

Affordability, Full Employment, and Economic Growth

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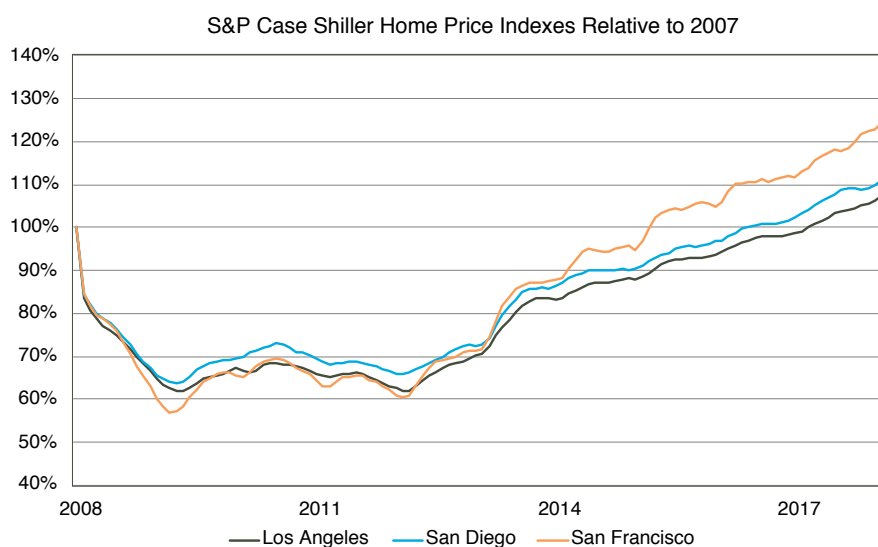
Affordable housing in California continues to be the subject of considerable discussion. In May, a Bloomberg article simplified it with the tagline “California affordable housing is not mystery, just build more homes¹.” And it is true that if the supply is great enough, then the price will be low enough. But is that the entire story and if so what does current housing policy imply for the State’s economic outlook?

In this California report, we return to the question of affordable housing with an examination of both demand and supply. On the demand side, California employment has been growing more rapidly than the U.S. through the entire nine years of the expansion. This is the basis for organic household formation and an expansion of the demand for

housing. The first part of this article will review the employment growth in California and what it might say about the continued rise in housing prices. The second part of the article examines the potential reasons for the high price of homes in the State by focusing on the supply and asking what role zoning restrictions might play in home appreciation.

To set the stage, let’s consider the appreciation of homes in this expansion. The S&P Case Shiller Home Price Index measures prices based on same home sales. This measure takes homes that have sold twice and by adjusting for the time between the two sales infers the annual appreciation of the home. These data are then aggregated into an index for each of 20 cities. A limitation of the index is that it is restricted to three California cities: San Francisco, Los Ange-

Chart 1



Source: S&P

1. This is just one of many articles holding the view that it is all about supply: <https://www.bloomberg.com/view/articles/2018-03-14/california-affordable-housing-is-no-mystery-just-build-more> or see Joe Mathews satirical piece on how California housing out Kafka’s Kafka <http://www.zocalpublicsquare.org/2018/05/28/even-kafka-couldnt-dream-californias-surreal-housing-crisis/ideas/connecting-california/>

les and San Diego. Nevertheless, this covers more than half of California’s population and is instructive. Chart 1 shows the index for the three cities relative to their previous peak in 2007. For each of the three cities the index for March 2018 is above the previous peak. Home prices have rebounded from the recession crash, and they are appreciating at a rate considerably in excess of inflation.

Chart 2 converts the index to logarithms to better visualize the rate of change. In a logarithmic chart, straight lines represent constant percentage rates of change. It is clear that the current rate of change is slower than that in the late 80s, which was followed by a long correction and slower than the 00s which was followed by a deep correction.

