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San Joaquin Valley

BUSINESS FORECAST

EMERGING TRENDS IN THE VALLEY'S ECONOMY

Stanislaus State

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SAN JOAQUIN VALLEY BUSINESS FORECAST 2019

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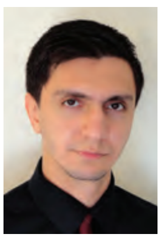

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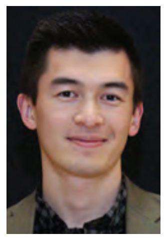

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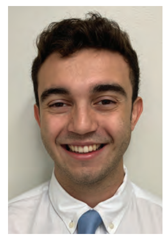

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Executive Summary

As projected in previous Business Forecasts, the slowdown in the San Joaquin Valley's total employment was more apparent in 2019 than in previous years. Most notably, total employment in the Valley registered a single-month decline for the first time since the end of the recession in 2011. Total employment growth came in below par in 2019, as the average annual growth of 1.11 percent trailed the benchmark growth rate of 1.21 percent.

During this environment of slowing economic activity, Stanislaus County reported a 0.06 percent annual decline in overall employment, while San Joaquin County reported a 0.14 percent decline. All other counties reported employment growth, with Madera at 0.68 percent, Merced at 0.57 percent and Kings at 0.67 percent coming-in with growth rates slower both the previous year and the benchmark rate. Meanwhile, Fresno County employment grew the fastest at 2.29 percent, followed by Kern at 1.66 percent and Tulare at 1.47 percent average yearly growth.

Overall, seven of the nine employment categories reported employment growth below par, with four of those registering an employment decline. Construction employment and the combined category of education and health services were the only two categories that reported growth above par. The average annual growth in education and health services employment growth was 3.73 percent, while construction employment registered a growth rate of 4.93 percent in 2019.

Although the growth in construction employment was quite significant, it was slower than the preceding year's growth of 7.67 percent. Manufacturing employment worsened by 0.64 percent in 2019, while retail trade employment declined at 0.33 percent. The Institute of Supply Management's (ISM) purchasing managers index – an important leading indicator for manufacturing – fell below 50 points, predicting an intensifying slowdown in the coming months. Normally, a reading above 50 means an expansion. The same slowing pattern took place in ISM's new export orders index, which fell drastically to 2009 levels in 2019. The Consumer Confidence Index followed a similar pattern of decline in 2019 and now stands at a three-year low.

Leisure and hospitality services employment growth slowed from 2.93 percent in 2018 to 0.92 percent in 2019. Wholesale trade employment grew 1.68 percent, less than the preceding year's growth of 2.91 percent. Decline in information employment accelerated in 2019 to -2.08 percent. Government employment grew 2.61 percent in 2019, which was a faster rate than 2018 and better than the series' long-term benchmark rate of 1.02 percent. Financial activities employment declined 0.06 percent in 2019.

A greater number of employment categories exhibited a slowdown or worsening trend during 2019 than in 2018, and the projections point to a continuation of the slowing trend in employment levels in the coming two-year interval. An inverted yield curve, which has been an accurate predictor of recessions seven times in the past, again appeared for the first time since the recessionary years during 2019, signaling the possibility of a recession.

Building permits registered an 11.41 percent decline in 2019, following a very significant 32.84 percent increase in 2018, but such a correction is normal when a time series overshoots its mean by several standard deviations in the preceding year. The foreclosures started series continued to exhibit a flat pattern in response to the Federal Reserve reducing rates in an effort to maintain the pace of the national economy. Following consecutive cuts to the federal funds rate in 2019, 30-year mortgage rates fell to three-year lows. Meanwhile, the growth of home values has slowed, with a 5.75 percent average yearly increase in in 2019 registering slightly above the long-term benchmark rate of 5.14 percent and trailing the growth rates evident in 2018 and 2017.

Following the Federal Reserve's rate cuts in 2019, the yearly inflation rate stayed slightly higher than the typical rate of 2.32 percent. The increase in the overall price level is projected to stay above the typical rate of inflation and is being pushed upward by recent increases in the price of oil due to rising tensions in the Middle East. Wage growth in the Valley changed very little from the preceding year, and because the rate of inflation and wage growth were about the same, there was no real wage decline in 2019. Thus, the Valley consumer was able to purchase roughly the same bundle of goods and services in 2019 as in 2018. However, some gradual declines in real wages are expected in the coming two-year interval as inflation remains above the increase in real wages.

