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# The Slow March to Recovery: An Economic Outlook for Sonoma County


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Contents

Short-Term Executive Summary ..... 3
- Speed bumps ahead ..... 3
- Second-quarter slump ..... 3
- GDP vs. GDI ..... 3
- Supply-shock threats ..... 3
- Monetary tightening ..... 4
- Recession-free for the near term ..... 4
- Tale of the yield curve ..... 4
- The anxious consumer ..... 4

Forecast Assumptions ..... 5
- Monetary policy ..... 5
- Fiscal policy ..... 5
- U.S. dollar ..... 5
- Energy prices ..... 5
- COVID-19 pandemic ..... 6

Forecast Risks ..... 6
- Fed policy ..... 6
- Financial conditions ..... 6
- Supply-chain disruptions ..... 6
- COVID-19 ..... 6
- Consumer spending ..... 6
- Stagflation ..... 7

Regional Economic Outlook ..... 8

Sonoma County CA ..... 8
- Summary ..... 8
- Recent Performance ..... 8
- Near-term outlook ..... 10
- Long-term outlook: Positive factors ..... 12
- Long-term outlook: Negative factors ..... 14
- Income ..... 14
- Balance sheets ..... 15
- Demographic trends ..... 16
- Workforce readiness ..... 16
- Residential real estate ..... 17
- Commercial real estate ..... 17
- Forecast risks ..... 18
- Demographic profile ..... 20

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# U.S. Economic Outlook

## Short-Term Executive Summary

### Speed bumps ahead

We are downgrading our real GDP growth outlook for the remainder of this year and next, but while near-term recession risks are uncomfortably high, odds remain that the economic expansion will continue.

Our July U.S. forecast meaningfully reduces the outlook for growth in real GDP for the remainder of this year and next. On a fourth-quarter to fourth-quarter basis, we expect real GDP to grow by close to 1% this year and 2% in 2023. This is down from near 2% and 2.5% growth, respectively, in last month's forecast. For context, we estimate potential real GDP growth—that growth consistent with enough job creation to maintain stable unemployment—at approximately 2.2%. We thus expect job growth to slow substantially in coming months, from close to an average of almost 400,000 per month currently to near 100,000 by year-end 2023. Unemployment may tick lower this summer to 3.5%, before rising slowly toward 4% by mid-decade. Revisions to our employment and unemployment rate forecasts are not as substantial as to our forecast for real GDP growth, as businesses recognize that labor shortages will be a long-running problem and will tend to be reticent to lay off workers despite any near-term slowdown in GDP. The implication is that productivity growth will be much weaker in the near term than previously projected.

### Second-quarter slump

Behind our downward revision to real GDP growth for this year is the slump in second-quarter GDP growth. Our tracking estimate for the quarter, which is based on incoming monthly economic statistics, now shows real GDP falling. There is still a lot more data to come in for the quarter, but it currently shows a small decline of 0.2%. Since this comes on the heels of a 1.6% decline in first-quarter real GDP, a growing chorus will argue that the economy is already in recession. Two consecutive quarters of real GDP declines typically are a good rule-of-thumb for dating recessions, but that measure is not useful in the current period. A recession is defined as a broad-based persistent decline in economic activity and is determined by the business cycle dating committee—a group of academics—of the National Bureau of Economic Research. The committee looks at a plethora of data before weighing in on the start and end dates of recessions. Beyond GDP, other economic data the committee generally focuses on, including employment, industrial production, and real personal income less transfer payments, suggest a still-expanding economy.

Other aspects of the GDP numbers also suggest a more sanguine interpretation of where the economy is in its business cycle. Most of the weakness in GDP is due to a dramatic widening in the trade deficit. This reflects the strength of the U.S. economy compared with its trading partners and the strength of the U.S. dollar, which is at its highest in decades vis-à-vis the euro, the British pound, and the Japanese yen, and up meaningfully against the Chinese yuan. Domestic demand, including consumer spending and fixed business investment, remains sturdy.

### GDP vs. GDI

Moreover, real gross domestic income, which totes up the income earned by households and businesses, and in theory should add up to real GDP, continues to grow. The difference between real GDP and real GDI, also known as the statistical discrepancy, has never been as large. It would not be surprising if the Bureau of Economic Analysis, the government agency that constructs these estimates, is having an especially difficult time in the pandemic accurately measuring real GDP given the resulting big swings in global trade and inventories and will ultimately revise it up to be more consistent with real GDI.

### Supply-shock threats

Though the economy is not in recession, growth is sharply slowing, and the expansion is highly vulnerable to anything else that might go wrong. And it is not hard to imagine that something will, given the ongoing pandemic, most notably in China, and what now seems a never-ending Russian invasion of Ukraine. These two massive supply shocks continue to wreak havoc on the economy, as the pandemic-related supply-chain and labor market disruptions and the Russian invasion-related spike in oil and other commodity prices have fanned painfully high inflation and inflation expectations across the globe. The inflationary hit to real incomes and consumer purchasing power here in the U.S. has been substantial—real after-tax income is not much higher today than at the start of the pandemic well over two years ago.

## Monetary tightening

High inflation and inflation expectations have also forced the Federal Reserve and other central banks to dramatically ramp up their monetary tightening. We now expect the Fed to hike the federal funds rate by another 75 basis points at this month's meeting of the Federal Open Market Committee and 25 basis points each at the coming September, November, December and January meetings. This would put the terminal rate—the highest rate during this rate cycle—at 3.5%. That is up 75 basis points from last month's forecast and now well above the estimated equilibrium rate or r-star—the rate consistent with an economy at full employment and the Fed's inflation target—of 2.5%. The FOMC has marked up its own terminal rate forecast even more to 3.75%, which has contributed to a severe tightening in financial conditions as global investors digest it. Stocks have descended into a bear market, fixed mortgage rates are hovering near 6%, and the value of the U.S. dollar has rarely been stronger. With real incomes under siege, interest rates rising, and financial conditions tightening, recession odds are uncomfortably high. We put them at 40% over the next 12 months and 50%, give or take, over the next 24 months.

## Recession-free for the near term

These odds notwithstanding, our near-term baseline outlook is for the U.S. economy to remain recession-free. We would need a much higher level of conviction—closer to two-thirds probability of recession—to make the dramatic change of having a recession in our baseline. We are far from that, as there is a solid list of reasons to be optimistic that the expansion will bow, but it will not break. Top of the list is that households have been able to build substantial excess savings—equal to more than 10% of GDP—during the pandemic. While those in the bottom two-thirds of the income distribution are working down those savings quickly as they supplement their incomes to maintain spending in the face of higher inflation, their excess savings should last into next year, long enough for inflation to meaningfully moderate and real income gains to turn positive again. Households in the top one-third of the income distribution, which account for almost three-fourths of all spending, have little prospect of even coming close to exhausting their excess savings anytime soon.

Also encouraging is that the Fed has had success in re-anchoring inflation expectations. Of the different measures of inflation expectations, the most useful come from the bond market—investors putting their money where their mouths are. And best of all for gauging the appropriate conduct of monetary policy is the measure known as one-year, five-year forwards—consumer price inflation one year from now in the subsequent five-year period. It is way down since peaking soon after the Russian invasion of Ukraine and has been even a bit on the low side of the Fed's target since the June FOMC meeting. With inflation expectations back down, prospects that a dreaded wage-price spiral and stagflation will take hold have been largely dashed, and actual inflation seems much more likely to soon moderate. The Fed's extraordinarily hawkish talk and recent aggressive actions appear to be working, reducing the need for even more aggressive action in the future, and improving odds that the expansion will continue.

## Tale of the yield curve

Of concern is the most prescient leading economic indicator, the Treasury yield curve—the difference between 10-year and two-year Treasury yields. The spread turned negative through the middle of July. An inversion—when two-year yields rise above 10-year yields—lasting at least a few weeks has historically accurately predicted recessions by just over a year out. Inversions occur when the Fed is aggressively tightening monetary policy, sending two-year yields higher, and bond investors believe the Fed is pressing too hard and will cause the economy to falter, enticing them to buy 10-year bonds and pushing their yields lower.

## The anxious consumer

Consumers are anxious, according to the Conference Board's survey of consumer confidence, though not nearly nervous enough to be consistent with a downturn. The confidence index must fall more than 20 points over a three-month period before recession comes on the radar screen. Also inconsistent with recession is unemployment, which remains stable and low in the mid-3s. It is only when unemployment has risen more than 40 basis points in a three-month period that recession is almost upon us. A recession is ultimately a loss of faith; consumers fear they will lose their jobs and pull back on their spending, and businesses fear they will not be able to sell what they produce and lay off workers. A self-reinforcing vicious cycle—a recession—is ignited. This has not happened, at least not yet, and we continue to hold that it will not.

