Annual U.S. Economic Outlook

Five trends to watch for 2023

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Economic growth appears poised to end 2022 at around 2.7 percent on an annualized basis, as measured by real gross domestic product (GDP), after rising 2.9 percent in Q3 of this year. The volatility in the GDP readings, however, has masked a key underlying trend: the continual softening of consumer spending and business investment (Fig. 1). Additionally, our in-house recession probability model now indicates an 83 percent chance of recession in the next few months. In the year ahead, a mild three-quarter recession is likely in the first three quarters followed by a recovery in the fourth quarter, but GDP growth is still expected to be positive for the year as a whole. Real GDP growth should expand 0.5 percent next year, primarily driven by consumer spending, as well as state and local government spending. Net exports should have less of a drag on growth, with imports falling more quickly than exports due to softer demand (Fig. 2).
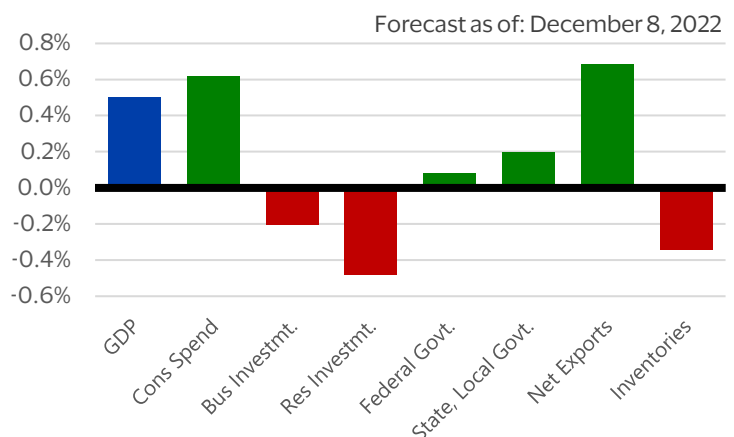
More importantly for the longer-run economic outlook, we expect consumer price inflation, as measured by the personal consumption expenditures (PCE) deflator, to fall throughout the year and average 2.6 percent in the fourth quarter of 2023. This is sharply lower than the 5.8 percent we anticipate for Q4 of this year. With the easing of inflation pressures, the Federal Reserve will likely begin normalizing monetary policy in the second half of 2023 by lowering interest rates, thus making monetary policy less restrictive.

Highlights:

- A mild, short-lived recession in 2023 is likely, and could resemble downturns from decades past

- The inflation inflection point should spur a recovery in late 2023

- Tight labor market conditions and recruitment challenges could return after the recession ends

Fig 1. Real consumer spending and business investment (SA*, percent, real final sales to private domestic purchasers)

Last actual: Q3-2022
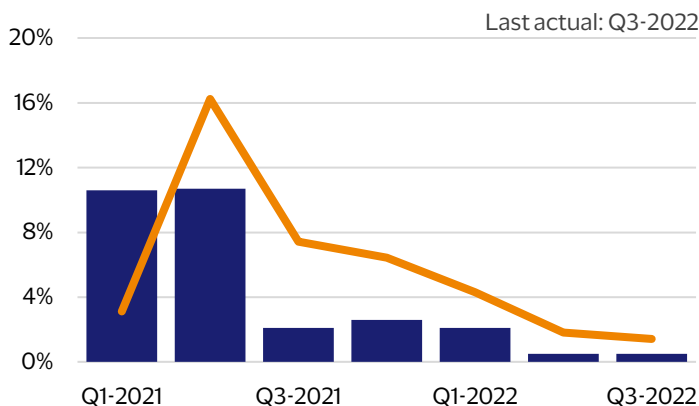
Sources: Visa Business and Economic Insights and U.S. Department of Commerce . * Seasonally adjusted

Fig. 2 Contributions to 2023 real GDP growth (Contribution to YoY percent change)

Forecast as of: December 8, 2022

Source: Visa Business and Economic Insights

VISA

Key trends that will shape the economy… and your business

Looking ahead to 2023, we see five key themes defining the contours of economic growth.

1 **We expect a recession in 2023, but not in the way you might think.** The decline in economic activity is likely to be mild and short-lived.

2 The mild nature of the downturn means that **this will likely be the first downturn in recent history without fiscal or monetary stimulus.**

3 **Geopolitical risks remain to global supply chains**, which creates greater uncertainty about the future path of inflation as firms work to diversify their supply chains, possibly at the cost of economies of scale.

4 **We don't expect a quick end to the tight labor market conditions that have prevailed post-pandemic.** The structural factors behind the tight labor market could persist over the long term, resulting in a persistently low unemployment rate and elevated nominal wage growth.

5 One of the core factors that will likely lead us out of the downturn late next year is **the inflation inflection point**—a term we have coined to describe the point at which the rate of inflation falls below the rate of wage growth. This positive real wage growth, along with residual savings among consumers, should serve as the catalyst that allows for the return of robust consumer spending in H2-2023.

Theme 1: We expect a recession in 2023, but not in the way you might think

These days, the word "recession" ignites fear in the hearts of many Americans. The last two recessions were exceptionally challenging, inflicting immense hardship on millions of households. They were punctuated by unusual crises—a financial collapse and a global pandemic—that carved deep scars into the fabric of the economy.

But these events were highly atypical, and there is no evidence to suggest that the next recession will be as damaging. If anything, the evidence points to something different altogether. The recession of 2023—if it does occur—will likely be triggered by rising interest rates. When rates go up, it becomes more expensive to borrow money, creating headwinds for sectors that rely on loans and investment capital. And rates have certainly gone up. In order to combat inflation, the Federal Reserve has raised the federal funds rate at the fastest pace in decades, leading to steeper borrowing costs on everything from mortgages to business loans.

In the past, when recessions have been induced by higher rates, they have often been shallow, brief, and confined to a small number of sectors. A similar scenario is expected in 2023. To start, the recession will likely span only three quarters, making it much shorter than the 18-month recession of 2007-2009. In addition, GDP is expected to decline by less than 2 percent at an annualized rate in each quarter of the next recession (Fig. 3). In 2020 it shrank by an almost unfathomable 30 percent.

By these two measures—depth and duration—2023 should be much milder than either 2020 or 2007-2009. It should also be less diffuse. It will likely be concentrated in manufacturing, tech and construction, and will be characterized by a substantial decline in business investment, but most other industries could be relatively unscathed.

Manufacturing activity almost always declines during recessions, as global trade weakens and saving takes priority over spending. After a voracious growth phase driven by new approaches to working and living, tech firms began announcing layoffs in late 2022, and such cutbacks may escalate in 2023. Tech is heavily dependent on loans and investment capital, with prominent firms relying on outside money for everyday expenses like payroll and rent, making a tech retrenchment highly likely next year.

