Riding the Coronavirus Coaster:
AN ECONOMIC OUTLOOK FOR 2021

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United States Outlook

TO “V” OR NOT TO “V”, THAT IS THE QUESTION

Christopher Thornberg PhD
The COVID-19 induced recession of 2020 began with the ferocity of an unexpected tsunami smashing onto the shore—one month the economy was fine, the next it was in freefall. Now with the 2nd quarter behind us, we have a better idea of the damage caused by the pandemic-linked closures of the economy. Consumer spending cratered in March, at a pace never experienced before, causing U.S. output to drop almost 12% from the 4th quarter of 2019 to the 2nd quarter of 2020. Unemployment in the nation surged from 50-year lows to 80-year highs in a matter of weeks.
The good news is that the recession is technically over. The National Bureau of Economic Research (NBER) dates the start and end points for recessions based on peaks and troughs of economic activity.¹ For example, the peak of economic activity prior to the Great Recession was in the 4th quarter of 2007, while the bottom was hit in the 2nd quarter of 2009. Of course, the economy took another 5 to 6 years to fully recover, which is a separate part of the business cycle. The NBER has dated the peak of the last expansion as February 2020. While they haven’t officially dated the trough yet, it was in April 2020. Since that time, economic activity from housing sales to durable goods orders to consumer spending to payroll employment, has been bouncing back sharply.

The debate now is about the path of recovery. While there are all sorts of witty responses to the forecast letter game, the predictions can largely be put into two camps—the “V” group and the “U” group. While there is no set definition between the two, roughly, the “U” camp sees the pandemic’s damage to the economy as severe enough to suggest a slow, long-term recovery. Most of the economic forecasts that were released immediately after the start of the COVID crisis suggested a downturn worse than what occurred during the Great Recession—with many tossing around the term “depression” as a descriptor of what was to come.

In contrast, Beacon Economics has been an advocate of the “V” scenario from the start. As dramatically bad as the numbers have been in the past few months, there is simply no reason to expect the current business cycle to be as bad as during the Great Recession, the worst business cycle since World War II. Then the economy had been badly distorted by the subprime credit bubble that preceded it. It took years to repair household balance sheets and to work through excess inventories of homes, cars, and other durables. Millions of jobs that had been created by the bubble were lost permanently, and displaced workers had to build new careers in other sectors. The shock that set off the current crisis has none of these long-term characteristics. The economy was well balanced when the pandemic arrived. A collapse in consumer spending occurred not because people couldn’t spend money (driven by a collapse of wealth), but because fear and caution surrounding the disease itself prevented them from spending. There is no reason to think there will be a permanent shift in the structure of the economy, outside of the pandemic quickening the pace of retail’s capitulation to the internet.

As dramatically bad as the 2nd quarter numbers were, there is also plenty of evidence indicating that the shocks to the system were largely transitory. For example, the enormous surge in unemployment was not driven by

¹ https://www.nber.org/cycles.html
true job losses but by temporary layoffs, which today, still represent about 3% of the unemployed labor force. The share of the truly unemployed labor force (either workers who lost their job permanently or have entered the labor market and are looking for work) is now about 4.8%—substantially lower than the 8% plus rate seen at the peak of the Great Recession, and not yet as high as during the very mild tech recession of the late 1990s. From a long run perspective this is a mild recession.
The case for the “V” has been vindicated by recent data. We could run through individual numbers in various categories, but it’s probably clearest to assess total economic activity on a monthly basis insofar as it can be estimated though the use of certain monthly data. One estimate from Macroeconomic Advisors finds that the economy contracted by 16.5% from February to April, then bounced back by 12.5% through August, and is now only 4% below the February peak. The 3rd quarter will experience an astounding 35% growth rate, erasing most of the gap generated in the 2nd quarter. The U.S. unemployment rate should be below 7% by the end of this year.

These surprisingly good numbers have led some forecasters to sharply alter their projections upwards, but most prognosticators continue to predict a long, painful recovery. The current outlook from the Congressional Budget Office (CBO) is a good example. The CBO’s most
Recent forecast suggests a full recovery will take close to a decade—similar to the time it took to recover from the Great Recession.

The only major issue with the more bullish ‘V’ outlook has been the unfortunate surge in new COVID-19 cases that began in June. Increased economic activity, a lack of consistent and forceful public policy, and a decline in young Americans’ fear of the virus has driven an escalation of new cases in places such as Texas, Florida, and Arizona. At its peak, the United States was experiencing about 200 new cases per million people per day.