# Forecast Assumptions

## Monetary policy

The Federal Reserve is aggressively tightening monetary policy. Policymakers are strongly signaling they have just begun a series of significant rate hikes in coming months, and that they will allow the Fed's balance sheet to shrink through quantitative tightening.

We anticipate the Fed will increase the funds rate 50 basis points at the July meeting of the Federal Open Market Committee and follow with more rate hikes, bringing the funds rate to its long-run equilibrium, or r-star, of 2.5% by the end of this year, and to 3.25% by this time next year. The risks to this outlook are decidedly for even more rate hikes.

Prompting the Fed to take a more aggressive policy stance is the surge in inflation to a 40-year high, prompted by Russia's invasion of Ukraine and causing oil and other commodity prices to spike. It has also fanned already uncomfortably high inflation expectations. Adding to the pressure to act more quickly is the strong economy, the rapid growth in jobs, and the decline in unemployment. The economy is on track to return to full employment in the next few months with unemployment in the low threes.

The Fed will also continue to allow the assets on its balance sheet, including $9 trillion in Treasury and mortgage-backed securities, to mature and prepay. An average of nearly $100 billion in securities should run off monthly, although there is an increasing likelihood the Fed may begin to actively sell its mortgage-backed securities.

Ten-year Treasury yields are close to 3% as global bond investors digest the implications of the strong economy, high inflation, and the Fed's aggressive monetary actions. Ten-year yields are expected to rise to near 3.5% by year-end 2022 and reach their estimated long-run equilibrium of 4% by mid-decade. This is consistent with expected nominal potential GDP growth.

## Fiscal policy

Federal fiscal policy, which had been highly expansionary since the pandemic hit through late 2021, recently has become a drag on economic growth that will grow more pronounced in coming months.

Total fiscal support to the economy throughout the pandemic, including the CARES Act passed into law in March 2020, the American Rescue Plan of March 2021, and several smaller fiscal packages, totals well over $5 trillion. This is equal to an astounding almost 25% of pre-pandemic 2019 GDP—approximately three times that provided during the global financial crisis.

However, fiscal policy is turning quickly contractionary as the pandemic support winds down. Total support in 2021 was nearly $1.9 trillion, and it will decline to $800 billion this year. The $550 billion, 10-year public infrastructure package that passed into law last fall will not have a material impact on the thrust of fiscal policy this year, although it will modestly support growth from 2023 to 2025. We no longer assume that lawmakers will pass a version of the Biden administration's proposed Build Back Better agenda.

The federal government posted a deficit of $2.8 trillion in fiscal 2021 and is on track to post a deficit of $1.2 trillion in fiscal 2022. The publicly traded debt-to-GDP ratio has surged to near 100%. Lawmakers were appropriately not focused on deficits during the pandemic given the need to respond to the crisis. But, as the pandemic fades, addressing the fragile fiscal situation will become critical.

## U.S. dollar

The value of the U.S. dollar is very strong, receiving another boost from the flight to quality into U.S. assets prompted by the Russian invasion of Ukraine. On a real broad trade-weighted basis, the dollar is more than half a standard deviation above its long-run average since it began to freely float in the early 1970s. Its value is expected to remain strong as long as the Russian invasion and the pandemic remain threats to the global economy. And even when these threats recede, the dollar should remain strong given other geopolitical uncertainties, including the ongoing tensions between the U.S. and China. The dollar's reserve currency status will remain intact for the foreseeable future.

## Energy prices

Global oil prices have traded at over $100 per barrel on the European Union's decision to sanction Russian oil. More than half of Russia's pre-invasion oil exports have now been sanctioned, totaling an estimated 4.4 million barrels per day. For context, global oil demand is near 100 million barrels. Some of the sanctioned oil will find its way to China and India, which are not participating in the sanctions, but the bulk of it will not. Thus, the spike in prices.

We are assuming that there will be no further significant sanctions of Russian oil, and that more supplies will slowly but steadily come from Saudi Arabia, the United Arab Emirates, and North American oil frackers. Along with larger oil releases from the U.S. Strategic Petroleum Reserve and the reserves held by other nations, and the drawdown of global oil inventories, the loss of Russian oil to global markets should thus be filled.

If these assumptions hold, then oil prices are expected to remain near $100 per barrel, before slowly declining to their estimated long-run equilibrium of closer to $70 per barrel by 2024.

### COVID-19 pandemic

The global pandemic continues to recede and is thus becoming less disruptive to global supply chains, tourism and business travel, immigration, and labor markets. While there are likely to be future waves of the virus, we expect each new wave to be less disruptive to the healthcare system and the economy than the preceding wave. Governments, households and businesses are becoming increasingly adept at adjusting to the virus, even in China, which continues to follow a zero-COVID policy.

## Forecast Risks

### Fed policy

The 75-basis point increase to the fed funds rate announced at June's Federal Open Market Committee meeting was the largest hike in nearly three decades. July's baseline forecast includes a 50-basis point increase, but successive months of higher-than-expected CPI growth have increased the odds that the Fed will again raise the fed funds rate by 75 basis points in July. The highest inflation in more than 40 years forced members of the FOMC to turn significantly more hawkish.

The odds of a policy error have also increased as the Fed has taken more dramatic measures to signal its commitment to stamping out inflation. If the Fed is too aggressive in normalizing policy, it could ignite a panic in financial markets, causing asset prices to plummet. Additionally, higher interest rates could also cut off the flow of credit, slowing growth. If the Fed moves too slowly amid a possible wage-price spiral, it risks a further rise in inflation pressures that would also cause economic growth to slow. However, indications of decelerating wage growth of late have reduced the likelihood of such a cycle.

### Financial conditions

Rising long-term U.S. interest rates increase the odds of a costly tightening in financial market conditions. Though long-term interest rates have been suppressed in recent months, strong growth prospects and more fiscal spending will drive long-term yields higher in coming quarters. One risk is that the rise in long-term interest rates will precipitate further correction in equity markets. A prolonged slump and a tighter financial environment would weaken the economy.

Rising long-term interest rates could also create problems for corporations and the real estate market. Nonfinancial debt and loans sit near record-high shares of GDP, and higher rates will significantly increase borrowing costs for highly indebted corporations, many of which are still struggling from the pandemic, and households, taking the wind out of the housing market. A string of corporate defaults or a significant widening of corporate bond spreads could dampen investor sentiment and soften investment.

### Supply-chain disruptions

Improvement in global supply chains is critical to the outlook for moderating inflation. The combination of the fallout from Russia's invasion of Ukraine and China's zero-COVID policy magnifies the supply-chain issues. And the longer the global supply-chain issues persist, the more upside risk there is to near-term U.S. inflation.

Russia is among the top three oil producers in the world, accounting for approximately 10 million barrels of crude per day, comparable to the U.S. and Saudi Arabia. While prices have fallen from their peak of nearly $140 per barrel after the invasion to less than $100 per barrel, volatility and elevated prices are still a risk.

The flow of agricultural inputs and food products out of Ukraine and Russia has improved but remains hampered. Any rebalancing of supply among Russia-sanctioning and non-sanctioning countries will be extremely fragile.

### COVID-19

While COVID-19 appears to be receding, and thus becoming less disruptive to global supply chains, tourism and business travel, immigration, and labor markets, the risk of a resurgence remains. There remains a significant amount of uncertainty around the path of the pandemic if new variants of the virus elude current vaccines. Also, with a sizable unvaccinated population the risk of disruption in the labor market, retail spending and consumer confidence could soften economic growth even with progressively less virulent waves.

### Consumer spending

Consumer spending could exceed expectations and drive faster growth. Wages have failed to keep pace with inflation in the U.S. but have risen much more quickly than prior to the pandemic and the job market remains unusually robust. The combination could push household income up faster than expected. As much of the income is spent, the economy would grow above expectations.

Uncertainty about the spending outlook has been elevated by high inflation, with Russia's invasion of Ukraine exacerbating the difficulty in discerning when pressures will ease. Many, but not all, supply constraints seem to be fading, but inconsistently, given developments in Eastern Europe and the still-disruptive virus, notably in China and other places that produce and ship U.S. consumer goods. This remains a wild card impacting the pace of improvement in the availability of goods and pace of price increases.

## Stagflation

Although the odds remain low, the numerous channels impacting inflation have increased the likelihood of a stagflation scenario, defined by a period of sustained high inflation and low economic growth. The probability of such a scenario has declined over the past month primarily because of the Fed's commitment to do whatever is needed to break inflation and inflation expectations.

The current environment is unique in that the global economy is facing two major simultaneous inflationary shocks caused by the pandemic and Russia's invasion of Ukraine. Though the baseline forecast calls for inflation pressures to gradually abate over the next several years, the uncertain nature of the pandemic as well as the situation in Ukraine could result in a faster pace of inflation for longer than expected. The rate accelerated in June more than expected and reached the fastest year-over-year pace since 1981. Even if inflation does not accelerate meaningfully from current levels, a longer period of high inflation could easily undermine already-fragile business and consumer confidence, causing a pullback in spending and weaker-than-expected economic growth.