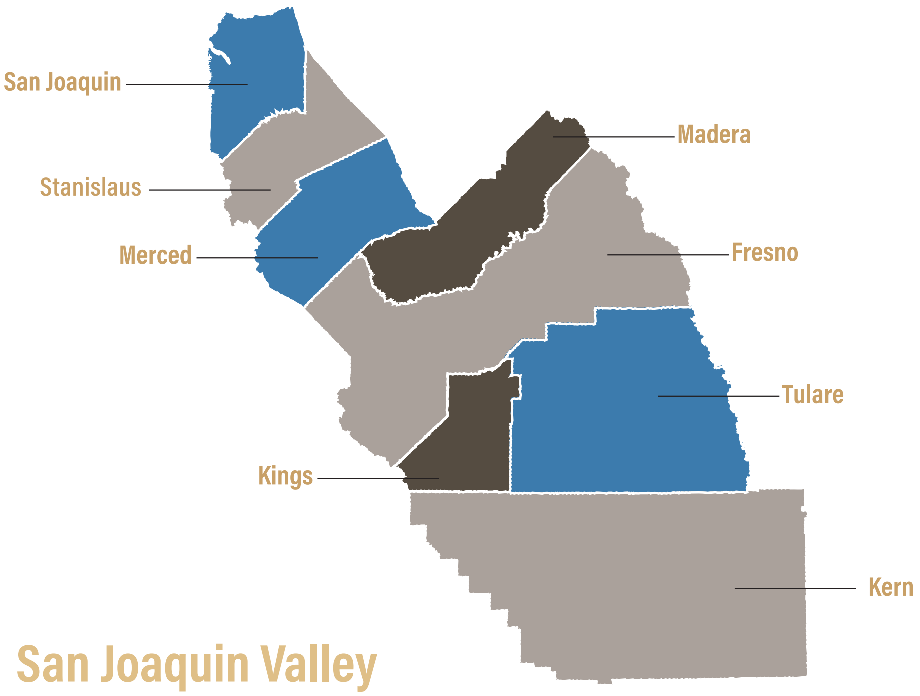
After repeatedly growing at faster rates in preceding years, total bank deposits in the Valley grew slower in 2019 than the preceding years, but at about the same rate as the long-term benchmark rate. The number of loans and leases issued also grew at a slower rate than in previous years, and total deposits, net loans and leases grew at rates below the long-term benchmarks. The amount loaned exceeded the growth in bank deposits, indicating the community banks extended loans at a faster rate than the deposit rate. Valley bank non-accruals continued to trend upward in 2019, along with accruals 30-to-89 days and accruals 90-plus days, which increased at a faster rate in 2019. The projections point to a continuation of the upward trend in bank accruals in the coming years.

Introduction

The long-term data in this report spans the period from January 2001 to September 2019. The medium-term forecasts span from October 2019 to December 2021. Forecasting a range rather than a point provides a more realistic assessment of likely future values. When actual numbers fall within the upper and lower forecast bands, the forecast is deemed accurate.

Several new developments occurred in 2019 related to Business Forecasts. Thanks to Foster Farms and a grant from the Northern California Chapter of the Appraisal Institute, there is now an online database utilizing the data we have on real estate and related indicators belonging to the San Joaquin Valley and the Bay Area. The database can now be accessed at https://www.csustan.edu/real-estate-data-portal. The data center is intended to serve as a source for researchers and practitioners who wish to study our region relative to other regions in California and the nation. The ultimate aim is to make Stanislaus State the go-to center in the state in terms of data procurement and research related to the San Joaquin Valley and other regions of California.

