

INSIGHTS

GLOBAL MACRO TRENDS

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Labor in Transition

A woman with short brown hair is holding a red sign with white text that reads "HELP WANTED". She is looking down at the sign. The background is a blurred outdoor scene with a blue sky and some greenery. The sign is held up in front of a window frame.

**HELP
WANTED**

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Labor in Transition

Even before the pandemic, our macro forecasts had been signaling that a structural shift in the U.S. employment market was taking place. Indeed, despite significant progress in key areas such as automation and digitalization, the United States still remains short qualified workers to satisfy its growth demands. Now, under the cloud of COVID, a perfect storm has been brewing: Lack of worker retraining, weakening immigration trends, early retirement, and shifting priorities based on health and well-being, have all come together to accelerate this worker shortage, changing the narrative on not only the recovery but also the resting rate of inflation this cycle. For global allocators of capital, we believe we have entered a new investment regime. Specifically, we think that most allocators of capital will need not only to shorten the duration of traditional fixed income portfolios but also to lean into more products that provide inflation protection, including Real Estate and Infrastructure. We also think that CIOs should be adding more opportunistic strategies (both liquid and illiquid) to their portfolios. Across all asset classes, a greater focus on productivity, and perhaps even more importantly, pricing power, will be required to succeed in the new, more employee-driven environment that we envision, particularly in the United States.

**Help! I need somebody, Help! Not just anybody,
Help! You know I need someone, Help!**

— John Lennon, English singer, songwriter and musician

While my international travel schedule has slowed dramatically since the fall,

I actually have been able to make quite a few trips up and down the East Coast of late, including stops in Delaware, Virginia, South Carolina, and the District of Columbia. I highly value the time I spend outside of Gotham, as it allows me to better understand through person-to-person interactions the direct impact that COVID is having on both the economy and society at large. Without question, what is increasingly clear from my day-to-day encounters with small business owners as well as in talking to CEOs across multiple industries where KKR does business — including healthcare, technology, and leisure — is that there appears to be a structural labor shortage, leading to an increased difficulty in hiring.

This phenomenon, though, is not just an East Coast one. Rather, like Omicron, it is widespread across the United States. Importantly, we do not view the current labor shortage as an aberration. Rather, we believe that ongoing tightness in the labor market will lead to higher wages across multiple industries on a sustained basis. If we are right, then we believe that not only will corporate margins be adversely impacted but also inflation could settle at a higher resting ‘heart rate’ in the United States, particularly relative to past cycles.

The U.S. labor market is now nearly the tightest it has been in 50 years. There are four key areas on which to focus to help explain the post-pandemic employment shortfall:¹

Retirements	1.4 million of excess retirements as a result of the pandemic. Most of these 55+ age workers are likely not to seek re-employment.
Family Responsibilities	0.7 million labor force dropouts due to child and elder care responsibilities. Skill erosion or lifestyle changes could deter a full return to the workforce.
Discouraged Workers	0.5 million increase in the shadow labor force, after netting out the 0.7 million drop in school enrollments. Strong demand should lead most to eventually return to the workforce.
Immigration Decline	0.9 million ‘missing’ immigrants due to the pandemic, of which we think only half will eventually be recouped as surplus immigration relative to longer term trends.
Investment Conclusion	Alongside higher rental inflation and stronger commodity prices, we believe upward wage pressure supports our view of a higher resting heart rate for inflation this cycle.

¹ In addition to categories above, an additional 0.4 million fell out of the labor force for unspecified reasons.

Key to our thinking, which we describe below in more detail, are the following points:

1

Our research suggests that the U.S. labor market is nearly the tightest it has been in many decades. The aging population and antiquated immigration system were already putting substantial pressure on labor availability before the pandemic. Importantly, though, COVID-19 shook previously dormant fault lines in the workforce via a sudden wave of retirements and a pause in immigration flows. In addition, the pandemic created new challenges around family care and the integration of discouraged workers back into the labor pool. As such, we believe that 2.1 million of the 3.9 million current labor shortfall in the United States may be more permanent in nature.

2

The workforce participation rate, which over the last three months has averaged 62.0% versus 63.4% pre-pandemic (down 1.4 percentage points), is unlikely to increase, we believe, as much as the Fed and employers hope. We do see room for some further cyclical improvement, which began to play out in the January jobs report. However, workers over the age of 55, Black Americans, and workers without college degrees all represent important categories where the participation rate continues to lag badly.

3

Digging into the wage trends we track, low-wage workers are now seeing the fastest increases in wages. We are also seeing workers incentivized to change jobs frequently, as they often command hefty pay increases when they do. This likely means worker retention is going to get harder, not easier. All told, the current quit rate suggests a 'true' unemployment rate closer to 1.0–2.0%, not the reported level of 4.0%.

4

Despite the historic tightness of the labor market, because of inflation U.S. workers actually did not receive a real wage increase in 2021. However, we *do* think that they will get one in coming years, following what largely has been two decades of wage stagnation. Despite surging employee pay in 2021, real incomes actually *fell* — on average — 50 basis points in aggregate last year, dragged down by energy, shelter, autos, and food, among other factors.

5

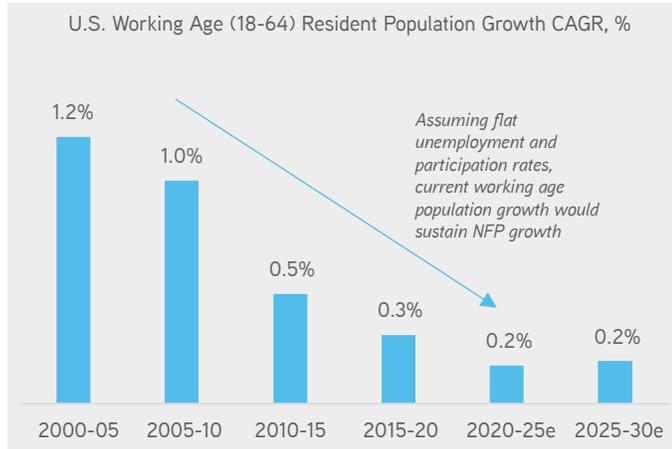
In hindsight, the decision to lay-off employees in the U.S. so abruptly early in the pandemic may have been a mistake relative to other parts of the world. Our work shows that the European approach of furloughing employees (cutting hours worked instead) has — thus far — yielded much better results than in the U.S. Also, we must all be cognizant that the global labor arbitrage has evaporated. U.S. manufacturing wages are now less than four times as expensive as those in China today, compared to more than 26x when China joined the WTO in 2001.

Bottom line: These employment trends represent the cornerstone of our thesis about a higher resting heart rate for inflation. In fact, our deeper dive on the structural labor market issues has firmed our conviction in the magnitude and persistence of the inflationary impulses. **As such we are making the following changes:**

- **We are lifting our above consensus 2022 U.S. CPI forecast to 6.0% from 5.0%, and our out-year CPI resting rate to 2.5% from 2.25%.** Overall, our forecasts continue to embed a structural shift higher relative to the 1.5% resting rate recorded during the mid-2010s.
- **We are raising our U.S. 2022 10-year target to 2.25%, from 2.0%, to reflect our accelerated Fed expectations. Our 2023 forecast moves to 2.75% from 2.5% to reflect higher sustained input costs, including wages.**

Exhibit 1

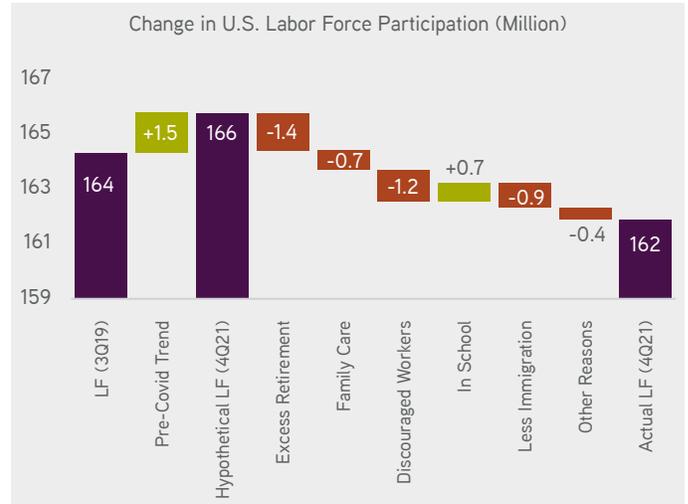
Even Before the Pandemic, an Aging Population Was Already Putting Substantial Pressure on U.S. Labor Availability



e = Census Bureau estimates. Data as at December 31, 2021. Source: Census Bureau, Haver Analytics, KKR Global Macro & Asset Allocation analysis.

Exhibit 2

Excess Retirement, Discouraged Workers, Family Responsibilities and Less Immigration Have Been the Main Drivers of the Labor Force Erosion Since 2019



Note: Discouraged workers refers to the shadow labor force (those who are out of the labor force but want a job). They are six times more likely to flow back into the labor force than those who do not want a job. In school refers to fewer potential workers in school. Data as of 4Q2021. Source: Atlanta Fed, Haver Analytics.

