Forecast Direct No. 2: Climate Change and Housing Markets

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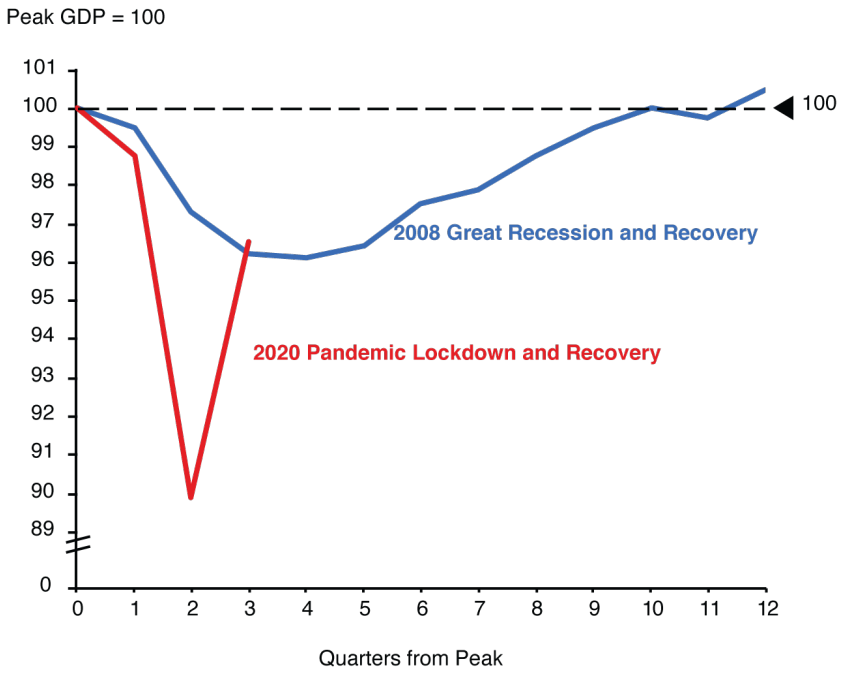
Economic update: a strong recovery is at risk as COVID cases surge and additional fiscal stimulus remains elusive

New data over the past month show a strong economic recovery during the third quarter, but with significant risks for continued growth in the fourth quarter.

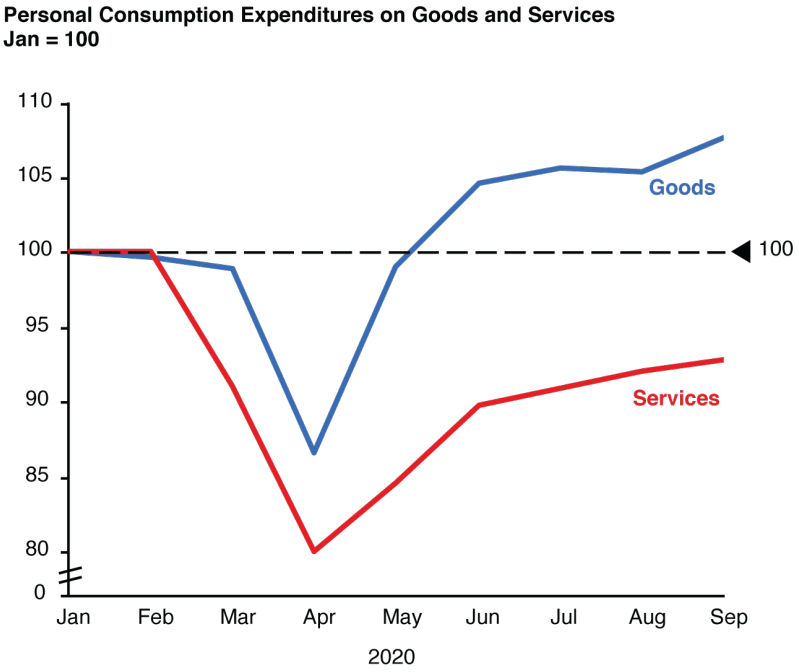
- After a 9.0% decline in GDP in Q2 (31.4% annualized), GDP grew 7.4% in Q3 (33.1% annualized). GDP is still 3.5% below its previous peak in 2019 Q4. For comparison, we're now about as far below the previous peak as we were during the depths of the Great Recession in 2009 (see Exhibit 1).
- The unemployment rate declined from 8.4% in August to 7.9% in September. The unemployment rate for October will be released on November 6. The rate of decline is slowing. Initial weekly unemployment claims remain above 750,000. This number is slowly declining, but is still significantly above the peak of the Great Recession (665,000) and higher than at any time since at least the 1970s. There is still massive churn in the economy, with workers getting laid-off and others getting rehired.
- The goods economy has completely recovered. The services economy has not (see Exhibit 2). This has several implications for the overall economy. First, services are more labor intensive. It will be difficult for employment to recover if services do not recover. Second, goods may continue to substitute for services, even after the pandemic is over. Buying fitness equipment to work out at home may continue to substitute for a gym membership, buying video games to play at home may continue to substitute, at least partially, for live entertainment or going to bars. The surge in goods purchases may slow the recovery of services even after the pandemic is over. Third, there is saturation in goods consumption that doesn't occur in services. Buying fitness equipment for a home gym is a one-time purchase, a gym membership is recurring. These factors suggest that the strong recovery in GDP in Q3 may not be sustainable.
- It is unlikely that another round of fiscal stimulus will provide support to the economy in Q4. Even if another fiscal stimulus passes before the end of the year, it will take time for money to make its way through the economy.
- COVID cases are rising but pandemic-fatigue has also set in. With new daily COVID cases above 90,000, it's an open question whether individuals will retrench and stay at home even without official government mandates. High frequency data show that individuals are cutting back on dining out and on shopping trips compared to August and September.
- Inflation has been muted, even with the surge in goods purchases. Core inflation (CPI) averaged 0.2% in September, mostly driven by used car prices, which increased 6.7%. This suggests considerable room for continued monetary and fiscal support without a risk to inflation.
- The housing sector has boomed, but home sales are beginning to decline. Some of this may be seasonality. It's not yet clear whether the summer boom in home sales was only a temporary phenomenon of people wanting larger homes in suburbs as they adjusted to working from home and spending more time at home.