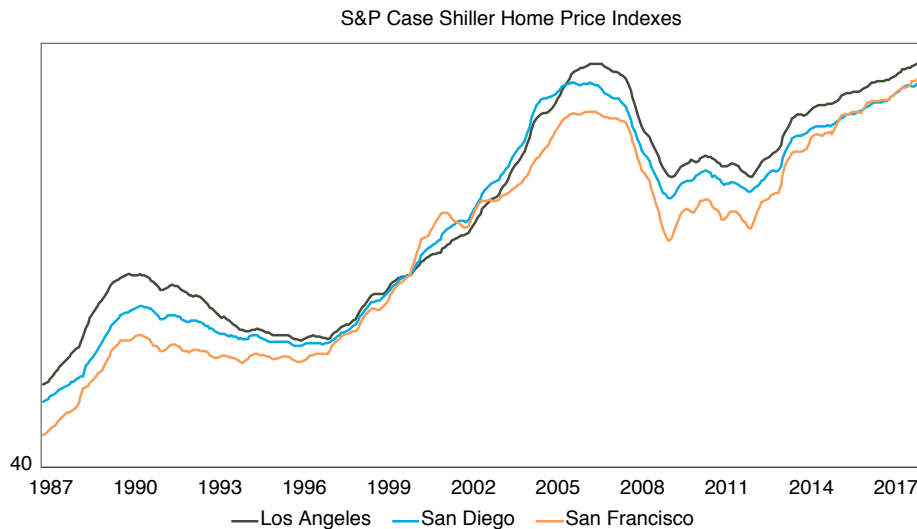
In Chart 3, we superimpose a straight line on the Los Angeles Index with a slope equal to the slope of the index over the past five years. What is striking from this exercise is that were the current rate of growth of home prices the rate of appreciation each year going back to 1987, home prices would have had to be lower in 1987 than they actually were. In other words, home price appreciation today, while lower than the run-ups to a correction are faster than the historical average from 1987. This suggests (though does not prove) that price increases ought to cool off, but are not speculative bubble increases. With continued economic growth projected over the forecast horizon, a correction in home prices is not indicated by the data.

Employment Retrospective

California employment hit an all-time record high in April 2018. Non-Farm Payroll employment, which measures the number of jobs, has reached 17.1 million and it is 10.2 percent higher than its pre-recession peak. It is also 20.5 percent higher than employment at the depth of the recession. Total employment, which measures the number of people employed and includes farm workers and non-farm non-payroll sole proprietors is now at 18.5 million, also at an all-time high and 9.4 percent above its previous peak and 16 percent above its recession low (Chart 4).

Regionally, net payroll job formation in California exceeded the U.S. everywhere except for in the North Bay and Los Angeles County. The former is principally due to anemic job growth in Marin County, perhaps a direct consequence of slow growth policies and high housing costs. For Los Angeles, it is a case of an economy in transition as discussed in previous California reports; one with manufacturing moving out and technology driven services moving in. These make the aggregate numbers look worse than other parts of the State but hide the underlying transformation of the City. Some of the evidence relevant to the discussion of home prices and economic growth is the rampant gentrification of less affluent neighborhoods in the City—north and east of Downtown—and the Silicon Beach induced gentrification of Culver City, Inglewood and Venice.

Chart 2

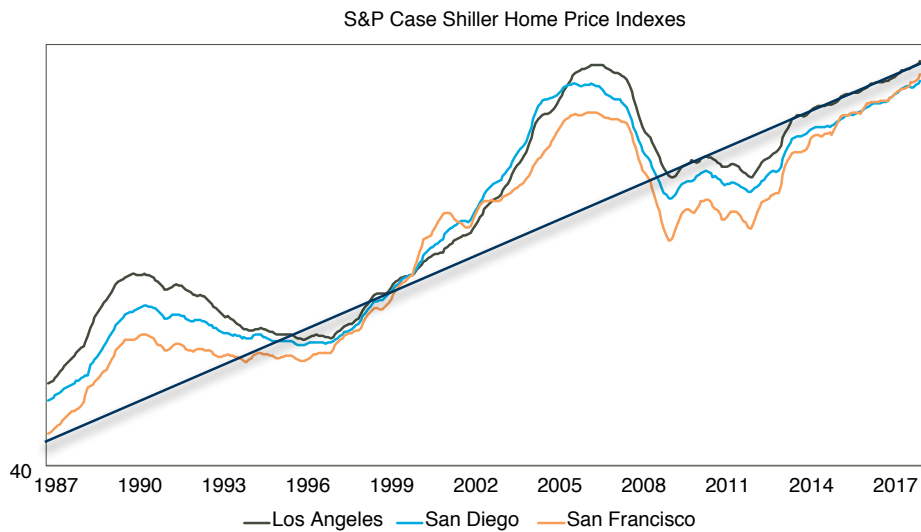


Source: S&P

Even more telling is the migration data compiled by Redfin.² It shows net out-migration from San Francisco, Silicon Valley and Los Angeles. The data have been touted as showing that people are leaving California because housing is too expensive. But we took Economics 101. If there is a reduction in demand, prices go down. But they are going up. If there are fewer people in the labor force because they are working elsewhere, then job growth, particularly in a sub-three percent national economy, should be slower than the U.S. But, the opposite is true.