Exhibit 3

Relative to the Pre-Pandemic Trend, We Estimate That More Than Half of the Approximately 3.9 Million Labor Force Decline Since 2019 Is Structural in Nature – and Therefore Unlikely to Return

	Excess Retirement	Family Care / Responsibilities	Discouraged Workers (Net of Schooling)	Immigration	Other	Total
Estimated Labor Force Impact	1.4mn	0.7mn	0.5mn	0.9mn	0.4mn	~3.9mn
% Structural (Unlikely to Return)	95%	25%	5%	46%	50%	55%
Estimated Structural Labor Force Shortfall	1.3mn	0.2mn	0.0mn	0.4mn	0.2mn	~2.1mn
Groups Most Affected	Elderly	Minorities, Less Educated, Women	Minorities, Less Educated, Women	-	-	-
What to Watch	Financial Markets, Hospitalizations	Availability of Child & Elderly Care	Skills/Geographic Mismatch, Higher-Education Enrollment	Immigration Policy	-	-

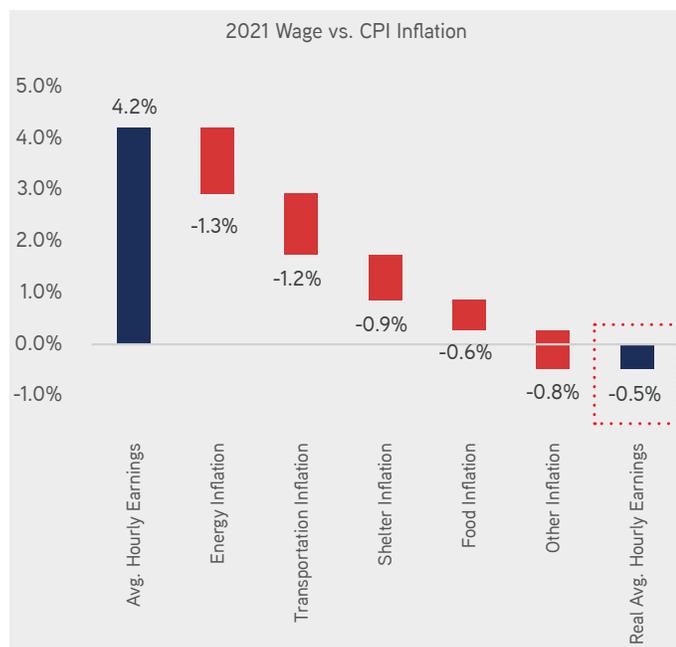
Data as at December 31, 2021. Source: Atlanta Fed, Haver Analytics.

Where do we go from here? **Given our view on wages (as well as our constructive views on both housing and commodity prices), we think that the resting rate for inflation is headed higher on a structural basis.** The reality is that, despite the recent surge in wages, many Americans are still earning less today than they did a year ago on a real basis. One can see this in *Exhibit 4*. We also believe that both demographics and onshoring of manufacturing production in the United States will gain further momentum, which likely means intensifying demand for prime age workers.

As such, we think that the Fed will need to be more aggressive at the start of this tightening cycle to try to cool the recent surge we are seeing broadly across input costs. My colleague Dave McNellis is now forecasting four rate hikes for 2022 and three for 2023. We also see the balance sheet running down by \$2-3 trillion over the course of two to three years, towards the pre-crisis level of 20-25% of GDP, versus \$8.8 trillion currently (or 37% of GDP). However, we do not believe that these measures will be enough to reverse many of the more structural trends in labor that we have identified. Hence, our view is that inflation will be more 'sticky' this cycle.

Exhibit 4

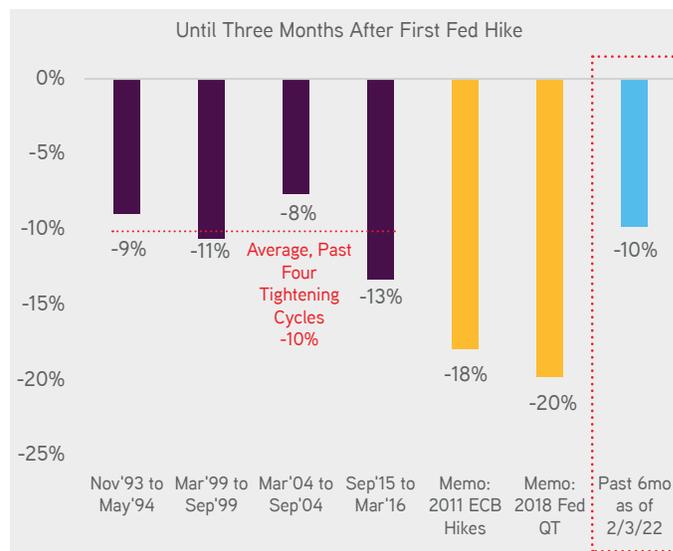
Even With the Substantial Wage Gains in 2021, Surging Inflation Means Real Hourly Earnings Have Declined



Data as at December 31, 2021. Source: BLS, BEA, Haver Analytics.

Exhibit 5

Early Rate Hikes Often Lead to Increased Market Volatility



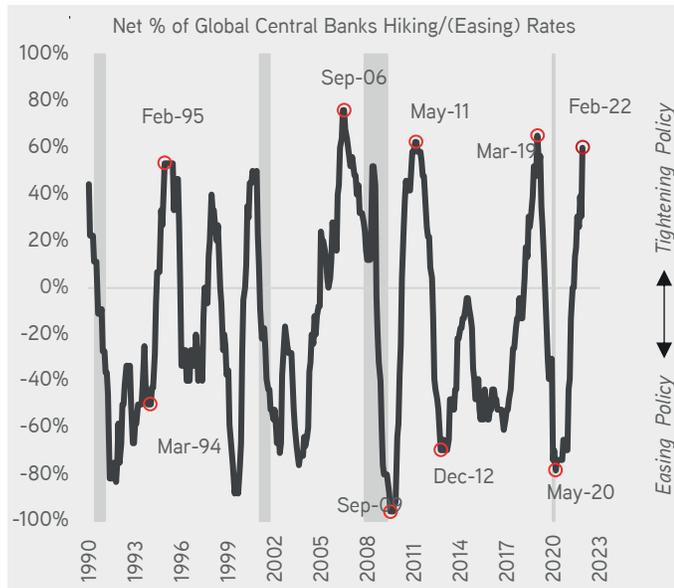
Data as at February 3, 2022. Source: Bloomberg, KKR Global Macro & Asset Allocation analysis.

Consistent with this backdrop, we also see more volatility ahead. The early stages of rate hiking cycles almost always coincide with temporary but sharp market drawdowns. In fact, as *Exhibit 5* shows, the aggregate drawdown so far in 2022 for the S&P 500 has actually been mild in historic terms. However, we expect the near-term correction could go further, given the sheer magnitude of stimulus that it is running off. For equity investors, the biggest change is likely to be the onset of multiple contraction this cycle. On the credit side, we also see some volatility, particularly as the implied default rate on products like High Yield are now well below average. That said, given that many companies have termed out their debt at low rates and the economy continues chugging along, our base view remains that Sharpe ratios fall more in Equities than in Credit in 2022.

Given our view on wages (as well as our constructive views on both housing and commodity prices), we think that the resting rate for inflation is headed higher on a structural basis.

Exhibit 6

While the Fed Is Behind, Most Major Central Bankers Have Already Begun to Tighten

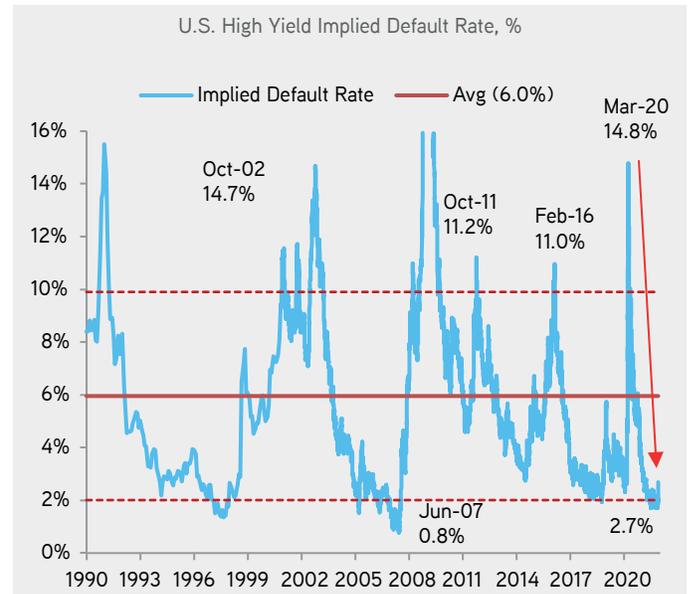


Data as at February 4, 2022. Source: Atlanta Fed, Haver Analytics.

Most importantly, we think that we have entered a new investment regime for global allocators of capital. Specifically, we envision the more successful asset allocation portfolio will want to include more inflation protection, including Infrastructure, Real Estate, and Asset-Based Finance. We also expect long duration Private Equity to perform well, and we believe that CIOs should be adding more opportunistic strategies (both liquid and illiquid) to their portfolios.

Exhibit 7

Our U.S. High Yield Default Monitor Is Still One Full Standard Deviation Below the Long Term Average



Data as at January 28, 2022. Source: Bloomberg, ICE-BofAML Bond Indices.

Most importantly, we think that we have entered a new investment regime for global allocators of capital. Specifically, we envision the more successful asset allocation portfolio will want to include more inflation protection, including Infrastructure, Real Estate, and Asset-Based Finance. We also expect long duration Private Equity to perform well, and we believe that CIOs should be adding more opportunistic strategies (both liquid and illiquid) to their portfolios. On the other hand, we think that now is the time to shorten duration in the fixed income market, favor more of a value bias over a growth one in the public equity markets, and tilt more regionally outside the United States than in the past.

SECTION I: KEY LABOR MARKET TRENDS

As we detailed in our 2022 Outlook piece (*A Different Kind of Recovery*), our view at KKR is that wages are headed higher on a sustained basis, which could lead to lower margins and potentially higher, more lasting inflation. **Key to our thinking is that the U.S. labor market is now nearly the tightest it has been in 50 years.** Even before the pandemic, the aging population was already putting substantial pressure on labor availability, though immigration and greater numbers of people working past age 65 helped cover over some of the demographic strains (*Exhibit 8*). COVID-19 has now shaken previously dormant fault lines in the workforce via multiple forces:

- **Retirements:** Relative to the pre-COVID trend, we estimate approximately 1.4 million of excess retirements as a result of the pandemic, as elderly workers have been financially well-positioned (given financial market and home price rallies) and less willing to commute to work due to health concerns. The vast majority of these workers are not likely to return to the labor force, though it is reasonable to assume some of the excess retirements were pulled forward by a few years. That suggests the potential for a modest drop in retirements in coming years as 'payback'. In any case, we assume very few of the excess retirees return to the labor force.
- **Family Responsibilities:** We estimate around 0.7 million labor force dropouts are attributable to family responsibilities such as child care and elder care. In theory, most of these workers should be able to return to the labor force as the pandemic becomes endemic. But in practice, some might struggle due either to skill erosion or changes in preferred lifestyle. All told, we assume about 75% of this cohort will re-enter the labor force.
- **Discouraged Workers:** We estimate that there has been an increase of approximately 0.5 million in the shadow labor force (those who are out of the labor force but want a job), after netting out a 0.7 million drop in school enrollments. We believe this discouraged worker cohort

is the most likely to return to the labor force in coming years given the strong breadth of industries that are hiring. Any remaining holdouts that persist through next year should be characterized as voluntary or structural, in our view.