Fig. 3 Real gross domestic product growth
(SA, CAGR and YoY percent change)
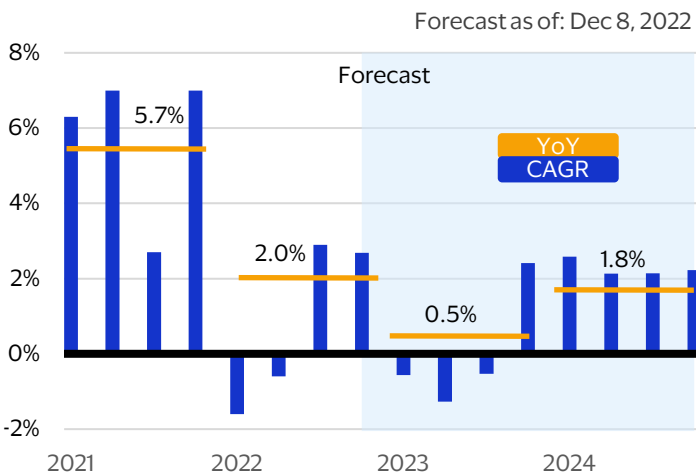
Sources Visa Business and Economic Insights and U.S. Department of Commerce

> GDP is expected to decline by less than 2 percent at an annualized rate in each quarter of the next recession. In 2020 it shrank by an almost unfathomable 30 percent.

# We expect a recession in 2023, but not in the way you might think (cont.)

The construction industry is already in a deep recession, with crews breaking ground on fewer homes, apartments and office buildings than in recent quarters. Lastly, firms of all sizes are expected to scale back their investment plans. As the economy slows and corporate profits diminish, companies will probably become more risk averse, preferring to park their capital in the bond market (which now offers attractive returns—yet another result of higher interest rates) instead of buying new equipment or investing in new software.

As a result of these industry dynamics, the recession should be felt unevenly across the U.S. The West and Midwest will likely experience deeper contractions due to their heavy concentrations in tech, manufacturing and housing.

The South and Northeast will also fall into recession but will fare comparatively better as they rely more heavily on tourism, international trade, government and energy.

Outside of tech, construction, manufacturing and business investment, the 2023 recession is expected to be mild. Consumer spending, in particular, should perform relatively well. U.S. households have healthy balance sheets and a large amount of savings in the bank. They are still catching up on experiences they missed during the pandemic, and there is a huge amount of pent-up demand for cars. All told, spending growth should slow during the first half of 2023— but will still likely be higher than the previous year—which will be positive news for consumer-facing companies (Fig. 4).

Fig. 4 Personal consumption expenditures
(YoY percent change)

Forecast as of: Dec 8, 2022
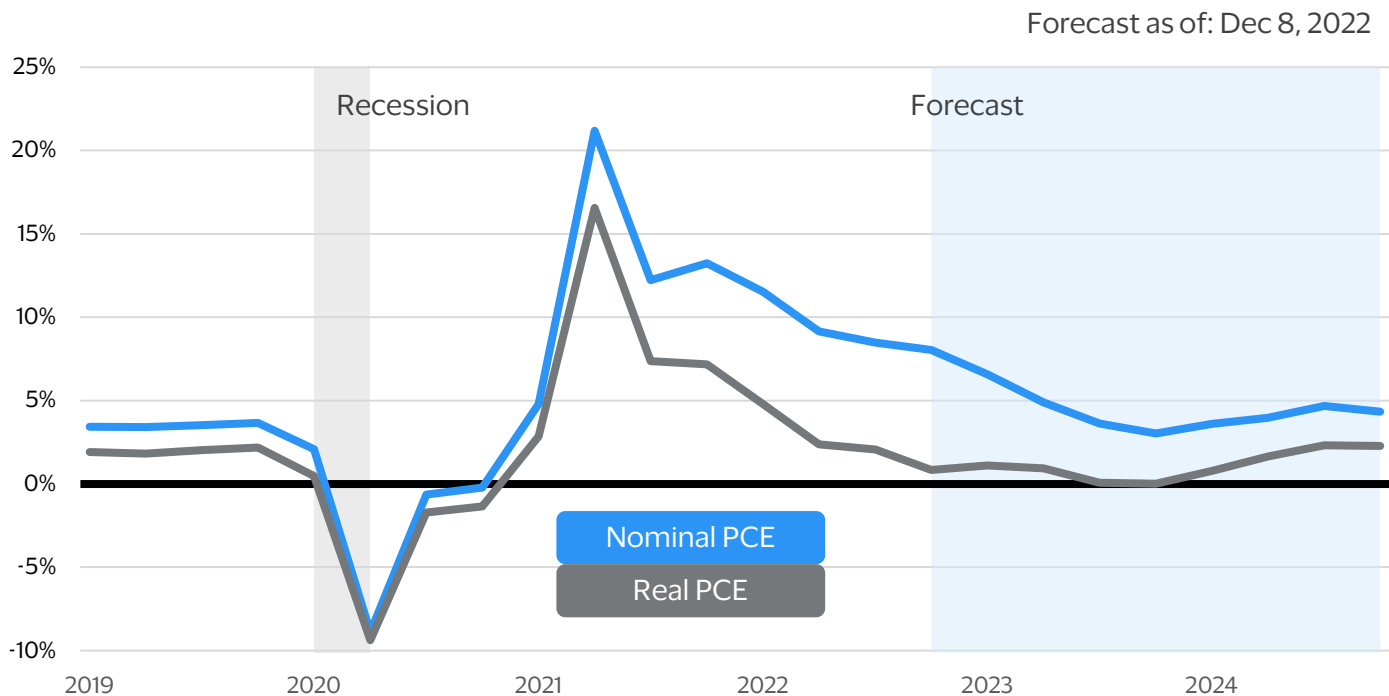
Sources: Visa Business and Economic Insights and U.S. Department of Commerce

Theme 2: A downturn without fiscal or monetary stimulus

With a recession on the horizon next year, the focus is likely to shift to how policymakers in Washington will respond to changing economic conditions. Our assumption is that there will be no major stimulus from either the federal government or the Federal Reserve.

The midterm elections resulted in split party control of Congress, with razor thin majorities in both the House (Republicans) and Senate (Democrats). Such thin margins make major legislation difficult in both chambers and make it nearly impossible for a bill to reach the president for signature. Absent a significantly more severe recession than we are currently forecasting, we do not see enough political motivation to overcome the key sticking points between and within both parties to pass a stimulus package similar to the fiscal policy response during the 2007-2009 or 2020 recessions.

That said, there are federal programs, known as automatic stabilizers, that will stimulate certain parts of the economy when conditions deteriorate. Among these programs are unemployment insurance benefits, food assistance, tax reductions due to income declines, and increased Medicaid enrollment by individuals who experience job loss or other economic hardships. As their name implies, these programs occur automatically without the need for congressional intervention.

Given the nature of the downturn that we expect, the automatic stabilizers are likely to be the only countercyclical federal programs available in the year ahead. In this regard, the 2023 recession could be markedly different than recent downturns. In 2020 and 2021, the federal government issued several trillion dollars in various stimulus packages, with a large portion going straight into the pockets of consumers. In 2008 and 2009, almost $1 trillion was deployed, sometimes in high-profile efforts like "Cash for Clunkers." In 2023, the recession is likely to be mild, but households and businesses should not expect meaningful fiscal support.