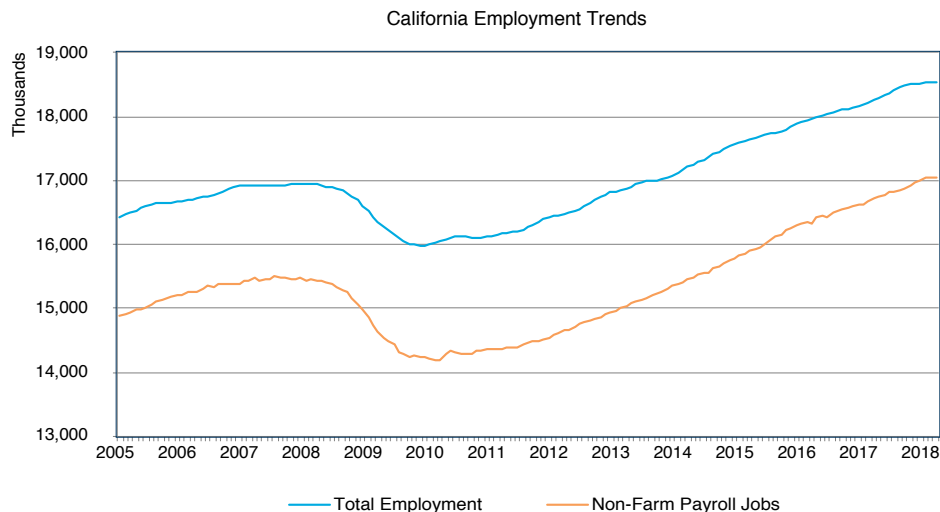
So, what is happening? First the net outflows are small. Second, there is evidence that some of the outflow is comprised of retirees who have not been in the labor markets these past years, but who have been waiting for the equity in their house to support the retirement lifestyle they desire. With home prices now at record levels they can sell and move out to less expensive locales. And third, there is a turnover of one-income-earner families to two-income-earner households, and of lower-productivity individuals priced out of the market to high-productivity individuals who can afford

Chart 3



Source: S&P, UCLA Anderson Forecast

Chart 4



Source: www.edd.ca.gov

the higher prices. When you combine these observations, you get an explanation of the data. Increased demand for housing by higher income workers with smaller family sizes are pushing up prices, and a turnover from retirees to labor force participants creating jobs faster than the nation.

Zoning and the Demand/Supply Equation

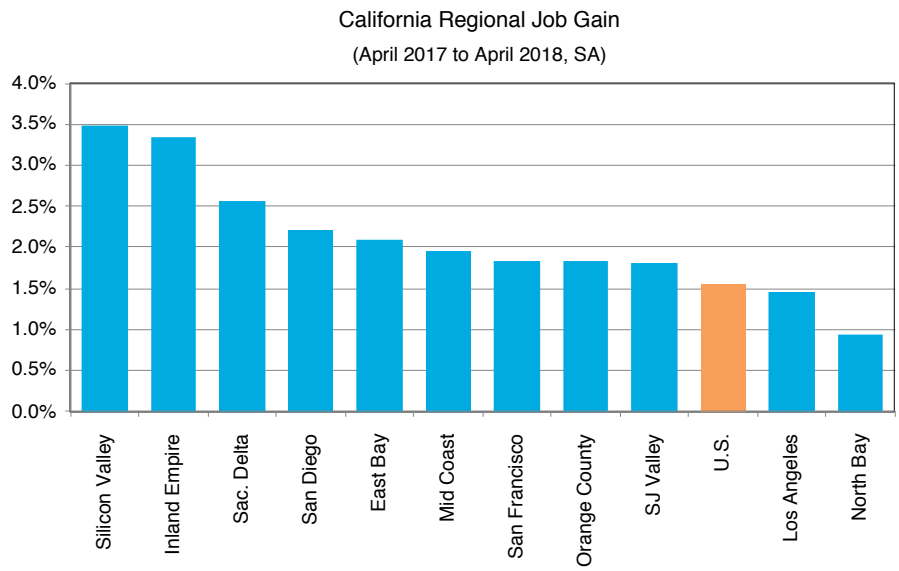
Robust job creation has been and will continue to put pressure on housing demand. Indeed, the increase in defense spending in the new Federal budget will keep the price trends in place—at least in the near term. But that is only the demand side. The problem is that California has not been building enough housing to achieve price stability. In the aforementioned Bloomberg article, they cite Tokyo as a city that has kept up with demand. The differences between Tokyo and California’s cities is that the population of Japan has been declining, there is virtually no international immigration, and the movement of people to Tokyo from outlying regions of the country has been at 0.3 percent per annum. In other words, lower prices do not increase the demand for housing very much.