The silver lining is that this surge has not led to a huge number of new deaths or overwhelmed hospitals. Moreover, it has begun to subside; as of the end of August, the nation was recording 120 new cases per million people per day. While this latest surge has shifted the date of full recovery out modestly relative to
earlier predictions, Beacon Economics remains certain that a quick recovery will occur once the virus is under full control.

Another silver lining has been how well consumers and businesses have adapted to the pandemic. One of the more pessimistic predictions at the start of the recession was the “W” recovery—where economic activity would again collapse if another surge of the virus hit. But the economic impact of the first and second surges couldn't be more different. In March, there was an unprecedented collapse in consumer spending. In July and August, the swell of new cases only slowed the recovering in consumer spending.

Additionally, there was an expectation that July’s labor figures would be flat and unemployment would rise. Instead, another surprise: payroll jobs rose and unemployment fell despite the large number of new cases. Businesses and consumers have adapted—an important factor that is often left out by forecasters. Even if a true second wave of cases did occur, it is clear that the economic impact wouldn’t approach what happened the first time.
The underlying strength of the U.S. economy at the start of the pandemic has been reinforced by crazily excessive (yes, that is an appropriate description) stimulus spending. The howls of economic collapse and the runup to one of the most contentious presidential elections in decades drove Congress to pass a $3 trillion stimulus plan. Putting aside the well-deserved criticism of how poorly thought out these programs were from an operational and distributional standpoint, the cash that was put into the economy is vastly more than what was lost or needed. Lost economic activity in the first half of 2020 stands at approximately $600 billion, 20% of the size of the stimulus package. And remember the economy is already bouncing back.

From a personal income perspective, earned incomes (for workers and proprietors) declined by about $260 billion (seasonally adjusted, not annualized) in the 2nd quarter compared to the previous three months. The increase in government benefits, unemployment, and direct payments amounted to $600 billion, over $2 for every $1 of lost income—albeit it probably has not been distributed proportionately to income losses. This has led
## US Personal Income, SA

<table>
<thead>
<tr>
<th></th>
<th>2019 Q4</th>
<th>2019 Q1</th>
<th>2020 Q2</th>
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<tr>
<td>Personal income</td>
<td>4,690</td>
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<td>Compensation of employees</td>
<td>2,891</td>
<td>2,920</td>
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<td>Proprietors' income</td>
<td>425</td>
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<td>Government social benefits</td>
<td>777</td>
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<td>Less: Personal current taxes</td>
<td>555</td>
<td>564</td>
<td>527</td>
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<tr>
<td>Equals: Disposable personal income</td>
<td>4,135</td>
<td>4,174</td>
<td>4,558</td>
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<tr>
<td>Less: Personal outlays</td>
<td>3,834</td>
<td>3,776</td>
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<td>Personal consumption exp</td>
<td>3,690</td>
<td>3,637</td>
<td>3,255</td>
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<tr>
<td>Equals: Personal saving</td>
<td>301</td>
<td>399</td>
<td>1,174</td>
</tr>
<tr>
<td>Personal saving as a % DPI</td>
<td>7.3%</td>
<td>9.5%</td>
<td>25.7%</td>
</tr>
</tbody>
</table>

### PERSONAL INCOME 2019-2020

**UNITED STATES**

Source: U.S. Bureau of Economic Analysis, Analysis by UCR Center for Economic Forecasting

Total personal income to rise rather than fall during this recession.

And remember that the pandemic caused spending to drop by $400 billion. The difference ended up in consumer savings which shot up to almost $1.2 trillion, four times what it was in the 4th quarter of 2019. That $900 billion in excess savings will undoubtedly be spent once life returns to normal. Unlike the Great Recession, where there was a collapse in net worth that hurt spending for years, in the current crisis, net worth is increasing.

Moreover, these numbers will be accentuated by additional payments in July and August. And of course, none of this includes the payments that went to LLCs and corporations through the Paycheck Protection Program. All said, it’s understandable why the FDIC is reporting one of the most dramatic surges in commercial bank account deposits ever seen – $2.2 trillion in three months. This is the dry powder that will fuel a rapid recovery once the virus is controlled.

