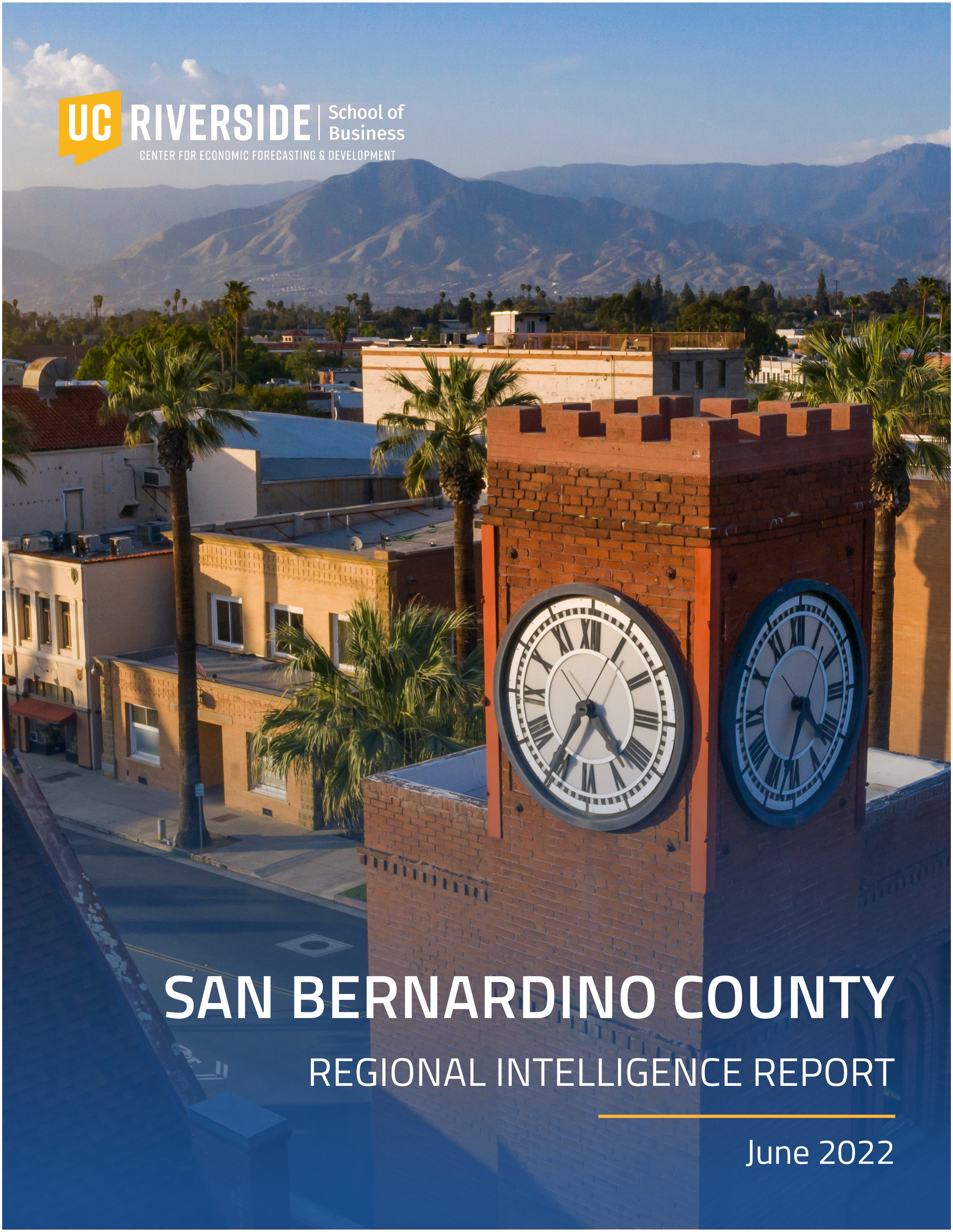

UC RIVERSIDE | School of Business

CENTER FOR ECONOMIC FORECASTING & DEVELOPMENT

SAN BERNARDINO COUNTY

REGIONAL INTELLIGENCE REPORT

June 2022

CENTER FOR ECONOMIC FORECASTING & DEVELOPMENT

The UC Riverside School of Business Center for Economic Forecasting and Development opened its doors in October 2015 and represents a major economic research initiative in one of California's most vital growth regions. The Center produces a wide variety of research both independently and in collaboration with academic, business, and government partners. Research products include monthly employment analyses, quarterly regional economic forecasts, a quarterly business activity index, a white paper series, and a major regional economic forecast conference, hosted annually.

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UNITED STATES OUTLOOK

Christopher Thornberg, PhD

First things first. The U.S. economy has fully recovered from the pandemic-driven recession.

This shouldn't be news, as the economy has been recovered for almost a full year. Yet in many circles, including the White House where the "Build Back Better" recovery plan is still being promoted, this fact doesn't seem to be getting through. While the structure of the current economy is different than it was two years ago, a 3.6% unemployment rate, record low inventories, and the highest pace of industrial production ever is clear evidence that the U.S economy is operating at full capacity. This means the recession, defined as a period in which an economy produces significantly less than its potential, is over. In fact, the U.S. economy is running red hot. You can almost hear Scotty saying, "the engines can't take any more of this, Captain!"

Still, despite clear evidentiary data to the contrary, pundits, politicians, and economists continue to behave as if the economy is in recovery mode and, even more, that it is fragile and will derail quickly in the event of an even modest negative shock. This narrative sits at the heart of the crisis the United States is facing today both economically (the stimulus bubble we're experiencing), and politically, as both parties become more and more driven by populism. From an economic standpoint the issue is simple: when you continue to "cure" a patient for an ailment they no longer have, eventually the cure becomes the ailment. There will be consequences for today's policy choices.

Given current public discourse, it's not surprising that the United States has a bad case of the jitters. Of late the stock market has swooned even as consumer confidence has fallen to its lowest level since the economy was in the midst of the Great Recession well over a decade ago. Suddenly, there is chatter in the news about another recession (a double dip?) and the Wall Street Journal's survey of economists suggests the chance of another downturn within the next 12 months is now at 30%. At issue is the surge in inflation and it's believed impact on consumers, combined with rising interest rates, which have been driven up in part by the Fed's moves to combat said inflation.

Beacon Economics does think there is a very high probability of a recession in the next few years (although not in 2022), but not because of current trends in prices and interest rates. A more accurate assertion would be that the Federal Reserve has already caused a recession, we just aren't sure when it will start. Of course, the Fed received significant help from Congress and the White House in the form of excessive government stimulus deployed over the last two years – $12 trillion and counting to deal with a large but short-term pandemic shock. The result has been an overheated economy marked by an unsustainable level of spending and investment, as evidenced by supply chain issues, the growing trade deficit, asset market frothiness, and record low inventory levels. The inevitable collapse back to normality will create a recession in its wake.

The trillion-dollar questions are when a recession will likely begin and how bad will it be. Timing wise, certainly not yet. The main concerns about the economy right now—inflation and rising interest rates—are the symptoms of an overheated economy, not signs of an economy about to tip into a downturn. Although U.S. output contracted in the first quarter of the year, it wasn't driven by weak spending—final demand in the nation grew at its fastest clip in three quarters, almost 3%. [1] Rather, it was driven by the recent enormous surge in imports that replaced domestic production—another sign of an overheated economy.

The current expansion still has a lot of momentum, driven by historically high household savings, low private sector debt levels, and the fact that policymakers have yet to truly withdraw stimulus funding. The Federal Reserve's moves to date will have minimal impact on demand, and therefore inflation. Indeed, the Federal government seems more intent on expanding deficit spending than on trying to pay down the $30,000 that was borrowed for every person in the nation over the past five years. Given all this, Beacon Economics does not see any basis reason for a recession in the near term outside of the very low probability that the Fed decides to get serious about inflation and dramatically accelerates the near-term schedule for quantitative tightening.

Ironically, the surge in public panic over the economy, although unwarranted, is liable to prevent the Fed and Congress from doing what they need to do to cool things off. This means the problems associated with an overheating economy will grow worse, and when the recession does arrive it will be more severe than if the issue had been tackled more quickly and assertively. Reality must inevitably catch up with the U.S. economy, and it's possible that the resultant downturn could either be mild or on par with the Great Recession, albeit with very different characteristics. In short, it's too soon to dive into your bunker, but it would be wise not to venture too far from it either.

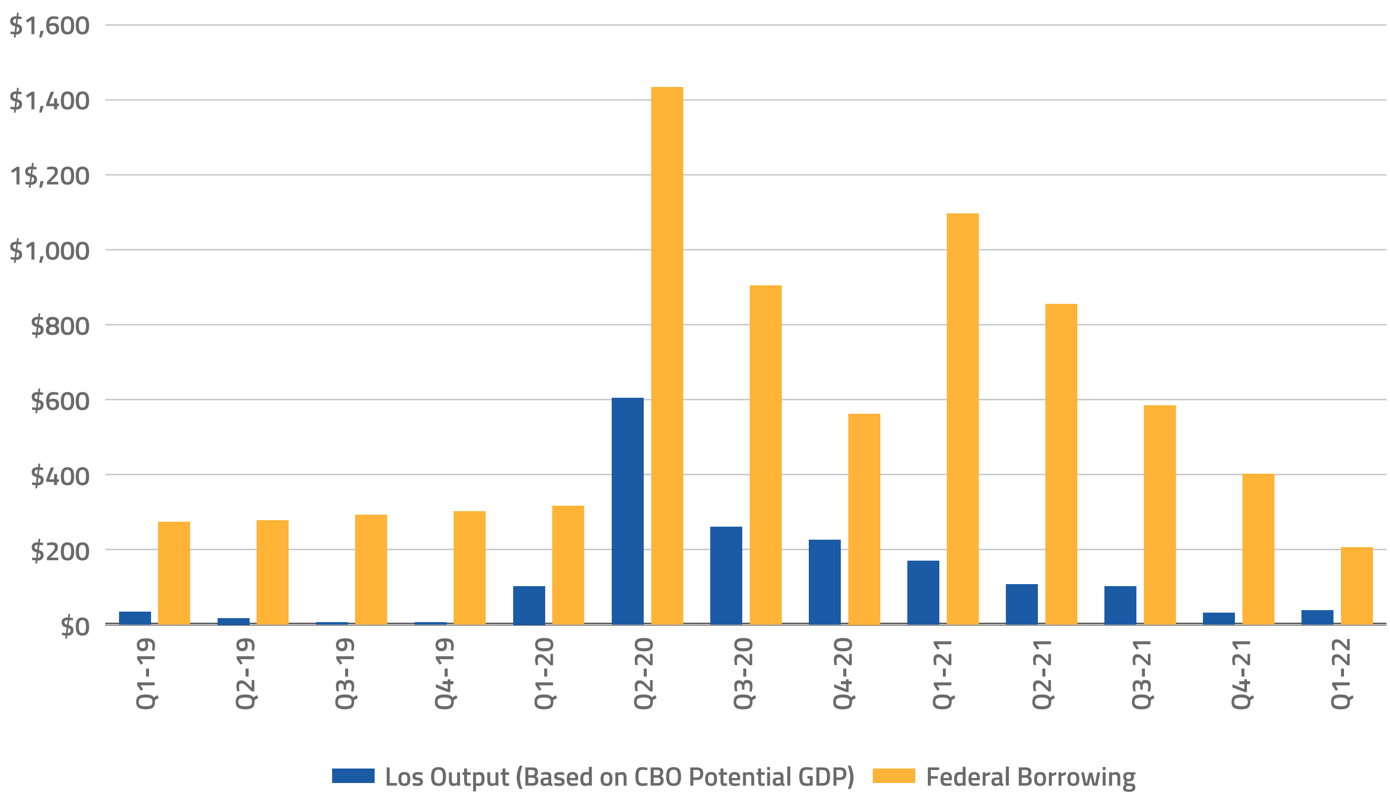
[1] Final demand is the sum of spending by consumers, businesses, and the government; or GDP with inventories and the trade deficit removed.