# The Slow March to Recovery: An Economic Outlook for Sonoma County

## Regional Economic Outlook
## Sonoma County CA

Sonoma County's recovery is continuing at a modest pace, but the county has lost ground relative to the state and region over the past year. Payrolls are still down 4% compared with their pre-pandemic level, while the region has made a full recovery and California is just a touch off its February 2020 level. The county did have a steeper hole to climb out of given the sharp drop in payrolls and its high exposure to the severely damaged hospitality industry.

Although the near-term outlook has grown more uncertain in recent months, the baseline forecast assumes that the U.S. economy will skirt recession on the back of strength in the labor market and the lack of glaring imbalances in the economy. An acceleration in spending on services will give an added boost to Sonoma's tourism-centric economy, and while consumers are glum, a still-high level of excess savings, low unemployment, and strong credit quality will help keep the economic recovery ticking as monetary policy normalizes. Wineries, breweries, hospitality establishments and wellness centers are set for a strong recovery in the third and fourth quarters of this year. Healthcare and manufacturing, which fared better during the pandemic, will lend additional support.

The near-term outlook for Sonoma's tourism is one of guarded optimism. The carnage inflicted on tourism-facing industries will take some time to heal, but still-favorable macroeconomic and epidemiological tailwinds will allow for a rapid recovery in the second half of the year. While risks of recession are rising uncomfortably high, the baseline forecast calls for the Federal Reserve to navigate a soft landing for the economy, slowing growth but avoiding a recession. So long as the Fed engineers a smooth landing in its quest to tame inflation without derailing the economic recovery, the prospects for Sonoma County's tourism industry remain on firm footing, but the recovery will likely be less robust than expected earlier this year. COVID-19 contagion fears are receding into the rearview mirror, and each subsequent variant has caused fewer economic disruptions. A sustained improvement in visitor spending through this year and next will be the first steps in a long road to recovery for Sonoma's tourism-centric businesses.

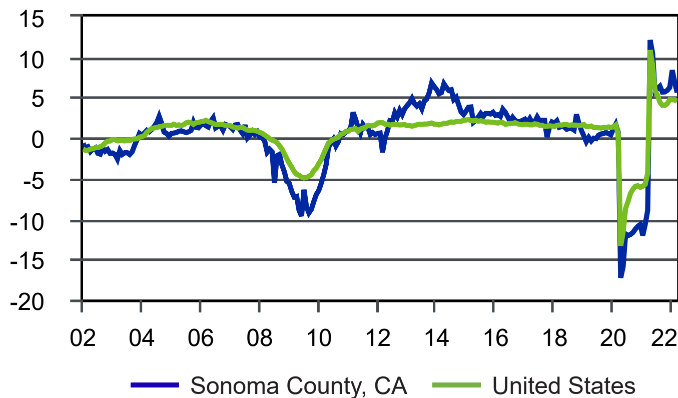
In 2021, the county's population fell by 0.5%, marking the fifth consecutive year of population declines, albeit an improvement over the prior year's 0.8% decline. Rapidly rising house prices are bringing the spotlight back to affordability concerns that may sway demographic trends. The housing market fared remarkably well during the pandemic, and house price appreciation is surging as inventories decline while housing demand remains robust. While annual house price appreciation through April is at a whopping 18%, its highest rate in over a decade, rising mortgage rates and worsening affordability are beginning to give homebuyers some pause, and more timely data are showing house price appreciation slowing both in the county and nationwide.

Sonoma County faces challenges to long-term growth. Over the next decade, baby boomers will retire in greater numbers, and the county will need to ensure that a new generation of workers is equipped with the skills and training necessary to succeed in the county's leading industries. Labor force growth will rest on the county's ability to attract new residents. An increasing supply of housing will prove critical to attracting younger households and new migrants. While pressing, these challenges are not insurmountable and hold the keys to unlocking Sonoma County's long-run growth potential.

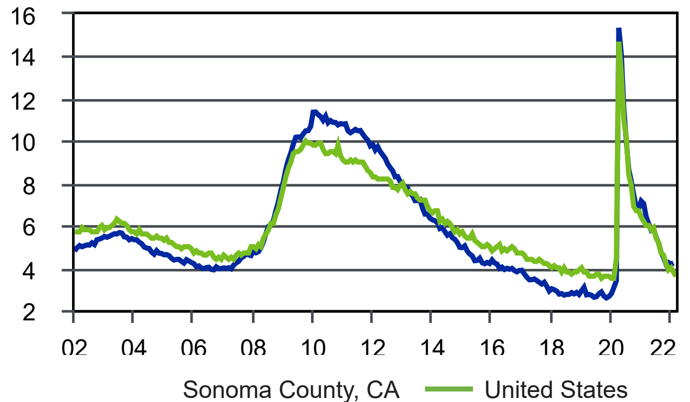
### Recent Performance

Sonoma County's recovery is continuing at a modest pace, but the county has lost ground on both the state and region over the past year. Payrolls are still down 4% compared with their pre-pandemic level, while the region has made a full recovery and California is just a touch off its February 2020 level. The county did have a steeper hole to climb out of given the sharp drop in payrolls and a high exposure to the severely damaged hospitality industry.

While the overall labor market recovery is a laggard, there is some good news in that the crucial hospitality industry recovery is outpacing its peers in the region and state. Industry job growth




Sources: BLS, Moody's Analytics




Sources: BLS, Moody's Analytics

has throttled back slightly but remains in positive territory, and payrolls are still 5% below their pre-pandemic levels. This compares favorably with the 8% deficit for the state. While consumer confidence has cratered due to surging inflation and heightened economic uncertainty, consumers are still showing a willingness to travel and dine out. OpenTable reservations in California are down just over 2% on average in June compared with the same month in 2019.

Air passenger traffic both nationally and at Charles M. Schulz-Sonoma County Airport is forging a similar recovery as Americans grow more comfortable with airline travel and contagion fears ease. Year-to-date TSA traveler throughput through June has increased 150% compared with a year before, though it is still down about 10% compared with pre-COVID-19 levels. More flights are returning to the county's airport, and passenger totals through April are nearly double last year's pace.

Hotel occupancy and revenue statistics paint a similar picture as visitors return to the county en masse. According to data compiled by Dean Runyan Associates, Sonoma County's visitor spending jumped 58% year over year in 2021, just 10% below its 2019 level. With contagion fears significantly lower since the vaccination rollout, hospitality operators through the first half of this year are building off the progress made in 2021. Hospitality operators are taking advantage of a rapid surge in demand. Average daily rates are practically in line with their pre-pandemic levels and will continue to press higher as residents return to traveling after years of postponed vacations.

## Employment, Recent Performance

*Jul 2022*

| | Annualized growth rate | | | | |
|---|---|---|---|---|---|
| | 3-mo | 6-mo | 12-mo | 5 yr | 10 yr |
| Total | 9.0 | 11.1 | 4.2 | -0.9 | 1.2 |
| Construction | 1.4 | -3.0 | 5.1 | 5.4 | 6.4 |
| Manufacturing | -5.2 | -5.4 | -0.4 | -0.8 | 0.7 |
| Wholesale Trade | -8.3 | -4.2 | 0.1 | 0.2 | 1.3 |
| Retail Trade | -2.1 | -1.9 | 4.1 | -1.5 | 0.6 |
| Transportation and Utilities | -7.8 | -2.1 | 5.1 | -0.1 | 0.8 |
| Information | 11.3 | 5.2 | 4.6 | -3.3 | -0.9 |
| Financial Activities | -13.2 | -3.1 | 2.8 | -2.8 | -0.4 |
| Professional and Business Services | 1.2 | 1.1 | 3.2 | 1.1 | 2.1 |
| Education and Health Services | 4.6 | 13.1 | 0.7 | 0.4 | 2.4 |
| Leisure and Hospitality | 89.5 | 135.4 | 19.9 | -3.8 | 0.1 |
| Government | 23.3 | 11.9 | 2.9 | -2.9 | -0.3 |
| | | | % | | |
| Unemployment rate | 5.2 | 5.2 | 5.9 | 4.4 | 5.4 |

Sources: BLS, Moody's Analytics

Sonoma County's high-tech and specialty manufacturing cluster has made significant strides over the past year, though there is still room for improvement. Manufacturing payrolls initially held up far more strongly than the rest of Sonoma's labor market, with a markedly smaller 11% drop in payrolls at the onset of the pandemic, compared with 20% for the total job market. While manufacturers have struggled to recoup all their pandemic-related job losses, stronger job growth over the past year has them down just 2% compared with early 2020.