Data from the New York Federal Reserve show consumer debt delinquencies falling, not rising, in the 2nd quarter. And while there have been a few big-name bankruptcies, most have been among companies that were already on the brink due to broader trends in the economy. The financial Armageddon that was predicted by many of the talking heads seems pretty far away.
COMMERICAL BANK CASH DEPOSITS
UNITED STATES
Source: Federal Reserve Board of Governors, Analysis by UCR Center for Economic Forecasting

DELINQUENT LOANS (90+ DAYS)
UNITED STATES
Source: Federal Reserve Board of Governors, Analysis by UCR Center for Economic Forecasting
There is little doubt that the nation still has a ways to go to return to normality, but these recent trends clearly demonstrate the underlying strength of the U.S. economy, which is allowing it to weather the COVID storm and will allow it to rapidly bounce back to normal levels of activity once the virus is brought under full control. Beacon Economics continues to believe in the V, just a modestly wider one.

Clearly some sectors will do worse than others. Business hotels, restaurants, airlines, and leisure and recreation firms will all lag the recovery for obvious reasons. Retail is far and away the biggest flashpoint. That sector has been struggling with oversupply even as the internet continues to wrestle market share away from traditional brick and mortar stores. The non-store share of retail sales went from 14.7% in January to 17.4% in July, and it’s unlikely to give much of that back.

There will be other stressors in the coming months regardless of the strength of the recovery. Undoubtedly, a portion of the nine million people who in July still classified themselves as being on temporary layoff, will find themselves in the permanently lost job category. And while in the aggregate things look good, we also know that the fiscal stimulus did not adequately protect everyone. The blunt and poorly thought out systems that were implemented have guaranteed that a lot of the stimulus money went to places it was not actually needed. Global supply chains will also remain in turmoil as the virus continues its expansion into new parts of the world. But it is easy to overstate the aggregate impact of these stressed sectors. Together, they represent less than 5% of U.S. GDP. Additionally, these sectors have mitigated at some level. Retail sales at restaurants in July are only about 20% below where they were last year. And a lack of spending in some sectors is driving opportunities in other parts of the economy—campers and bikes are selling like crazy, while golf courses and local drive-to hotels are busier than ever.

There are two major concerns to pay attention to as the recovery continues. The first has to do with the spread of the virus itself. The United States has experienced a second surge in cases, and it’s possible there could be a third. Notably, the second surge is almost over without the massive public health regulatory controls implemented the first time. In other words, completely shutting down restaurants, nail salons, and malls may not be the most effective way of controlling the spread of the virus. Controlling transmission is better served by not gathering in large groups, social distancing, wearing masks, and washing hands.

That personal behavior may be more important than government regulation in controlling the spread of COVID-19 is supported by a recent NBER report.\(^2\) Sweden, for all the criticism that nation faced for its lax regulatory response to the virus, has seen its rate of new cases drop to the same level as the EU overall in recent months –

\(^2\) https://www.nber.org/papers/w27432.pdf
and without any closures. Japan has been the wonder story. Despite of being the third nation in the world to identify the presence of COVID-19, it still has fewer than 500 cases per million people compared to the United States’ 16,000. Governments need to worry less about regulating businesses and more about regulating people.

The rebound in the economy will continue but the speed of the recovery is completely contingent on controlling the spread of the virus. On the current trajectory, expect U.S. unemployment to fall to 7% or lower by year’s end and the nation’s economy to be almost fully recovered in 2021. If there is another surge, however, that date may have to be pushed back yet again.

The second concern is the U.S. government’s ‘over’ stimulus. Despite clear resilience in the economy and pent up demand that is ready to spring once the virus is under control, amazingly, Congress is discussing a second aid package and tossing around numbers as high as the first – $3 trillion or more. While this will supercharge the economy, it also suggests that the government will be borrowing $4.5 to $7.5 trillion dollars this year—18% to 33% of national GDP. Never has the U.S. government borrowed so much in either absolute or relative terms. To put this in context, the overall U.S. economy has been adding $3 to $4 trillion in total public and private debt per year over the last few years.

In June alone the Federal government borrowed more money than it had in all of 2019. During the worst year of the Great Recession, the U.S. government borrowed slightly over $1.3 trillion, and that was enough to set off the backlash that came to be known as the Tea Party. Amazingly, there doesn’t appear to be a single person left in Washington who is worried about the current pace of borrowing. We seem to have allowed the ‘miserabilism’ of our times to make us forget that this money will have to be paid
back by our children and grandchildren—as they struggle to cope with the ever-rising cost of entitlements for Baby Boomers who are retiring in droves.