Exhibit 1 GDP is now about as far below the previous peak as during the depths of the Great Recession



Source: Federal Reserve Bank of St. Louis FRED and UCLA Anderson Forecast
Note: Real Gross Domestic Product, Billions of Chained 2012 Dollars, Quarterly, Seasonally Adjusted Annual Rate. Peak GDP for 2008 recession in Q2 2008. Peak GDP for 2020 recession in Q4 2019. Quarterly data through 2020 Q3.

Exhibit 2 The goods economy has fully recovered; the services economy has not



Source: Federal Reserve Bank of St. Louis FRED and UCLA Anderson Forecast
Notes: Real Personal Consumption Expenditures: Goods and Services, Billions of Chained 2012 Dollars, Monthly, Seasonally Adjusted Annual Rate.

Interview on climate change and housing markets with Professor Benjamin Keys

For this issue of Forecast Direct, Leo Feler, Senior Economist at the UCLA Anderson Forecast interviews Benjamin Keys, Associate Professor at the Wharton School at the University of Pennsylvania regarding Professor Keys' recent paper on how climate change affects housing markets. For video and audio of this conversation and Professor Keys' article on the topic, please see https://www.anderson.ucla.edu/centers/ucla-anderson-forecast/forecast-direct/october-2020. Below is a summary of their conversation.

Leo Feler (LF): You recently released a paper on how sea-level rise affects housing markets. Can you walk us through some of the key findings of your paper?

Benjamin Keys (BK): We're looking at how housing and mortgage markets incorporate new information about risk. Climate risk is a long-term challenge for coastal areas of the US, where over 40% of households live. We focus on coastal communities in Florida and compare coastal census tracts that are low-lying, and more exposed to climate risk, with those that are more elevated, and less exposed. We look at transaction data—the number of sales—as a precursor to what happens with prices. These census tracts have similar transaction and price trends until 2013. Starting in 2013, there's a sharp divergence in sales volumes, where you see a decline in sales volumes in census tracts that are more exposed to sea-level rise. By 2018, census tracts that are more exposed to sea-level rise have sales volumes that are 20% lower than other census tracts.

LF: What's special about 2013 that we start seeing this divergence?