According to the California Association of Realtors, home sales are down about 25% compared with a year prior, as affordability concerns amid rapid house price appreciation have made homebuyers more cautious.

Credit quality is pristine even despite the unwinding of fiscal stimulus and is a key component of the favorable outlook for consumer spending even as consumer confidence is shockingly low. Consumer lending is ticking higher across more segments, and delinquency rates rank favorably relative to the national average. Total delinquency rates across the 30-, 60- and 90-day horizons are below the U.S. rate, and the emergency relief plans in the wake of COVID-19 have proved beneficial in preserving consumers' balance sheet quality. Sonoma will fare better than most given its favorable starting point and high per capita incomes should credit quality worsen as the economic recovery slows.

## Near-term outlook

The near-term outlook has grown more uncertain in recent months, but the baseline forecast assumes the U.S. economy will skirt recession on the back of strength in the labor market and a lack of glaring imbalances in the economy. An acceleration in spending on services will give an added boost to Sonoma's tourism-centric economy, and while consumers are glum, a still-high level of excess savings, low unemployment, and strong credit quality will help keep the economic recovery ticking as monetary policy normalizes. Wineries, breweries, hospitality establishments and wellness centers are set for a strong recovery in the third and fourth quarters of this year. Healthcare and manufacturing, which fared better during the pandemic, will lend additional support.

**Travel and tourism.** The near-term outlook for Sonoma's tourism is one of guarded optimism. The carnage inflicted on tourism-facing industries will take some time to heal, but still-favorable macroeconomic and epidemiological tailwinds will allow for a modest recovery in the second half of the year. While risks of recession are rising uncomfortably high, the baseline forecast calls for the Fed to navigate a soft landing for the economy, slowing growth but avoiding a recession. So long as the Fed engineers a smooth landing in its quest to tame inflation without derailing the economic recovery, the prospects for Sonoma County's tourism industry remain on firm footing. Contagion fears are receding into the rearview mirror, and each subsequent COVID-19 variant has caused fewer economic disruptions. A sustained improvement in visitor spending, albeit at a slower pace than expected at the start of the year, over the coming quarters will be the next steps in a long road to recovery for Sonoma's tourism-centric businesses.

Sonoma County's allure as a global destination for high-end wines, craft beer, outdoor recreation and cutting-edge cuisine will pave the road to recovery from the COVID-19-induced recession. Tourism-centric metro areas fared the worst during the pandemic but will also see an outsize boost as pent-up demand for travel is unleashed. Data from Homebase—which tracks hours worked, businesses open, and the number of employees across a number of small, primarily consumer, businesses—reveal a broad improving trend.

The outlook for Sonoma's tourism has worsened since the spring. According to the Conference Board, the share of Americans planning a vacation in the next sixth months fell to 36% in June, a slight backtrack from April and still far below historical levels. Rising gasoline prices and inflationary pressures likely suppressed some of the growth that had been seen earlier this year, but Moody's Analytics expects this number to rise higher if the U.S. economy avoids a significant downturn and inflation fears begin to recede. Although the outlook for visitor spending is for it to rise at a more tempered pace, it will take some time to repair the damage inflicted from the pandemic. Sustained improvement in visitor spending will drive employment gains through the year, but it will take years to recover all pandemic-related losses.

**Wine and craft beverages.** The rise of the millennial consumer continues to grow in importance to Sonoma vintners, craft brewers and spirit makers. Sonoma vintners have enjoyed several years of rapid growth accompanied by modest price increases across varietals, but the aging baby boomer cohort will put a speed limit on the sales of premium and fine wines. This cohort makes up about a third of total wine consumption, is moving into retirement, and is declining in both their numbers and per capita consumption. Nationally, in 2020, wine consumption bucked the 2019 decline to post a modest increase, but consumers were bargain hunting in light of the pandemic-induced recession. As the labor market recovers, it will bear watching if sales of higher-value wines recover in earnest. Millennials, who make up nearly a third of the alcoholic beverage market, are increasingly turning to craft beer and spirits, and vintners will need to persuade a new generation of wine enthusiasts to take up the mantle from the aging boomer cohort. Although millennials will migrate to higher-priced bottles as they enter their prime earning years, large student loan burdens and the experience of two severe recessions may encourage thrift, making millennials less reliable sources of revenue for fine and luxury wines produced by the county's small and midsize wineries.

The shifting demographic landscape provides opportunities for the county's craft beer and spirit makers. Overall beer sales fell for the fifth consecutive year in 2020, and craft beer sales reversed course to post a decline after robust growth in 2019. These trends are due to a shift in beer volume from bars and restaurants to packaged sales, and Moody's Analytics expects the craft market to benefit from the lifting of capacity restrictions as we approach the end of the pandemic. Though the national market is growing increasingly saturated, Sonoma's early entry and repute will provide an avenue for modest growth.

More volatile climate conditions will be an ever-present challenge for Sonoma vintners and craft beverage makers. Rising ocean surface temperatures have coincided with less predictable climate events that could put county vineyards, wineries, breweries and distilleries in peril. Another year of deadly wildfires close to the county's wineries is another reminder that these risks are growing.

With the economy set for slower growth in the second half of the year, the outlook is less bright than at the start of the year, but for the most part, Sonoma County's wine and craft beverage industry showed its mettle last year to persevere through the difficult environment. The pain from the COVID-19 pandemic will linger, and it will take some time for small breweries and family-owned wineries to recover from the 2020 recession. Clos Du Bois and Sebastiani Vineyards have closed their Sonoma production facilities and moved elsewhere in the state, though this is relatively common in the industry as brands expand nationally and shift production to lower-cost areas in the state.

**Tech, manufacturing and lifestyle.** Consumers' growing preference for organically and locally sourced artisanal food products will play to the advantage of Sonoma-based food and beverage producers, but the widespread damage felt by county producers since the pandemic began will take some time to heal. Producers were stung by a pullback in restaurant spending, but some of this was offset by increased demand at grocery stores. This trend is rapidly unwinding as consumers become more comfortable dining out. Data from OpenTable show a vast improvement in the number of seated diners statewide, down just 2% in June compared with the same month in 2019.

Sonoma's organic producers are reaping the benefits from its early entry into the organic food and beverage market. Despite the cost advantage that conventional offerings hold relative to organic products, consumers are demonstrating a willingness to pay a price premium for organic produce, meat, dairy and snack foods. U.S. organic sales continue to grow at a robust pace and once again reached new highs in 2021. Sales grew by 2% last year, but this is far below the pace of 2020, as some effects from the pandemic began to abate and pent-up demand was satiated.

The near-term outlook for Sonoma's specialty manufacturing cluster is on shakier ground than a year ago. Sellers of food and other necessities—grocery stores, other general merchandise stores, and building supply stores—held up well during the pandemic and are by and large more insulated from the cyclical swings in the economy. This will benefit local food and beverage manufacturers. These industries will be in for another solid if unspectacular year despite economic uncertainty. The recovery of the national and regional leisure economies will also boost recreation spending in the coming quarters, which in turn will lift demand for Sonoma's outdoor equipment and apparel producers. Transportation Security Administration traveler throughput volumes are just 10% below 2019 figures but increased fivefold compared with 2020. Outdoor recreation spending is improving as consumers take long-delayed vacations. Outdoor recreation had been among the fastest-growing industries in the U.S., and direct spending grew by more than 40% in the last five years, according to the Outdoor Industry Association. Meanwhile, rising demand for ethically sourced clothing will bolster organic apparel producers such as Indigenous and Farm Fresh Clothing.

Sonoma County's technology firms are facing some near-term economic headwinds. While consumers are pessimistic, they are still spending at a robust pace, but the same cannot be said of tech firms nationwide. A significant equity market correction and rising interest rates have tech firms acting with significant caution, and a slew of tech firms are implementing cost-cutting measures as valuations decrease. This will have a smaller effect in Sonoma given its skew toward more established firms, but decreased business investment will hold back hiring in the county's tech base. On a positive note, persistent remote work will benefit local electronic testing and broadband equipment makers, along with ongoing modification efforts of the internet infrastructure and demand for smart-home and other household devices that rely on mobile connectivity. For example, sales at Sonoma-based Keysight and broadband equipment maker Calix are surging.

Rising smartphone penetration globally as well as the incorporation of additional computer and electronic components into automobiles, airplanes, and other transport vehicles will amplify sales of Keysight's next-generation signal analyzers and oscilloscopes. Yet automation will limit the need for new labor, holding back employment growth compared with the pre-COVID-19 years.

The aging global population and older workers who remain in the workforce for longer than previous generations will sustain demand for advanced medical procedures and medical equipment, including those produced by Medtronic, Claret Medical and Endologix.

**Creative professional services.** Moody's Analytics defines creative professional services as those that play a primary role in the transformation of an idea into a commercial product. The first component includes a broad range of scientific researchers, software developers and engineers whose output is measured by patents. The second component of the cluster is composed of

the creative arts, which corresponds to the copyright-protected industries: journalism, advertising, media, arts and entertainment. Together, the two components make up 3.9% of the county's total payroll employment.