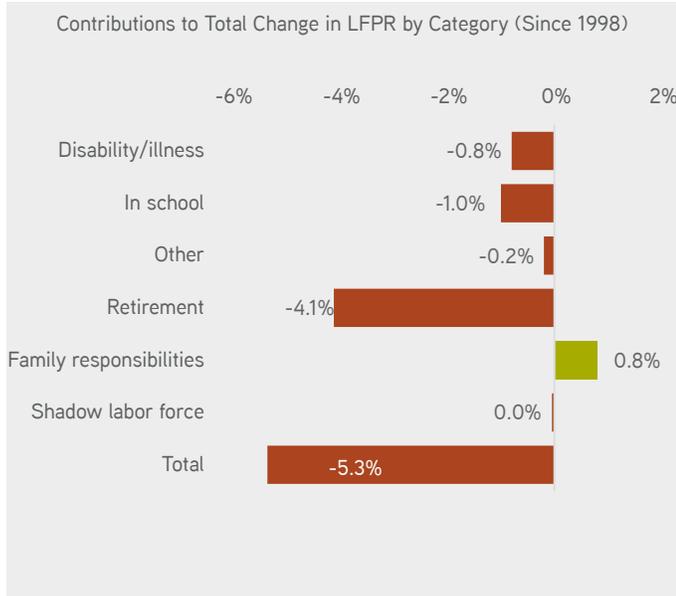
- **Immigration:** We estimate that the drop in temporary worker visas since the onset of COVID has reduced the size of the labor force by an approximate 470,000 workers, while the drop in immigration visas has likely reduced the labor force by another 400,000. Adding the two together implies close to a 900,000 drag on labor supply. Of this drop in immigration visas, we assume that about 400,000 will likely prove permanent. While the decline in temporary worker visas should unwind going forward, the same cannot be said for lost immigration, as we do not expect declines in 2020/21 to be offset by substantially higher future immigration.

Our bottom line: When we pull all the aforementioned data together, our work suggests that approximately 2.1 million people will not return to the workforce (*Exhibit 3*) led primarily by accelerated retirements and lost immigration flows that we think will be difficult to recoup. These employment trends represent the cornerstone of our thesis about a higher resting heart rate for inflation.

Key to our thinking is that the U.S. labor market is now nearly the tightest it has been in 50 years. Even before the pandemic, the aging population was already putting substantial pressure on labor availability, though immigration and greater numbers of people working past age 65 helped cover over some of the demographic strains. COVID-19 has now shaken previously dormant fault lines in the workforce via multiple forces.

Exhibit 8

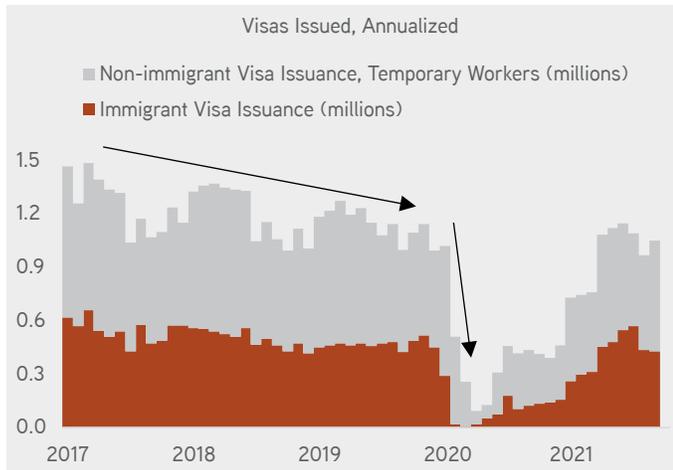
Retirements Were the Most Significant Driver of the Declines in Labor Force Participation Over the Past 20+ Years...



Data as at December 31, 2021. Source: BLS, State Department, Haver Analytics.

Exhibit 9

...the Negative COVID Shock Notwithstanding, Immigration and Worker Visa Issuance Have Declined Steadily in Recent Years, Exacerbating Labor Shortages

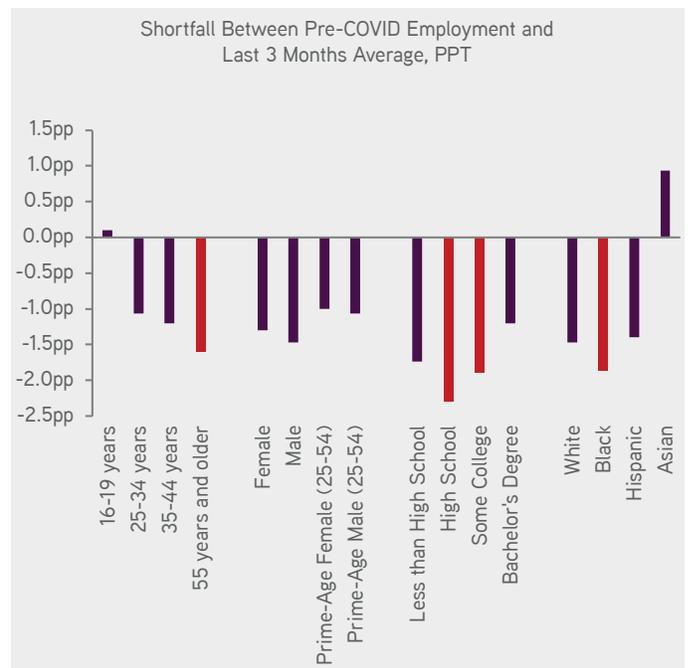


Data as at December 31, 2021. Source: BLS, State Department, Haver Analytics.

The participation rate, which over the last three months has averaged 62.0% versus 63.4% pre-pandemic, is unlikely to increase as much as the Federal Reserve and employers hope, we believe. We do see room for some further cyclical improvement, as we saw beginning to play out in the January jobs report, but workers over 55, Black Americans, and those without college degrees all represent important categories where the participation rate continues lagging badly.

Exhibit 10

Labor Force Participation Rates Are Still Below Pre-Pandemic Levels Except for Those in the 16-19 Year-Old and Asian Cohorts

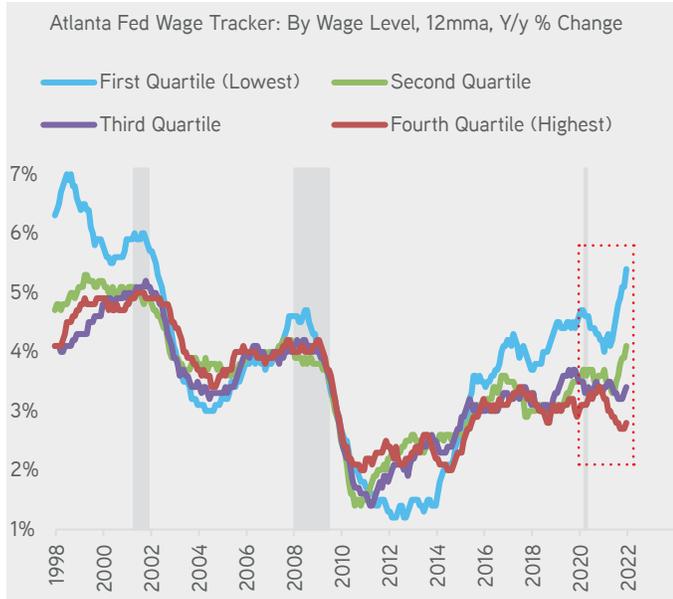


Data as at January 31, 2022. Source: BLS, Haver Analytics.

Digging into the wage trends that we track, low-wage workers are now seeing the fastest increases. We are also seeing workers incentivized to change jobs frequently, as they often command hefty pay increases when they do. This likely means worker retention is going to get harder, not easier. All told, the current quit rate suggests a 'true' unemployment rate closer to one to two percent, not the reported level of four percent.

Exhibit 11

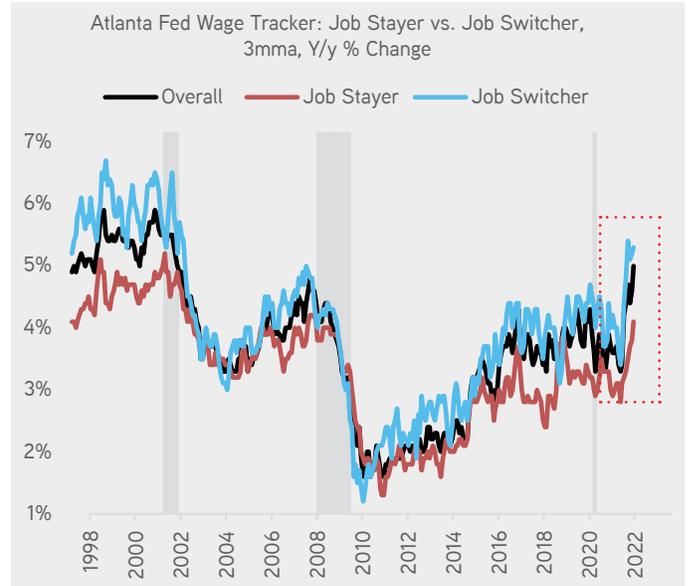
Wage Growth Has Been Much Faster for Low-Wage Workers...



Data as at December 31, 2021. Source: BLS, Atlanta Fed, Haver Analytics.