With respect to monetary policy, in every economic cycle since the early 1980s, the Federal Reserve has responded to a rise in the unemployment rate and slower economic growth by cutting interest rates. Since the 2008 financial crisis, the Fed has also used quantitative easing—buying Treasury and mortgage-backed securities to keep interest rates low across various time horizons—in addition to cutting the federal funds rate to near zero to provide liquidity and fuel a recovery. Today's environment, however, is very different.

The Fed is actively hiking interest rates to combat inflation pressures and wants to ensure that such inflation rates do not become embedded in the psyche of U.S. consumers and businesses.

> **In 2023, the recession is likely to be mild, but households and businesses should not expect meaningful fiscal support.**

Among the concerns at the Fed is the tight labor market, which is leading to wage pressures and higher consumer prices. During the downturn next year, the unemployment rate is likely to increase, easing labor market conditions in some sectors and contributing to lower overall inflation rates. However, the unemployment rate isn't expected to reach levels that will alarm the Fed. As long as it stays below 6 percent—which would be only slightly above its long run average—the Fed will likely remain confident that it can keep rates high without causing undue hardship for U.S. households. As such, we think this will be the first downturn since the 1980s in which the Fed will keep interest rates stable. Only after the economy is clearly recovering, with strong evidence that inflation pressures have abated, will the Fed begin to cut interest rates—likely beginning in the latter half of 2023.

Theme 3: Geopolitical risks remain to global supply chains

With the onset of a downturn likely next year, we expect imports to slide, resulting in a more modest pace of inventory building. The slowdown in domestic demand has helped to alleviate some of the supply chain pressures (Fig. 5). Yet, long-run challenges to global supply chains are likely to remain even after the recession. Geopolitical risk factors, such as the Russian invasion of Ukraine and China's current zero-COVID policy, have already had significant impacts on global supply chains. These impacts are expected to be long-term and present risks to our inflation and growth outlook.

China's commitment to a zero-COVID policy has extended far longer than many would have predicted and has left business leaders with no choice other than to diversify their supply chains. This trend of businesses maintaining supply chains both within and outside of China to prevent shortages of vital products has been dubbed the "China Plus One" strategy.[1] While helpful in making sure that policy changes in a single country cannot cripple a business's ability to acquire materials crucial to their operations, this strategy comes with the potential for higher costs. Thus, the creation of greater supply chain resilience may result in some longer-lasting inflation.

The war in Ukraine has already had a significant impact on world energy and food prices. The energy shortage is having a particularly negative impact on countries such as the U.K. and Germany. In Germany, reduced gas flow through the Nord Stream 1 pipeline from Russia could lead to a serious shortage of gas needed for heating homes during the winter. While Germany has worked hard to stockpile natural gas, a severe cold snap could result in gas rationing to the industrial sector to ensure homes stay heated. Given the country's sizable chemical facilities, such idling of German factories, even for a short period, has the potential to create another round of global supply chain issues. Even if the war in Ukraine ends quicker than expected, there is no guarantee that the pre-invasion status quo of energy supplies from Russia will return. Thus, the risk of reduced industrial capacity in Germany has the potential to keep consumer and capital goods prices higher for longer.

Both China's zero-COVID policy and the war in Ukraine have the potential to make inflation rates stickier than expected in 2023 and beyond. A more stubbornly high inflation rate may motivate the Fed to leave the fed funds rate high, which could result in either a deeper recession or more modest recovery.

Fig. 5 Global supply chain pressure index
(Standard deviations from average)
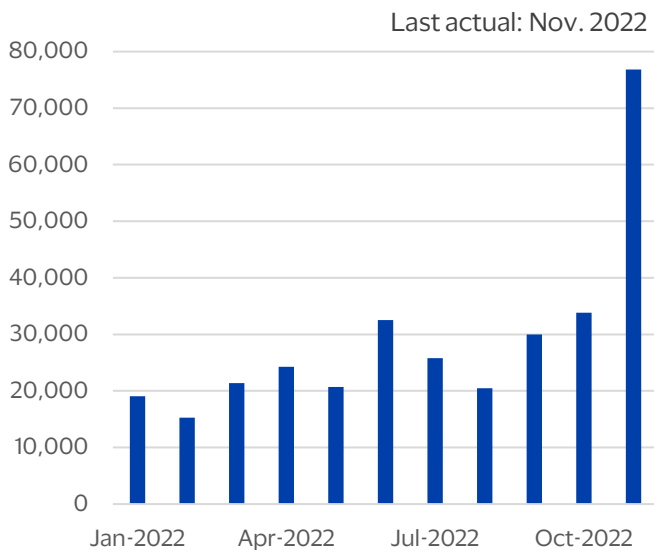
Last actual: Oct. 2022
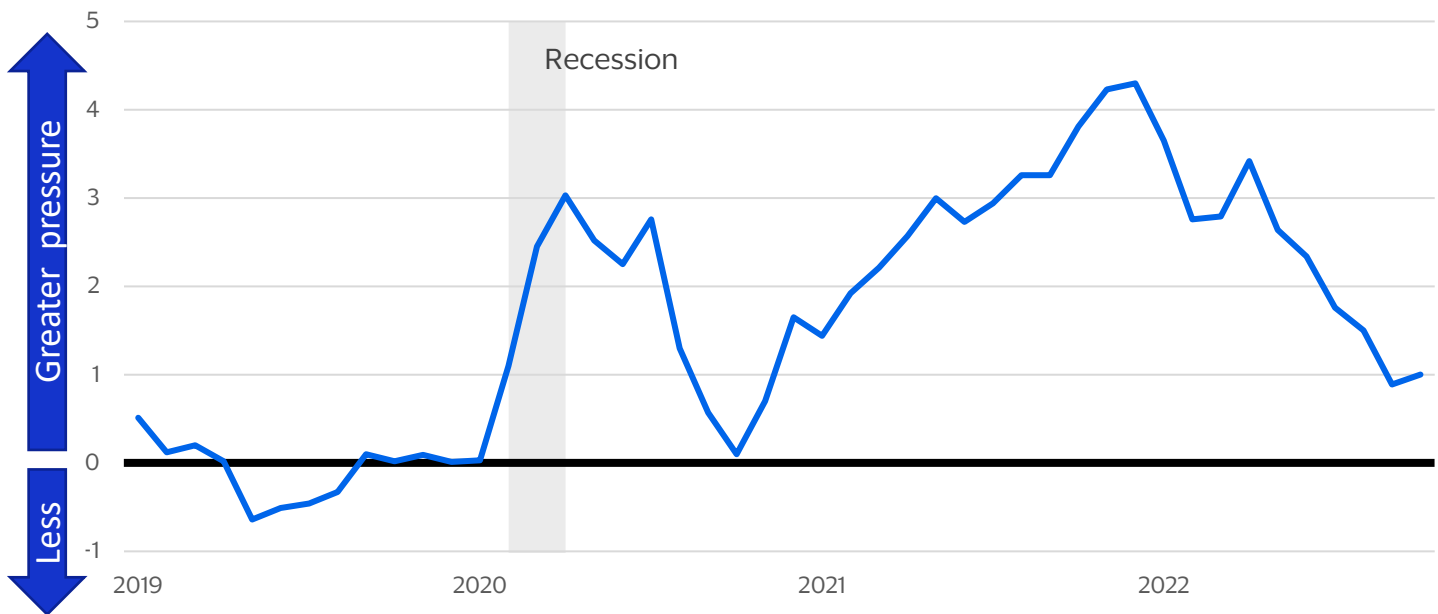
Sources: Visa Business and Economic Insights and Federal Reserve Bank of New York