Sonoma County's creative industries have stabilized, and further contributions to employment and income growth will be minimal. High-paying software publishing, computer systems design, and biomedical research payrolls have held steady in recent years, contrasting with the surging traditional Bay Area powerhouses. These industries, which make up more than half of total creative cluster employment and wages, will add few new workers over the coming years as Sonoma's top tech and medical device firms favor expansions in low-cost locations in the U.S. and overseas over Sonoma.

For example, Medtronic, one of the county's largest technology employers, announced a large expansion in Memphis last year.

Low business costs relative to those in San Francisco and plentiful access to venture capital will still support Sonoma County as a global design hub, but rising business costs relative to other tech centers will handicap efforts to retain and grow high-paying tech industries. As a result, the creative cluster's share of total employment will trail that of the Bay Area economies and the broader U.S.

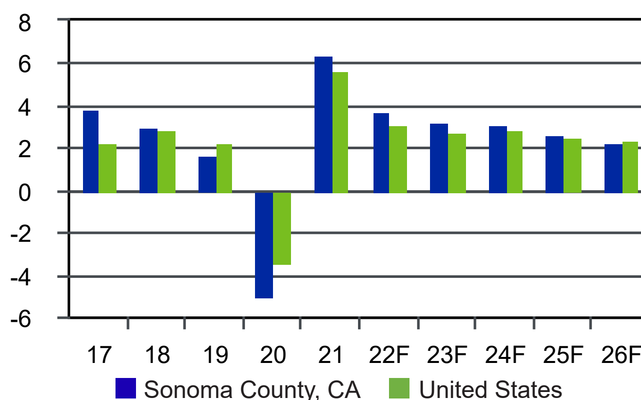
## Long-term outlook: Positive factors

Sonoma County's prestige in winemaking, craft beverage production, artisanal food products, and high-tech research and design endow it with considerable long-run growth potential. These industries build on the comparative advantages that are inherent in the county's resources—its workforce, its natural resources, and its capital.

These resources are abundant. For example, educational attainment is relatively high among the county's workforce. According to the 2019 American Community Survey, 38% of the adult population has a college degree, which is above the U.S. rate of 33% and ahead of the California average of 35%, trailing only a handful of some of the most dynamic metro areas in the state. Its natural resources are bountiful, as evidenced by its rich soil, mild climate, extensive shoreline, and forests and parklands. The county has built up local capital through entrepreneurship over the last three decades, and its capacity for innovation, as measured by utility patents per capita, is among the highest of midsize U.S. counties.

The long-term outlook for Sonoma County's winemaking industry remains on solid footing, but another year of destructive wildfires and the specter of continued climate events in light of climate change is clouding the outlook. Sonoma vintners have established a deep-rooted legacy in the county, and the unique and sophisticated flavors and branding of Sonoma's wine ensure that the area will remain a premier destination for both seasoned and casual drinkers. Consumers' maturing taste buds will con-

**Long-Term Outlook: Gross Product**




Sources: BEA, Moody's Analytics

tinue to tilt purchasing decisions toward more artisanal tastes, and Sonoma vintners stand to benefit as consumers slake a thirst for more sophisticated wines. Consumers across the income spectrum are trading up to more expensive wines, and a growing middle class developing a taste for wine in emerging markets will provide another avenue for growth as incomes rise.

Sonoma's diverse constellation of wine, beer and spirits makers has put the county on the map for a broader range of beverage enthusiasts. Sonoma will remain a top destination for these visitors as the county cements its status as a craft beverage hot spot along with its already-distinguished wine heritage. Though the craft beer scene is becoming increasingly saturated nationwide, several Sonoma brewers have already gained traction nationally and announced plans for expansion both within and outside the county. Expanding breweries will draw additional visitors, necessitate more hires in beverage manufacturing, and generate spillover growth in transportation and warehousing.

The region's burgeoning craft beverage presence, esteemed winemaking legacy, and abundant natural beauty augur a bright outlook for tourism. Outdoor recreation companies are thriving; visitors arriving to sample the county's wines, beers and artisan foods are increasingly looking for opportunities to enjoy Sonoma's luscious outdoor beauty through canopy tours, cycling events and kayak tours. Outdoor recreation companies are capitalizing on swaths of tourists already in the county, and nationwide spending on outdoor recreation will continue its ascent as disposable incomes rise and consumers become more willing to open up their wallets.

As consumers grow increasingly health-conscious, Sonoma's status as a haven for artisanal food and beverage products will be an additional source of strength. Though organic produce, dairy, meat and snack foods tend to be more expensive than conventional offerings, organic purchases are on the rise across income levels. The millennial cohort in particular has embraced the or-

## Index of Relative Business Costs

| | Labor cost | | Tax burden | | Energy cost | | Office Space | | Overall | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Index | Rank | Index | Rank | Index | Rank | Index | Rank | Index | Rank |
| Sonoma County, CA | 91 | 279 | 106 | 47 | 239 | 4 | 97 | 31 | 131 | 18 |
| San Francisco-Redwood City-South San Francisco, CA | 129 | 1 | 106 | 47 | 239 | 4 | 293 | 1 | 189 | 1 |
| San Jose-Sunnyvale-Santa Clara, CA | 113 | 14 | 106 | 47 | 239 | 4 | 199 | 3 | 163 | 2 |
| Oakland-Hayward-Berkeley, CA | 99 | 170 | 106 | 47 | 239 | 4 | 126 | 12 | 125 | 28 |
| Santa Maria-Santa Barbara, CA | 97 | 194 | 106 | 47 | 239 | 4 | 104 | 21 | 135 | 12 |
| Santa Cruz-Watsonville, CA | 94 | 238 | 106 | 47 | 239 | 4 | 151 | 5 | 144 | 6 |
| Portland-Vancouver-Hillsboro, OR-WA | 109 | 38 | 105 | 90 | 91 | 267 | 115 | 16 | 105 | 64 |
| Sacramento--Roseville--Arden-Arcade, CA | 96 | 204 | 106 | 47 | 239 | 4 | 82 | 68 | 130 | 19 |
| Salinas, CA | 90 | 317 | 106 | 47 | 239 | 4 | 97 | 30 | 130 | 20 |
| Boulder, CO | 124 | 2 | 96 | 184 | 92 | 255 | 118 | 15 | 113 | 42 |
| Provo-Orem, UT | 103 | 100 | 100 | 129 | 79 | 353 | 84 | 63 | 93 | 157 |
| Atlanta-Sandy Springs-Roswell, GA | 101 | 123 | 81 | 348 | 88 | 284 | 86 | 56 | 93 | 149 |

Notes:

1. Rank is out of 403 metro areas.

2. U.S. average=100.

3. Labor costs are measured by total earnings per employee at the 3-digit NAICS level.

4. Tax burdens are measured by all taxes excluding severance, education, and hospital taxes relative to personal income.

5. Energy costs are measured by cents per kWh for industrial and commercial users.

6. Office costs are measured by rent per square foot.

7. In the overall index, labor costs have 65% weight, energy costs have 15% weight, and office costs and taxes have 10% weight.

*Source: Moody's Analytics*

## Employment Diversity and Volatility

| | Diversity[1] | | Volatility 2020 | | |
|---|---|---|---|---|---|
| | 2020 | Total[2] | Systematic[3] | Nonsystematic[3] | Beta[4] |
| Sonoma County, CA | 0.44 | 185 | 87 | 13 | 1.58 |
| San Francisco-Redwood City-South San Francisco, CA | 0.13 | 167 | 94 | 6 | 1.57 |
| Oakland-Hayward-Berkeley, CA | 0.69 | 152 | 95 | 5 | 1.44 |
| Vallejo-Fairfield, CA | 0.50 | 155 | 91 | 9 | 1.39 |
| Portland-Vancouver-Hillsboro, OR-WA | 0.72 | 124 | 98 | 2 | 1.21 |
| United States | 1.00 | 100 | 100 | 0 | 1.00 |
| Median | 0.49 | 117 | 82 | 19 | 0.89 |

Notes:

1) Diversity is defined as the extent to which a state's industrial structure approximates that of the nation. The more closely the state's economy resembles the national economy, the higher the value. The diversity measure is bounded between 0 and 1. 1 means the state has the same industrial structure as the U.S., 0 means it has a totally different industrial structure than the U.S. Diversity is estimated.

2) Total volatility is the standard deviation of a state's employment growth. This relative deviation has been indexed to the United States = 100. Volatility is estimated.

3) Systematic fluctuation is that portion of an area's economy that is associated with national economic fluctuations. Nonsystematic volatility is that portion of an area's volatility not associated with national economic fluctuations.