This borrowing will have consequences. Right now, there is little issue with raising the funds—between record deposits in the banking system and aggressive quantitative easing by the Federal Reserve, there is plenty of loose cash in the system. But what happens when the virus is fully controlled and the population rushes to catch up on life? Spending will jump, the money supply will expand rapidly, and the Federal government will be sucking up liquidity in every direction. This a recipe for accelerating inflation and rising interest rates.

Moreover, it will be a completely different circumstance from what happened after the Great Recession. The collapse in wealth at that time kept spending in check as households worked to rebuild their balance sheets. And the decline in private sector debt kept money supply growth in check. In fact, the Federal Reserve had to keep rates near zero just to keep the money supply growing. This is why rates were so low in the years following the recession. But not this time.

If the Federal Reserve fails to aggressively back off on quantitative easing, the sharp increase in velocity will cause inflation to heat up, which will put even more pressure on interest rates. All of this sounds a lot like what happened in the late 1970’s, the era of stagflation, when the nation’s fundamental economic growth slowed due to the start of deindustrialization and excessive monetary growth caused inflation to accelerate to the worst pace ever seen in the modern U.S. economy. The next (future) hit to the economy could end up looking very much like what happened in the early 1980s when Paul Volker put the hard stop on inflation, which was good for the long haul but in the short run caused the United States to experience a deep recession.
On Friday August 28th, approximately six weeks after the state ordered many indoor businesses to reclose, Governor Gavin Newsom unveiled California’s second attempt at a comprehensive plan to reopen. The Governor’s framework sorts each of the state’s 58 counties into a tier, which determine the extent to which business activity in each county can resume. The new system is based largely on new daily case numbers per 100,000 residents, as well as positivity rates.

There are now four color-coded tiers, ranging from most restrictive to least: purple, red, orange and yellow. Each county has been assigned a tier and must stay in that tier for at least three weeks before it can move to another. If a county’s numbers worsen for two weeks in a row, it will be moved to a more restrictive tier. For the vast majority of Californians, not much will change immediately. The most restrictive tier, purple, applies to 38 counties, including Los Angeles and Orange, home to more than 80% of the state’s population. In these counties, many businesses must remain closed, unless they can operate outdoors, including restaurants.
In August 2020, California hit some unwelcome milestones. More than 700,000 people have tested positive for COVID-19 in the state, and nearly 13,000 residents have died as a result of the virus. On a per capita basis, at nearly 18,000 cases per million residents, the state has seen fewer cases than the national average of nearly 19,000 residents per million. The number of virus-related deaths in the state has been much lower than the national average, with over 300 deaths reported per million residents compared to nearly 600 nationally. The number of new cases in the state has started to fall. As of August 27th, the average number of new cases over the previous 7 days stood at around 6,000, compared to a peak of more than 9,600 cases for the previous 7 days on July 25th (the peak). There has been a significant drop in the number of COVID-19 related hospitalizations in California, falling from a peak of nearly 9,000 patients at the end of July to just over 4,000 as of the August 27th.
Beyond important public health concerns, containing the spread of virus is critical for the state since the economic recovery that has been underway since April has slowed following the resurgence in new cases.

Consider mobility data provided by Google. The chart below measures the amount of time people spend at home – in other words it’s a measure of time spent away from workplaces and recreational activities. These data reveal that, as the number of new COVID-19 cases in the state intensified in the middle of June, the recovery in mobility that occurred following the initial outbreak of cases, stalled. From June 18th to August 21st, the level of mobility in California was flat.

Given that the most populous counties in the state will remain under the most restrictive tier of re-opening until the middle of September, the level of activity statewide is likely to remain similarly constrained until this time. This represents three months in which the recovery will have stalled, and that will have consequences. For cities that rely heavily on the transient occupancy tax (TOT) as a source of income, the peak travel season has come and gone. In the cities of Anaheim, Avalon, Carmel, Monterey, Pismo Beach, and Palm Springs, more than 25% of their revenue comes from the TOT. This loss of revenue will cause real hardship for these, and many other, cities.
The Labor Market Recovery

California’s labor market continued to recover from the effects of the COVID-19 pandemic in July, with total nonfarm employment in the state expanding by 140,400 positions. The rate of job growth slowed compared to June, when 558,200 total nonfarm positions were added by the state’s employers. The slowing rate of job growth is in large part due to the reaction to the resurging spread of the virus throughout June and July, leading the state government to reimplement certain business closures and constraints on business activity in the second half of July. The hope is that job gains will accelerate later in the year, once the virus is better contained, but given that the spread of the virus has continued into August, and that restraints on business activity have remained in place, it’s likely August will look more like July than June. A strong but not “blow-out” month of job gains.