The Overheated U.S. Economy

At issue in the U.S. economy today is the nearly $12 trillion in stimulus that the Federal government has injected into the system over the past two years; as noted in past editions of The Beacon Outlook, it is a vastly excessive sum. Consider that over the course of two pandemic years the Federal government borrowed $7 trillion in deficit spending, yet a reasonable estimate shows that the U.S. economy lost roughly $1.6 trillion in output, a disparity of over 4 to 1.[2] For every dollar in lost household income, government stimulus programs gave $2.60 back to U.S. households, leading to a perverse situation in which there was a huge surge in household disposable income and a massive buildup in household savings in the middle of a recession. And the Federal government is still in stimulus mode—the Congressional Budget Office is estimating the current deficit at $1 trillion per year.

U.S. Federal Debt and Pandemic Lost GDP

$ Bil, Nominal, SA



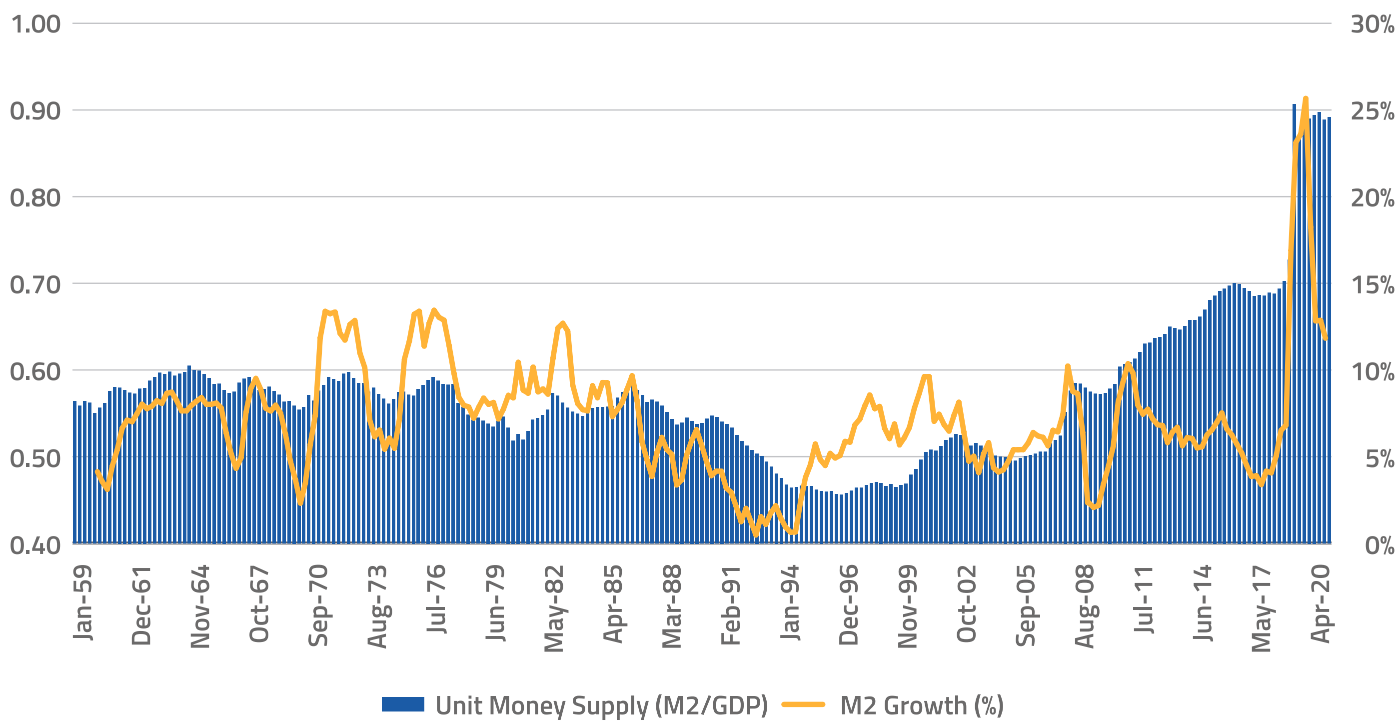
Source: U.S. Bureau of Economic Analysis; Congressional Budget Office; Analysis by UCR Center for Economic Forecasting and Development

[2] This estimate is derived by taking the difference between the Congressional Budget Office's projection of nominal GDP and actual nominal GDP.

Monetary policy was similarly oversized. The Federal Reserve engaged in $5 trillion in quantitative easing in two years, compared to $3.6 trillion in quantitative easing enacted over six years in the wake of the Great Recession. They did this despite almost no sign of any major financial problem being generated by the pandemic – loan delinquencies, foreclosures, and bankruptcies all declined sharply over the last two years. Consequently, while M2 growth remained remarkably steady through the Great Recession, it grew by 40% over the past two years, one of the largest increases in money supply ever seen in modern U.S. history. The unit money supply, M2 relative to the size of the nominal economy, has never been higher which suggests the United States will see a lot more inflation unless something is done to shrink M2 back to size.[3] It is not an exaggeration to say that this will likely go down in history as some of the worst policymaking ever seen at the Federal Reserve since they decided to allow the banking system to implode after the collapse of the stock market in 1929.

U.S. M2 Growth and Unit Money Supply

M2/GDP



Sources: Board of Governors of the Federal Reserve System (US); U.S. Bureau of Economic Analysis; Analysis by UCR Center for Economic Forecasting and Development

The pandemic was a human tragedy but posed almost no medium- or long-term risk to the economy. It simply wasn't that kind of recession and was instead more akin to a natural disaster. Much less support would have been sufficient to deal with the supply shock driven by the health crisis. It is not surprising that Congress followed the angry populist narratives of our era and ended up overdoing it, politics, after all, is inherently myopic and focuses on the short run. But the Federal Reserve and its phalanxes of economists should have known better. Milton Friedman taught a generation of economists about monetary theory and the consequences of excess money supply growth, as evidenced by piles of research papers and books (and his Nobel Prize in economics). But despite this being a classic monetary error, the Fed still appear shockingly unconscious of the slow-motion steam roller they have let loose on the economy.

[3] Data nerds will recall that $M*V = P*Y$, which means that unit money supply = 1/V. But the velocity theory of money is a long run condition and can depart this long run equilibrium in the short run. In other words, the high unit money supply implies that right now $M*V > P*Y$, and an increase in P (inflation) is needed to get this ratio back into equilibrium.

Even a brief review of Friedman's work illustrates the basic steps that occur when the money supply is excessively expanded. First the economy jumps as interest rates fall, asset markets sharply expand and real spending increases. But this is all an illusion of prosperity that can't last because the claims on the economy have risen beyond the economy's physical capacity to meet those claims. This initial stage of prosperity is inevitably followed by rising interest rates and an acceleration of price growth (inflation). It is important to understand that inflation does not cause a recession; a cooling economy will, by definition, cool inflationary pressures. The real problem is that inflation induces a slowdown in real spending and investment, which ultimately leads to economic stagnation—stagflation as the press coins it, driven by the unequal impact of inflation on the population combined with the difficulty of investing in an inflationary economy. And at this stage, the economy would be fragile—even small negative shocks can send it into a nasty recession as happened in the mid 1970s when the oil crisis drove an oversized economic contraction.

The United States is clearly near the end of the initial stage, the overheating. Consider asset prices. Home prices are up 30% in two years, equity P/E ratios for the stock market remain in the 30's (the second highest ever) despite recent declines in the market[4], and cap rates on all commercial real estate have fallen to record-low levels. This has led to the sharpest surge in household net worth ever seen on paper—an increase of 30% or almost $35 trillion in two years. And it didn't all go to the billionaires—net worth among the bottom 50% of earners has increased 90% in the last two years, although wealth inequality in the nation is still vastly too high. At the same time, Americans have paid off a great deal of debt or refinanced mortgages at ultra-low rates. The debt burden on U.S. households is much lower than it's ever been.

We are the wealthiest generation in history… that is if we ignore the $30 trillion in Federal debt we are carrying, $24 trillion of which was accumulated over the last two decades and $10 trillion over the last five. These numbers are so large, they're difficult to comprehend. Think of it this way: Over the past 20 years, the Federal government has borrowed $60,000 for each person in the nation. A full $30,000 (per person) of this borrowing was accumulated in the last five years. And that pace of borrowing now continues at about $3,000 per person per year. As alarming as this pace of debt accumulation is, the silence from policymakers, and even the media, is astonishing. People don't seem to care anymore. At some point reality will force its way through the bubble of denial, however, and the consequences will be severe.

Not surprisingly all this new private 'wealth' is driving a spending binge by U.S. households. Overall, real consumer spending has just returned to pre-pandemic levels, but that masks the inter-sectoral shift where spending on services has returned to pre-pandemic levels while real spending on goods has been running 5% to 15% above trend since July of 2020. Spending levels would be even higher but for the oft discussed supply chain problems the nation and globe are experiencing. A non-trivial example is new auto sales. There likely would have been one to two million more sales in the last year had supply been available. In the entire United States there have been fewer than 100,000 autos for sale for the last six months. A typical inventory is one million units of supply.

The service sector is also suffering from supply chain problems in the form of labor shortages. The great retirement that occurred over the course of the pandemic saw almost three million U.S. workers drop out of the labor force. Now there are a record 11 million job openings and an unemployment rate of 3.6%. Some of the largest increases in job openings are in sectors that were shuttered during the pandemic and are finally ready to reopen as public concern surrounding the health crisis fades. Demand for workers is so frenetic that wages are rising at the fastest pace in thirty years according to data from the Atlanta Fed Wage Tracker. And it isn't just households earning more income. Business profits have also jumped sharply despite supply chain problems. Business investment has surged back, as has home production. Venture capital investments hit $350 billion in 2021, well over twice the level in 2019.

[4] Shiller Cyclically Adjusted PE Ratio (CAPE Ratio).

The nation was never built for this level of demand, and it can't keep up. One of the most worrisome trends is the trade deficit, which, as of the first quarter of this year, is running at 5% of GDP, another way of saying the nation is consuming 5% more than it is producing (5.5% in March alone). The United States "borrowed" a net $300 billion from the rest of the world in the first quarter alone to fuel this excess consumption. The global economy is littered with nations that have gone on similar spending binges – and they don't tend to have soft landings once the situation runs its course. The inevitable collapse of spending back to sustainable levels creates the kind of economic turmoil that quickly turns into a contraction. The increase in real borrowing costs, and what will likely be some level of fiscal tightening, will contribute to the pain.

U.S. Trade Deficit as Percent of GDP

Source: Source: U.S. Bureau of Economic Analysis; Analysis by UCR Center for Economic Forecasting and Development

But to be clear, the trade deficit is still opening, the housing market is still seeing tight inventories and rising prices, and households have just begun to dig into the $35 trillion of new wealth they have acquired. We are nowhere near the breaking point. As for worries about Ukraine, if anything, that tragic conflict has pushed the day of reckoning out, rather than bringing it forward. Despite negative real interest rates in the United States and a growing pace of borrowing, the dollar has been appreciating. This is an effect of the conflict. Uncertainty in global markets push investors towards safe havens, and the United States gets to free-ride on its status as a global reserve currency.

This huge increase in household wealth is not real, but a mirage generated by excessive stimulus. In other words, the nation's economy simply does not have the ability to physically produce goods and services at a level commensurate with the demand that has come from the jump in household net worth. The only way to rebalance the situation is through a large surge in prices and interest rates, exactly what is happening today because of the over-stimulation of the economy.