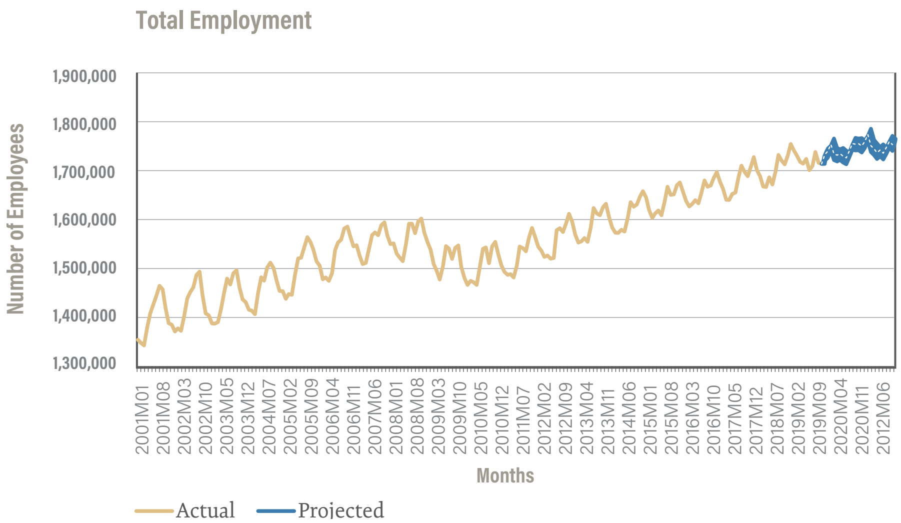
The remainder of this report is structured as follows: first we provide a discussion of San Joaquin Valley labor market conditions, followed by an examination of the Valley's real estate market. We then cover prices and inflation, look at local banking and capital market indicators and finish by discussing developments in the external sector.



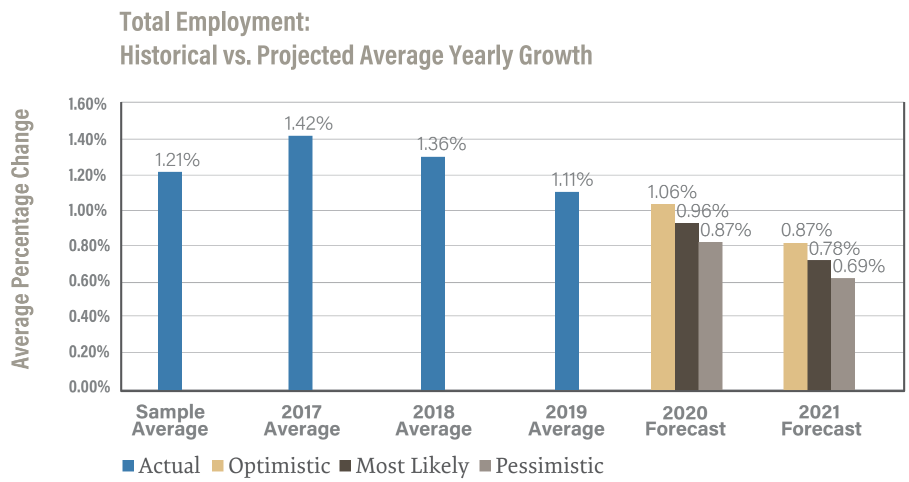
Employment Indicators

The slowdown in Valley total employment was more evident in 2019. Two counties, San Joaquin and Stanislaus, reported declines in employment levels for the first time since the Great Recession. San Joaquin County employment declined 0.14 percent while Stanislaus County employment declined 0.06 percent. In addition, three of the eight counties in the San Joaquin Valley – Kings and Madera at 0.67 percent and Merced at 0.57 percent – reported slower growth than the preceding year. The remaining three counties – Fresno at 2.29 percent, Kern at 1.66 percent, and Tulare at 1.7 percent reported faster growth in 2019.

Education and health services employment grew 3.73 percent in 2019, or at about the same pace as the previous year and at a rate consistent with the typical historical rate. Manufacturing employment declined 0.64 percent in 2019. Leisure and hospitality services employment growth at 1.23 percent in 2019 fell below the long-term benchmark rate and grew less than the previous year. Retail trade employment declined for the first time since the end of the recession. The average annual decline in retail trade employment was 0.33 percent, making it one of the worst performing categories in 2019. Relative to other categories, 2019 was a good year for construction. Employment in this category increased 4.93 percent, making it the fastest growing category of employment in 2019. Financial activities employment was another category that reported a decline in 2019. The average annual decline in financial activities employment was 0.06 percent, making it the third-worst performing category, after information and retail trade employment. The change in employment dynamics relative to the previous years and the inverting of the yield curve appears to suggest it might be prudent for those in the business community and beyond to prepare for further declines in economic activity.



Average annual growth in Valley total employment, at 1.11 percent, came below par in 2019. Growth has been gradually decreasing since 2017. This subpar performance in 2019 however, occurred for the first time since 2016. Total employment in the Valley will likely not exceed 1,800,000 in the coming two-year period, due to slower economic activity. The trend line is expected to become flatter than the preceding years. Projections point to an average growth of 0.96 percent in 2020 and 0.78 percent in 2021.