To develop a picture of un-affordability we first look at world class cities which are defined as cities that are

exciting dynamic social and economic centers. There are many measures of “the best cities.” Taking an average of economic characteristics, human capital, attractiveness to international students, and a subjective measure of “best” as a way of comparing international cities we find that housing affordability is not generally associated with those cities that percolate to the top of the “best” list, however defined. For example, comparing Demographia’s³ international survey of affordability with the affordability of Austin, Texas, a tech and education center becoming increasingly crowded and less affordable, we find that the “best cities” are two to three times less affordable than Austin (Chart 6). The exceptions are Chicago, a city which has been losing population even though it has many desirable characteristics, and Washington D.C. where government salaries moderate the demand for housing. There are also cities around the world that are extremely un-affordable but are not even close to being desirable. The lack of affordability in these cities clearly has more to do with zoning, geography, regional poverty driving rural migration and corruption than their success as cities.

In California, we consistently find that the demand for housing is very responsive to price and it is demand not just by Californians, but from all over the country and indeed all over the world. The reason is simple. California is blessed

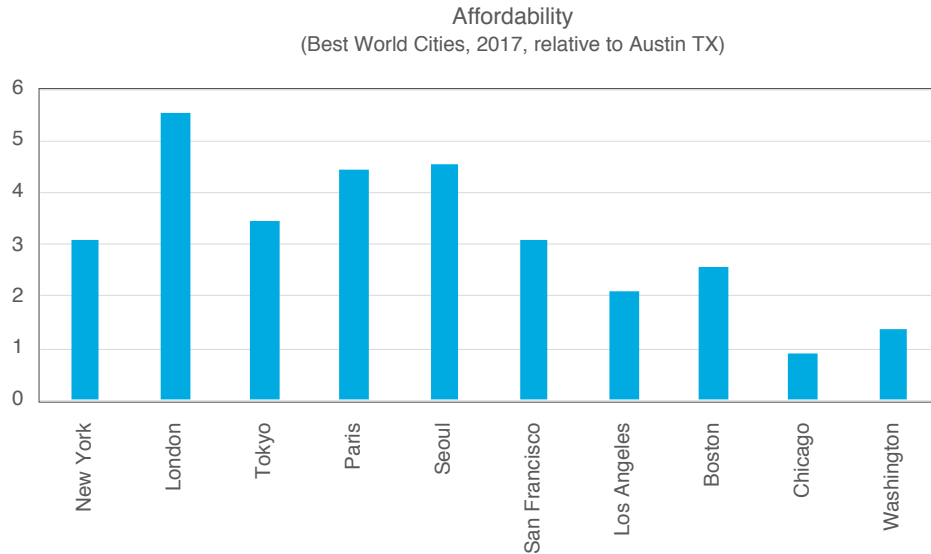
Chart 5



Source: www.edd.ca.gov

2. <https://www.redfin.com/blog/2018/02/q4-migration-report.html>
 3. <http://www.demographia.com/db-dhi-index.htm>

Chart 6



Source: Demographia Numbeo, TopUniversities.org, Bestcities.org, IESE.edu, UCLA Anderson Forecast

with natural features (amenities) that exist almost nowhere else, salubrious climate, soaring mountains, endless wilderness, and a long coastline of beautiful beaches. The question is, what premium are people willing to pay for land in the Golden State over land in less well-endowed areas? There has always been some, and that relates to the purchase of these life-style characteristics rather than homes themselves.

To answer this, we put together a scatter plot of affordability vs natural amenities for the top 100 MSA's in the U.S. plus a few California cities that did not quite make the top-100 cut. The natural amenity index is constructed by the USDA and is a combination of summer mean temperature, winter mean temperature, summer humidity, physical topography and water bodies. Affordability is measured for 2016 as the percentage of median income required to pay for an 80% conforming mortgage on the median home at 2016 average mortgage interest rates. In Chart 7, there is a clear relationship between the two variables with more amenities meaning less affordability. California homes are less affordable, but not completely out of line from what would be expected given the premium paid for amenities in more moderately endowed cities compared to less endowed cities.