Theme 4: Don't expect a quick end to the tight labor market

The labor market has been historically tight over the last year, with the number of job openings far outnumbering the number of unemployed workers to the tune of two to one for a large part of the year. This imbalance between labor supply and labor demand has been a major factor in the strong run-up in nominal wages.

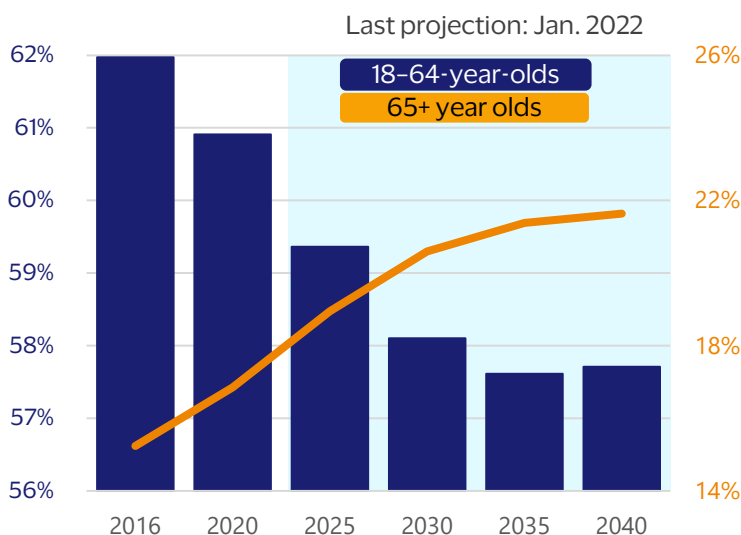## Fig. 6 Challenger, Gray & Christmas announced job cuts (total)

Last actual: Nov. 2022

Sources: Visa Business and Economic Insights and Challenger, Gray & Christmas

Fig. 7 Composition of population by age
(Percent of population)

Last projection: Jan. 2022

18–64-year-olds

65+ year olds

Sources: Visa Business and Economic Insights and U.S. Department of Commerce

If the expected contraction in economic growth next year occurs, it is likely that the labor market will loosen somewhat as a result. Recent announced layoffs (concentrated largely in the tech industry) are an early indication of some easing of the tight labor market (Fig. 6).

However, due to long-term demographic factors, it is likely that the looser labor market conditions will be short-lived. As the recovery takes hold late next year, we suspect that long-run challenges such as an aging population, declining labor force participation rates, the effects of long COVID and lower levels of net-migration will lead to the return of a tighter labor market. The overall impact of these trends is expected to benefit workers over the next few years, as the result will likely be higher wages. On the other hand, the tight labor market will come with challenges to businesses in the form of high labor costs and a possible decline of the overall consumer base. A further risk could be sticky inflation as higher labor costs are passed on to consumers in the form of higher prices, leading to real (inflation-adjusted) wage growth remaining flat or negative.

The largest contributing factor to the tight labor market is the aging U.S. population. Decades of increasing life expectancy[2] and a large decline in birth rates since the Great Recession[3] have contributed to the median age of the U.S. population increasing from 30 in 1980 to 38.1 in 2019.[4] According to Department of Commerce projections, the share of the population aged 18-64 will decline to 58.1 percent by 2030 (Fig. 7). Conversely, the share of those 65 and older will rise to 21.4 percent by 2030. The trend of a growing share of the population in retirement age and a shrinking share in pre-retirement age could ultimately lead to a mismatch in labor demand and labor supply.

Don't expect a quick end to the tight labor market (cont.)

The decline in the overall labor force is not the only major trend pointing toward a long-run mismatch between labor supply and labor demand. The labor force participation rate for prime working age (25-54) males has declined consistently for the past five decades, which has largely contributed to the decline in labor supply (Fig. 8).

While this trend had previously been somewhat mitigated by women entering the workforce and higher levels of immigration, the workforce participation rate of women has stagnated since the late 1990s and net-migration levels have declined significantly (Fig. 9, 10).

One important catalyst for the decline in prime working age male labor force participation occurred in the late 1960s with the increase in unemployment, welfare and disability benefits. With this increase, the reservation wage (the lowest wage that a person will accept for a job) and the number of unemployed workers rose.

While this fact is an important part of the story, it does not explain why the U.S. has a higher share of prime working age men absent from the labor force than other industrialized countries with more generous unemployment benefits. The reason behind this disparity is hotly debated, with explanations ranging from the knock-on effects of mass incarceration[5] to the growing share of non-college educated males choosing to sit on the sidelines of the labor market rather than work a low-paying job.[6]

While it remains unclear just how much each of these is contributing to the declining labor force participation rate for prime working age males, what is much clearer is that this trend is a major contributor to the shrinking labor supply if current public policy is left unchanged.

Fig. 8 Prime age male labor force participation rate (NSA,* percent)

Last actual: Nov. 2022
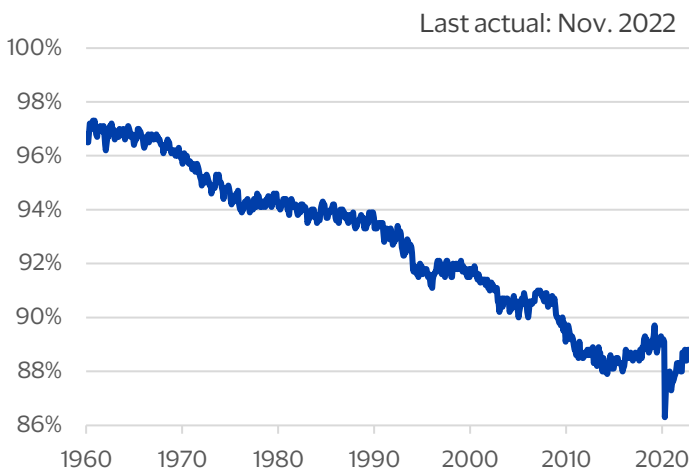
Sources: Visa Business and Economic Insights and U.S. Department of Labor. * Non-seasonally adjusted

Fig. 9 Prime age female labor force participation rate (NSA,* percent)