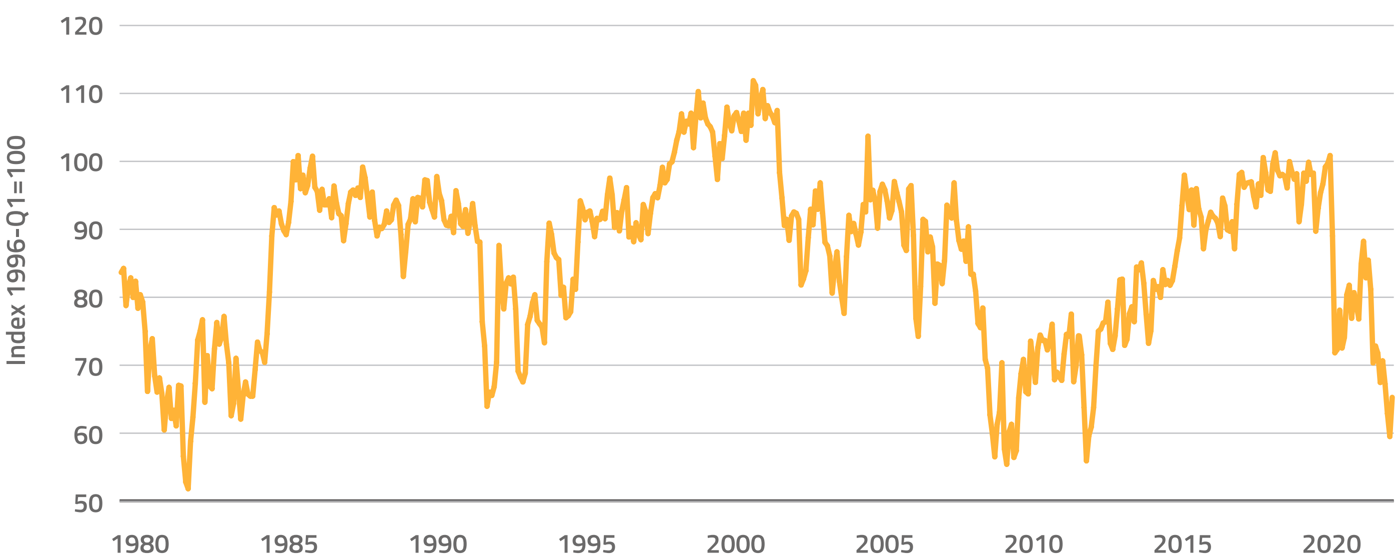
The Myth of the Fragile Economy

One of the strangest elements of the current economy is the collapse in consumer confidence. After a partial recovery from the decline that occurred at the start of pandemic, consumer confidence in the United States is yet again plummeting. The latest few readings by the University of Michigan has it almost where it was when the nation was in the grips of the Great Recession in 2008 and 2009. The Conference Board's confidence metric is also dropping, although not as dramatically. This is very odd, given that confidence is typically strong in an over-heated economy. Indeed, confidence is often generated by that very overheating, as was the case in the runup to the Great Recession. But today confidence is falling, despite excess wealth and spending.

Needless to say, the economy couldn't look more different today than it did during the Great Recession. In 2008 and 2009, the unemployment rate was in double digits, the housing market was experiencing record foreclosures and rapid price declines, and economic output was falling. Currently, the unemployment rate is back to its 50-year low (3.6%) as job openings hit record-high levels, worker earnings are growing at the fastest pace in over two decades, and U.S. industrial output just reached a record-high.

While it's easy to suggest that today's collapsing confidence is being driven by inflation and supply chain problems, it's difficult to equate the hardships Americans were suffering from during the Great Recession with anything occurring today. If we are to believe that the consumer sentiment index can be roughly but accurately compared over time (and the data suggests that it can) then it tells us Americans have troublesomely lost context.

U.S. Consumer Sentiment



Source: University of Michigan; Analysis by UCR Center for Economic Forecasting and Development

Of course, if they have, the blame lies largely with shrieking headlines from a wide variety of platforms that seem to dominate news about the economy. Indeed, a loss of context seems to be at the heart of the destructive populism that drives politics in the United States today. While the headlines scream about inflation "crushing" consumers and "evaporating" savings, the nation faces massive worker shortages, empty auto dealer lots, and too many boats vying to get into U.S. harbors to offload products. These two visions of the economy cannot be reconciled.

Indeed, some households are feeling the effects of inflation more than others, but at this point we are in the early stages of rising consumer prices – about a one year 6.6% increase according to the more accurate Bureau of Economic Analysis PCE index. Here comes the context: In the past five years consumer prices have risen about 15%, slightly over normal and the same as in 2008. And this is a far cry from the 50% increase seen in 1980 when Paul Volker took over the Federal Reserve. Contrasted against rising incomes, a tight labor market, and an enormous increase in household net worth, today's level of inflation isn't that consequential. But we don't seem to be allowing facts to get in the way of a good story.

5-Year Increase in U.S. Consumer Prices

Source: U.S. Bureau of Economic Analysis; Analysis by UCR Center for Economic Forecasting and Development

Beacon Economics is more worried about future inflation, not the inflation seen to date. If we look at the history of unit money supply (defined above) we can easily intuit that the nation is due to experience 30% inflation over the next few years, and probably more if velocity increases, as it typically does after a surge in inflation. And once inflation does kick in, it tends to have a feedback loop that makes it even more painful to stop. The solution to stopping inflation is fiscal and quantitative tightening. Yet, to date, policymakers have worried far more about the consequences of fighting inflation than about inflation itself.

Which brings us to rising interest rates. The 10-year bond hit 3% recently, and mortgage rates jumped past 5%, a significant increase from the ultra-low levels of two years ago. But again, context is needed. Rates are rising mainly because the Federal Reserve has stopped expanding its balance sheet, and suddenly credit is a bit scarcer. When combined with the increase in consumer borrowing and the ongoing $1 trillion Federal deficit, the real question is why rates haven't gone even higher. Interest rates are still significantly negative even with the recent rate hikes. The bond markets have been shockingly calm in the face of enormous inflationary pressures and seem to be operating on the illogical belief that much of the surge in inflation is being driven by temporary factors, something that trumps data and logic.

And when context is added, rates aren't really that high. From 1970 to 2010, rates never fell below 5% yet the nation had active real estate markets and plenty of booms and busts. If we want to worry about high interest rates, we should wait until the Fed starts to clear its balance sheet to shrink the money supply. But this hasn't stopped exaggerated headline pronouncements. Mark Zandi, Chief Economist with Moody's, just declared that U.S. housing is in a "correction" because of rising interest rates. Yes, the market has downshifted. It has to in order to deal with the shift in payments driven by the hike in rates. But the residential real estate market in the United States today has $26 trillion in equity, three times what it was a decade ago. The market also has the lowest mortgage debt to equity ratio since the 1980s and, equivalently, existing home inventories are still incredibly tight. Mind you, Moody's Zandi doesn't think prices will fall nationally, only in pockets here and there. The U.S. housing market is a long way from cooling off.

Current predictions for a near-term recession and for real estate corrections are far too early and point to the same issue that is largely to blame for the predicament we're in today—let's call it the myth of the fragile economy. It's a belief that the economy is delicate, easily broken, and has to be unduly buoyed by stimulative efforts. Ever since the waning days of the Great Recession, economic forecasters have been calling 'recession' at the drop of a hat – there were many incorrect double-dip recession calls throughout the recovery. In January 2019, 80% of economists who contribute to the Wall Street Journal's 'Next Recession Survey' said the United States would have a recession within two years; we did of course but that was due to the pandemic, not for any of the reasons the economists were worried about at the time. And of course, let's not forget the ridiculous calls of 'depression' that were made at the start of the pandemic, which, at least in part, caused the excessive use of government stimulus.

When will this all come to a head? As noted above, inflation is still more of a potential problem than an actuated one. Similarly, the nation's $30 trillion Federal debt and $1 trillion structural deficit are problems that haven't really been discussed by the public or the bond markets. The enormous and growing U.S. trade deficit is also being ignored. Instead, the narrative the public hears revolves around our 'fragile economy', the commodity impact of the conflict in Ukraine, prices at the pump, and other distractions. Congress needs to focus on balancing the U.S. budget. The Fed needs to get serious about shrinking its balance sheet. But this is unlikely on both fronts because public sentiment suggests we are on the edge of a cliff—and no policymaker wants to be the pusher.

Only we are nowhere near a cliff. The economy has plenty of momentum and will keep growing in the near term. But it is not sustainable and will eventually stagnate due to public debt and inflation's subversive impact on investing. At some point policymakers will have to go through the process of reversing course on stimulative measures, and when this happens reality will finally creep in. The combination of tight money, a falling dollar, and dramatic fiscal tightening will create a serious problem for the U.S. economy.

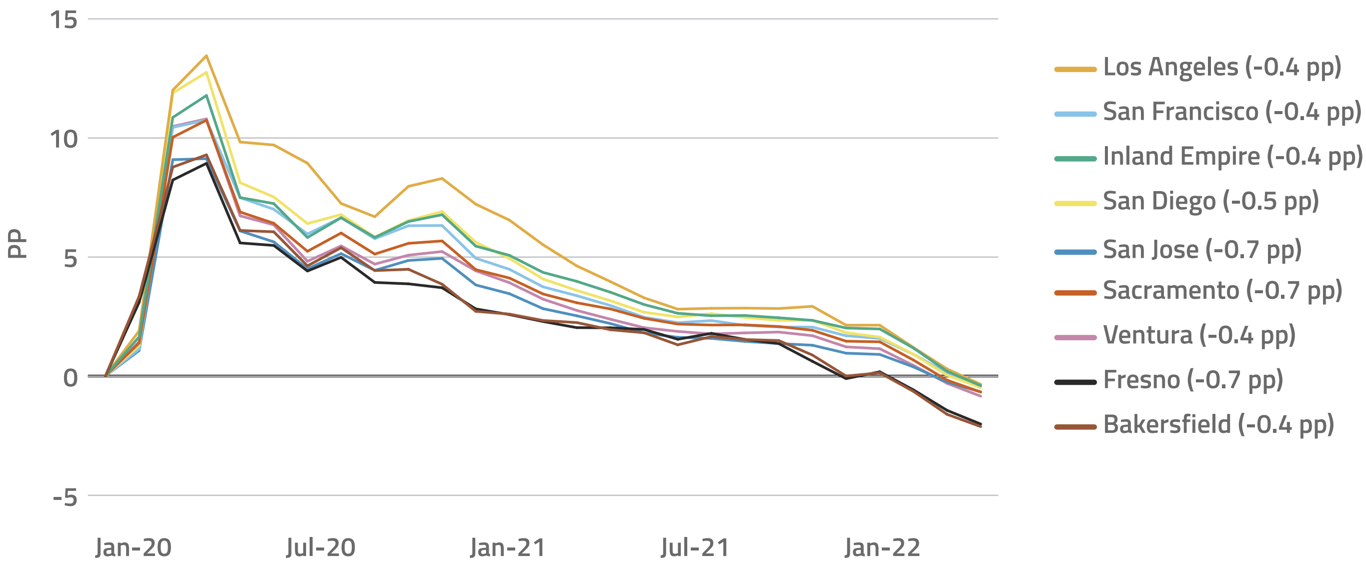
If you think the American public is angry now, just wait.

CALIFORNIA OUTLOOK

Taner Osman, PhD

While there are still 1.4% fewer workers employed in California compared to the period prior to the pandemic, and although there are only 0.8% fewer workers employed nationally, these figures do not tell the full story of the state's labor market recovery. Unemployment rates are lower than they were pre-pandemic in many regions across the state. The chart below illustrates the difference between the current unemployment rate and the pre-pandemic unemployment rate in California's major regional economies. In all of these regions, which cover the state's major employment centers, the unemployment rate is now below the pre-pandemic rate. These figures tell us that, despite there being fewer workers employed in the state than prior to the pandemic, for those seeking a job, there is ample work available.