4) Beta measures the magnitude of an area's sensitivity to national economic conditions. The U.S. average, by definition, is 1. A one percentage point increase in national employment will cause that portion of a metro area's employment base to rise by the percentage value of beta.

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ganic food movement wholeheartedly, signaling a big new wave of organic consumers on the horizon as they age into their prime-earning years. The mainstreaming of the organic food movement will create new opportunities for county producers, especially as consumers prioritize environmental and ethical practices in the production of the food and clothing they purchase.

## Long-term outlook: Negative factors

Sonoma County's chief economic drivers are at the mercy of the ebbs and flows of the U.S. and global economies. With the county heavily reliant on discretionary spending to power tourism inflows and visitor spending, Sonoma is highly vulnerable to external shocks. Should the economy fall into a more protracted recession, Sonoma's sensitivity to swings in the business cycle creates the potential for more volatile swings in employment and output over the long run.

The high degree of specialization of Sonoma's economy is another source of weakness. The county's industrial base is highly concentrated, as evidenced by its low industrial diversity index score of 0.45, which ranks in the bottom half of metro areas nationwide. Despite recent growth in food and beverage manufacturing, Sonoma County has made only modest progress in diversifying its economy over the past decade. Should the U.S. or global economy falter on its path toward recovery, Sonoma's reliance on consumer-driven industries and volatile tech services could result in another sharp downturn.

Tepid population growth will put a speed limit on the county's long-term growth. Rapidly eroding housing affordability has priced out some potential residents, who are opting for lower-cost inland metro areas with similar job opportunities. The proliferation of remote work and the effects on population growth thus far suggest that Sonoma's high costs are outweighing the benefits of its high quality of life and natural amenities in drawing remote workers. Fewer prime-age workers will step in to take the reins from retiring baby boomers, and lackluster labor force gains will hamstring job growth in the medium term.

Despite a highly educated population, Sonoma exhibits a notable shortage of high-wage jobs. According to the Moody's Analytics Skills Mismatch Index, Sonoma County ranks in the top third of California metro areas in over-education. Sonoma's job mix demands fewer college-educated workers than are currently supplied. The county has the necessary human capital to expand its base of high-wage jobs. The share of high-wage jobs has steadily contracted over the past two business cycles, and a lack of high-wage jobs will put further pressure on in-migration and population growth.

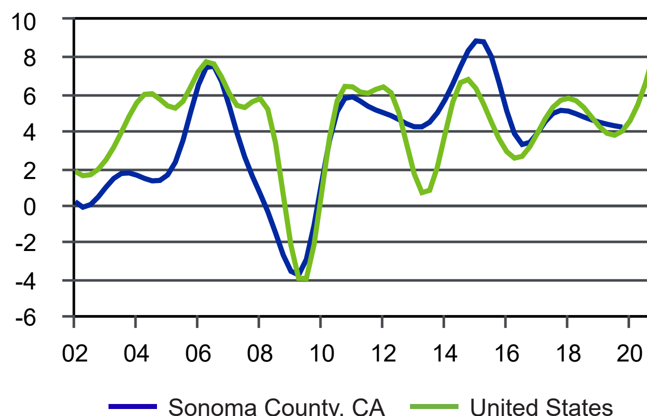
Housing affordability poses another significant obstacle to long-term growth, contributing to a slower pace of population gains in the medium term. With labor shortages increasingly binding, whether residential developers will be able to close the gap with demand remains an open question. Housing loss caused by the Tubbs Fire has pushed thousands of families into the rental market or out of Sonoma County altogether. The baseline outlook calls for residential construction to accelerate this year and next, but the leveling of a significant share of the county's housing stock will require a sustained increase in construction at above-trend rates to bring supply back in line with demand.

Sonoma County's tech producers have benefited less from the broader Bay Area tech boom than those in nearby Oakland and neighboring Marin County, and additional growth in high-tech manufacturing and services will be negligible. An aging population globally and the increasing affordability of smart technologies will sustain existing firms, but high business will curtail growth in high-tech manufacturing and R&D. These jobs are increasingly shifting to lower-cost metro areas, with Provo UT, Boulder CO and Atlanta specifically siphoning growth from costly California metro areas.

## Income

The effects of the pandemic on income growth were much more muted than initially forecast. Massive fiscal support buoyed income growth even as widespread layoffs and furloughs sapped wage and salary growth. Furthermore, layoffs and support were concentrated on low-income individuals, ensuring that top-level income growth at both the state and county level never retreated. This stands in stark contrast to the global financial crisis, when incomes fell about 4%.

Personal income growth at both the state and county level advanced modestly on a quarter-to-quarter basis in the first quarter of 2022 as the labor market recovery began to take hold. The absence of further fiscal support has pushed annual income growth into negative territory for both California and Sonoma County, but income still sits a healthy 15% above pre-pandemic levels.



Given labor shortages and high inflation, which has persisted longer than initially expected, wage growth is the highest in nearly 40 years. However, various sources of wage data have diverged in recent months with some suggesting that wage pressures are already subsiding despite current economic conditions. Yearly growth in average weekly earnings has plateaued around 5% for nearly a year, suggesting that wage growth is unlikely to contribute to higher rates of inflation moving forward. The Employment Cost Index—generally regarded as the most reliable measure of wages—has also showed growth flattening out around 5%, though data are available only through the first quarter. However, the Federal Reserve Bank of Atlanta's overall wage growth tracker shows continued acceleration in wages with growth approaching 7%. All told, our forecast assumes that Sonoma's wage growth peaked in the first half of this year and that year-over-year growth will moderate to about 5% by mid-2023.

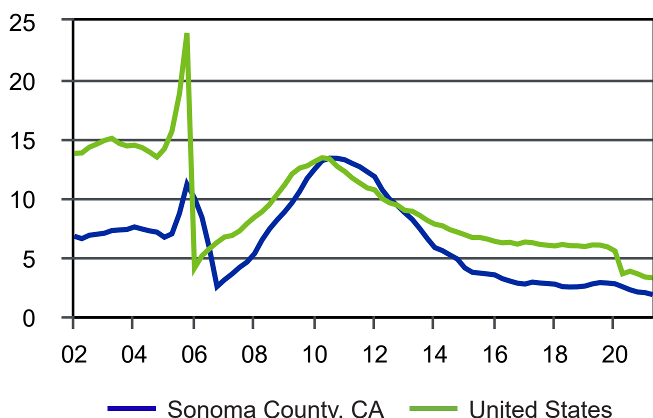
As intended by the Fed, hiring will slow over the next year, and the recent, steady rise in initial jobless claims from the record low in April points to mildly higher unemployment in coming months. This in turn will cap growth in wages and salaries, which accounts for more than half of personal income. Moreover, the baseline forecast calls for the Standard & Poor's 500 to go more or less flat over the next year, having declined by 15%-20% from its peak. The resulting negative wealth effect may dampen the willingness of households to spend as freely as they had prior to the correction in the stock market. In particular, the erosion in equity prices would hit the wealthiest households, which contribute disproportionately to total spending and whose spending is key to Sonoma's economy.

## Balance sheets

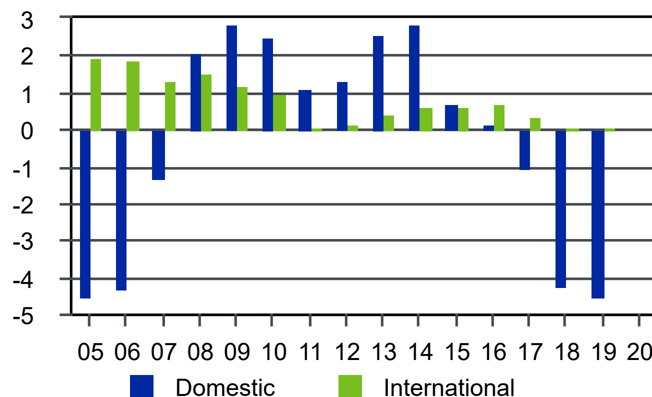
One critical difference between the Great Recession and the COVID-19 recession has been the performance of consumer balance sheets. By all measures, consumer credit quality in Sonoma County remains on solid footing. Delinquency rates across all consumer loan categories are at or near their prerecession rates, according to credit bureau Equifax. Delinquency rates for auto, credit card and first mortgage loans have fallen well below the state and U.S. rates and continued to trend lower even as the worst of the pandemic raged on. After climbing steeply in 2011 and 2012, delinquency rates for student loans have fallen back to their long-run average, in line with the trend at the national level. Distress sales are no longer a drag on house prices, and homeowners have recovered all of the equity lost in the last recession.

The absence of stimulus payments since early 2021, the reopening of the economy, the rising spending on services, and the end to most forbearance programs mean that things are returning to normal in the realm of credit. Still, with delinquency rates extremely low, lenders are happy to lend to qualified borrowers. Moody's Analytics forecasts delinquency rates on all products to continue rising through mid-decade, but this assumes no recession. Lenders are likely to become more circumspect as recession risks rise.