Despite the nascent labor market recovery, year-over-year employment growth in California stands at -9.4%, one of largest annual declines on record. In July, there were over 1.6 million fewer people employed in the state than in July 2019. California has continued to perform slightly worse than the nation, where nonfarm employment declined by 7.5% over the same period. This is in large measure due to the more aggressive stance taken by state leaders to contain the spread of the virus than in other locations.

From July 2019 to July 2020, 1.7 million workers were added to the state’s unemployment ranks. California’s unemployment rate declined to 13.3% in July, a 1.6-percentage-point decline relative to June, but a far cry from the 4.0% rate enjoyed one year ago. However, a small majority of those who have joined the unemployment rolls still report the nature of their unemployment as temporary. However, the number of people who identify as being temporarily unemployed has been shrinking in recent months, a worrisome sign that many layoffs in the state are turning permanent.
The largest job losses have been concentrated in the state’s Leisure and Hospitality sector, where 620,000 fewer workers are employed compared to one year earlier, a 30% decline. Other significant job losses have occurred in the Government, Retail Trade, Other Services (a sector which includes hair and nail salons), and Healthcare and Social Assistance sectors of the economy. Of course, these are the sectors that have been the most vulnerable to the spread of the virus since the in-person nature of their activities has meant their operations have been curtailed through government mandates and consumer reticence. Again, once the spread of the virus is contained, these sectors should see significant job gains.
The biggest job losses, in terms of percentage change, have occurred in Santa Cruz (-14.7% year-of-year), San Luis Obispo (-13.3%), Salinas (12.4%), and Oakland-Hayward-Berkeley (-12.2%). Three out of four of these places are home to major universities and have suffered from a lack of student spending at local businesses as instruction has moved online. Since remote learning will continue into the fall, we can expect the performance of these locations to lag the labor market recovery in other regions.

Unemployment rates are elevated in a number of regions, most notably Los Angeles County, which as of July, had an unemployment rate of 17.5%. Los Angeles is home to a number of industries for which remote work is not well-suited. Beyond tourism, retail, and dining, Los Angeles County has a large concentration of workers in healthcare, as well as entertainment, industries which require workers to be on location. The inability to work from home in these sectors has led to elevated levels of unemployment in the County.
## UNEMPLOYMENT CHANGE BY METROPOLITAN REGION
### CALIFORNIA

Source: California Employment Development Department; Analysis by UCR Center for Economic Forecasting
The Recovery on Ice

Despite the strong performance of California’s labor market in June, the pace of the recovery has undoubtedly slowed since then. This is clear in the employment numbers, where the rate of job growth fell significantly from June to July. We also see evidence of a slowing economy in so-called “high frequency data.” Non-conventional data sources deliver an interesting perspective on the economy, providing data that is more timely than traditional data sources. Consumer spending data, gathered by Affinity Solutions, reveals a sharp recovery in consumer spending in California through April and May, which began to stall at the end of June, as the number of new COVID-19 cases surged in the state. Over the period from June 21st to August 16th, consumer spending in the state was flat. As of August 16th, it was 12% lower than in January 2020. Consumer spending nationally was 5% lower over the same period.

The key lesson from the chart below is the extent to which the speed of the recovery is shaped by the spread of the virus. As the virus’s transmission in the state slows, consumer spending should increase. That being said, the Federal government’s inability to extend additional unemployment benefits will act as a head wind to consumer spending in California. The recovery in consumer spending was fueled in large part by enhanced unemployment benefits from the Federal government, which provided unemployed workers with an additional $600 per week, beyond what they would normally receive from state governments. Given the high number of unemployed workers in the state, the cut in additional unemployment benefits will represent the equivalent of a major pay cut for California’s unemployed. This will undoubtedly act as a drag on consumer spending until the labor market recovers.
CHANGE IN OVERALL SPENDING

California

Source: Womply/Opportunity Insights; Analysis by UCR Center for Economic Forecasting
Fixing a Hole  Given the trauma sustained by the California economy, the key question centers on how long it will take the labor market to recover. The 1.7 million jobs lost will not return to the economy over night, even after the spread of the virus is fully contained. There are two components to the labor market recovery. First is replacing the jobs that have been lost, which would only return the labor market to where it was before the pandemic began. The economy should have been adding jobs over this period under normal circumstances. In 2019, the state's economy added roughly 22,000 jobs per month. For each month that it takes to return to the pre-pandemic level of employment, the state is effectively losing a further 22,000 jobs per month, based on the 2019 trend.