Unemployment Rate Relative
Feb-2020 for California MSAs



Source: California Employment Development Department; Analysis by UCR Center for Economic Forecasting and Development

This is reinforced by the current 1.2 million job openings in the state. To place this figure in context, in the five years prior to the pandemic, a period of economic expansion, there were an average of 686,000 job openings in the state. As is clear to anyone who visits a restaurant or retail store in California, where "now hiring" signs are abundant, the state is currently experiencing an acute labor shortage, a point discussed further below.

Total Nonfarm Job Openings
California (000s, SA)

Source: U.S. Bureau of Labor Statistics; Analysis by UCR Center for Economic Forecasting and Development

Employment has returned to pre-pandemic levels in a growing number of sectors, and in those sectors where employment still lags, growth has been especially strong over the past year. From April 2021 to April 2022, employment grew by 34% in Arts and Entertainment, 19% in Accommodation and Food Services, 11% in Other Services, which includes hair and nail salons. These sectors were the most affected by health-mandated restrictions put in place to curb the spread of the COVID-19 virus and have experienced especially fast growth as the state and local governments have eased restrictions in 2021 and 2022. Looking ahead, growth in these sectors will continue to outpace growth in other industries throughout the year, as their employment returns to pre-pandemic levels. Labor availability will be a clear constraint, however.

Employment by Industry
California

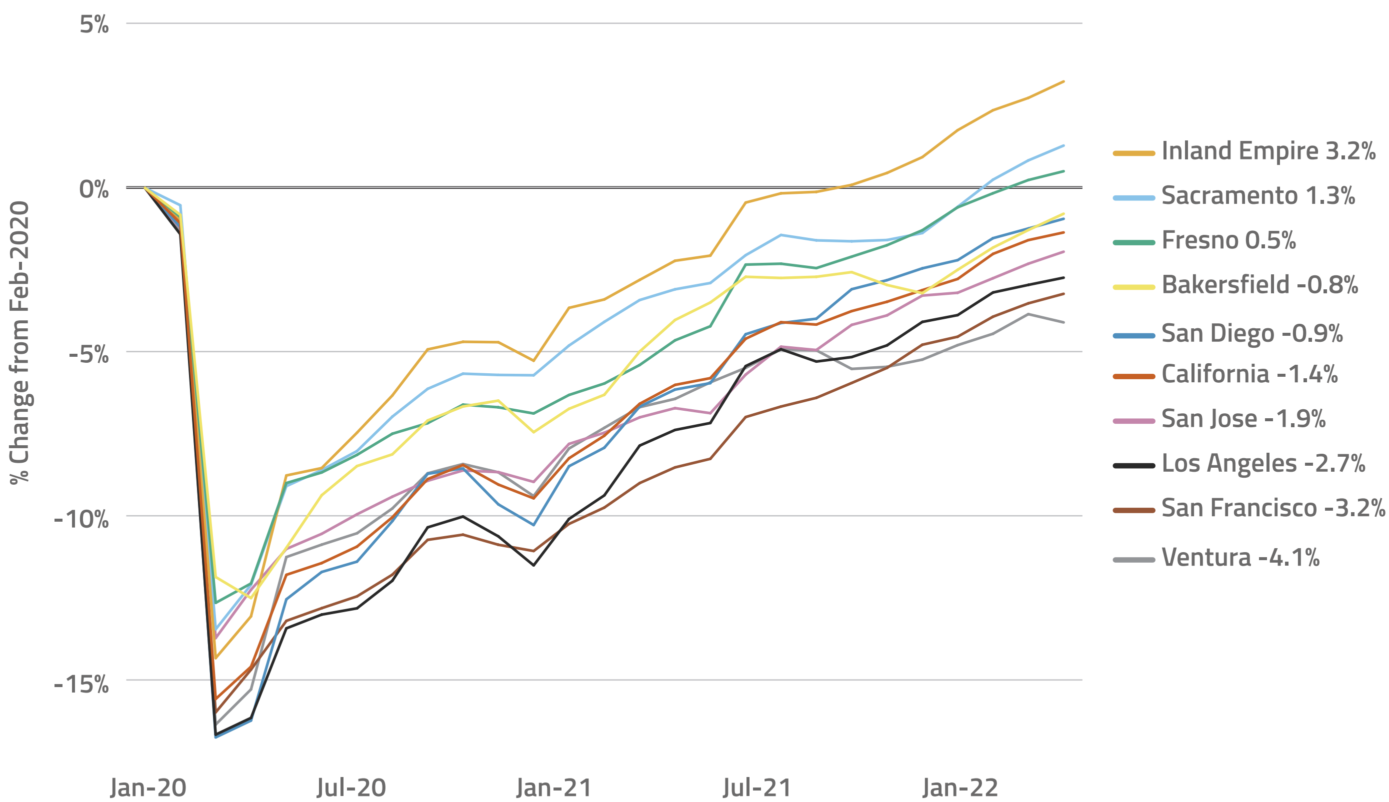
	Apr-22 Jobs (000s)	% Change from Feb-2020	% Change YTY
Total Nonfarm	**17,452**	-1.4	**5.6**
Arts and Entertainment	**291**	-14.6	**33.6**
Accommodation and Food	**1,591**	-7.5	**19.4**
Educational Services	**385**	-1.4	**13.2**
Other Services	**546**	-8.0	**10.8**
Transport/Warehouse	**788**	17.6	**9.5**
Information	**593**	0.2	**7.4**
Prof Sci and Tech	**1,409**	3.4	**5.8**
Admin Support	**1,164**	0.6	**4.8**
Real Estate	**293**	-5.0	**3.5**
Retail Trade	**1,649**	0.1	**3.3**
Government	**2,515**	-4.0	**3.2**
Manufacturing	**1,302**	-2.1	**2.4**
Health Care	**2,509**	1.0	**2.2**
Construction	**903**	-0.8	**1.9**
Wholesale Trade	**655**	-4.5	**1.6**
Farm	**414**	-1.1	**0.8**
Finance and Insurance	**544**	0.2	**0.7**
Utilities	**60**	4.6	**0.5**
Management	**245**	-3.3	**0.4**
NR/Mining	**19**	-14.2	**-0.5**

Source: U. .S. Bureau of Labor Statistics; Analysis by UCR Center for Economic Forecasting and Development

In some regions within the state, the number of jobs has returned to pre-pandemic levels. In the Inland Empire, Sacramento, and Fresno, there are more jobs today than there were prior to the pandemic, while Bakersfield has had the next strongest recovery, along this measure. As these figures suggest, the labor market recovery has been stronger in the inland parts of the state. Employment growth in the Inland Empire has been especially boosted by the presence of the Logistics sector. In California, employment in this sector of the economy is now 18% higher than pre-pandemic, fueled by the continued and accelerated transition to online consumption.

Total Nonfarm Employment

California MSAs

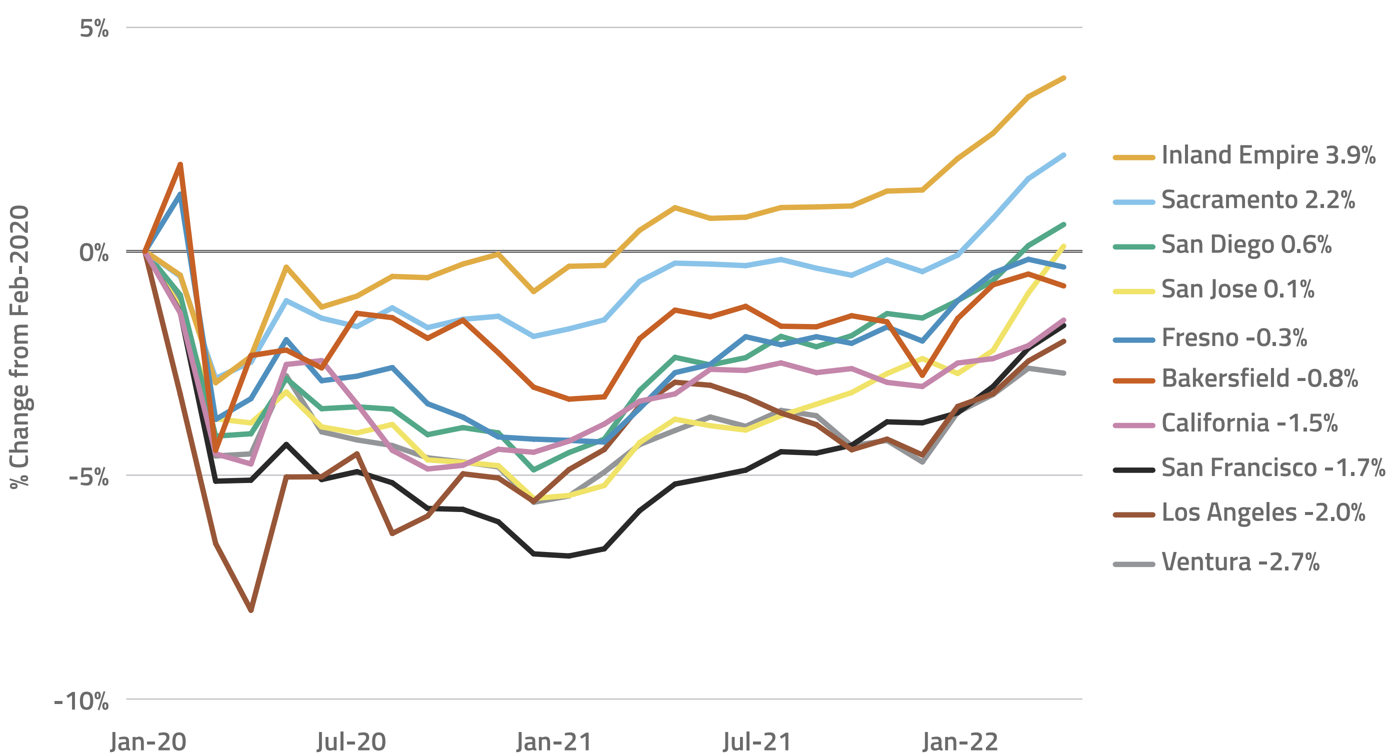


Source: California Employment Development Department; Analysis by UCR Center for Economic Forecasting and Development

California Workforce and Population Growth

California's labor force – defined as the number of people either employed or seeking employment – is 1.5% below pre-pandemic levels, although there is variation in labor market performance across the state's regions. There has been a complete labor force recovery in the Inland Empire, Sacramento, San Diego, and San Jose, while the biggest labor force declines have been in Ventura, Los Angeles, and San Francisco. In the short-term, this situation has been driven by net outmigration. Since 2019, the state's population has contracted by 1.1% and in some regions the drop has been especially pronounced. In San Francisco, the population has fallen by 5% since 2019. Such contractions are normally seen in regions in economic decline or in places that have experienced a natural disaster that has destroyed housing. Since San Francisco remains one of the most dynamic and innovative economic regions in the nation, these declines are likely to be temporary and have been driven by the area's notoriously expensive housing market. The figures reinforce the impact that the state's housing affordability and housing shortage crises are having.