As interest rates continue to rise over the next year or so, the credit cycle will slow. Balance growth is already at its peak; the largest slowdowns will come in the demand for mortgages and autos. An increase in credit on unsecured products such as credit cards and personal loans will offset some of the slowdown. As consumers draw down the savings they accumulated during the worst of the pandemic and earlier rounds of federal pandemic relief, they are tapping into credit to finance their spending, and in April the stock of revolving consumer credit surpassed its prepandemic peak for the first time. However, demand for consumer loans has decelerated somewhat also, according to the most recent Senior Loan Officer Opinion Survey. Delinquency rates will



Sources: Administrative Office of U.S. District Courts, Moody's Analytics



Sources: Census Bureau, Moody's Analytics

continue rising but even by the end of 2026 will not match their pre-pandemic rates. The prevalence of fixed-rate debt, especially very low interest rate mortgages originated over the past two years, ensures that no foreclosure or default crisis is on the horizon, regardless of how the economy unfolds.

## Demographic trends

In 2021, the county's population fell by 0.5%, marking the fifth consecutive year of population declines, albeit an improvement over the prior year's 0.8% decline. Previous research by Moody's Analytics decoupled the effects of natural disasters and affordability in determining net migration and found no statistically significant impact of wildfires on net migration in California. Although it is naïve to assert that two significant wildfires in three years will have no impact on Sonoma's population growth, there is little empirical evidence to suggest that they will prove meaningful drivers of demographic trends. Instead, such factors as costs, availability of jobs, and more qualitative considerations like weather and quality of life are more predictive of population growth—and, consequently, economic potential—in the long run.

Rapidly rising house prices are bringing the spotlight back to affordability concerns that may sway demographic trends. The housing market fared remarkably well during the pandemic, and house price appreciation is surging as inventories decline while housing demand remains robust. On the plus side, house price appreciation has likely peaked, with the last month of data in April showing a whopping 18% increase that we expect to come back down in the coming months. More timely data are showing a significant slowdown in sales, and rising mortgage rates and worsening affordability are beginning to give homebuyers pause.

Barring a significant increase in net migration, Sonoma County will struggle to maintain adequate labor force growth into the next decade. Over the next few years, much of the baby boom cohort, currently ages 58 to 76, will have retired and exited the labor force. However, in contrast to previous generations, there are fewer prime-age workers available to step in and take their place. The county's prime-age cohort (ages 25 to 54) has stabilized after an outright decline in the wake of the tech bust. The ranks of prime-age workers have not noticeably increased in the past 15 years, and the forecast calls for a steady decline in the coming years.

If unchecked, the shortage of prime-age workers will limit labor force growth and, ultimately, the county's long-run potential. Slower growth in the prime-age cohort could also curb productivity gains. On average, prime-age workers are more likely to start a business, to migrate in search of better job opportunities, and to work longer hours than other cohorts. To bolster population gains and long-run growth prospects, the county will have to build more affordable housing, attract new migrants, and ensure that younger workers receive the proper training to fully participate in the county's workforce.

## Migration Flows

| INTO SONOMA COUNTY CA | NUMBER OF MIGRANTS |
|---|---|
| San Rafael CA | 1,808 |
| San Francisco CA | 1,303 |
| Oakland CA | 1,243 |
| Sacramento CA | 692 |
| Napa CA | 532 |
| Los Angeles CA | 513 |
| San Jose CA | 464 |
| Vallejo CA | 450 |
| San Diego CA | 289 |
| Anaheim CA | 211 |
| *Total in-migration* | *14,012* |
| **FROM SONOMA COUNTY CA** | |
| Sacramento CA | 1,358 |
| San Rafael CA | 1,012 |
| Oakland CA | 960 |
| San Francisco CA | 730 |
| Vallejo CA | 624 |
| Napa CA | 496 |
| Los Angeles CA | 446 |
| San Diego CA | 354 |
| Portland OR | 343 |
| Phoenix AZ | 334 |
| *Total out-migration* | *16,225* |
| **Net migration** | **-2,213** |

*Source: IRS, 2018*

## Population Profile

| | % of total population, 2020 | |
|---|---|---|
| | Sonoma County, CA | U.S. |
| Age 5-19 | 16.9 | 18.7 |
| Age 25-44 | 25.6 | 26.7 |
| Age 45-64 | 26.5 | 25.1 |
| Over age 65 | 20.8 | 16.9 |
| | | |
| Birthrate, (# of births per 1000) | 9.0 | 11.4 |
| Death rate, (# of deaths per 1000) | 9.6 | 9.3 |

*Source: Moody's Analytics*

## Workforce readiness

The cautious outlook for population growth will make efforts to train a new generation of workers even more important. According to occupational employment figures from the Bureau of Labor Statistics, the educational attainment of Sonoma County's workforce is broadly aligned with the level of education required by the county's major industries. For example, about one-third of county jobs require a bachelor's degree or higher, while nearly the same share of Sonoma's adult population holds a bachelor's or graduate degree. Among these industries are a growing contingent of white-collar jobs including engineering, consulting and software positions.

Given shifting demographics and the growing diversity of Sonoma County's workforce, boosting the educational attainment,

vocational skills and work experience of job seekers countywide will prove increasingly critical. Though the county's growing Hispanic community has made large strides in raising secondary educational attainment over the past decade, lower rates of post-secondary educational attainment illustrate the role of training and workforce development as a gateway to better-paying opportunities. While 40% of Sonoma County jobs require an associate's degree or higher, just 20% of Hispanic adults have reached this milestone, according to the Census Bureau.

Building on the success and extending the reach of current workforce development programs will be critically important in honing the skills and capabilities of all job seekers. As more county employers prioritize post-secondary degrees and workplace experience, and as the labor market grows increasingly tight, efforts to build human capital through internships and vocational training as well as adult education and other post-secondary educational opportunities will bear fruit.

In the long run, bolstering the workforce readiness, skills and educational attainment of Sonoma's labor force will be necessary to boost labor productivity. Because the cohort of prime-age workers is expected to remain roughly flat into the next decade, efforts to pair workers to Sonoma's leading industries will prove critical. County initiatives to support young entrepreneurs will also pay dividends and will help drive direct job growth in Sonoma as new businesses expand locally and nationally.

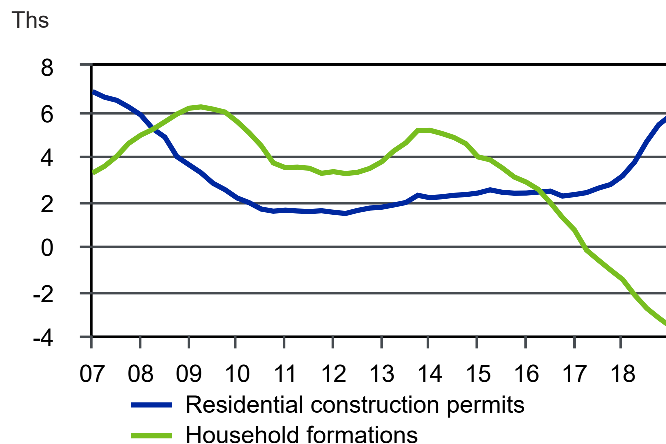
## Residential real estate

The residential real estate market held up remarkably well during the initial stages of the pandemic and remains in good shape, though affordability concerns are once again rearing their head. House price appreciation is advancing at its fastest pace in more than 20 years and only slightly trails the California average. According to the California Association of Realtors, housing inventories in terms of monthly supply are at just over one month, at historic lows. Single-family permit issuance has fallen off in recent months but is above its decade-long average.

The outlook for new-home sales is mixed. On the one hand, homebuilder confidence is plummeting, and builders have noted that the pipeline of potential buyers is weakening. Declining affordability, caused by a rapid increase in prices during the past two years and rising mortgage rates, is keeping more potential buyers on the sidelines. The 30-year fixed mortgage rate is nearly double the low during 2021. However, an increasingly tight labor market will keep a floor under demand even as affordability declines. Payroll employment will continue to improve, and a tighter labor market will translate into healthy wage growth.

Counterbalancing the downward pressure on prices from higher mortgage rates is the continued tightness in the existing-home market. Existing-home listings registered at 1.1 million units in June, up slightly from May but still within striking distance of its record low of 939,000 units in February. The inventory-to-sales ratio also clocked in at 2.7 in June, around one month higher than its all-time low in January but still half the level consistent with an adequately supplied housing market. Yet, new-home construction has disappointed in recent months, and single-family starts have fallen to their lowest level since June 2020. Supply-chain disruptions have raised costs for homebuilders, and higher prices for land, labor and materials will remain a weight going forward.