Exhibit 13

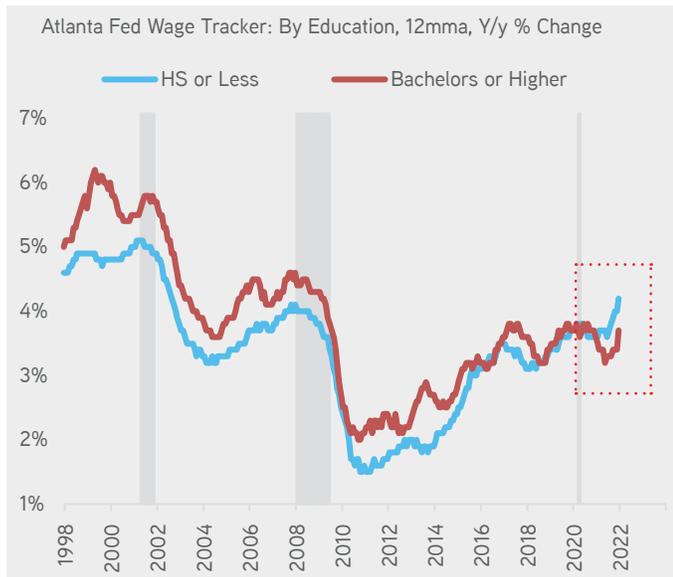
...and Job Switchers (Those Who Changed Occupations L12M or Changed Employers L3M)



Data as at December 31, 2021. Source: BLS, Atlanta Fed, Haver Analytics.

Exhibit 12

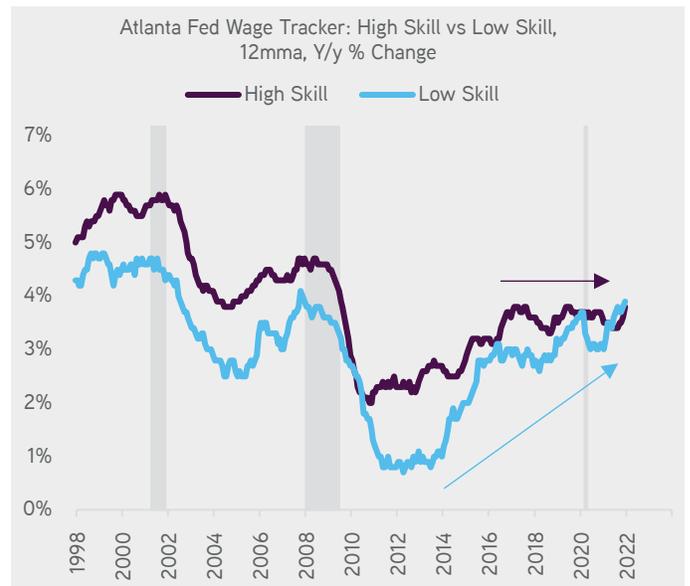
...the Less Educated Worker Cohort...



Data as at December 31, 2021. Source: BLS, Atlanta Fed, Haver Analytics.

Exhibit 14

Wage Growth for Low-Skill Workers Remains on an Uptrend, vs. Stable Trends Among High-Skilled Workers

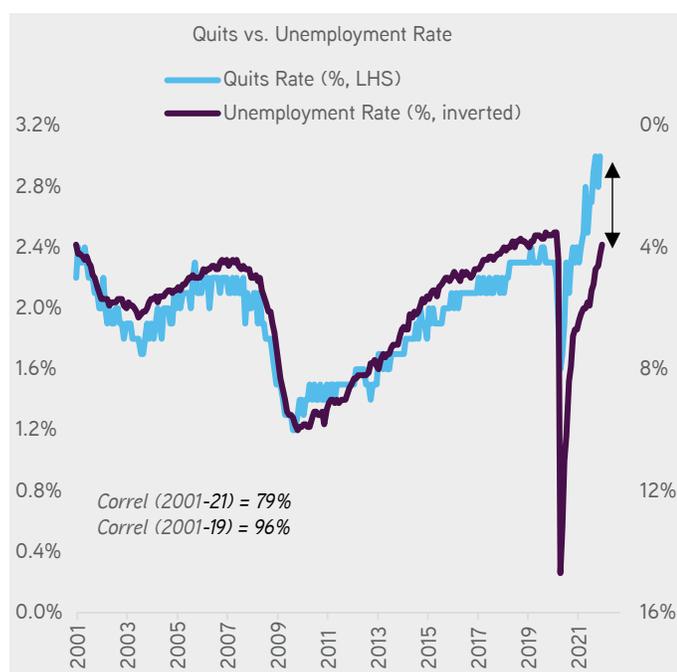


Data as at December 31, 2021. Source: BLS, Atlanta Fed, Haver Analytics.

Workers also now have greater inherent bargaining power, as the friction cost of switching jobs has fallen in today's tech-driven economy, facilitating faster job searches and, increasingly, remote work opportunities for companies that were previously out of geographic reach. Importantly, we view many of these trends as structural, not cyclical, in nature.

Exhibit 15

Workers Are Quitting at a Rate That Would Normally Be Associated With Unemployment of Around Just One to Two Percent

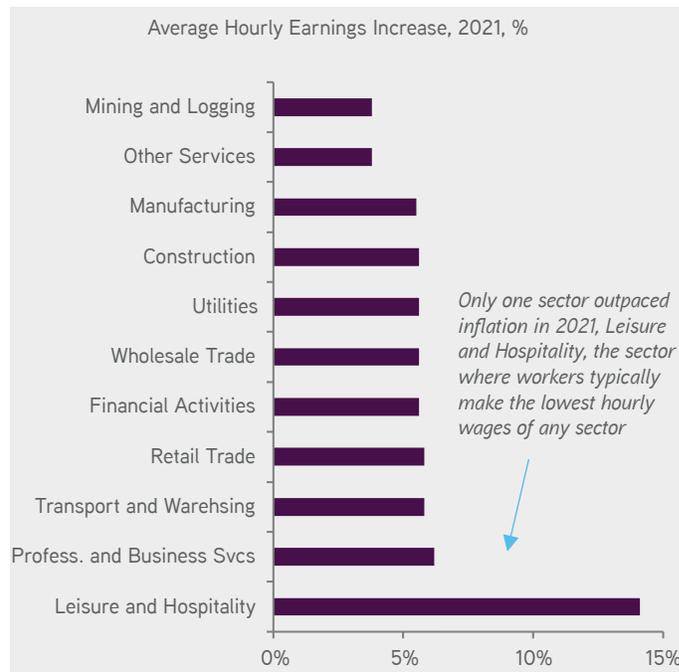


Data as at December 31, 2021. Source: BLS JOLTS Survey, Haver Analytics.

Just consider that, as mentioned earlier, real wages in the United States actually fell by 50 basis points in 2021, with only the Leisure and Hospitality sector experiencing real wage growth above the annual rate of inflation.

Exhibit 16

Only the Leisure and Hospitality Sector Wage Gains Outpaced Inflation in 2021. As Such, Investors Should Look for Wages to Increase Further in 2022



Data as at December 31, 2021. Source: Bureau of Labor Statistics.

Despite surging employee pay in 2021, we believe further wage increases on both a nominal and real basis are on the horizon. After decades of stagnation and rising inflation outside of wages, the recent increases in wages likely won't be enough near term on a real basis to outpace inflation, we believe. Just consider that, as mentioned earlier, real wages in the United States actually *fell* by 50 basis points in 2021, with only the Leisure and Hospitality sector experiencing real wage growth above the annual rate of inflation. One can see this in *Exhibit 16*.

Moreover, once wages start increasing, companies often take offsetting price increases, which drives a feedback loop of workers demanding further cost of living increases. So, there is a follow through mechanism that – as Sir Isaac Newton made famous with his proclamation that ‘a body in motion stays in motion’ – takes time to bring back under control.

Looking ahead, our modelling, which incorporates multiple factors including wage momentum trends, the unemployment backdrop, and core inflation, calls for nominal hourly earnings to grow by around 6.0% in 2022, essentially in line with headline CPI. Probably even more important though, *our work suggests structural forces will continue to accelerate wage growth to around 5.0% in 2023 before falling to the 4.0% range in 2024-2026*, even as inflation slows back into the two to three percent range. If our forecasts are correct, this would lead to *real wages* growing by one to two percent annually in coming years.

Exhibit 17

Our Forecasts Embed Strong Real Wage Growth in Coming Years

GMAA Base Case Growth Estimates			
	Avg Hourly Earnings	Headline CPI	Core PCE
2019a	3.3%	1.8%	1.7%
2020a	4.9%	1.2%	1.4%
2021a	4.2%	4.7%	3.3%
2022e	6.0%	6.0%	4.7%
2023e	5.0%	2.5%	2.5%
2024e	4.2%	2.5%	2.5%
2025e	4.2%	2.5%	2.2%
2026e	4.2%	2.5%	2.2%
2021-26e CAGR	4.7%	3.2%	2.8%

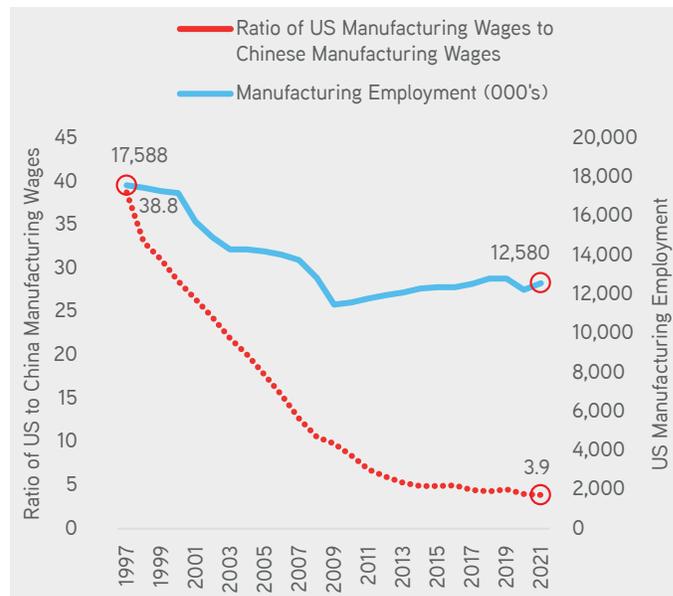
e = KKR GMAA estimates. Data as at January 31, 2022. Source: BLS, Haver Analytics.