Indexed Civilian Labor Force
Selected Areas

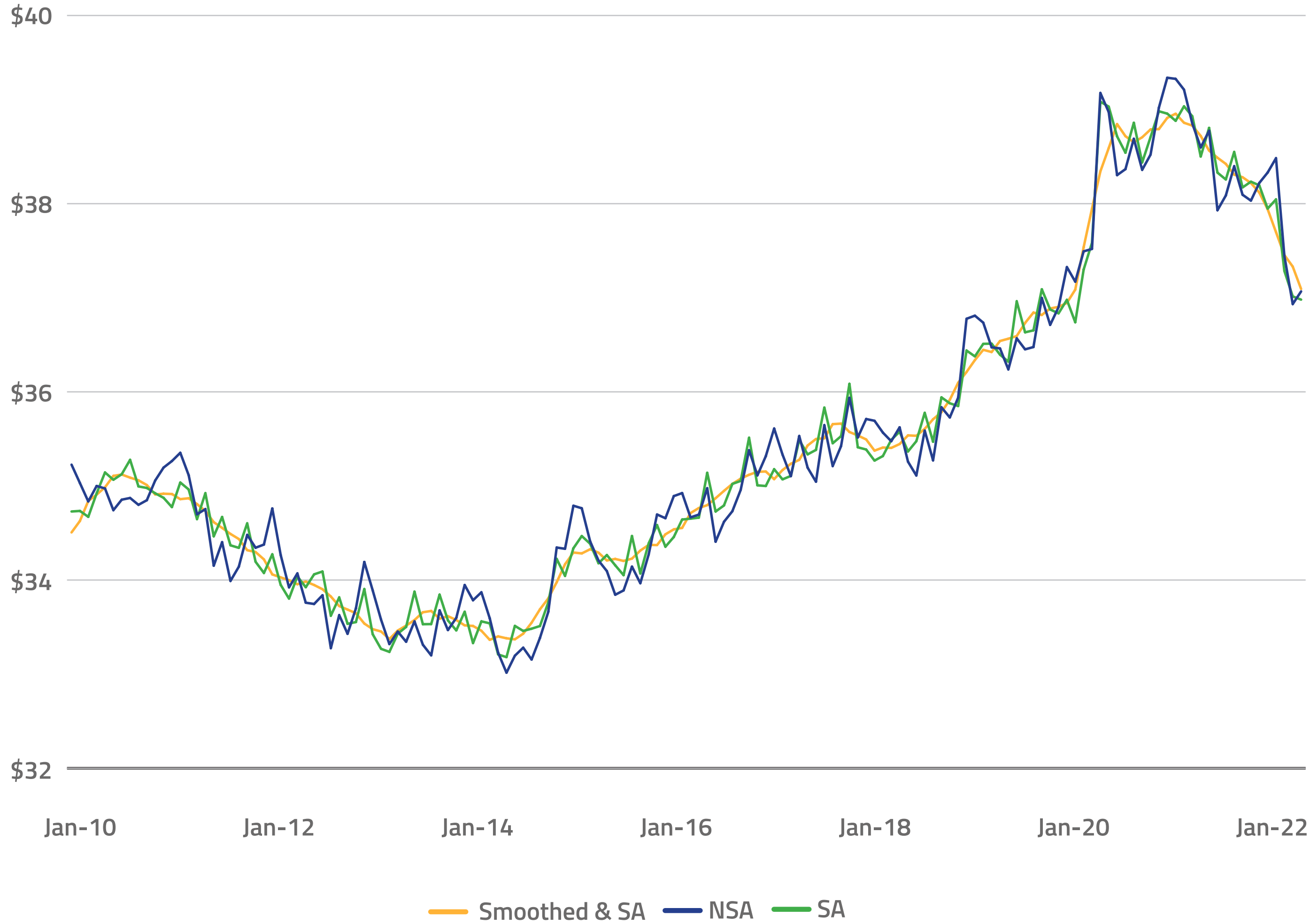


Source: California Employment Development Department; Analysis by UCR Center for Economic Forecasting and Development

Labor supply constraints have translated into higher nominal wages for workers as employers are paying more in search of supply. This said, inflation has meant that real wages – wages adjusted for the cost of living – have been falling in the state. Since their recent peak in February 2021, real hourly wages in the state have declined around 5%. Despite nominal wage growth, inflation has meant that real hourly wages are still at the level they were just prior to the pandemic.

Real Average Hourly Earnings of All Employees

Total Private in California



Source: U.S. Bureau of Labor Statistics; Analysis by UCR Center for Economic Forecasting and Development

California Home Price Escalation Continues

In the first quarter of 2022, house prices in California averaged $685,000, an increase of 13% on a year-over-year basis. This compares to a 16% year-over-year increase nationally. The supply fundamentals that have driven strong price growth since the outset of the pandemic have not changed, although today's elevated mortgage rates will constrain future demand. Home building permits have been relatively flat since 2019, while new listings are comparable to levels in the pre-pandemic years. Continued constraints on supply will act as a buttress to home prices in the presence of more limited demand.

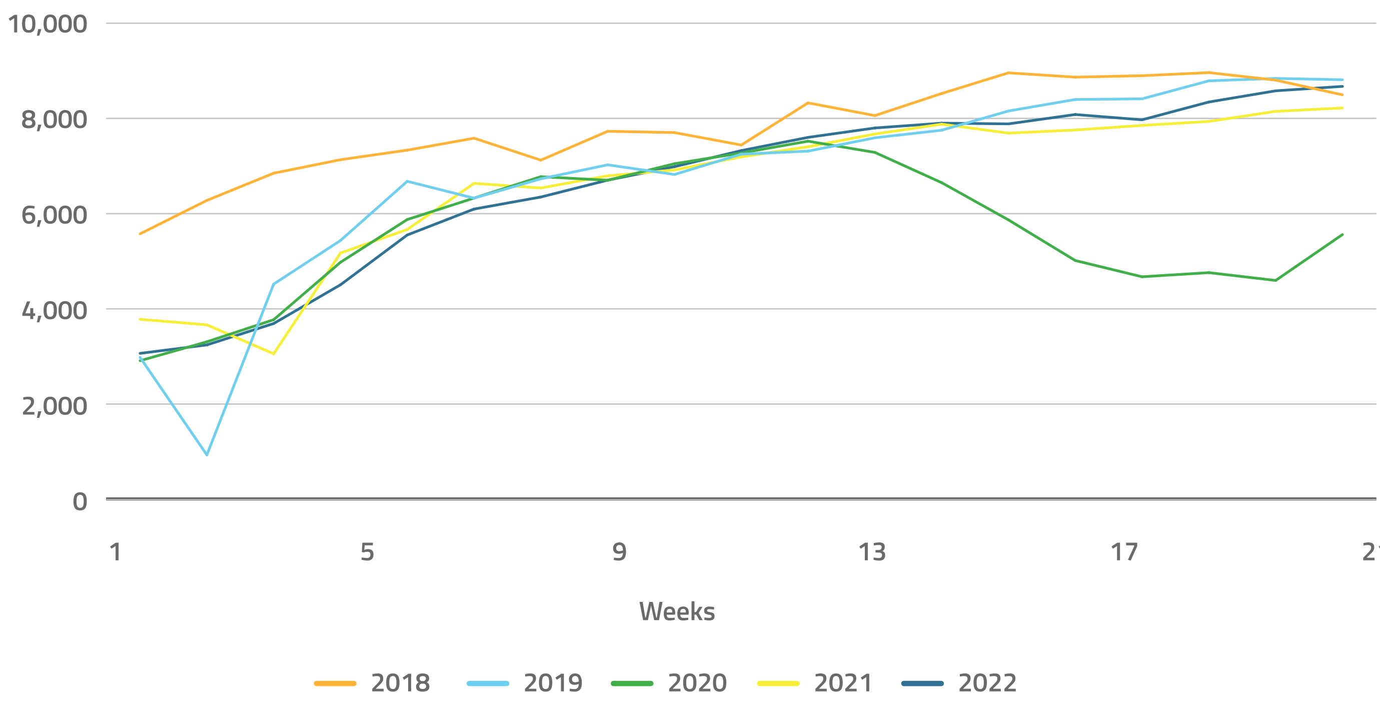
Median Home Price for Existing Single-Family Homes
California

Source: DataQuick; Analysis by UCR Center for Economic Forecasting and Development

Housing Units Permitted
California

Source: CIRB; Analysis by UCR Center for Economic Forecasting and Development

New Listings for California Metros
(Aggregated)



Source: Zillow; Analysis by UCR Center for Economic Forecasting and Development

California State Budget: Preserve the Surplus

As has been widely reported, California's state budget surplus stands at close to $100 billion – a truly astonishing figure. The reasons for the surplus are widely understood. The state's budget relies heavily on income taxes, and in normal times income taxes account for around 25% of California's revenues. But in Fiscal Year 2022-23, revenues from income taxes will account for two-thirds of the state's budget. Incomes have been greatly aided by the performance of the stock market, with the S&P 500 increasing by 27% in 2021, boosting capital gains tax revenues. Increases of such magnitudes typically follow major market contractions. The surge in the market in 2021 was extraordinary because the market started the year, not at lows, but at all-time highs.

Still, the state's temporary budget windfall should be treated with caution. It's not a signal for the legislature to permanently expand programs that it will not be able to finance as revenues return to normalcy in coming years. So far in 2022, the S&P 500 is down close to 20%, which will render lower state revenues in the next fiscal year. The best thing for California to do is preserve the current surplus for a rainy day.

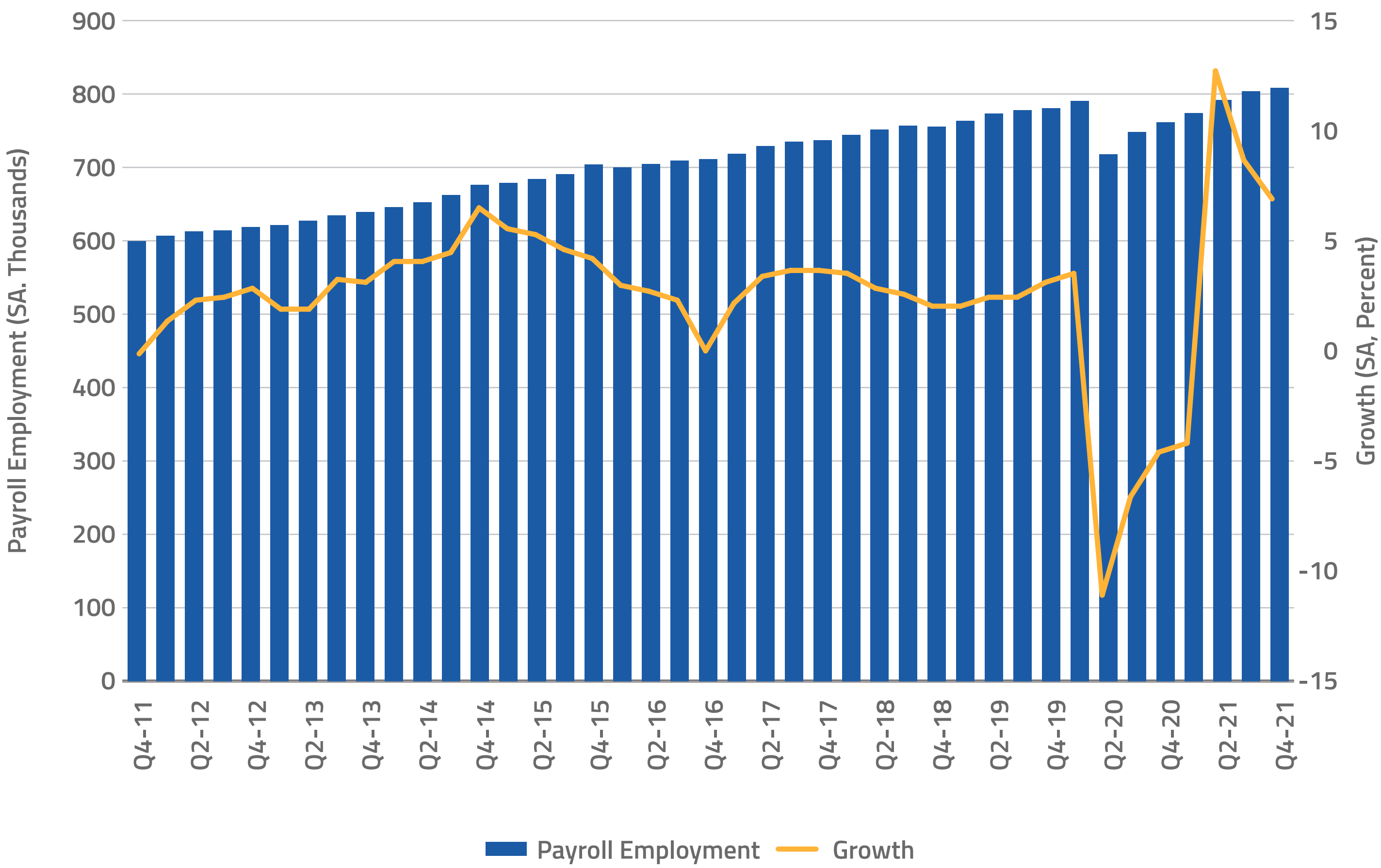
SAN BERNARDINO COUNTY

San Bernardino's economy showed great resiliency over the last quarter. Unemployment fell below pre-covid levels and job creation remained strong. COVID-19 cases stayed low, allowing business activity and travel to rebound to pre-pandemic levels. Housing prices continued to rise in high double-digit figures, although recent increases in mortgage rates will certainly put the brakes on this. In commercial real estate, the high demand for ecommerce goods caused a surge in demand for Warehouse and Distribution space in the Inland Empire, yet it remains more affordable than its neighbors to the west.