As mentioned above, 140,000 jobs were added to the state's economy in July. This is a positive sign, but to place this figure in context, if we continue to add jobs at this rate, it would take until August 2021 to return the labor market to the position it was in in February 2020. Since the labor market would have normally been adding 22,000 jobs per month over this period, based on 2019 employment figures, this means that in August 2021, the economy would still be 250,000 jobs behind trend.

Job growth in California will also slow in the second half of 2021. As the recovery proceeds and the majority of jobs lost are replaced, the rate of job growth naturally slows. Even if in the second half of 2021 the number of jobs added to the state each month is double the number of jobs that were added each month in 2019, which would be a historically high figure, it would take a further year for the labor market to return to the pre-pandemic trend. Of course, predicting the precise rate of job growth over the next two or three years is not an exact science, but this hypothetical scenario illustrates the depth of the labor market hole, and how long it will take to fully repair.
Inland Empire Outlook
Taner Osman PhD, Brian Vanderplas, Steven Espinoza

Employment and Wages

The Inland Empire’s labor market has continued to steadily recover from the COVID-19 pandemic, with the region adding 74,700 jobs since April’s lows. Despite the ongoing labor market recovery, year-over-year employment fell 8.6% (-132,900 jobs), one of largest annual declines on record. Even so, employment growth in the Inland Empire is outpacing that of the state (-9.1%) but has trailed the nation (-6.8%) over the last year.
The Inland Empire’s unemployment rate now stands at 9.8%, a far cry from the 3.9% rate a year earlier. The rate in the region is now below the state’s 11.4%.

The region’s labor force has been hard hit by the pandemic. From August 2019 to August 2020, 49,200 workers fell out of the Inland Empire’s labor force, a 2.4% decline. This decline is more modest than the state’s -3.7% but higher than the nation (-1.9%). Without the decline in the region’s labor force, the increase in the unemployment figure would be more significant.
Unsurprisingly, the largest job losses have been concentrated in the region’s Leisure and Hospitality sector, with 55,500 fewer workers than a year earlier, a 31.7% decline. Other significant job losses have occurred in Retail Trade, Other Services (a sector that includes hair and nail salons), Manufacturing, and Government. Of course, these are the sectors most impacted by government mandates and consumer reticence. Even so, once the spread of the virus is contained, these sectors should have significant job gains as companies ramp up production to meet surging consumer demand.
Although job losses have been widespread, a handful of bright spots exist amid the turmoil. The surge in e-commerce purchases has helped keep the region’s Transportation, Warehousing, and Utilities sector resilient over the last several months. Payrolls in Transportation, Warehousing, and Utilities have fallen only 0.2% over the last year, compared with a 3.9% decline in the state overall over the period. The Transportation, Warehousing, and Utilities sector has continued to expand its footprint in the region, with Amazon having opened a fulfillment center in Beaumont in September.³

Variable | YoY Change (%) | YoY Change (000s)
--- | --- | ---
California | 75,845 | 4.2
San Bernardino County, California | 50,188 | 3.5
Riverside County, California | 48,646 | 1.2
Inland Empire Total | 49,423 | 2.4

**WAGE GROWTH**

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

Wages in the Inland Empire have been steadily rising, although slowly relative to recent years. From the first quarter of 2019 to the first quarter 2020, wages grew 2.4%, well behind the 4.2% pace in California overall. Wage growth in the Inland Empire was strongest in San Bernardino County, where they increased 3.5%, while wages in Riverside County grew only 1.2%. 
The Spread of COVID-19 and Changes in Consumer Behavior

Containing COVID-19 will be essential to sustaining the economic recovery in the Inland Empire. Although cases in the Inland Empire and much of the nation surged in the middle of summer, the Inland Empire's seven-day average of daily new cases has fallen rapidly in recent weeks. As of Sept. 24, San Bernardino County averaged just 12.4 cases per 100,000 population, and Riverside County had 8.7 cases per 100,000. This is a substantial decline from August, when cases reached 36.0 cases per 100,000 population in San Bernardino County and 31.8 cases per 100,000 in Riverside County. Keeping the number of new cases low will be essential for the region to meet the state’s requirements for reopening more of the economy in the coming weeks and months.
NEW CASES PER 100K RESIDENTS
Source: Los Angeles Times, Analysis by UCR Center for Economic Forecasting

TOTAL COVID-19 HOSPITALIZATIONS
Source: Los Angeles Times, Analysis by UCR Center for Economic Forecasting
The decline in new COVID-19 cases is also leading to fewer hospitalizations related to the pandemic. As of Sept. 23, just 301 people were hospitalized with virus symptoms in the Inland Empire, down nearly 72% from July. This is a welcome sign for local hospitals, because a smaller share of their workforces will need to focus on COVID-19 and more workers can return to hospital procedures that were delayed during the peak of hospitalizations.