The Consumer Confidence Index is another important leading indicator predicting economic behavior in the months ahead and the index fell drastically, by about 20 index points, in the second half of 2019. The steady upward trend gave way to a concaving pattern, signaling dynamics consistent with an inverting yield curve. It is a sign that consumers are being more cautious about their spending patterns and are cutting back on major purchases such as automobiles and durable goods. ▶

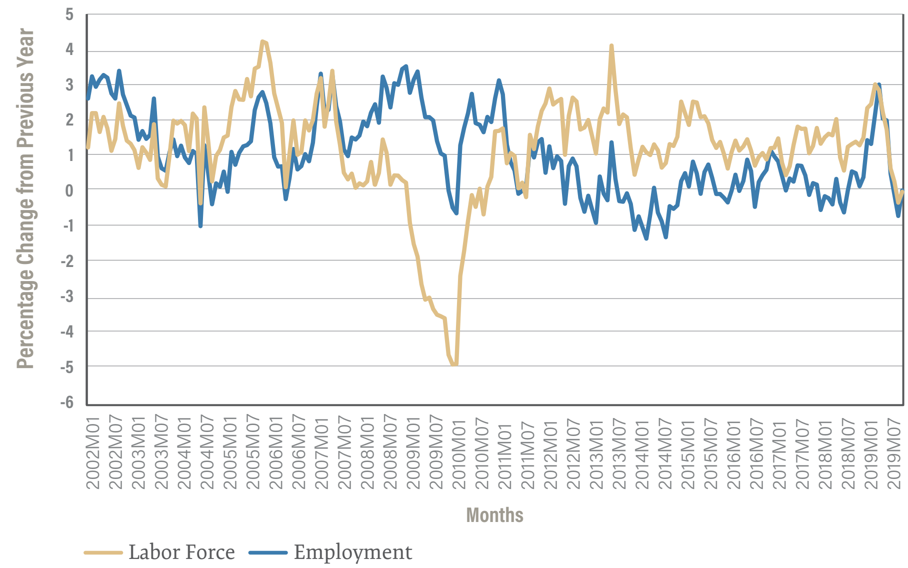
Valley total employment and labor force growth overlapped twice in the recent past: Once before the onset of the recession and once immediately after the end of the recession. Interestingly, the two series have overlapped again in 2019, unlike the pattern that existed in the past several years, in which employment had grown faster than the labor force. If the Valley labor force growth exceeds employment growth in coming months, it will be an additional sign of an oncoming recession. ▶

The vulnerable nature of the regional economy again was underscored by the Valley employment growth rate, which fell below state employment growth in 2019. Further, growth in Valley employment became negative in July, 2019, making the first month since late 2011 that there was a single-month decline in employment numbers. Recessions are more significantly felt in the Valley and similar regions because of the structure of the labor force composition, which stems from lower educational attainment levels and a greater proportion of unskilled to skilled workers.

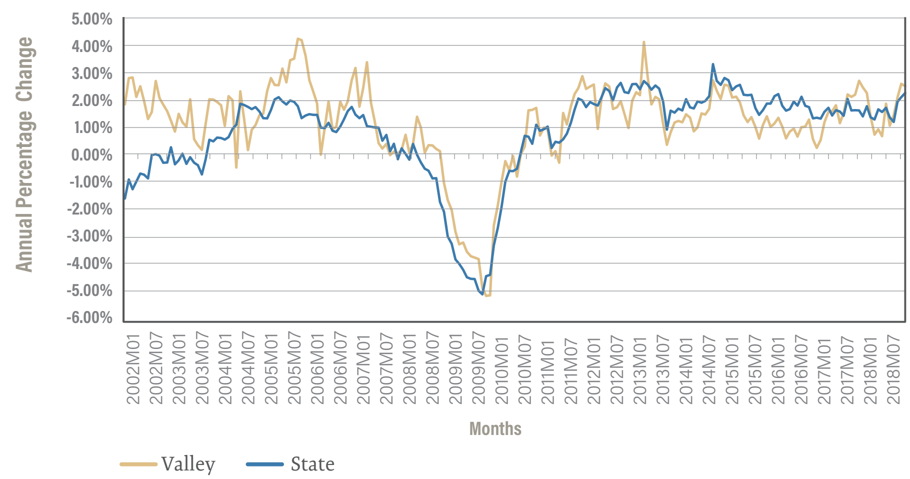
The discrepancy between employment growth in the Valley and the state became significantly wider in the second half of 2019. The last time regional employment growth fell this far below the growth in ▶ statewide employment was back in 2009, when the dip below the horizontal axis is also taken into account. This is another indicator of the vulnerable economic conditions of the Valley.