Last actual: Nov. 2022
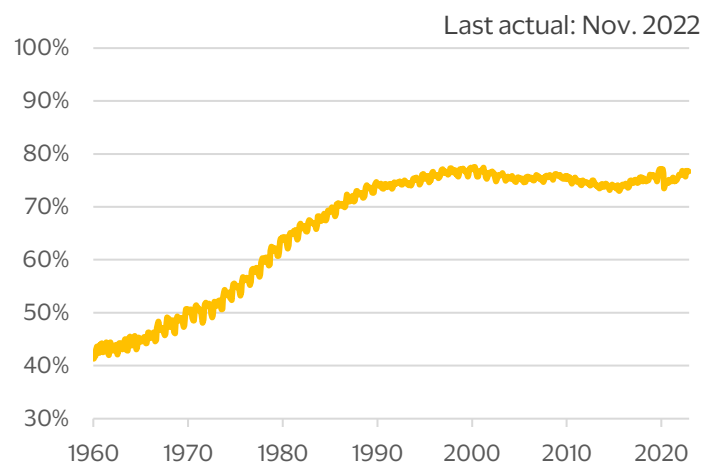
Sources: Visa Business and Economic Insights and U.S. Department of Labor

# Don't expect a quick end to the tight labor market (cont.)

Another recent contributor to the lower labor force participation rate is the impact of long COVID. As of August 2022, 16.3 million Americans had long COVID, with 12.2 million of those likely in the labor force before they became ill.[7]

Using calculations and studies from the Minneapolis Fed, the U.K.'s Trades Union Congress and *The Lancet*, the Brookings Institution estimates that between 1.8 million and 4.1 million Americans left the labor force due to bouts with long COVID (Fig. 11). While it is conceivable that most of these people will eventually rejoin the workforce, research on long COVID is still in its early stages and there is a great deal of uncertainty as to how long it will take them to return. Additionally, new cases of long COVID could keep these numbers elevated and further constrict the labor supply well past the slowdown expected next year.

Fig. 10 Births, deaths and net migration
(Per 1,000 people)

Last actual: 2020

Legend: Births, Deaths, Net Migration

X-axis: 1990-2000, 2010-2020, 2021-2030
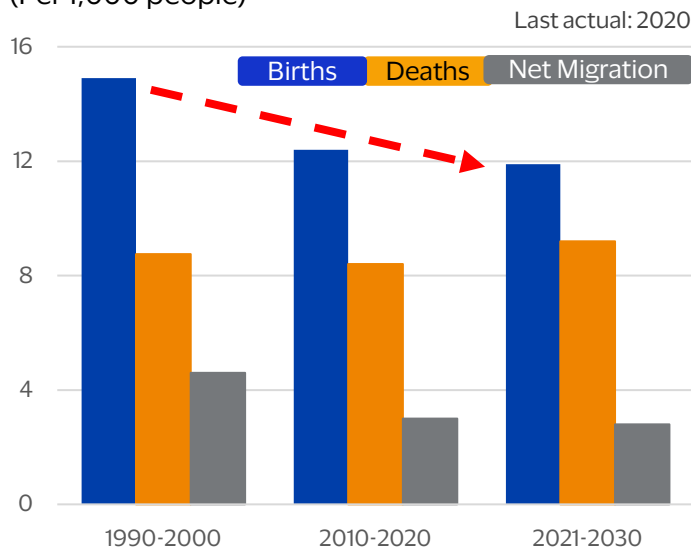
Sources: Visa Business and Economic Insights and U.S. Department of Commerce

Fig. 11 Americans out of labor force due to long COVID
(In millions)

Last actual: Aug. 2022

Range of 1.8M – 4.1M

X-axis: Long COVID, Likely in labor force pre-long COVID, Out of labor force due to long COVID
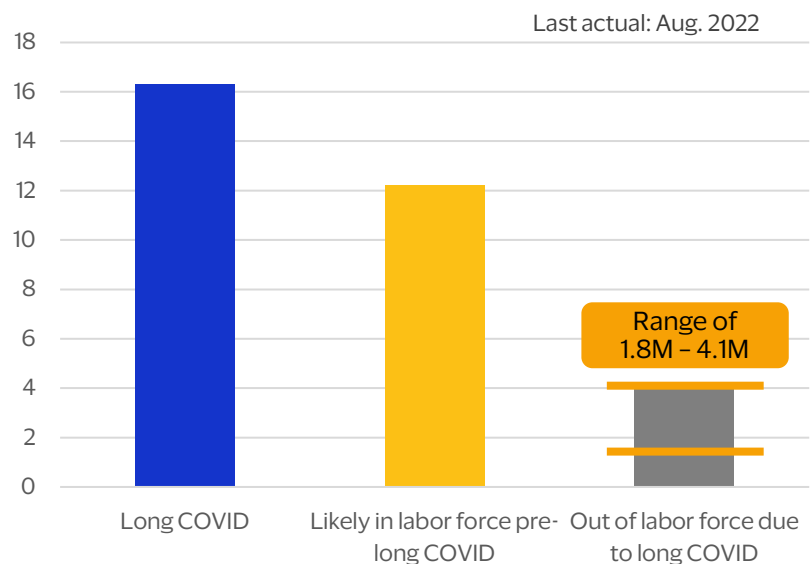
Sources: Visa Business and Economic Insights and Brookings Metro

The expected persistence of a tight labor market should be good for workers, as the low supply of labor amid elevated demand strengthens bargaining power in favor of workers. With the worst of inflation expected to be in the rear-view mirror late next year, high nominal wage growth will likely translate into real (inflation-adjusted) wage gains. Strong real wage gains would likely result in increased consumer spending.

However, rising labor costs present serious challenges for businesses. As the cost of labor continues to rise, business profit margins will be compressed, which will likely cause them to cut other costs, invest more heavily in labor-saving technology, or pass those wage increases on to consumers. Automation and artificial intelligence as substitutes for labor are likely to be more attractive investments in a high-wage environment, thus, we expect these technologies to draw greater capital investment going forward. Businesses will likely be very motivated to invest in labor-saving technology to increase productivity and avoid passing costs on to consumers.

A return to the pre-COVID labor market seems unlikely, even with some easing of the labor market next year. In our view, the long-run headwinds to labor force growth will continue to contribute to tight labor market conditions next year and beyond. The prevailing labor market dynamics are also likely to contribute to the mild nature of the next downturn, as firms are more likely to leave unfilled positions open or cut back hours rather than resort to mass layoffs.

Theme 5: The inflation inflection point

Inflation was a major economic headwind in 2022, eroding consumer purchasing power and effectively giving most households a pay cut. Real personal disposable income, which is adjusted for taxes and inflation, declined at the fastest rate on record and contributed to a major deterioration in consumer confidence.

Personal spending remained positive because households entered the year with lots of savings and untapped capacity on their credit cards, but with each passing month, the runway became shorter.

In 2023, we expect to reach an inflation inflection point that will allow real disposable income to turn positive and lift the economy out of recession. Inflation has already begun to decelerate, and there is compelling evidence that this improvement will continue next year.