One of the most promising signs pointing to a recovery is consumer spending. Spending fell rapidly at the start of the COVID-19 downturn, off 32.2% in Riverside County and 30.8% in San Bernardino County. Although spending hasn’t rebounded fully, as of mid-September it was down just 6% in Riverside County and 8% in San Bernardino County, lower than the 12.4% decline in the state overall.
Inland Empire residents are still spending more time at their homes. Indeed, as of mid-September, time spent outside the house was down 10.5% from March in Riverside County and 9.2% in San Bernardino County, compared with 12.9% in the state overall over the period.

In similar fashion, Inland Empire residents are spending less time at their workplaces. This is a result of increased layoffs and the ability to work remotely during the business closures. From late February to late August, time spent at workplaces was down 34.3% in Riverside County, 31.3% San Bernardino County, and 37.1% in the state overall.
Inland Empire residents are also spending more time at retail and recreation sites than other Californians: down 21.3% in Riverside County and 17.6% in San Bernardino County, compared with a 26.0% decline in the state overall.
Residential and Commercial Real Estate

RESIDENTIAL REAL ESTATE

Home prices in the Inland Empire continue to increase steadily. From the second quarter of 2019 to the second quarter of 2020, the median single-family home price rose 5.7%. This was the largest percentage increase in Southern California, ahead of San Diego (2.9%), Los Angeles (3.9%), and Orange (3.2%) counties.

The Inland Empire remains one of the last bastions for affordable housing in Southern California. At a median price of $385,179, homes in the Inland Empire are significantly more affordable than in Los Angeles ($655,316), San Diego ($637,060), and Orange ($803,458) counties.

INLAND EMPIRE SINGLE-FAMILY HOMES
Source: CoreLogic; Analysis by UCR Center for Economic Forecasting
Demand for homes in the Inland Empire also remains relatively strong. Existing single-family home sales dropped 8.5% in the Inland Empire from year-to-date 2019 to year-to-date 2020 (through the second quarter), less than in Los Angeles (-14.9%), San Diego (-10.0%), and Orange (-8.9%) counties.

The rental market in the Inland Empire has had a solid year. Vacancy rates grew to 3.8%, a 0.4-percentage-point increase from a year earlier, but this was driven by the substantial increase in multifamily construction. Indeed, the number of occupied units expanded 1.3% over the last year. Asking rents grew 3.3% to an annual rate of $1,454 per unit per month, which keeps the Inland Empire more affordable than Los Angeles ($2,067), San Diego ($1,890), and Orange ($1,998) counties.
In 2019, the homeownership rate in the Inland Empire was 63.9%, significantly above the state’s 54.9%. Homeowner vacancy rates remained low at 2.0%, just above the 1.2% rate in the state overall.

2020 has been a mixed bag for residential construction in the region. The Inland Empire issued 587 multifamily permits and 5,485 single-family permits in the first half of 2020, a change of -66.9% and 12.1% respectively. The Inland Empire issued the second-highest number of permits in Southern California at 6,072, eclipsing San Diego (3,988) and Orange (2,959) counties but slightly behind Los Angeles County (9,356).
COMMERCIAL REAL ESTATE TRENDS

Vacancy rates for warehouse properties in the Inland Empire increased to 10.4% in the second quarter of 2020, a 1.9-percentage-point decline from a year earlier. This increase was driven by new stock coming online rather than a decline in demand; indeed, occupied stock increased 2.0% over the last year. In addition, asking rents grew a modest 1.5% over the last year to an annual rate of $5.79 per square foot, which makes warehouse space in the Inland Empire more affordable than in Los Angeles ($7.94), San Diego ($9.16), and Orange ($7.59) counties.

Demand for office properties has grown in the Inland Empire over the last year. Office vacancy rates in the Inland Empire fell to 16.6% in the second quarter of 2020, a 0.2-percentage-point decline from a year earlier. Asking rents grew a modest 1.4% over the last year to an annual rate of $23.33 per square foot, which makes office space in the Inland Empire more affordable than in Los Angeles ($40.58), San Diego ($34.17), and Orange ($35.03) counties.