Consumer Confidence Index

Labor Force vs. Employment Growth



Employment Growth: State vs. San Joaquin Valley



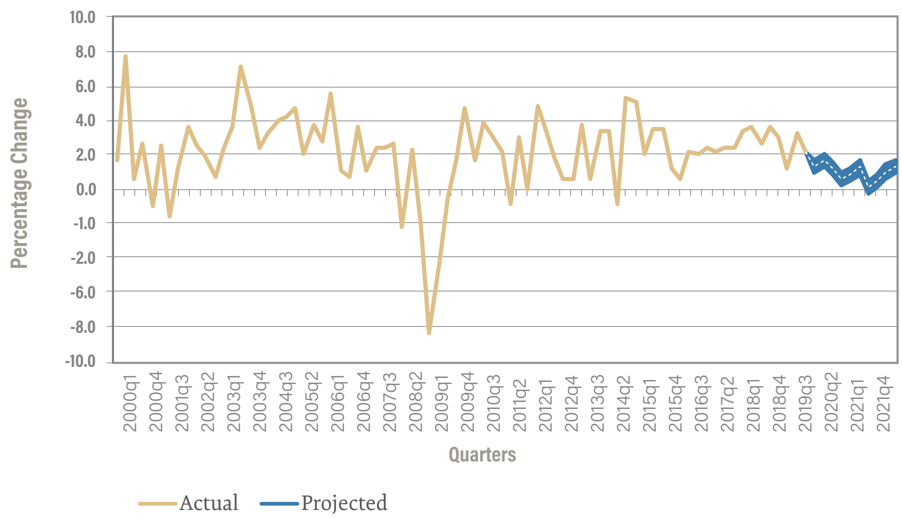
Employment Indicators

The yield curve as a leading indicator has predicted recessions seven times in the past, and the yield curve inverted once again in 2019, for the first time since the last recession. The slow-down indications are also present in other leading indicators, such as the consumer confidence index, ▶ purchasing managers index, new export orders index and several other important indicators of employment. GDP growth forecasts are now scaled back to reflect further slowing of economic activity. Real GDP forecasts although not pointing to an official recession of two consecutive quarters of negative growth they still point to some negative growth in the lower bound in the second quarter of 2020 and negative growth in the mean and lower bound forecast in the second quarter of 2021.

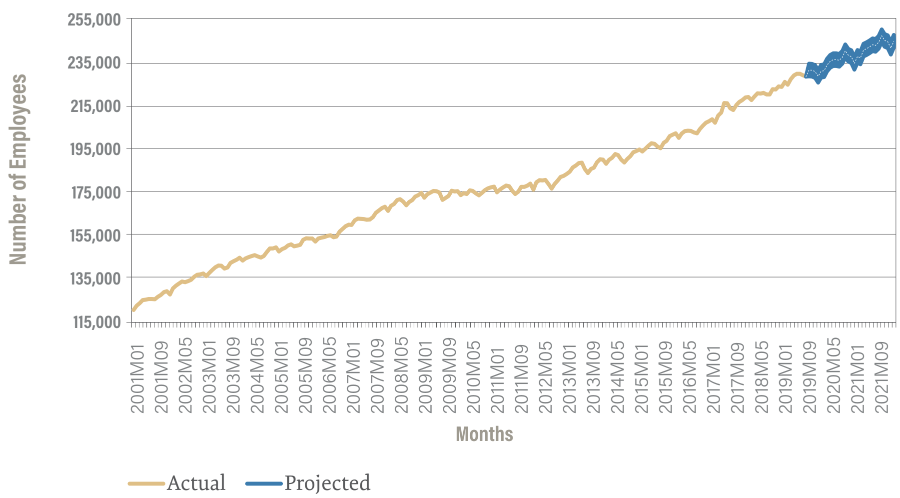
Education and health employment is robust in the sense that all other categories move around this series along with the business cycle. As other categories of employment slow, education and health employment rise to the top as one of the fastest growing categories of employment. This was not an exception in 2019, when Valley education and health employment became the second-fastest ▶ growing category of employment, trailing only construction employment. This in reminiscent of a pattern observed during the latter years of the Great Recession, when other categories of employment were struggling to rebound.