To start, the global supply chain has largely healed. Supply chains were disrupted by the pandemic and the war in Ukraine, but aside from a few select cases, factories and transportation firms are operating at almost full capacity, allowing supply to meet demand, and lessening the upside price pressures.

In addition, energy prices are expected to fall. Energy, which includes a variety of categories like gas and heating oil, contributed substantially to inflation in 2022. Prices increased sharply after the war in Ukraine, which

interrupted the global production of crude oil and natural gas. But in 2023, prices are expected to normalize. Energy costs almost always drop during a recession due to a slowdown in travel and industrial production, and in 2023 they will be lapping the surge of 2022. By mid-year, it is conceivable that energy inflation will turn negative on a year-over-year basis.

Food prices should also return to earth. They soared when drought and geopolitical uncertainties led to export bans, but those bans are diminishing and food production is normalizing, leading to a decline in commodity prices that will ultimately impact price tags at the grocery store and menus at restaurants.

All told, these factors should converge in 2023 and move inflation closer to its long-run average. In the second half of the year, income growth is expected to outpace inflation (the inflation inflection point), allowing the consumer to spend more freely and the economy to pull out of recession.

Fig. 12 PCE and core PCE deflator
(SA, YoY percent change)

Forecast as of: Dec 8, 2022

Sources: Visa Business and Economic Insights and U.S. Department of Commerce

	2021 Q1	2021 Q2	2021 Q3	2021 Q4	2022 Q1	2022 Q2	2022 Q3	2022 Q4	2023 Q1	2023 Q2	2023 Q3	2023 Q4	2024 Q1	2024 Q2	2024 Q3	2024 Q4	2021	2022	2023	2024
Gross Domestic Product (CAGR)	6.3	7.0	2.7	7.0	-1.6	-0.6	2.9	2.7	-0.6	-1.3	-0.5	2.4	2.6	2.1	2.1	2.2	5.9	2.0	0.5	1.8
Personal Consumption	10.8	12.1	3.0	3.1	1.3	2.0	1.7	3.3	-0.3	-0.8	-0.1	2.7	2.9	2.5	2.3	2.2	8.3	2.8	0.9	2.1
Business Fixed Investment	8.9	9.9	0.6	1.1	7.9	0.1	5.1	4.7	-4.2	-7.7	-2.4	-0.2	1.2	1.6	2.8	4.2	6.4	3.8	-1.4	0.4
Equipment	6.1	14.0	-2.2	1.6	11.4	-2.0	10.7	7.9	-4.0	-11.0	-1.4	1.1	2.9	3.8	4.5	6.5	10.3	5.0	-0.7	1.7
Intellectual Property Products	15.6	12.6	7.4	8.1	10.8	8.9	5.8	4.9	-1.7	-3.3	-0.8	1.3	3.0	3.2	3.8	4.2	9.7	8.6	1.0	2.0
Structures	1.9	-2.5	-6.7	-12.7	-4.3	-12.7	-6.9	-15.9	-12.1	-10.5	-10.5	-9.0	-10.3	-11.0	-6.6	-4.4	-6.4	-8.8	-11.6	-9.4
Residential Construction	11.6	-4.9	-5.8	-1.1	-3.1	-17.8	-26.8	-22.0	-13.9	-9.9	-3.5	-1.1	0.8	1.0	1.8	2.1	10.7	-10.4	-15.0	-0.6
Government Purchases	6.5	-3.0	-0.2	-1.0	-2.3	-1.6	3.0	1.3	1.7	2.0	1.6	1.3	1.0	1.0	0.9	0.9	0.6	-0.8	1.6	1.2
Exports	0.4	4.9	-1.1	23.5	-4.6	13.8	15.3	0.5	-2.9	-12.5	-6.6	0.5	1.6	2.2	2.9	3.3	6.1	7.5	-1.4	-0.2
Imports	7.6	7.9	6.6	18.6	18.4	2.2	-7.3	3.5	-7.1	-11.5	-1.5	-0.3	1.5	2.1	2.4	2.9	14.1	8.7	-4.4	0.2
Net Exports	-1,164.5	-1,203.9	-1,267.5	-1,297.6	-1,488.7	######	-1,264.7	-1,294.9	-1,242.8	-1,212.5	-1,240.9	-1,235.1	-1,239.1	-1,244.9	-1,249.3	-1,255.8	-1,233.4	-1,369.7	-1,232.8	-1,247.3
Contribution to Growth (%)	-1.0	-0.6	-1.1	-0.2	-3.1	1.2	2.9	-0.6	1.0	0.6	-0.6	0.1	-0.1	-0.1	-0.1	-0.1	-1.3	-0.7	0.7	-0.1
Inventory Change	-83.0	-143.6	-48.6	197.6	214.5	110.2	49.6	71.0	40.0	30.0	45.0	55.0	66.0	67.0	66.0	65.0	-19.4	113.3	42.5	66.0
Contribution to Growth (%)	-2.5	-0.8	2.0	5.0	0.2	-1.9	-1.0	0.4	-0.6	-0.2	0.3	0.2	0.2	0.0	0.0	0.0	-0.2	0.7	-0.3	0.1
Nominal GDP (CAGR)	11.7	13.8	9.0	14.3	6.6	8.5	7.3	6.8	2.9	2.2	0.7	4.8	5.1	3.7	3.6	3.8	10.7	9.2	4.2	3.8
Real Final Sales to Domestic Purchasers (CAGR)	9.9	8.2	1.7	2.0	1.3	0.2	0.9	3.2	-0.9	-1.6	-0.2	2.0	2.3	2.1	2.1	2.2	6.7	1.8	0.3	1.6
Nominal Personal Consumption (Yr/Yr % Ch)	4.8	21.2	12.2	13.2	11.5	9.2	8.5	8.0	6.6	4.9	3.6	3.0	3.6	4.0	4.7	4.3	12.7	9.3	4.5	4.1
Real Personal Consumption (Yr/Yr % Chg.)	2.8	16.6	7.4	7.2	4.8	2.4	2.1	2.1	1.7	1.0	0.5	0.4	1.2	2.0	2.6	2.5	8.3	2.8	0.9	2.1
Retail Sales (Yr/Yr % Chg.)	15.1	32.7	15.2	17.3	12.6	8.4	9.4	8.2	4.9	2.2	1.6	2.1	3.4	4.3	5.0	4.2	19.7	9.6	2.7	4.2
Retail Sales Ex-Autos (Yr/Yr % Chg.)	12.5	29.9	16.0	18.9	13.6	11.2	10.6	9.3	6.9	3.4	2.4	2.2	3.0	3.7	4.4	4.0	19.0	11.1	3.7	3.8
Consumer Confidence	99.1	122.1	116.7	112.9	108.1	103.4	102.2	100.5	95.7	93.2	95.2	98.0	102.0	103.8	105.8	110.0	112.7	103.6	95.5	105.4