INLAND EMPIRE WAREHOUSE MARKET

Source: REIS; Analysis by UCR Center for Economic Forecasting
INLAND EMPIRE OFFICE MARKET

Vacancy rates for flex/R&D properties in the Inland Empire fell to 5.1% in the second quarter of 2020, a 0.1-percentage-point decline from a year earlier. Asking rents grew a modest 1.6% over the last year to an annual rate of $8.83 per square foot, which makes flex/R&D space in the Inland Empire more affordable than in Los Angeles ($13.24), San Diego ($14.39), and Orange ($12.20) counties.
Business demand for retail space in the Inland Empire was mixed. Retail vacancies in the Inland Empire declined to 9.8% in the second quarter of 2020, a 0.1-percentage-point decrease from a year earlier. Asking rents fell 0.2% to an annual rate of $23.24 per square foot, however, which makes retail space in the Inland Empire more affordable than in Los Angeles ($33.87), San Diego ($32.55), and Orange ($34.40) counties.
Non-residential permitting has fallen considerably over the last year. Permit values during the six months of 2020 totaled just $920 million, a 40.4% decline over 2019. The largest declines were in industrial permitting, which totaled just $223 million during the first six months of 2020, off 63.2% from the same period last year. Permitting for commercial properties, totaling just $281 million, was 36% lower than 2019 levels.
INLAND EMPIRE NON-RESIDENTIAL BUILDING PERMITS

Source: California Homebuilding Foundation; Analysis by UCR Center for Economic Forecasting
Demographics

POPULATION AND MIGRATION

The population of the Inland Empire grew by 41,450 (0.9%) in 2019, with Riverside and San Bernardino counties each expanding 0.9%. This beat the growth in Los Angeles County (-0.1%), Orange County (0.2%), San Diego County (0.4%), and the state overall (0.4%).

The affordability of the Inland Empire is continuing to attract people. Unlike its neighbors, the Inland Empire is still attracting migrants from other parts of the nation and state, with net domestic migration growing by 6,382 from 2018 to 2019. This is in stark contrast to the declines in Los Angeles (-97,835), San Diego (-20,731), and Orange (-24,927) counties over the period.
INLAND EMPIRE POPULATION
Source: California Department of Finance; Analysis by UCR Center for Economic Forecasting

INLAND EMPIRE NET MIGRATION
Source: California Department of Finance; Analysis by UCR Center for Economic Forecasting
Population growth was spread across the Inland Empire. Ontario added the most residents from 2018 to 2019 in the Inland Empire, boosting its population by 3,766, or 2.1%. Other cities adding a significant number of residents were Menifee (2,575, 2.8%), Fontana (2,249, 1.1%), Beaumont (1,854, 3.9%), and Chino (1,812, 2.1%).

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**RIVERSIDE COUNTY POPULATION GROWTH**
Source: California Department of Finance; Analysis by UCR Center for Economic Forecasting

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**SAN BERNARDINO COUNTY POPULATION GROWTH**
Source: California Department of Finance; Analysis by UCR Center for Economic Forecasting
HOUSEHOLD INCOME

Median household income in Riverside County reached $73,260 in 2019, a 28.5% increase over 2014 levels in nominal terms, and San Bernardino County reached $67,903, a 30.5% increase over 2014 levels in nominal terms. Median household income remains higher in Los Angeles County ($72,797), Orange County ($95,934), San Diego County ($83,985), and California ($80,440).

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MEDIAN HOUSEHOLD INCOME (2019)

Source: U.S. Census Bureau American Community Survey; Analysis by UCR Center for Economic Forecasting
POVERTY & HEALTH INSURANCE

The poverty rate in the Inland Empire was 12.2% in 2019, a sizable 13.8-percentage-point decrease over 2014 levels. Poverty rates in the Inland Empire are lower than in Los Angeles County (13.4%) but remain slightly above rates in San Diego County (10.3%), Orange County (9.4%), and the state overall (11.8%).

Health insurance coverage has grown over the last several years in the Inland Empire. In 2019, 91.1% of the population was covered, a 5.7-percentage-point increase over 2014 levels. Health insurance coverage in the Inland Empire is higher than in Los Angeles County (90.1%) but remains slightly below San Diego County (92.0%), Orange County (92.3%), and the state overall (92.3%).

INLAND EMPIRE POVERTY RATE
Source: U.S. Census Bureau American Community Survey; Analysis by UCR Center for Economic Forecasting
Acknowledgments

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