Why do our models suggest that wage growth will continue accelerating? Beyond the mere fact that workers are scarce in the United States, there are other forces to consider. First, our research also suggests that the global labor arbitrage is nearing an end. Remember that, since China’s entry into the WTO in 2001, globalization and the access to outsourced cheap labor was – until recently – distinctly deflationary. However, the wage gap has narrowed of late. In 2001, manufacturing wages in the U.S. were 26.4 times that of China. By 2021, that ratio had fallen to 3.9 times. One can see this in *Exhibit 18*. Against this backdrop, the value of U.S. workers is going up, particularly as more companies shift their supply chains away from China. Just consider that, according to a

recent survey by Deloitte, about 75% of companies that experienced supply chain disruptions during the pandemic are planning to accelerate their reshoring initiatives by building smart factories closer to their end markets.

Exhibit 18

Since the Wage Gap With China Has Shrunk Considerably, U.S. Workers Are Now More Sought After

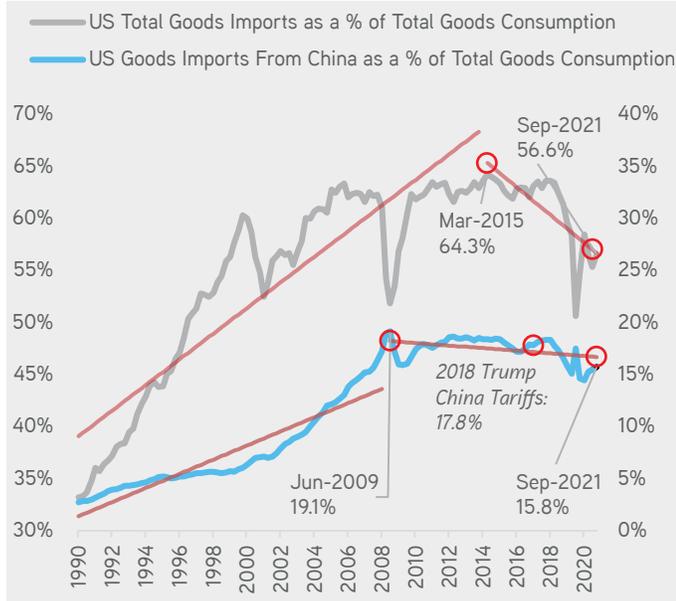


Data as at December 31, 2021. Source: BLS, Federal Reserve Bank of St Louis, University of California, Davis, [Brooking Institute](#).

Remember that, since China’s entry into the WTO in 2001, globalization and the access to outsourced cheap labor was – until recently – distinctly deflationary. However, the wage gap has narrowed of late. In 2001, manufacturing wages in the U.S. were 26.4 times that of China. By 2021, that ratio had fallen to 3.9 times.

Exhibit 19

Imports Are Also Declining as a Percentage of Total U.S. Goods Consumption, Supporting Our View That Demand for More Local U.S. Workers Is Increasing



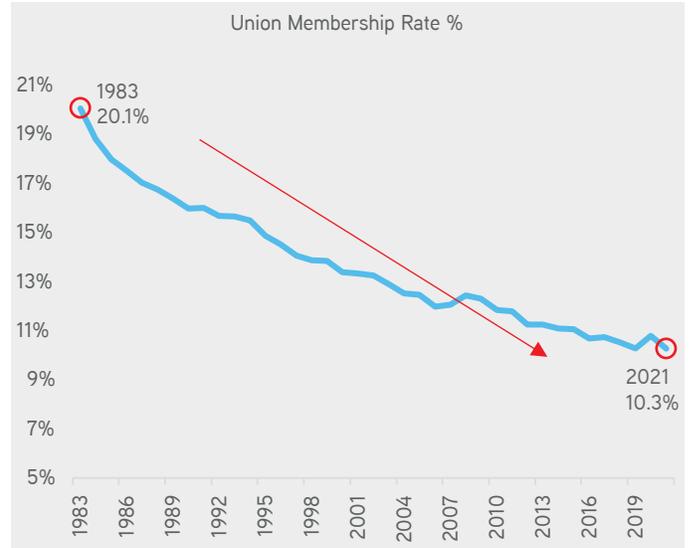
Data as at December 31, 2021. Source: BLS, Federal Reserve Bank of St Louis, University of California, Davis, [Brooking Institute](#).

Second, a rethinking of supply chains may also portend a strengthening of unions. Currently, union membership rates are close to stabilizing after years of declines (*Exhibits 20 and 21*). Today's organized labor is smaller, but more active. The Cornell University Labor Action tracker has already recorded 401 strikes from January 2021 through January 2022. Rising union activism reflects in part the ways that the pandemic exposed inequalities on the work-from-home front and highlighted the social consequences of technological change. With the importance of the 'essential worker' now much more salient, those workers seem to have stronger moral and practical bargaining power at the negotiating table.

Rising union activism reflects in part the ways that the pandemic exposed inequalities on the work-from-home front and highlighted the social consequences of technological change.

Exhibit 20

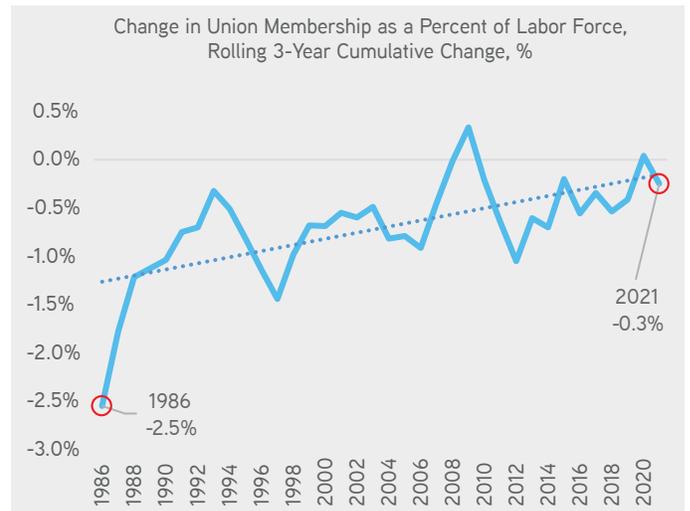
Union Membership in the U.S. Has Been Falling for Decades, Reaching a Record Low of 10.3% in 2021...



Data as at December 31, 2021. Source: BLS, Federal Reserve Bank of St Louis, University of California, Davis, [Brooking Institute](#).

Exhibit 21

...but the Decline in Union Membership Seems Close to Bottoming Out

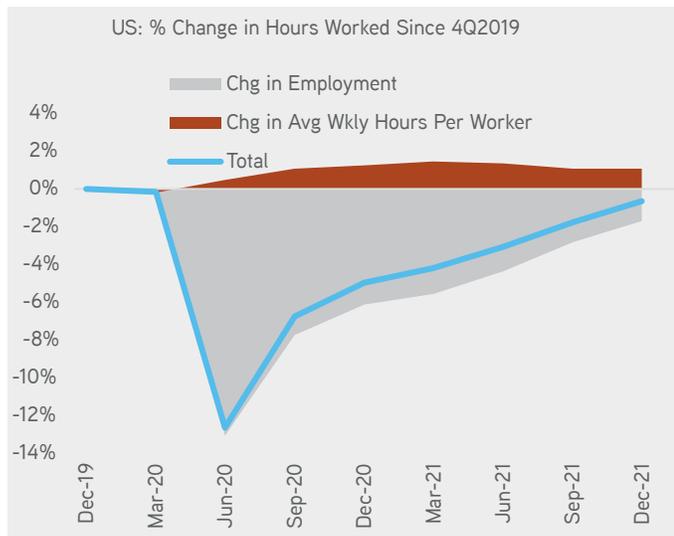


Data as at December 31, 2021. Source: BLS, Federal Reserve Bank of St Louis, University of California, Davis, [Brooking Institute](#).

In hindsight, the decision to lay-off employees in the United States so abruptly when the pandemic hit may have been a mistake. Our work shows that the European approach of furloughing employees (cutting hours worked) has – thus far – yielded better results. Labor force participation rates are higher in the Eurozone than in the U.S., and the gap has gotten notably wider post-pandemic. In the U.S., participation rates have fallen from around 63% pre-pandemic to about 62% now due to the forces outlined above. In stark contrast, the Eurozone’s participation rate of 65% is actually *above* its pre-pandemic level. One can see these divergent outcomes in Exhibits 22 and 23, respectively, which show that Europe benefitted from shrinking average hours worked per week versus the U.S. path of aggressively laying off employees.

Exhibit 22

During the Pandemic, the U.S. Offered Unemployment Benefits and Cut Employment Significantly...

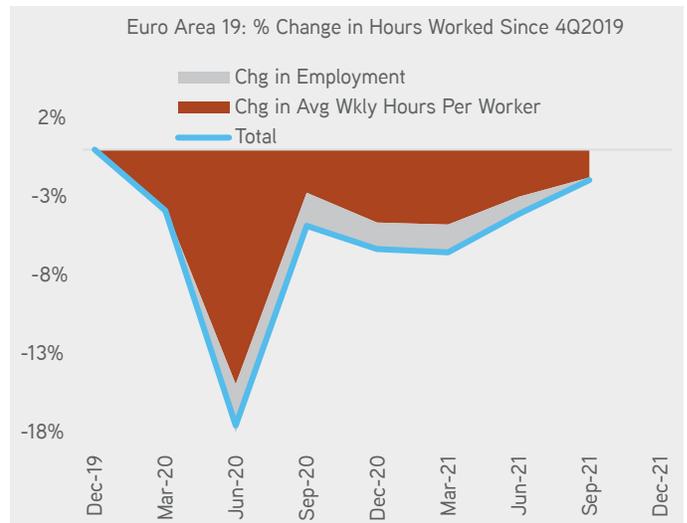


Data as at December 31, 2021. Source: BLS, Statistical, Office of the European Communities, Haver Analytics.

In hindsight, the decision to lay-off employees in the U.S. so abruptly when the pandemic hit may have been a mistake.