However, this may not be the entire story. Residents of communities that are rich in amenities might also be prone to NIMBY zoning; policies that would restrict the size of the housing stock and create the correlation in Chart 7. To account for this, we used a measure of the relative restrictiveness of building for each of these cities.⁴ Each dot on Chart 7 was resized to represent the restrictiveness with larger dots corresponding to more restrictive policies. This is represented in Chart 8.

It is clear that there are larger dots to the right—the amenity rich cities—than to the left, but the correlation is not particularly strong. Though the smallest dots correspond to more affordable, less endowed cities, there are plenty of cities which are affordable but are also characterized by a high degree of zoning and building code restrictions. Further investigation reveals that these tend to be more mature cities; cities that have grown to the point where their residents are concerned about unfettered growth, and for better or worse, have implemented zoning restrictions. Cities that are less concerned about the congestion and pollution associated with a lack of zoning tend to be less mature and more interested in rapid economic progress. Houston and Dallas

4. <http://real.wharton.upenn.edu/~gyourko/WRLURI/TheWhartonZoningRegulationIndex-July202,202007.pdf>

are the exception, but it remains to be seen if zoning and building restrictions will become more stringent in light of last year’s devastating hurricanes.

While this is subjective, it does suggest that it is not all zoning, not all just build-baby-build, but also a case of the value of amenities in a growing population and the degree of maturation of the city. Optimal housing policy should take into account the impact of each when considering how to alleviate a lack of affordability or moderate the rate of increase of home prices.

For the forecast for California, these observations suggest two things. First, California housing will by far remain less affordable than elsewhere through the forecast horizon. In spite of the efforts to increase the stock of housing, the elastic demand for California housing will make these efforts successful only in the long-run. Second, the ability of Californians to move out of state, particularly those who wish to take advantage of the savings imbedded in their appreciated

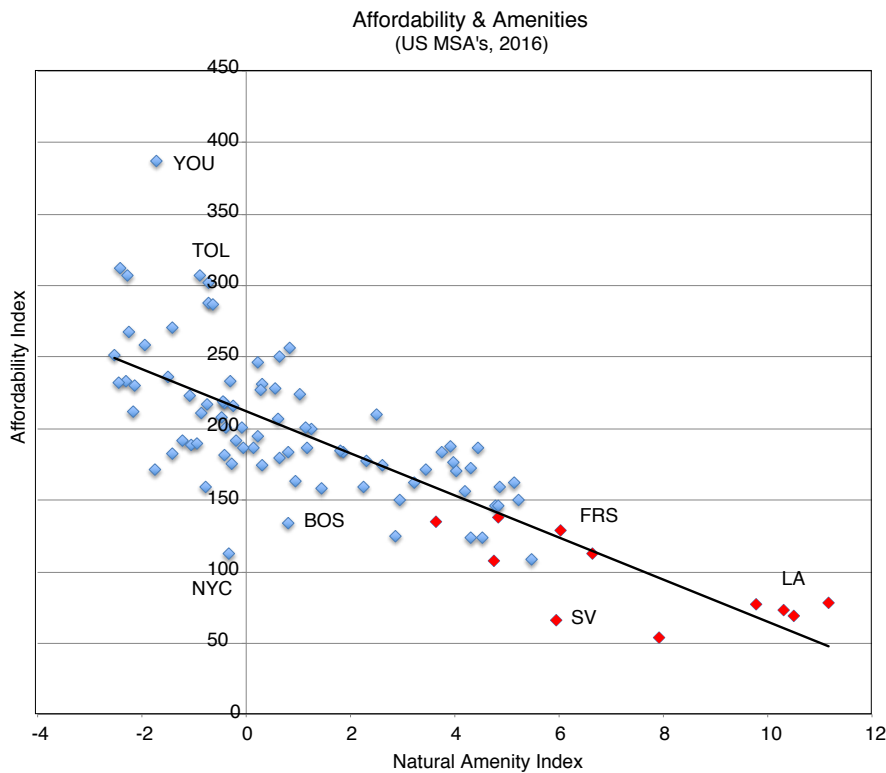
homes, will provide opportunities for an expansion of the work force with highly productive new Californians. Again, whether this is a good outcome or not is a socio-political question. But, it does mean that full employment is not the constraint in the Golden State as it is in the nation as a whole.