At this relatively robust pace, employment levels in education and health services is projected to exceed 235,000 by the first half of 2020. In 2019, education and health services employment grew 3.73 percent, slightly faster than the preceding year and ahead of the ▶ long-term benchmark rate of 3.45 percent. Projections point to slower growth as the regional economy continues to cool, with the sector eyeing an average annual growth of 3.18 percent in 2020 and 2.83 percent in 2021.

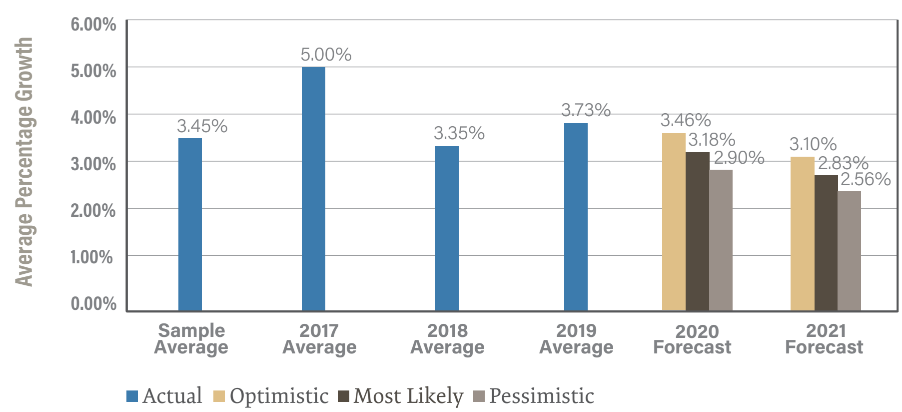
U.S. Real GDP Annual Growth



Education and Health Services Employment



Education and Health Services Employment: Historical vs. Projected Average Yearly Growth



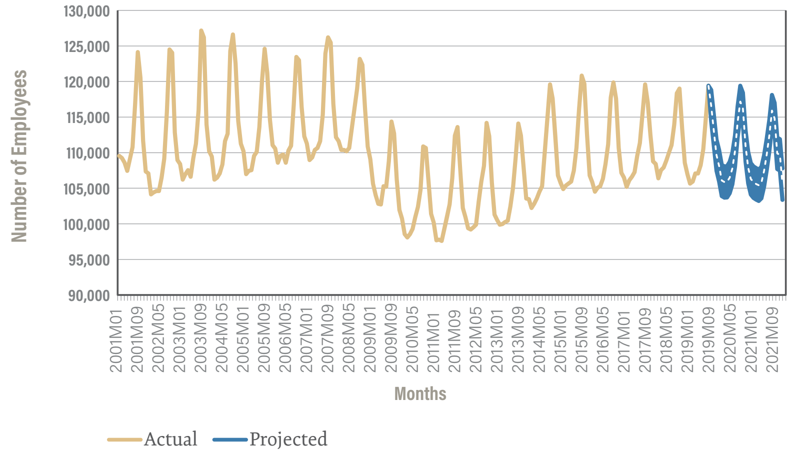
Manufacturing employment in the Valley is feeling the impact of ongoing trade wars. Even if trade wars were resolved, , the effects would likely be felt for another six to 12 months due to the j-curve like effect of existing and new contracts to be filled. Further, an intensifying economic slowdown has resulted in a decline ▶ in Valley manufacturing employment for the first time since the end of the recessionary years.

Manufacturing employment had been continually slowing in the past couple of years, turning into a decline in 2019. Consequently, fewer employees were hired in manufacturing in 2019 than 2018. Manufacturing employment also declined nationwide. An average annual decline of 0.64 percent in 2019 was worse than the series' long-term average growth. Projections point to average yearly growth of 0.88 percent in 2020 and 0.56 percent in 2021. ▶