EMPLOYMENT AND WAGES

San Bernardino County's labor market has fully recovered from the COVID-19 pandemic and its unemployment rate of 3.7% is now lower than its February 2020, pre-pandemic level of 3.8%. From the first quarter of 2020 to the fourth quarter of 2021, employment growth in San Bernardino County (2.2% or 17,400 workers) outpaced the state and the nation. In contrast, California's employment fell by -2.4%, or -431,800 workers, over the same period.

Payroll Employment
San Bernardino County



Source: California Employment Development Department (EDD). Analysis by the UCR Center for Economic Forecasting and Development.

San Bernardino County has not been felt the ill effects of 'the great resignation as keenly as other parts of the of the state. From February 2020 to April 2022, San Bernardino County's labor force has expanded by 3.7%, a sharp contrast to the 1.5% decline in the California labor force over the same period. However, labor markets are still tight in San Bernardino County. To remain competitive, the region will have to add housing stock to attract workers.

The pandemic's impact on consumers has favored some local industries. For example, the surge in e-commerce has helped boost payrolls in the County's Transportation, Warehousing, and Utilities sector. This sector boasts a major presence in the region and has increased 27.8% since the first quarter of 2020, outpacing sector growth in the state by a wide margin. Moreover, with 27,900 local jobs added since the first quarter of 2020, Transportation, Warehousing, and Utilities has been the driving force behind the county's economic recovery. Other sectors with significant job gains include Administrative Support; Professional, Scientific, and Technical Services; and Real Estate.

Industry Employment
San Bernardino County

Sector	Q4-21 (Thousands)	Chg. Since Q1-20 (Thousands)	Chg. Since Q1-20 (%)
Transportation, Warehousing, and Utilities	128.0	27.9	27.8
Administrative Support	62.8	4.8	8.4
Professional and Technical Services	24.1	2.0	9.3
Real Estate	10.6	0.7	7.0
Wholesale Trade	41.0	-0.2	-0.5
Finance and Insurance	13.0	-0.5	-3.8
Information	4.4	-0.5	-10.9
Other Services	20.1	-0.6	-2.7
Management	4.7	-0.8	-14.2
NR/Construction	41.6	-0.8	-2.0
Retail Trade	85.4	-1.0	-1.2
Manufacturing	51.8	-2.6	-4.8
Leisure and Hospitality	74.4	-3.3	-4.3
Government	122.0	-4.1	-3.2
Education and Health Services	122.8	-4.3	-3.4
Total	**808.0**	**17.4**	**2.2**

Source: California Employment Development Department (EDD); Analysis by UCR Center for Economic Forecasting and Development

Despite overall payroll gains in San Bernardino County since the first quarter of 2020, most sectors still have a way to go to recover all jobs lost to the pandemic. Job losses have been most pronounced in Education, with payrolls down by -4,300 since the first quarter of 2020, a -4.3% decline. Other significant job losses have occurred in Government; Leisure and Hospitality; Manufacturing; Retail Trade; Natural Resources and Construction; and Management.

Employment levels in San Bernardino County's Leisure and Hospitality sector should fully recover in the first half of 2022. In addition, other metrics for Hospitality and Tourism are continuing to improve. Throughout April 2022, occupancy rates averaged 70.5% in the Inland Empire, up 0.2 percentage points over the same period in 2021. Average daily rates grew to $125.75 during this period, up 24.8% over the same period in 2021. With mandates lifted and travel approaching pre-pandemic levels, the Leisure and Hospitality sector should see steady growth in 2022.

With lower-paying industries such as Leisure and Hospitality and Retail Trade regaining the most positions, wage growth in the region has been modest this year compared to 2020. Still, overall wages in San Bernardino County have been steadily rising. From the fourth quarter of 2020 to the fourth quarter of 2021, wages grew 4.8%, trailing the 7.8% pace in California overall. However, this marks a decrease in real wages during the year due to high inflation.

The number of establishments in San Bernardino County also grew from the first quarter of 2020 to the fourth quarter of 2021, expanding by 4,058 or 6.3%. This was led by growth in Education and Health Services, which expanded by 1,483 establishment (4.9%) over the period. Transportation, Warehousing, and Utilities led the way in percentage terms, with the number of establishments growing 30.2% over the period. Other significant establishment gains occurred in Professional, Scientific, and Technical Services; Administrative Support; Retail Trade; and Other Services. In addition, while payrolls in Leisure and Hospitality have been impacted by the pandemic, establishment counts in this sector have expanded 3.6% since the first quarter of 2020.

Industry Establishments
San Bernardino County

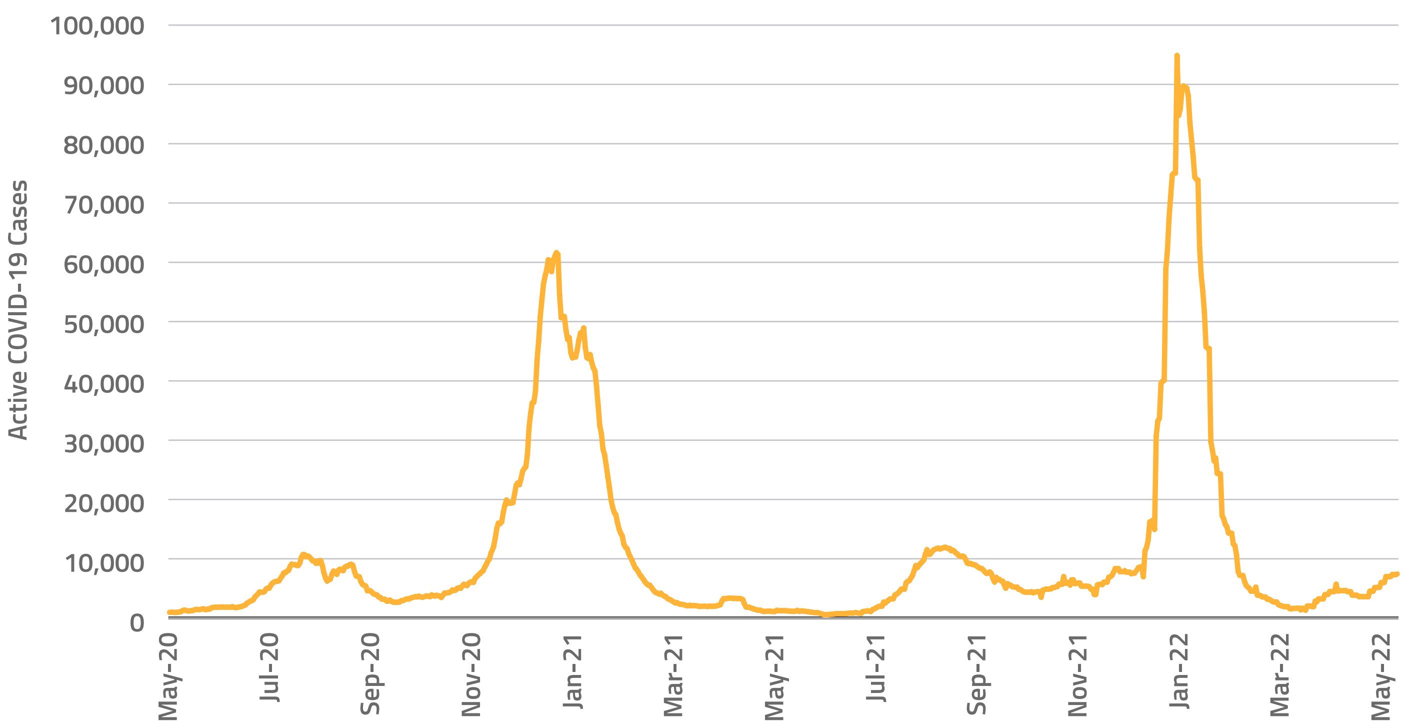
Sector	Q4-21 Establishments	Chg. Since Q1-20	Chg. Since Q1-20 (%)
Education and Health Services	31,562	1,483	4.9
Transportation, Warehousing, and Utilities	3,079	714	30.2
Professional and Technical Services	3,455	378	12.3
Administrative Support	2,350	251	12.0
Retail Trade	5,239	233	4.7
Other Services	3,282	200	6.5
NR/Construction	4,184	198	5.0
Real Estate	2,017	195	10.7
Leisure and Hospitality	4,418	155	3.6
Finance and Insurance	1,661	85	5.4
Manufacturing	2,020	65	3.3
Wholesale Trade	2,916	61	2.1
Information	384	6	1.5
Management	137	2	1.2
Government	1,564	-9	-0.6
Total	**68,400**	**4,058**	**6.3**

Source: California Employment Development Department (EDD); Analysis by UCR Center for Economic Forecasting and Development

COVID-19 TRENDS AND BUSINESS ACTIVITY

The number of active COVID-19 cases in San Bernardino County remain relatively low. In the absence of a resurgence, the public health mandates put in place to halt the spread of the virus are quickly disappearing. Hopefully this is the beginning of the end of a tumultuous two-year period in California's history, marked by tens of thousands of virus-related deaths, great strain on the state's health care infrastructure, and major upheavals in Education, Leisure and Hospitality, and many other sectors.

Active COVID-19 Cases
San Bernardino County



Source: Los Angeles Times; California Department of Public Health (CDPH); Analysis by UCR Center for Economic Forecasting and Development

Taxable Receipts by Category

San Bernardino County

Category	Q1-22 ($ Thousands)	1-Year Change (%)	3-Year Change (%)
Fuel and Service Stations	15,282	44.4	48
Restaurants and Hotels	12,435	20.2	21.8
Building and Construction	12,770	13.8	44.2
Business and Industry	34,948	11.7	60.6
Autos and Transportation	22,553	9.3	35.4
County & State Pool	23,073	6.7	89.4
General Consumer Goods	21,812	5.9	14.6
Food and Drugs	5,043	2.3	24.9
Total	**148,051**	**12.8**	**43.3**

Source: HdL Companies; Analysis by UCR Center for Economic Forecasting and Development

As a result, consumer spending has rebounded strongly. From the first quarter 2021 to the first quarter 2022, taxable receipts in San Bernardino County increased 12.8%, driven by more Business and Industry spending, higher fuel prices, and increased spending in categories impacted by government health mandates and consumer reservations related to COVID-19.

With more people traveling for work and leisure, spending at Fuel and Service Stations increased 44.4% over the last year. Rising fuel prices in the first half of 2022, should ensure this sector continues to see increases.

