist	(704) 410-3278	michael.a.brown@wellsfargo.com
Erik Nelson	Economic Analyst	(704) 410-3267	erik.f.nelson@wellsfargo.com
Alex Moehring	Economic Analyst	(704) 410-3247	alex.v.moehring@wellsfargo.com
Misa Batcheller	Economic Analyst	(704) 410-3060	misa.n.batcheller@wellsfargo.com
Michael Pugliese	Economic Analyst	(704) 410-3156	michael.d.pugliese@wellsfargo.com
Donna LaFleur	Executive Assistant	(704) 410-3279	donna.lafleur@wellsfargo.com
Cyndi Burris	Senior Admin. Assistant	(704) 410-3272	cyndi.burris@wellsfargo.com

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