BK: There are a few things that happen around 2013. First, Hurricane Sandy, which hits the Northeast in 2012. Many potential buyers in Florida come from the Northeast, and having experienced Hurricane Sandy, they may be more cautious about living in low-lying coastal areas. 2013 is also notable because it's the year the new IPCC report comes out that increases the forecast for sea-level rise. This report changes the discussion, especially in Florida, where major newspapers begin warning that sea-level rise would reshape the coastline. You really don't see that kind of media coverage in Florida prior to 2013. 2013 is an inflection point on awareness about sea-level rise. Google searches for information on sea-level rise in Florida begin to increase around this time.

LF: You mentioned that a decline in sales volume is a precursor of worse things to come. Can you explain what that means?

BK: Usually the slowdown in sales means there's a disconnect between buyers and sellers. Sellers would need to reduce their prices in order to sell their properties. Prices in more and less-exposed coastal areas tracked each other very closely until 2016 and 2017, and by 2018, you start to see prices begin to diverge. Now prices in the most-exposed markets are about 5-10% lower than in the least-exposed markets. There's a significant delay for the price signals in the most-exposed markets to catch-up to the signals we were already getting from the decline in transaction volumes.

LF: How is this situation comparable to the 2008 financial crisis? Is there a "bubble" in housing markets in more low-lying areas?

BK: Climate change is slow-moving. The cycle of the 2000s was much more abrupt. Even in the 2000s, there was a gap of 1 to 2 years between when transaction volumes were falling in Florida before prices also started to decline. The challenge for a lot of these coastal communities—in the absence of substantial mitigation efforts—is that many properties will be inundated in the next 50 to 100 years. At that point, if their value is zero, then how are we getting from prices in 2013, when climate information became more accessible, to prices that are going to be zero? Instead, we're seeing prices continue to rise, although more slowly in these lower-lying areas. In that sense, it's a question of whether prices are reflecting long-term fundamentals.

LF: What is the role of mortgage lenders and insurers? How are they reacting to the potential for climate risk in these areas where home values may one day go to zero?

BK: My hypothesis was that lenders and insurers would have better access to information and would backward-induce the higher risk of properties losing value. I thought we would see tighter lending standards, higher denial rates, more difficulty refinancing, but instead, we find almost no response. There are two big federal programs that insulate lenders from risk in the short-term. One is securitization through Fannie Mae and Freddie Mac. These agencies don't price regional risk– regardless if you're taking out a loan on the coast or in the middle of Iowa, the loans are priced exactly the same. From a lender standpoint, this insulates them from risk if there's no difference in price that Fannie and Freddie will pay for these loans. The second is the flood insurance program, the NFIP, that ensures any property for the first $250,000 of losses. This gives lenders protection in the short-term, during the likely duration of a mortgage.

LF: Have we socialized risk and created moral hazard that encourages people to live in fire-prone and flood-prone areas?

BK: That's the nature of cross-subsidization in insurance markets. When you're using a national pool of mortgages or insurance policies, you're cross-subsidizing those in higher-risk areas. When Fannie and Freddie choose not to price predictable regional risk, they're cross-subsidizing from the safer areas to the riskier areas. The loans in Iowa are more expensive than they otherwise would be, and the loans on the coast are cheaper than they otherwise would be. The question is when will there be political will to break this cross-subsidization? When are we going to say it doesn't make sense to continue subsidizing development in high-risk areas? We need to actually price risks directly so people get market signals and can consider whether it makes sense to build on the coast. But there are tradeoffs between pricing risk and affordability and accessibility.

LF: The New York Times wrote an article about your paper, and they interviewed local real estate agents and mayors in Florida, who were dismissive of your findings. What are the political incentives? Do you think the political incentives are such that we won't get efficient market price signals in the near-term?

BK: The sellers, the real-estate agents, the local mayors all have incentives to be dismissive. They want to sell more properties, they want to keep prices high, they want to preserve their tax base. But the data just speak otherwise. These areas are seeing a decline in transactions, a slowdown in prices, and a slowdown in the tax base. There's a tension here. These areas are going to need large scale infrastructure projects, which will require tapping into the tax base. This comes back to the issue you raised of socialization. Is the federal government going to pay to build sea walls in these communities, or are these communities going to fund these projects themselves? At what point do people get fed-up and say they're not going to cross-subsidize anymore?

LF: Thank you, Ben. I realize your paper is on Florida, but it has important implications nationally, including to California, both in terms of sea-level rise and in terms of fire risk. It's something for all of us to consider as we think about housing market policies and climate policies over the next decade.