The Forecast

Our current forecast is not much changed from the March forecast. The economy has been evolving much as expected to this point and there are no new surprises to alter the forecast. However, the NAFTA negotiations not reaching a conclusion in May and the likely victory of Andres Manuel Lopez Obrador (AMLO) in the Mexican presidential elections as well as the on again/off again tariff plans playing out between the U.S. and China mean there is elevated risk to the forecast compared to March.

We expect California’s average unemployment rate to have its normal differential to the U.S. rate at 4.3% in

Chart 7



Source: USDA.gov, Realtor.org, UCLA Anderson Forecast

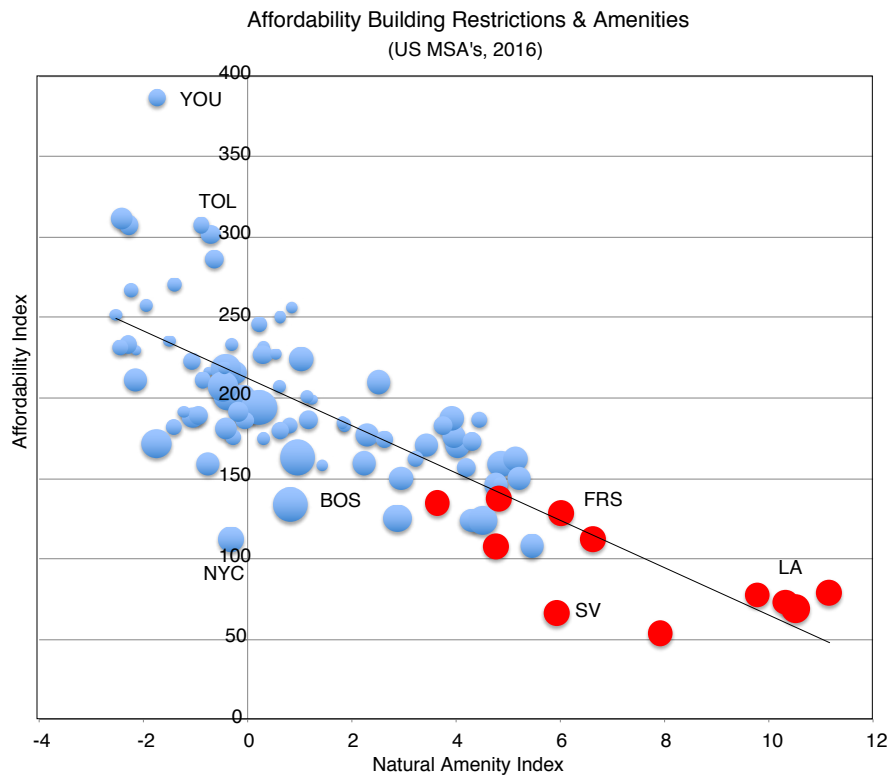
2020. While the overall forecast is not much different from that released in December 2017, some economic activity has been pulled forward into 2018 due to changed fiscal policy. This results in a weaker 2020 than was implied by our previous forecast.

Our forecast for 2018, 2019 and 2020 total employment growth is 1.7%, 1.8% and 0.8% respectively. Payrolls will grow at about the same rate over the forecast horizon. Real personal income growth is forecast to be 2.5%, 3.6% and 2.9% in 2018, 2019 and 2020 respectively. Homebuilding will accelerate to about 140,000 units per year by the end of the forecast horizon 2020.

The risks to the forecast remain elevated. The increase in the Federal deficit will put pressure on the international

trade deficit. That increases the likelihood of trade actions that would depress California's logistics and export industries. The forecast builds in increased investment from the incentives provided in the new tax law. Were the tax savings to go into dividends, stock buy-backs and mergers and acquisitions in a significantly greater way than we have predicted, demand for California-made technologically advanced equipment and software will be less strong than currently expected. The third important risk is the assumption in our forecast that State and local governments will continue to facilitate more home building in an effort to mitigate California's housing shortage. If this were to abate in 2019 or 2020, the forecast would be too optimistic. On the upside, we are not assuming a significant increase in visas for tech agricultural workers. Were this to change, it would increase California's workforce and our forecast would be too low.

Chart 8



Source: *FDA.gov, Realtor.org, UCLA Anderson Forecast, Wharton/Gyourko*