Exhibit 23

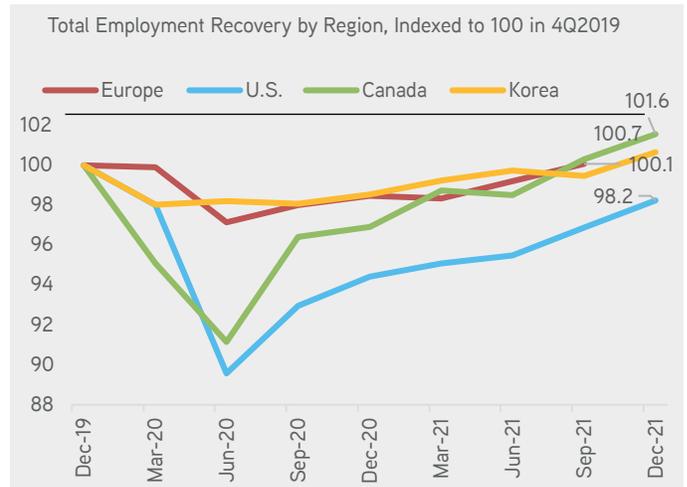
...Whereas the Eurozone Kept Workers in Jobs and Mostly Just Reduced Hours



Data as at December 31, 2021. Source: BLS, Statistical Office of the European Communities, Haver Analytics.

Exhibit 24

Given the Different Approaches to Pandemic Relief, Employment Recovery in the U.S. Is Significantly Lagging Behind That of Europe and Canada



Data as at December 31, 2021. Source: BLS, Statistical Office of the European Communities, Haver Analytics.

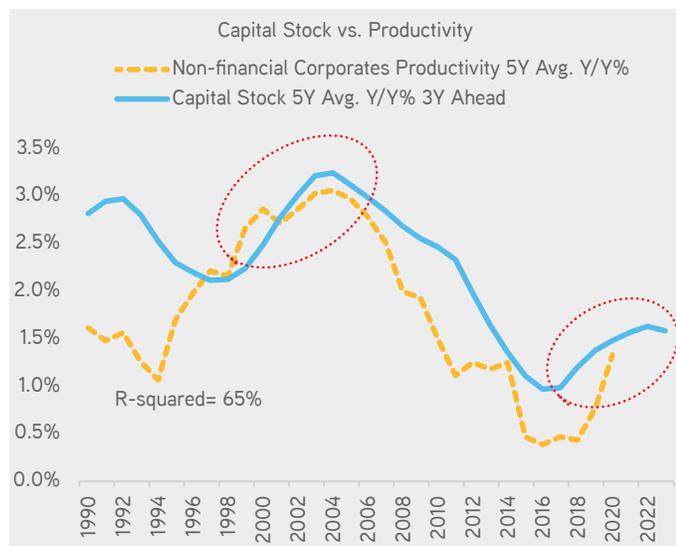
Yet, not all the news is bad news for employers, as there are still important offsetting forces to today's U.S. labor pressures. In terms of key offsets, our team at KKR is particularly focused on technological advancements and their impacts on productivity. Specifically, many of the important technological trends, including automation and digitalization, that were already in place before the pandemic have now only accelerated.

Using history as our guide (*Exhibit 25*), our research suggests that the recent uplifts to productivity are closely linked to a resurgence in capital investment that began around 2014. Consistent with this view, the previous large U.S. capex cycle in the late 1990s coincided with a substantial uptick in productivity, albeit with a three-year lag between investments and results.

While productivity enhancements can come in many forms across multiple industries, recent capex spending has skewed increasingly towards technology and the digital economy, including areas such as robotics and advanced manufacturing. One can see this in *Exhibit 26*.

Exhibit 25

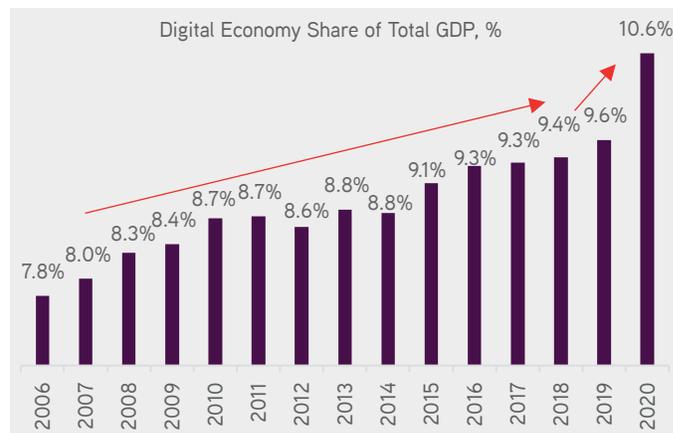
Capital Investments Leads to Productivity Gains. The Last Major Wave of Capital Investment Occurred in the 1990s and Another Is Currently Underway, We Believe



Data as at December 31, 2021. Source: Bureau of Economic Analysis, Bureau of Labor Statistics, Cornerstone Research, Haver Analytics.

Exhibit 26

Capex Investments Are Increasingly Geared Towards the Digital Economy, Which Continues to Grow in Influence



Note: Digital Economy: 39% Digital Paid Services, 23% Software, 22% E-commerce, 13% Tech Hardware, 4% Cloud Services per BEA definition Data as at December 31, 2021. Source: Bureau of Economic Analysis, Cornerstone Research.

In terms of specific examples on which to focus, we believe that the retail sector offers a useful case study on technology enhancing both productivity and margins. To review, COVID pulled forward e-commerce penetration by about 600 basis points relative to the pre-COVID trend. This shift had the effect of increasing sales productivity among publicly listed retailers by approximately 30% or so, based on the company filings we reviewed as well as the research of investment bank Evercore ISI. Retailers actually saw operating margins expand by around 140 basis points (4Q21 vs. 4Q19), despite rapidly rising wages and rising input costs. One can see this in *Exhibit 27*.

In terms of key offsets, our team at KKR is particularly focused on technological advancements and their impacts on productivity. Importantly, many of the important technological trends, including automation and digitalization, that were already in place before the pandemic have now only accelerated.

Exhibit 27

A Surge in e-Commerce Penetration Has Helped Drive 140 Basis Points of Margin Uplift in the Retail Sector



Data as at December 31, 2021. Source: Bloomberg.

However, retail is not the only sector to benefit from increased productivity. In fact, most non-financial corporates overall have kept the growth of unit labor costs (in essence, wage growth minus productivity growth) at modest levels across the wider economy in spite of ongoing wage pressures. Importantly, by keeping unit labor costs subdued, companies not only preserve margins, they also create a dynamic that allows them to grow employee wages without having to push through commensurate increases in end prices. *Exhibit 29* shows how there is a strong historical relationship wherein lower unit labor cost growth drives down inflation trends over time. Importantly, this relationship does point to core inflation moderating over coming quarters.

Most non-financial corporates overall have kept the growth of unit labor costs (in essence, wage growth minus productivity growth) at modest levels across the wider economy in spite of ongoing wage pressures.

Exhibit 28

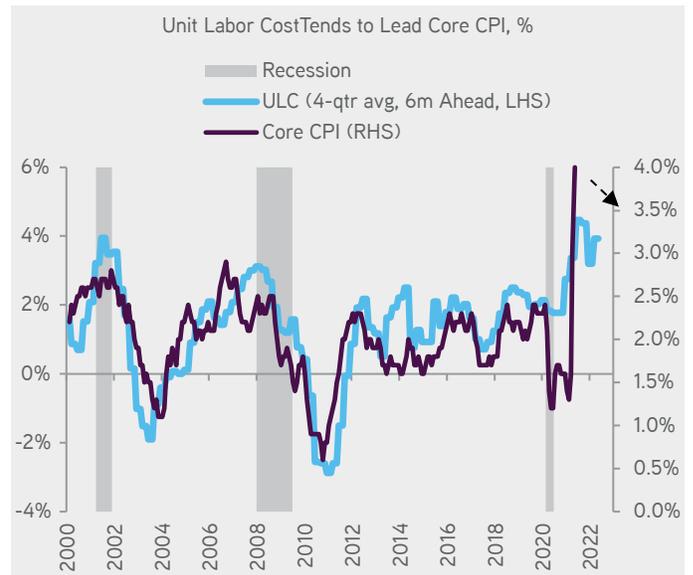
U.S. Labor Productivity (Non-Financial Corporates) Has Surged Higher, Helping to Tame Unit Labor Costs (ULC)...



Data as at December 31, 2021. Source: BLS, Haver Analytics.

Exhibit 29

...Which Is Good News, as ULC Tends to Lead Core CPI by About Six Months, Suggesting Core Inflation Should Moderate From Historically Elevated Levels Through the Course of 2022

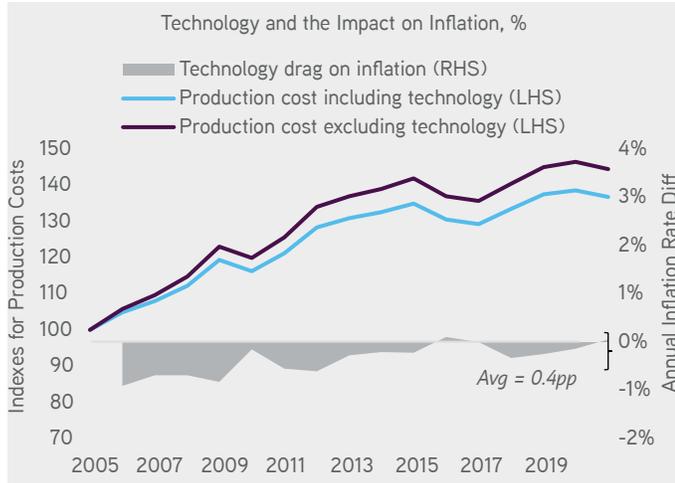


Data as at January 30, 2022. Source: BLS, Haver Analytics.