Restaurants and Hotels also saw rapid growth, with spending up 20.2% over the last year. Although it was among the hardest hit by the pandemic, spending in this category now exceeds pre-pandemic levels.

Other categories posting significant gains over the last year were Building and Construction (13.8%); Business and Industry (11.7%); Autos and Transportation (9.3%); the County and State Pool (the category for e-commerce sales) (6.7%); and General Consumer Goods (5.9%). As eating out became more common, gains were more modest for Food and Drug Stores, up just 2.3% over the year. The County and State Pool has been the fastest growing category in the county over the last three years, up 89.4%, followed by Business and Industry, up 60.6%.

Taxable Sales by City

San Bernardino County

City	Q4-21 ($ Millions)	1-Year Change (%)
Rialto	1,275.4	136.2
Loma Linda	256.4	51.9
Redlands	417.7	30.6
San Bernardino	1,316.2	30.3
Chino Hills	235.2	29.2
Rancho Cucamonga	880.3	28.1
Barstow	181.4	26.0
Yucaipa	110.3	23.1
Hesperia	298.0	21.7
Upland	394.8	21.7
Montclair	369.0	21.5
Victorville	668.5	20.0
Unincorporated SB County	941.4	17.6
Ontario	2,516.5	16.7
Fontana	1,162.4	16.1
Highland	81.1	15.2
Apple Valley	195.5	13.0
Grand Terrace	23.5	12.5
Yucca Valley	103.3	12.1
Twentynine Palms	32.6	12.0
Big Bear Lake	78.9	12.0
Adelanto	51.8	10.5
Chino	721.8	3.5
Colton	262.5	1.8
Needles	15.6	-2.7

Source: California Department of Tax and Fee Administration. Analysis by the UCR Center for Economic Forecasting and Development.

At the city level, Rialto has seen the fastest growth over the last year, with taxable sales rising 136% over the last year. Other cities expanding significantly over this period were Loma Linda (51.9%), Redlands (30.6%), San Bernardino (30.3%), Chino Hills (29.2%), and Rancho Cucamonga (28.1%). Taxable sales in the unincorporated parts of San Bernardino County reached $941 million in the fourth quarter of 2021, a 17.6% increase over the same period last year.

Passenger traffic at Ontario International Airport continues to recover. A total of 1.6 million passengers passed through the airport during the first four months of 2022, an 88.7% increase over 2021, and passenger traffic now just -0.8% below 2019 levels.

Ontario International Airport remains a major mover of freight and mail with a total of 269,692 tons passing through the airport during the first four months of 2022, a 7.8% decrease over 2021. Even so, freight and mail traffic through the airport is now 15.5% above 2019 levels.

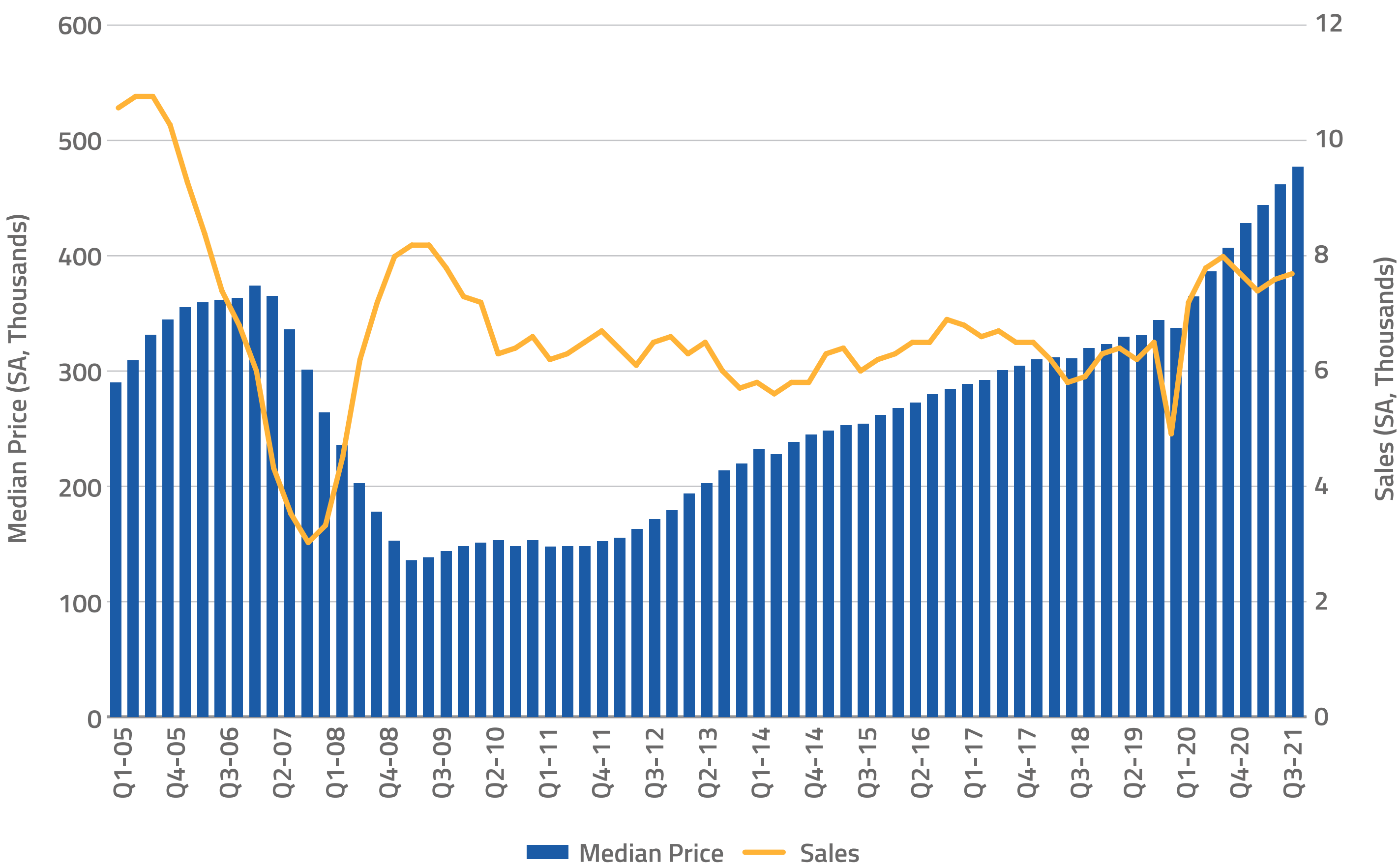
San Bernardino County's Logistics industry has benefited from a recent surge in import activity through the Port of Los Angeles and the Port of Long Beach. Import activities increased 16.5% at the Port of Los Angeles, and by 22.7% at the Port of Long Beach. The total value of imports to both ports in 2021 totaled $346.7 billion, a 17.9% increase compared to 2020. Current data suggests that 2022 could see further increases in import activity. As of the end of March 2022, year-to-date imports by value were up 12.1% at the Port of Los Angeles and 19.1% at the Port of Long Beach, compared to March 2021 year-to-date exports by value.

RESIDENTIAL REAL ESTATE

The housing market was by far the brightest spot in San Bernardino County's economy over the last two years. The supply fundamentals driving strong price growth since the pandemic began have not changed, although today's elevated mortgage rates will constrain future demand.

Against this backdrop, home prices in San Bernardino County continue to increase rapidly. From the first quarter of 2021 to the first quarter of 2022, the median single-family home price rose 17.3%. This represents stronger growth relative to Los Angeles (11.8%), yet slightly slower relative to Orange County (25.1%), Riverside County (19.7%), and San Diego County (19.1%).

Single-Family Homes
San Bernardino County

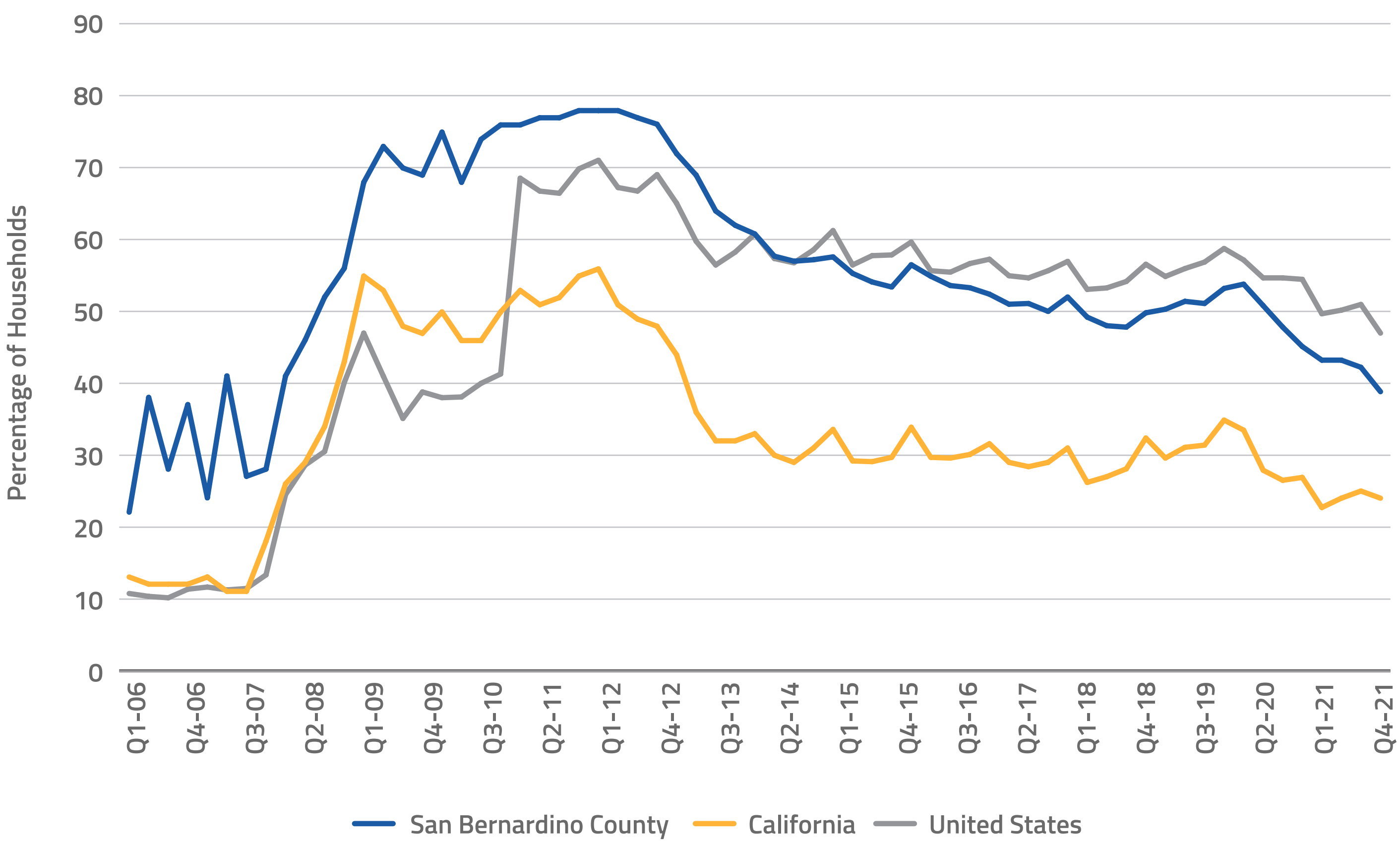


Source: Corelogic; Analysis by UCR Center for Economic Forecasting and Development

Part of the reason San Bernardino County is seeing more rapid growth is that, for Southern California, it is relatively affordable. At a median price of $477,000, its existing single-family homes are significantly more affordable than in Los Angeles ($895,000), Orange County ($1,164,000), Riverside County ($590,000), and San Diego County ($904,000).