Light Vehicle Sales (Mil. Units, SAAR)	16.7	16.7	13.3	13.0	14.1	13.3	13.4	14.6	14.5	13.9	14.0	14.5	14.9	15.4	15.8	16.3	14.9	13.9	14.2	15.6
Inflation (Yr/Yr % Chg.)																				
PCE Deflator	1.9	4.0	4.5	5.7	6.4	6.6	6.3	5.8	4.8	3.8	3.1	2.6	2.4	1.9	2.0	1.8	4.0	6.3	3.6	2.1
Core PCE Deflator	1.7	3.5	3.9	4.7	5.3	5.0	4.9	4.9	4.4	3.6	2.9	2.5	2.3	2.1	1.8	1.6	3.5	5.0	3.4	1.9
Consumer Price Index	1.9	4.8	5.3	6.7	8.0	8.6	8.3	7.7	6.4	4.4	4.0	3.5	3.0	2.4	2.3	2.2	4.7	8.2	4.6	2.5
Core Consumer Price Index	1.4	3.7	4.1	5.0	6.3	6.0	6.3	6.3	5.4	4.4	3.5	2.9	2.6	2.5	2.3	2.1	3.6	6.2	4.0	2.4
Brent Crude Spot Price ($)	61.04	68.98	73.51	79.61	100.87	113.84	100.71	90.00	83.00	81.00	82.00	84.00	87.00	88.00	90.00	92.00	69.89	101.35	82.50	89.25
Income Measures (Yr/Yr % Chg.)																				
Nominal Personal Income	16.1	2.1	4.9	6.9	-3.5	3.2	4.1	4.9	4.5	3.0	1.5	1.0	1.7	2.8	3.8	3.7	7.4	2.1	2.5	3.0
Nominal Disposable Income	16.7	-0.6	3.0	5.3	-7.2	0.6	1.7	2.9	3.8	1.4	-0.2	-0.6	0.6	2.6	3.8	3.7	5.9	-0.6	1.1	2.7
Real Disposable Income	14.5	-4.4	-1.5	-0.4	-12.8	-5.7	-4.3	-2.8	-0.6	-1.5	-2.3	-1.9	-0.1	2.2	3.7	3.7	1.9	-6.5	-1.6	2.4
Labor Market (Averages)																				
Nonfarm Payroll (1,000s)	645	422	543	637	539	349	366	249	-100	-30.0	-133	50	250	300	175	132	562	376	-121	214
Unemployment Rate (%)	6.2	5.9	5.1	4.2	3.8	3.6	3.6	3.7	4.1	5.0	5.5	5.5	5.1	4.5	4.2	4.1	5.4	3.7	5.0	4.5
Housing Market (Mil. Units)																				
Housing Starts (Annualized)	1.58	1.59	1.57	1.68	1.72	1.65	1.46	1.35	1.19	1.09	1.04	1.08	1.14	1.19	1.26	1.34	1.60	1.54	1.09	1.23
Existing Home Sales (Annualized)	6.29	5.95	6.07	6.20	6.06	5.37	4.77	4.14	3.17	2.85	2.83	3.20	3.97	4.45	4.68	4.83	6.12	5.09	3.00	4.48
Corporate Profits Before Taxes (Yr/Yr % Chg)	16.1	39.2	15.3	22.3	10.9	7.7	4.4	-0.6	-3.1	-6.6	-2.5	3.0	3.7	5.2	3.1	2.3	22.61	5.46	-2.36	3.56
Corporate Profits After Taxes (Yr/Yr % Chg.)	13.8	37.5	14.0	20.7	6.1	5.0	2.5	-0.7	-2.9	-6.3	-2.4	2.9	3.5	4.9	2.9	2.2	20.88	3.17	-2.22	3.36
Federal Budget Balance (Bil. of $, Fiscal Year)	-1,133	-532	-538	-378	-291	153	-860	-163	-486	-122	-214	-121	-577	-132	-230	-150	-2,776	-1,375	-985	-1,060
Fed. Reserve Trade Weighted Dollar Index [1]	105.21	104.39	106.49	107.98	109.17	115.77	123.76	117.00	115.00	114.00	113.00	112.00	111.00	110.50	110.00	109.50	106.02	116.43	113.50	110.25
Interest Rates (Quarter End)																				
Federal Funds Rate (Upper Bound)	0.25	0.25	0.25	0.25	0.50	1.75	3.25	4.50	5.00	5.00	5.00	4.50	3.50	2.75	2.50	2.50	0.25	2.50	4.88	2.81
Prime Rate	3.25	3.25	3.25	3.25	3.50	4.75	6.25	7.50	8.00	8.00	8.00	7.50	6.50	5.75	5.50	5.50	3.25	5.50	7.88	5.81
3-Month T-Bill Rate	0.03	0.05	0.04	0.06	0.52	1.72	3.33	4.31	4.24	3.77	3.33	2.51	2.29	2.10	1.93	1.86	0.04	2.47	3.46	2.05
2-Year Treasury Note	0.16	0.25	0.28	0.73	2.28	2.92	4.22	4.30	3.98	3.75	3.18	2.62	2.41	2.25	2.13	2.05	0.27	3.43	3.38	2.21
10-Year Treasury Yield	1.74	1.45	1.52	1.52	2.32	2.98	3.83	3.56	3.32	3.20	2.95	2.55	2.48	2.44	2.42	2.40	1.45	3.17	3.01	2.44
30-Year Fixed Mortgage Rate [2]	3.14	3.04	2.98	3.21	4.27	5.58	6.01	6.52	5.68	5.48	5.14	4.62	4.41	4.20	4.05	3.90	3.03	5.59	5.23	4.14
3M/10Y Spread	1.71	1.40	1.48	1.46	1.80	1.26	0.50	-0.75	-0.92	-0.57	-0.38	0.04	0.19	0.34	0.49	0.54	1.40	0.70	-0.46	0.39
2Y/10Y Spread	1.58	1.20	1.24	0.79	0.04	0.06	-0.39	-0.74	-0.66	-0.55	-0.23	-0.07	0.07	0.19	0.29	0.35	1.18	-0.26	-0.38	0.23

Forecast as of: December 8, 2022
Note: Annual numbers represent year over year percent changes and annual averages
(1) For Advanced Foreign Economies
(2) Freddie Mac Primary Mortgage Market Survey

For access to our full forecast table on a monthly basis, please contact your Visa account executive.

Footnotes

1. Witchell, S. and Symington, P. (February 2013). "China Plus One," FTI Journal.

2. The World Bank Development Indicators. (2020).

3. Kearney, M., Levine, P.B. and Pardue, L. (2022). "The Puzzle of Falling US Birth Rates since the Great Recession", *Journal of Economic Perspectives*, Vol. 36, No. 1.

4. U.S. Department of Commerce

5. Fox, J. (2016). "Out of Prison, Out of Work", *Bloomberg*.

6. Hurst, E. (2016). "Video Killed the Radio Star", Chicago Booth Review.

7. Bach, K. (Aug. 24, 2022). "New data shows long Covid is keeping as many as 4 million people out of work", *Brookings Metro*.