Finally, don't forget that technological disruption is a structural disinflationary force. As we first wrote about in our 2019 *Insights* piece, *The Uncomfortable Truth*, Moore's Law is leading to – by some estimates – a 40 basis point decline in annual U.S. inflation (*Exhibit 30*). Technological improvements have put downward pressure on many key parts of the global economy. As a result, we have seen both greater pricing transparency and lower input costs in many instances. Without question, we think Moore's Law has allowed for the diffusion of ever more powerful and cheaper technologies. As technology continues to improve (think 5G and quantum computing, smart televisions, more productive smartphone apps, and so on), the relative price of technology continues to decline. Building off of a report by Joseph Davis, Chief Economist at Vanguard, we note that the lower prices for business and consumer technology products have produced an average estimated drag of forty basis points per year in the official Consumer Price Index (CPI).

Exhibit 30

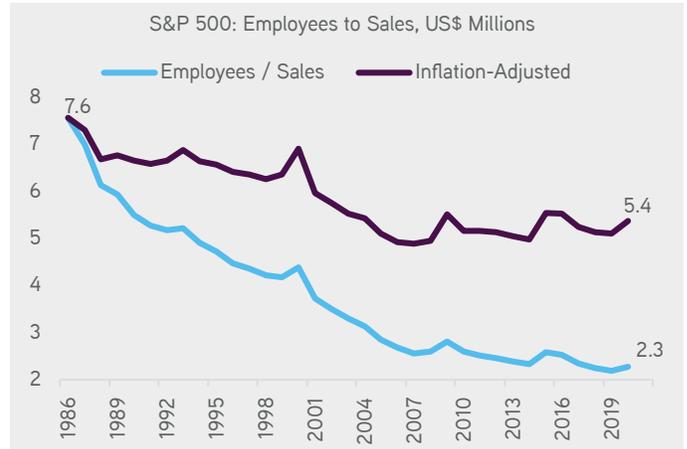
We Believe Technological Advancements Have Reduced Headline Inflation by 40 Basis Points per Year



Note: Data covers 2005 through 2020. In the BEA's input-output data (I-O), we identified technology-related inputs as follows: computer and electronic products; broadcasting and telecommunications; data processing, internet publishing, and other information services; and computer systems design and related services. We identified as closely as possible Producer Price Index (PPI) series for each industry in the I-O, including all four technology inputs. The weightings were multiplied by technology's PPI to arrive at the contribution to each industry's PPI. For each industry's PPI minus technology, we subtracted the tech contribution from PPI and divided it by one minus technology's weight. Data as at December 31, 2020. Source: BEA, Haver Analytics.

Exhibit 31

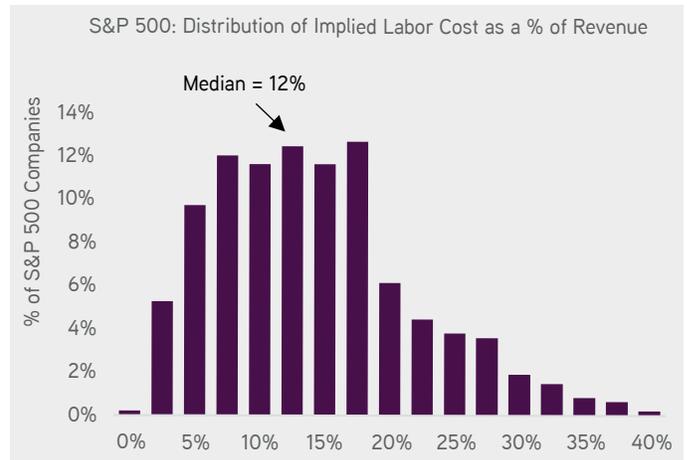
S&P 500 Companies Are 70% More Labor Efficient Than They Were in the 1980s, or around 30% Adjusted for Inflation



Data as at December 31, 2021. Source: BLS, Haver Analytics.

Exhibit 32

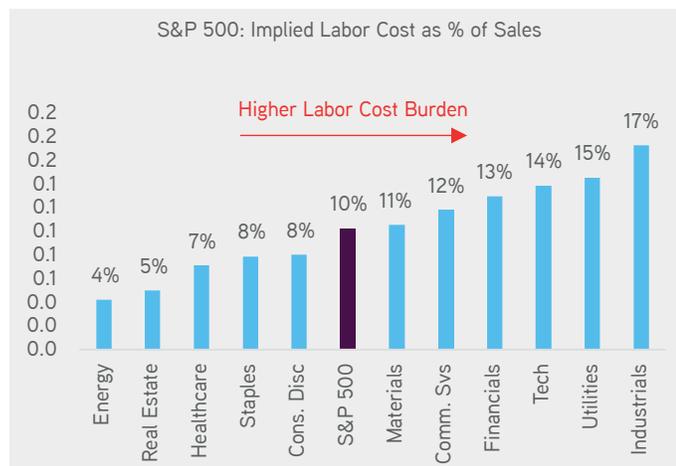
We Estimate That Implied Labor Cost Is Only About 12% of Revenue for the Median S&P 500 Company...



Note: estimated by multiplying the number of employees by the median compensation per employee for each company. Data as at December 31, 2021. Source: BLS, Haver Analytics.

Exhibit 33

...Though There Is a Wide Dispersion Across Sectors, With Industrials as High as 17% and Energy as Low as Four Percent



Data as at December 31, 2021. Source: BLS, Haver Analytics.

SECTION II: WHAT DOES THIS ALL MEAN FOR EQUITIES, INCLUDING SECTORAL PREFERENCES

To gauge the potential for further labor issues across different sectors, we developed a dashboard to monitor what we view as some of the key pressure points. The most vulnerable sectors have the following characteristics: a) high labor intensity; b) low operating margins; c) below-average wage levels; d) high quits and high projected labor force exit rates; and e) dependence on older workforces that are closer to retirement. Based on this framework, Consumer Discretionary, Consumer Staples, and Industrials stand out as facing some of the most pressing headwinds; conversely, Communication Services and IT appear better positioned to absorb and pass through higher costs.

Exhibit 34

The Consumer Sectors (Discretionary and Staples) and Industrials Will Likely Face the Most Acute Wage and Margin Pressures: Conversely, Communication Services and Technology Appear Better Positioned to Absorb and Pass Through Labor Costs

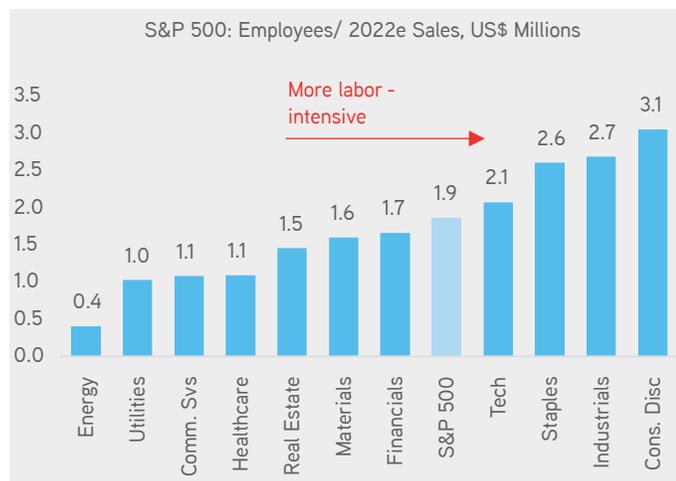
S&P 500 Sector Scorecard							
Scorecard	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Avg of Factors 1 – 6
	Employees/ 2022e Sales (\$mn)	EBIT Margins (4Q2021)	Wage Level vs. Economy Average	Labor Force Exit Rate (2020-30e)	Quits Rate (Trailing 3-Year)	Median Age of Worker	Expected Wage Pressure
S&P 500	1.9	13.0%	0.0%	6.9%	2.2%	42.2	Aggregate Ranking
Consumer Discretionary	3.1	9.5%	-20.3%	8.1%	4.7%	29.6	1 (Highest)
Consumer Staples	2.6	9.6%	-27.5%	9.5%	3.5%	31.6	1
Industrials	2.7	11.8%	7.6%	7.6%	1.8%	43.9	3
Materials	1.6	15.6%	-2.2%	7.0%	1.8%	45.1	4
Real Estate	1.5	n.m	2.3%	4.2%	1.8%	47.9	5
Health Care	1.1	9.5%	8.4%	3.0%	2.2%	43.1	6
Energy	0.4	3.5%	52.0%	9.5%	1.8%	43.2	7
Utilities	1.0	n.m	45.8%	6.4%	2.3%	44.4	8
Financials	1.7	n.m	30.8%	5.9%	1.4%	43.4	9
Information Technology	2.1	25.8%	43.5%	5.0%	1.6%	42.1	10
Comm. Services	1.1	19.7%	38.5%	6.9%	1.6%	40.5	11 (Lowest)

Data as at December 31, 2021. Source: BLS, Haver Analytics, Bloomberg, KKR Global Macro & Asset Allocation analysis.

In terms of specific sector details, we note that the Consumer Discretionary and Consumer Staples are labor-intensive sectors that pay below-average wages, operate on thin average margins, and are projected to experience elevated levels of labor force exits over the next ten years, according to BLS estimates. The Industrials sector shares many of these issues, but benefits from already paying more attractive wages, as well as starting from a point of higher profit margins (suggesting greater pricing power). Given the labor considerations above, we think automation and digitalization will be particularly important for winning business models in these sectors.

Exhibit 35

Consumer Staples, Discretionary and Industrials Are the Most Labor Intensive Sectors, Making Them Susceptible to Rising Wage Pressure...

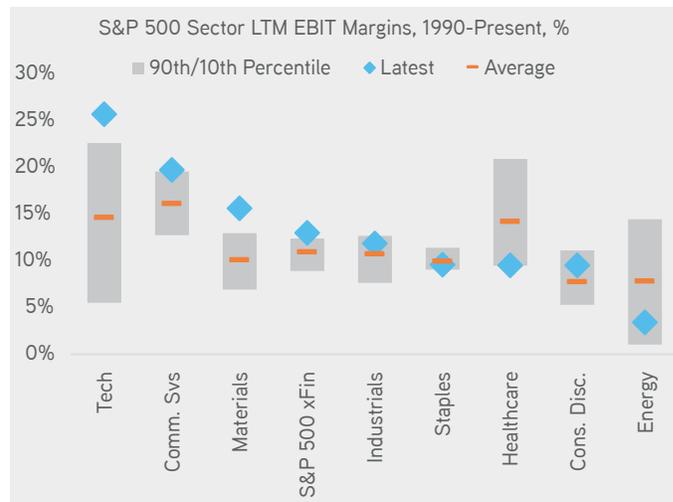


Data as at December 31, 2021. Source: BLS, S&P, Bloomberg

In aggregate for the S&P 500, we expect higher wages to persist – if not intensify – in coming years. As such, we believe sectors/ companies with pricing power and operating leverage who are able to capitalize on cost efficiencies and falling rental expenses are likely to command a premium in the market.