That said, buying a home in San Bernardino County is becoming more costly. Only 39% of local households can afford to purchase a median-priced home, down from 45% in the first quarter of 2021. This makes the region more affordable than California (24%), but less affordable than the United States overall (47%).

Traditional Housing Affordability Index



Source: California Association of Realtors; Analysis by UCR Center for Economic Forecasting and Development

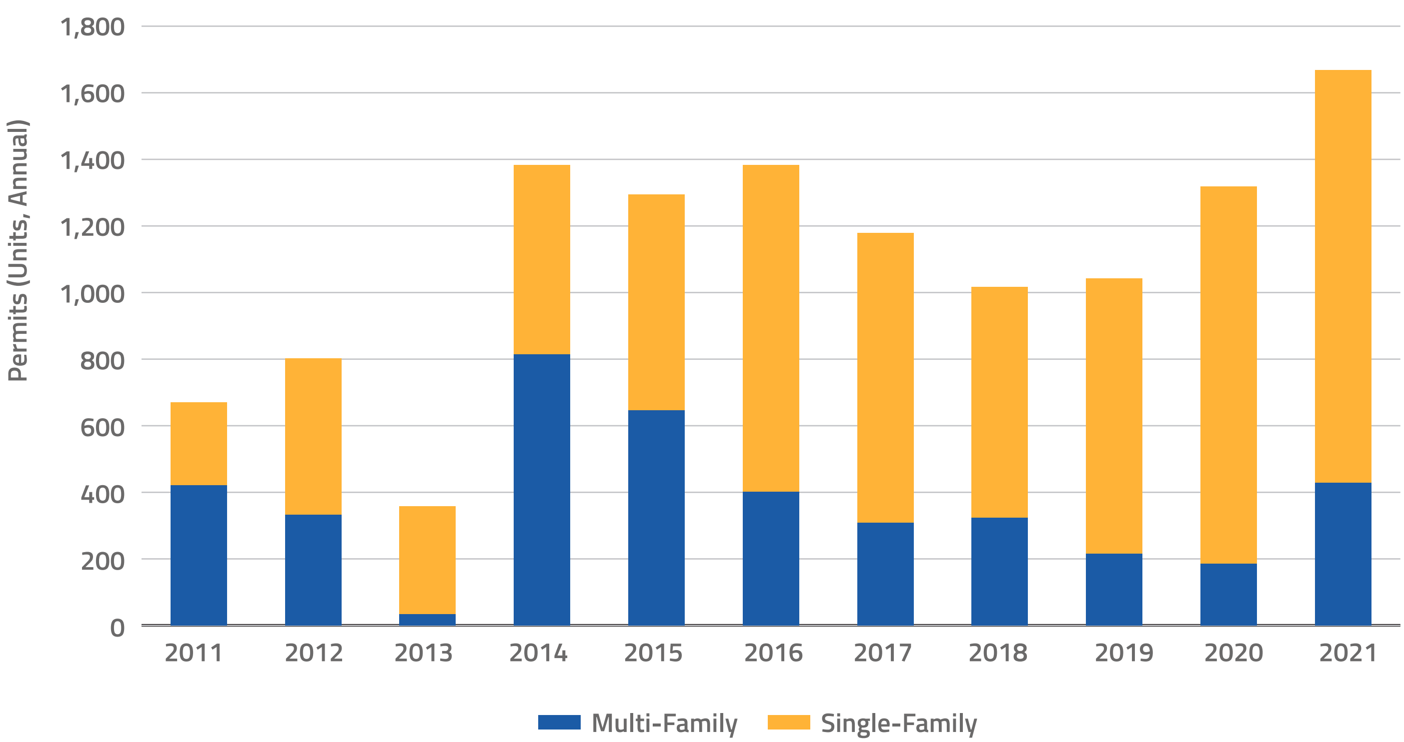
With limited available inventory, the number of homes sold in San Bernardino County has decreased slightly despite high demand. Existing single-family home sales declined -3.3% in San Bernardino County from the first quarter of 2021 to the first quarter of 2022, outpacing sales growth in Orange (-17.4%), Los Angeles (-5.1%), and San Diego (-6.3%) counties, but trailing growth in Riverside County (-1.2%).

The pandemic-driven economic stimulus from the federal government has increased demand for housing throughout California. However, supply has not risen to meet demand. In April 2022, there was only 2.2 months of housing supply available for purchase in San Bernardino County. A balanced market typically equates to six to seven months of supply, a buyer's market to seven months of supply and above, and a seller's market to six months of supply and under. [5] Moreover, the strong fundamentals at the start of this hot market imply there is still headroom to grow, and with inventory so low, it will take years for builders to catch up with high demand.

Demand for apartments in the Inland Empire has also surged. The apartment vacancy rate fell to 3% in the first quarter of 2022, a -0.4 percentage-point decrease from a year ago. In addition, the number of occupied units grew 0.9%. Asking rents jumped by more than 21% to $1,807 per unit per month. But even with that increase, the Inland Empire rental market remains more affordable than Los Angeles ($2,236), Orange ($2,335), and San Diego ($2,226) counties.

Residential Permits

San Bernardino County



Source: Construction Industry Research Board (CIRB); Analysis by UCR Center for Economic Forecasting and Development

Residential construction in the region has increased over the last year. San Bernardino County issued 428 multi-family permits and 1,240 single-family permits in the first quarter of 2022, changes of 131.4% and 9.3% respectively.

[5] National Association of Realtors (NAR)

COMMERCIAL REAL ESTATE

The increase in demand for e-commerce goods has caused a surge in demand for Warehouse and Distribution space in the Inland Empire. The vacancy rate among Warehouse properties fell to 3.2% in the first quarter of 2022, a -6.5 percentage-point decrease from a year earlier. This decline occurred even as 34.6 million square feet of new space came online, an 8.8% increase in available stock. In addition, asking rents grew 6.3% to an average annual rate of $6.26 per square foot. Still, Warehouse space in the Inland Empire remains more affordable than Los Angeles ($8.53), Orange ($8.15), and San Diego ($9.94) counties.

After a pandemic-lead decline, demand for Office properties in the Inland Empire is beginning to pick up. The Office vacancy rate hit 17% in the first quarter of 2022, down -1.1 percentage points from a year earlier. In addition to the decrease in vacancy rates, occupied stock increased 1.3%. Asking rents grew a modest 1.4% to an annual rate of $24.02 per square foot, keeping Office space in the Inland Empire more affordable than Los Angeles ($41.04), Orange ($33.95), and San Diego ($34.99) counties.

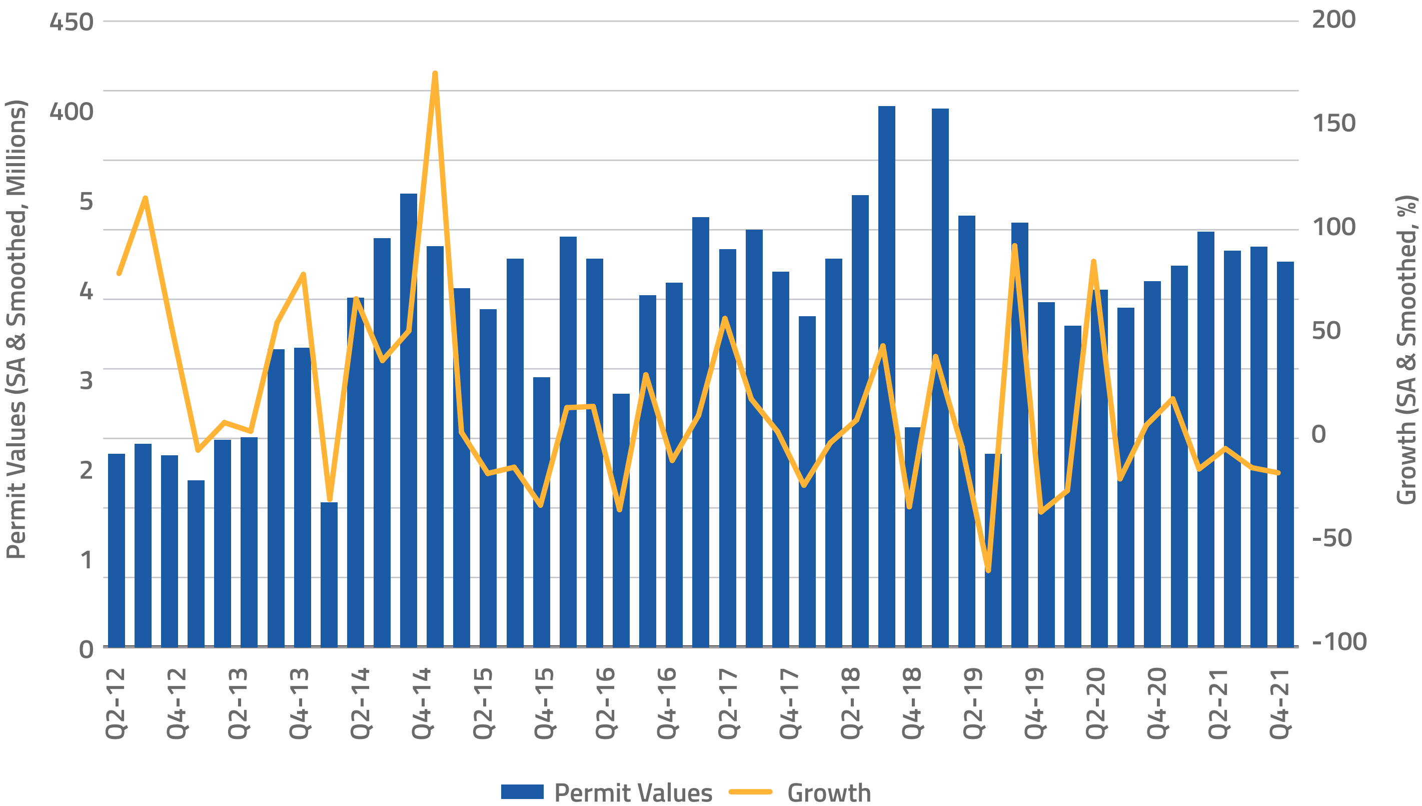
The vacancy rate among Flex/Research and Development (R&D) properties in the Inland Empire fell to 2.7% in the first quarter of 2022, a -2.7 percentage-point decrease from a year earlier. Asking rents grew 4.6% to reach an annual rate of $9.36 per square foot, keeping Flex/R&D space in the Inland Empire more affordable than Los Angeles ($13.97), Orange ($12.98), and San Diego ($15.44) counties.

Even though it remains below pre-pandemic levels, demand for Retail space in the Inland Empire is beginning to stabilize. While the vacancy rate dropped to 9.9% in the first quarter of 2022 (a 0.1 percentage-point decline from a year earlier), asking rents fell -0.2% to an annual rate of $22.52 per square foot. As with other types of commercial property, Retail space in the Inland Empire remains more affordable than Los Angeles ($33.55), Orange ($34.31), and San Diego ($32.33) counties.

Non-residential permitting in San Bernardino County has increased over the last year. Building permit values in the first quarter of 2022 totaled $286 million, an 18.2% increase from the first quarter of 2021. The largest increases were in Industrial Properties, which totaled $184 million in the first quarter of 2022, up 170% from the first quarter of 2021. Retail properties, totaling $25 million in building permits, were down 48.2%. Office permitting continues to be tepid, totaling just $399,000 in the first quarter of 2022.

Non-Residential Permits

San Bernardino County



Source: Construction Industry Research Board (CIRB) . Analysis by the UCR Center for Economic Forecasting and Development.

Overall, the County's economy shows strong positive trends. The biggest concern for the region now is how the U.S. economy will fare in the coming months. While the foundations of San Bernadino's economy are solid, they are still part of a far bigger economic edifice.

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