Accessibility Notes

Fig. 1: Bar chart showing the quarter-over-quarter compound annual growth rate (CAGR) of real consumer spending and business investment also known as real final sales to private domestic purchasers. The chart begins in Q1-2021 with real consumer spending and business investment CAGR 10.6 percent, falls to 2.1 percent by Q1-2022 and slides further to 0.5 percent by Q3-2022. The quarterly bar chart is overlayed with a line graph of the year-over-year percent change in real consumer spending and business investment. The year-over-year percent change begins in Q1-2021 at 3.1 percent, peaks at 16.2 percent in Q2-2021, and slowly decelerates to 1.4 percent by Q3-2022.

Fig. 2: Bar chart showing the year-over-year contribution to gross domestic product (GDP) by sector of the economy. The chart begins with GDP growth at 0.5 percent, followed by consumer spending at 0.6 percent, business investment at -0.2 percent, residential investment at -0.5 percent, federal government at 0.1 percent, state and local government at 0.2 percent, net exports at 0.7 percent and inventories at -0.3 percent.

Fig. 3: Bar chart showing the quarter-over-quarter compound annual growth rate (CAGR) of gross domestic product (GDP). The chart begins in Q1-2021 with the GDP CAGR of 6.3 percent. GDP falls to -1.6 percent by Q1-2022 and rises to 2.9 percent by 2022-Q3. GDP is forecast to remain positive in Q4-2022 before turning negative in the first three quarters of 2023, with a low of -1.2 percent in Q2-2023. GDP is then forecast to be positive from Q4-2023 to Q4-2024, with a high of 2.6 percent in Q1-2024. The quarterly bar chart is overlayed with an annual bar chart of the year-over-year percent change in GDP. The year-over-year percent change was 5.7 percent in 2021. It is forecast to be 2.0 percent in 2022, 0.5 percent in 2023, and 1.8 percent in 2024.

Fig. 4: Line chart showing the year-over-year percent change in personal consumption expenditures (PCE), with a line for nominal PCE and a line for real PCE. The chart begins in Q1-2019 and ends in Q4-2024. Nominal PCE starts at 3.4 percent in Q1-2019, declines to -8.9 percent by Q2-2020, rises to 21.2 percent by Q2-2021, then descends to 8.5 percent by Q3-2022. It is forecast to gradually descend to 3.0 percent by Q4-2023 before increasing to 4.3 percent by Q4-2024. Real PCE begins in Q1-2019 at 1.9 percent. It falls to -9.4 percent by Q2-2020, rises to 16.6 percent by Q2-2021, then descends to 2.1 percent by Q3-2022. It is forecast to descend to 0.0 percent by Q4-2023 before rising to 2.3 percent by Q4-2024.

Fig. 5: Line chart of the global supply chain pressure index. The index shows pressure on the global supply chain, measures in standard deviations from the historical average. It begins in January 2019 at 0.1, falls to -0.6 by May 2019, and stays near 0.0 between September 2019 and January 2020. It then rises to 3.0 by April 2020, falls to 0.1 by October 2020, rises to 4.3 by December 2021, and falls to 1.0 by October 2022.

Fig. 6: Bar chart showing total announced layoffs by month in 2022 starting in January at 19,064 and ending at a peak of 76,3 85 in November. The series low of 15,245 was in February.

Fig. 7: Bar chart of the share of the population that is 18-64 years old ranging from a high 62 percent in 2016 to 60.9 percent and low in 2020. The bar chart is combined with a line chart showing the share of the population that is 65 and older, that ranges from a low of 15.2 percent in 2016 and a high of 16.9 percent in 2020. The share of the population that is 18-64 years old is expected to decline to 59.4 percent in 2025, decline further to 58.1 in 2030, reaching the bottom of 57.6 in 2035 and remain relatively unchanged in 2040 at 57.7 percent. The share of the population that is 65 and older is expected to rise to 19 percent in 2025, rise further to 20.6 in 2030, reaching the top of 21.4 in 2035 and remain relatively unchanged in 2040 at 21.6 percent.

Fig. 8: Line chart showing the labor force participation rate of prime working age men that starts in January of 1960 at 96.8 percent and peaks at 97.3 percent in September of 1960. The line declines until steadily until hitting a bottom of 86.3 percent in April 2020. The labor force participation rate then slightly rebounds from that low to 88.5 in November 2022.

Fig. 9: Line chart showing the labor force participation rate of prime working age women that starts in January of 1960 at alow of 41.3 percent and the line steadily rises until a peak of 77.5 percent in March of 2000. The line remains mostly flat until hitting a quick drop in April 2020 to 73.5 percent. The labor force participation rate then slightly rebounds from that low to 76.7 in November 2022.

Fig. 10: Bar chart that shows the number of births, deaths and net migration per 1,000 people over decades where births were starts at a peak of 14.9, deaths start at 8.8, and net-migration starts at a peak of 4.6 all in the 1990-2000 decade. Births then falls to a bottom of 12.4, deaths fall to a bottom of 8.4, and net-migration falls to a bottom of 3 in the 2010-2020 decade. Births are expected to decline to 11.9, deaths are expected to rise to 9.2, and net-migration are expected to decline to 2.8 by 2030.

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Accessibility Notes (cont.)

Fig. 11: Bar chart showing the number of Americans (in millions) that have long COVID at 16.3, were likely in the labor force   before they had pre-COVID 12.2, and a bar of people out of the labor force due to long COVID with lines showing the estimates being between 1.8 and 4.1.

Fig. 12: Line chart, with a line for the year-over-year percent change in the personal consumption expenditure (PCE) deflator and another line for the year-over-year percent change in the core PCE deflator. It begins in Q1-2020 and ends in Q4-2024. The PCE deflator was 1.6 percent in Q1-2020, declined to 0.5 percent in Q2-2020, increased to 6.6 percent by Q2-2022, and fell to 6.3 percent in Q3-2022. It is forecast to gradually descend to 1.8 percent by Q4-2024. The Core PCE deflator was 1.7 percent in Q1-2020, declined to 0.9 percent in Q2-2020, increased to 5.3 percent by Q1-2022, and fell to 4.9 percent by Q3-2022. It is forecast to gradually descend to 1.7 percent by Q4-2024.

Forward Looking Statements

This report may contain forward-looking statements within the meaning of the U.S. Private Securities Litigation Reform Act of 1995. These statements are generally identified by words such as "outlook", "forecast", "projected", "could", "expects", "will" and other similar expressions. Examples of such forward-looking statements include, but are not limited to, statement we make about Visa's business, economic outlooks, population expansion and analyses. All statements other than statements of historical fact could be forward-looking statements, which speak only as of the date they are made, are not guarantees of future performance and are subject to certain risks, uncertainties and other factors, many of which are beyond our control and are difficult to predict. We describe risks and uncertainties that could cause actual results to differ materially from those expressed in, or implied by, any of these forward-looking statements in our filings with the SEC. Except as required by law, we do not intend to update or revise any forward-looking statements as a result of new information, future events or otherwise

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