Exhibit 36

...While Relatively High Operating Margins of Technology and While the Communication Services Should Help Them to Absorb and Pass-Through Higher Labor Costs



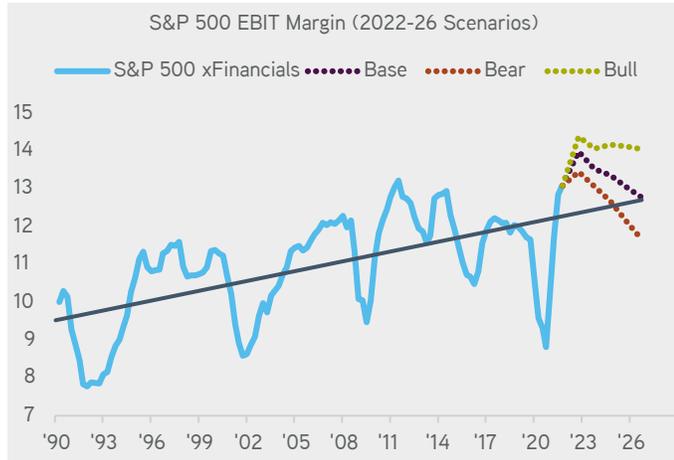
Data as at December 31, 2021. Source: BLS, S&P, Bloomberg

Meanwhile, Communication Services screens as potentially the most resilient sector, as it enjoys high margins, low labor intensity, modest projected labor force exits and high average wage levels. Technology is attractive along similar dimensions, but does have higher average labor intensity.

In aggregate for the S&P 500, we expect higher wages to persist – if not intensify – in coming years. As such, we believe sectors/companies with pricing power and operating leverage who are able to capitalize on cost efficiencies and falling rental expenses are likely to command a premium in the market. On the other hand, those who are ‘price-takers’ with more labor-intensive business models will likely be de-rated. Investors should be mindful of how this type of environment could create both problems and opportunities at the company level.

Exhibit 37

Our Base Case Has S&P 500 Margins Increasing This Year, Before Declining Back Towards Their Long-Term Trendline in 2023-26...



Data as at December 31, 2021. Source: S&P, Bloomberg

Exhibit 38

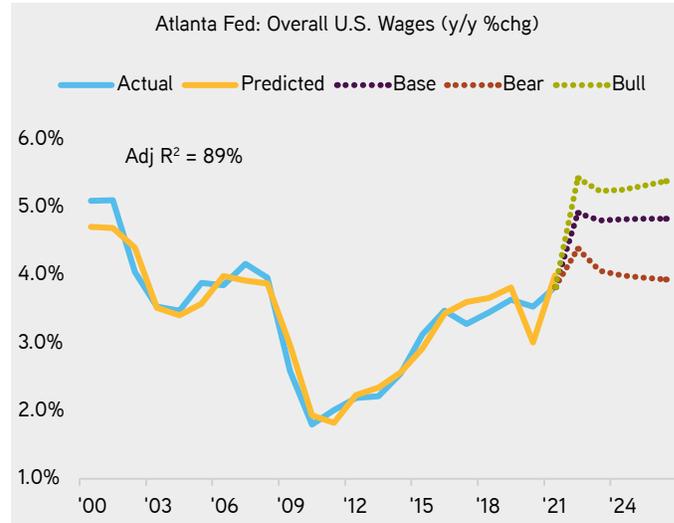
...Which Assumes Core PCE Moderates Towards 2.2% and Unit Labor Costs Inflation Rise Above 2.0%

GMAA: Base Case Growth Assumptions						
	Core PCE	Avg Hourly Earnings	Productivity	Unit Labor Costs	Core PCE - ULC Spread	Implied SPX EBIT Margin
2019a	1.7%	3.3%	1.4%	1.9%	(0.2%)	11.7%
2020a	1.4%	4.9%	2.2%	2.7%	(1.3%)	8.8%
2021e	3.3%	4.2%	5.3%	(1.0%)	4.3%	13.1%
2022e	4.7%	6.0%	4.2%	1.8%	2.9%	14.0%
2023e	2.5%	5.0%	2.2%	2.8%	(0.3%)	13.5%
2024e	2.5%	4.2%	2.0%	2.2%	0.3%	13.4%
2025e	2.2%	4.2%	2.0%	2.2%	0.0%	13.1%
2026e	2.2%	4.2%	2.0%	2.2%	0.0%	12.8%
2021-26e CAGR	2.8%	4.7%	2.4%	2.3%	0.6%	13.3%

Data as at January 31, 2022. Source: BLS, Haver Analytics.

Exhibit 39

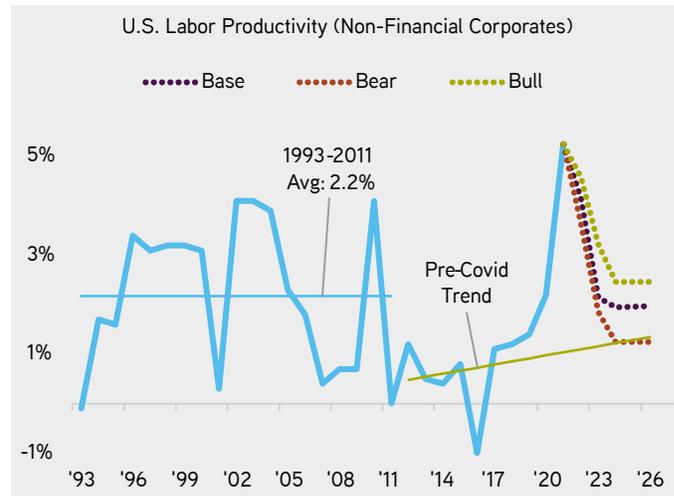
Our Model Has Wages Running at More Than Four Percent, On Average, During the Next Few Years, Given a Tight Labor Market



Data as at December 31, 2021. Source: Atlanta Fed, Haver Analytics.

Exhibit 40

We Conservatively Assume Productivity Normalizes Lower Towards the 1993-2011 Average From Historically Elevated Levels in 4Q21



Data as at December 31, 2021. Source: BLS, Haver Analytics.

Looking at the bigger picture, while our sector playbook can help, we believe more than just better management of one's equity book is required to excel in terms of asset allocation in the environment we now envision. Rather, we think that greater diversification at the asset class level is required. Specifically, we would suggest overweighting almost all investments linked to collateral-based cash flows and the aforementioned pricing power thesis. In particular, we suggest overweight positions in Infrastructure, Real Estate, and Asset-Based Finance, including Housing.

For employers, the current backdrop requires creating better incentives for employees to come to work – and to stay at work. It also necessitates creating greater alignment where corporate profits and individual successes are more closely united than in the past. Purely transactional ways of doing business will likely become more and more obsolete, we believe, as employees continue to search for renewed purpose, flexibility, and sense of community.

SECTION III: CONCLUSION

As we have detailed in this piece, we think that there is a structural shift occurring in the U.S. employment market that is consistent with our *'Different Kind of Recovery'* thesis. In fact, despite, significant progress in key areas such as automation and digitalization, the United States enters the current economic recovery without enough qualified workers to satisfy its growth demands. Indeed, under the cloud of the pandemic, a perfect storm has been brewing: Lack of worker retraining, weakening immigration trends, early retirement, and shifting priorities based on health and wellbeing, have all come together to change the narrative on not only the recovery but also inflation.

Importantly, we believe the employment trends that we are seeing represent an important input to our thesis about a higher resting heart rate for inflation. In fact, our deeper dive on the structural labor market issues has firmed our conviction in the magnitude and persistence of the inflationary impulses, leading my colleague Dave McNellis to raise our already above-consensus 2022 U.S. CPI forecast to 6.0% from 5.0%, as well as our longer-term inflation forecast to 2.5% from 2.25%.

Against this macroeconomic landscape, we expect a more volatile market that could pressure monetary Authorities potentially to act less linearly. In the past, by comparison, central bankers such as the Federal Reserve could clearly telegraph the path of tightening, given that both wage growth and inflation were running below their long-term targets.

For employers, the current backdrop requires creating better incentives for employees to come to work – and to stay at work. It also necessitates creating greater alignment where corporate profits and individual successes are more closely united than in the past. Purely transactional ways of doing business will likely become more and more obsolete, we believe, as employees continue to search for renewed purpose, flexibility, and sense of community.

For global allocators of capital, we believe that we have entered a new investment regime. Specifically, we believe that most portfolios will need to lean into more inflation protection providing assets, including Real Estate and Infrastructure. We also think that CIOs should be adding more opportunistic strategies (both liquid and illiquid) to their portfolios. Flexibility in a higher volatility environment will likely be rewarded. In the fixed income market, now is the time we believe to shorten duration as we still see most of the risk at the long end. We also favor more value over growth in the public equity markets, and we would tilt more outside the United States on a regional asset allocation basis than in the past.

Across all asset classes, a greater focus on productivity, and perhaps more importantly, pricing power, will be required to succeed in this new, more employee-driven environment that we envision, particularly in the United States. To be sure, though the investment outlook today is notably more challenging, we are still finding very compelling ideas behind which to deploy capital. Hence, we end this latest *Insights* piece with a quote from Winston S. Churchill that we believe sums up our outlook on how to invest in the current environment: 'A pessimist sees the difficulty in every opportunity; an optimist sees the opportunity in every difficulty.'

Across all asset classes, a greater focus on productivity, and perhaps more importantly, pricing power, will be required to succeed in this new, more employee-driven environment that we envision, particularly in the United States. To be sure, though the investment outlook today is notably more challenging, we are still finding very compelling ideas behind which to deploy capital.

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