### Housing Supply-Demand Balance




Sources: Census Bureau, Moody's Analytics

The long-run outlook for Sonoma County's residential real estate market is dependent on its demographic trends. Even with slower population growth, homebuilders will have to build at substantially higher rates to replenish housing units lost to the fires and to keep up with household formation. Given constraints on the availability of developable land, there will be greater demand for high-density units. Onerous zoning laws statewide have restricted the supply of available houses. Up-zoning to allow for high-density units would create a larger pool of lots for affordable housing developments.

The changing of the demographic guard is at hand, and millennials are diving into homeownership as they aged into having families. Better income gains and improved job prospects will stir even more young households to plunge into homeownership. This will boost home sales and new construction. The recent improvement in the national homeownership rate suggests that this is already happening. Household formation is expected to accelerate in the county after declining in recent years, but demographic headwinds, including an older population and weak population growth, mean it will take until 2024 to retest its previous highs.

## Commercial real estate

The commercial real estate outlook is a mixed bag. The impacts of the COVID-19 pandemic were pronounced across all property types, although the degree to which they recover varies widely. Hotel construction, which was largely put on pause during

the pandemic, is set to rev up as builders are keen to tap into the pent-up demand for travel. Hotel space prior to the pandemic was insufficient, and commercial builders are confident that the rise in visitor traffic in the pre-COVID-19 years will return with gusto.

Retailers, on the other hand, were struggling prior to the pandemic and will see only a modest recovery as foot traffic in the county returns to pre-pandemic levels. There has been improvement is recent months, and retail payrolls are now down just 2% from their pre-pandemic levels. This corresponds with a drop in the retail vacancy rate to below its pre-pandemic level.

The office market will also be hurt by reduced short-term demand for workers as the economy slows. A brief surge in remote working should not alter the office market's fundamentals, but there is downside risk that recent developments could hasten the shift toward increased working from home on a permanent basis.

Other property types are a bit more mixed. The industrial market should hold steady as e-commerce demand slowly backtracks with more spending geared toward services. The industrial market was among the biggest winners during the pandemic as durable goods orders surged. Industrial vacancy rates are already below their pre-pandemic levels, and further declines are unlikely given a pullback in goods spending and slower economic growth through the rest of the year. The value of nonresidential permitting has backtracked after blockbuster growth over the past year. Firms have, for the most part, already cleared expansion plans that were delayed and canceled during the pandemic, and rising interest rates, cooling business sentiment, and surging material and labor costs have paused new expansion efforts.

## Forecast risks

The most significant downside risk to Sonoma's economic outlook is that the Fed induces an economic recession as it attempts to quell inflation. The highest inflation in more than 40 years forced members of the Federal Open Market Committee to turn significantly more hawkish, but the Fed will need to tread cautiously to keep from derailing the economic recovery. If the Fed is too aggressive, it could ignite further panic in financial markets, causing asset prices to plummet further and higher interest rates could cut off the flow of credit. Confidence would weaken and consumer spending would slacken. With Sonoma's tourism industry reliant on discretionary spending, any hit to the national economy would spell trouble for the county.

Labor shortages are another downside risk to the labor-intensive tourism and agriculture industries. The economic reopening led to a surge in job and income growth as the most affected industries competed for the same pool of labor. The inability to find enough workers to adequately service tourists could prevent many businesses from operating fully and stem the recovery in visitor spending. Worker shortages are already apparent in the agriculture industry, and a sustained slowdown in migration patters would exacerbate existing shortages.

While COVID-19 appears to be slowly receding, and thus becoming less disruptive to global supply chains, tourism and business travel, immigration, and labor markets, the risk of a resurgence remains. The Moody's Analytics baseline may be too sanguine. It assumes that each new wave of the virus will be less disruptive to the healthcare system and the economy than the preceding wave as the government and businesses learn to navigate through the economic fallout.

More severe weather patterns brought about by climate change are an important risk. Uncertainty about agriculture conditions could depress investment, and a return of drought conditions would hamper the quality and quantity of harvests. Should grape quality and thus wine quality suffer given the more volatile and extreme weather conditions, Sonoma County's distinct comparative advantage in quality could erode, with far-reaching consequences for its economic potential.

There are upside risks for the Sonoma economy as well. Growing recognition for the county's breweries, spas and organic eateries could draw more niche visitors. Already, the rising popularity of Sonoma's craft beers has led to rapid growth in the number of breweries. This snowball effect may pick up speed, since craft beer customers value variety and will flock to areas with a high concentration of breweries. Since fans of Sonoma brews are more likely to consume beer at the source, the rising popularity of local breweries could translate into more visitor arrivals and positive spillovers for nearby restaurants and accommodations.

Housing affordability in the county is set to modestly worsen in the coming years as house price growth outstrips income gains, but it will still compare favorably to neighboring Napa and Monterey counties. This introduces some upside risk should Bay Area residents opt to relocate to relatively more affordable locales in the broader area in light of a shift to remote work. Early returns through 2021 suggest that Sonoma County is still too costly to benefit from this trend, with more central areas in the state benefiting from an increase in in-migration while the county continues to shed residents.

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## Major Employers: Sonoma County, CA Metropolitan Statistical Area

| | | | |
|---|---|---|---:|
| 1 | Kaiser Permanente | Education or Health Service | 2,640 |
| 2 | Graton Resort & Casino | Leisure and Hospitality | 2,000 |
| 3 | St. Joseph Health System | Education or Health Service | 1,578 |
| 4 | Keysight Technologies | Manufacturing | 1,300 |
| 5 | Safeway Inc. | Retail Trade | 1,200 |
| 6 | Medtronic CardioVascular | Manufacturing | 1,000 |
| 7 | Amy's Kitchen | Manufacturing | 987 |
| 8 | Sutter Santa Rosa Regional Hospital | Education or Health Service | 936 |
| 9 | Wells Fargo | Financial Activities | 916 |
| 10 | Lagunitas Brewing Co. | Manufacturing | 900 |
| 11 | Jackson Family Wine | Retail Trade | 800 |
| 12 | Cyan | Information | 700 |
| 13 | Walmart Inc. | Retail Trade | 650 |
| 14 | Hansel Auto Group | Retail Trade | 600 |
| 15 | AT&T | Information | 600 |
| 16 | Lucky | Retail Trade | 550 |
| 17 | Santa Rosa Community Health Centers | Education or Health Service | 523 |
| 18 | PG&E | Trans./Warehouse/Utilities | 500 |
| 19 | Petaluma Acquisitions | Manufacturing | 455 |
| 20 | Ghilotti Construction Co. | Construction | 425 |
| 21 | Exchange Bank | Financial Activities | 420 |
| 22 | Sonic Restaurants Inc. | Leisure and Hospitality | 410 |
| 23 | The Home Depot U.S.A. Inc. | Retail Trade | 390 |
| 24 | Redwood Credit Union | Financial Activities | 382 |
| 25 | Petaluma Health Center | Education or Health Service | 360 |

Sources: North Bay Business Journal Book of Lists, 2017, San Francisco Business Journal Book of Lists, 2017

## Demographic profile

| Indicator | Units | Sonoma County, CA | U.S. | Rank | Year |
|---|---|---|---|---|---|
| **Households** | | | | | |
| **Households, % change (2015-2020)** | Ann % change | -0.4 | 0.6 | 381 | 2020 |
| **Population w/ BA degree or higher** | % of adult population | 37.4 | 33.1 | 78 | 2019 |
| **Median household income** | $ | 87,828 | 65,712 | 19 | 2019 |
| *% change yr ago* | | *4.1* | *6.1* | *198* | *2019* |
| **Population** | | | | | |
| **Per capita income** | $ | 66,700 | 56,474 | 25 | 2019 |
| *% change yr ago* | | *5.2* | *3.5* | *12* | *2019* |
| **Population** | ths | 490 | 329,484 | 126 | 2020 |
| *% change yr ago* | | *-0.5* | *0.4* | *389* | *2020* |
| **White** | % | 86.3 | 76.0 | 161 | 2020 |
| **Black or African American** | % | 2.1 | 13.5 | 344 | 2020 |
| **Hispanic** | % | 27.6 | 18.6 | 56 | 2020 |
| **Asian** | % | 4.7 | 6.1 | 88 | 2020 |
| **Net domestic migration, rate** | Persons/ths pop | -4.2 | 0.0 | 381 | 2020 |
| **International migration, rate** | Persons/ths pop | -0.1 | 1.4 | 384 | 2020 |
| **Poverty rate** | % | 6.8 | 12.3 | 13 | 2019 |
| **Median age** | yrs | NC | NC | 322 | NC |
| **Household Cost Indexes** | | | | | |
| **Median existing-home price** | $ ths | 655.4 | 269.9 | 11 | 2019 |
| *% change yr ago* | | *-1.59* | *3.75* | *396* | *2019* |

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