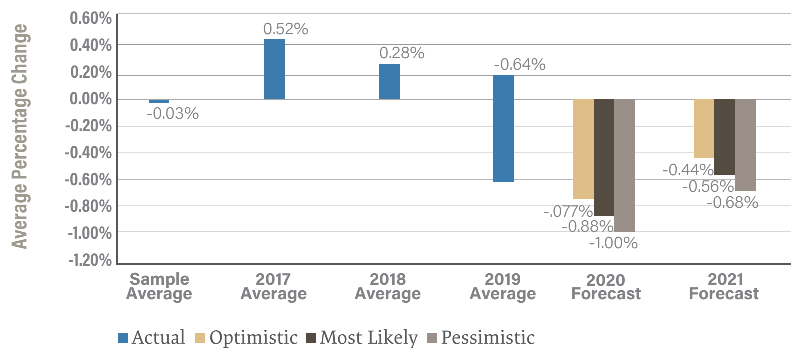
Consistent with other leading indicators, the Purchasing Managers Index of the Institute for Supply Management points to further declines in manufacturing activity. The Index level is now below 50 points, falling to four-year lows. This is a concern because a reading above 50 generally indicates expansion. Because of the Valley's economic structure, ▶ tariffs had a greater negative impact on manufacturing in the Valley than in other regions.

One of the most striking charts in 2019 was the Institute of Supply Management's New Export Orders Index. The value of the index fell below 45 points in 2019 and now stands at levels that existed during the recessionary years, falling to eleven-year lows. The Valley is poised to incur the brunt of the negative effect of income lost due to the retaliation from the trade wars. Even of the trade wars were to end now, the j-curve like effect would likely last for another year before farmers recovered from the losses they have incurred. ▶

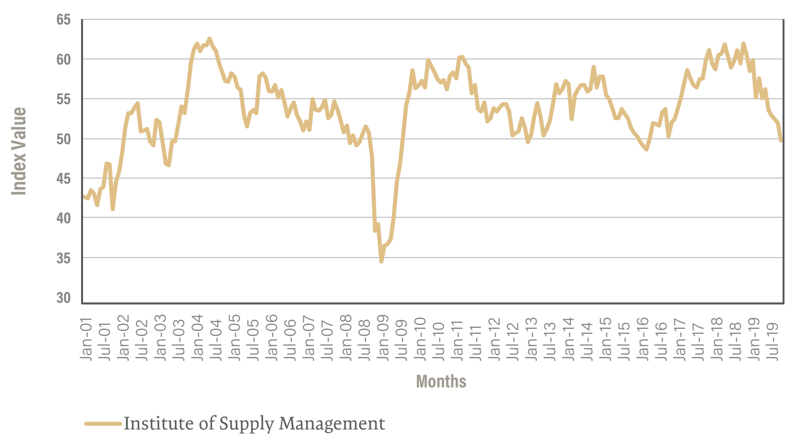
Manufacturing Employment



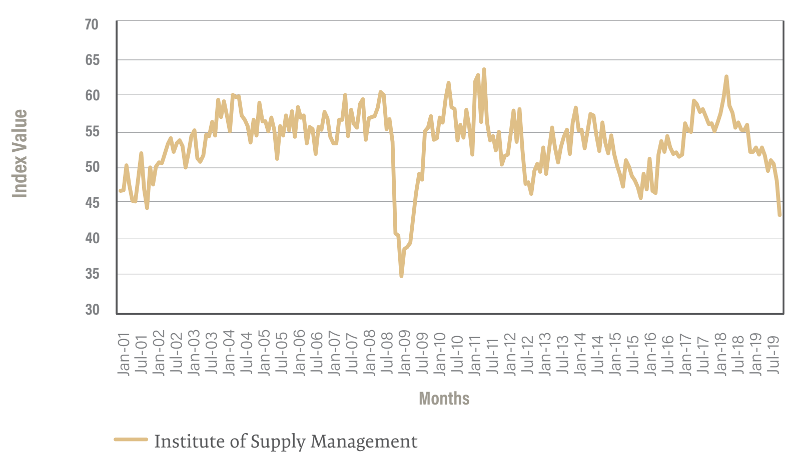
Manufacturing Employment: Historical vs. Projected Average Yearly Growth



Purchasing Managers Index



New Export Orders Index



Leisure and hospitality services employment grew 1.23 percent in 2019, which considerably trailed the 1.88 percent growth in 2018. Consistent with this slowing activity, the series continued to display a concave pattern in 2019. Leisure and hospitality services employment is expected to reach 130,000 by the first half of 2020. The slowdown statewide was not as significant as the slowdown Valley-wide. Because Valley residents spend a higher proportion of their income on leisure and hospitality services, the demand in this sector is generally ▶ more sensitive to changes in interest rates and prices.

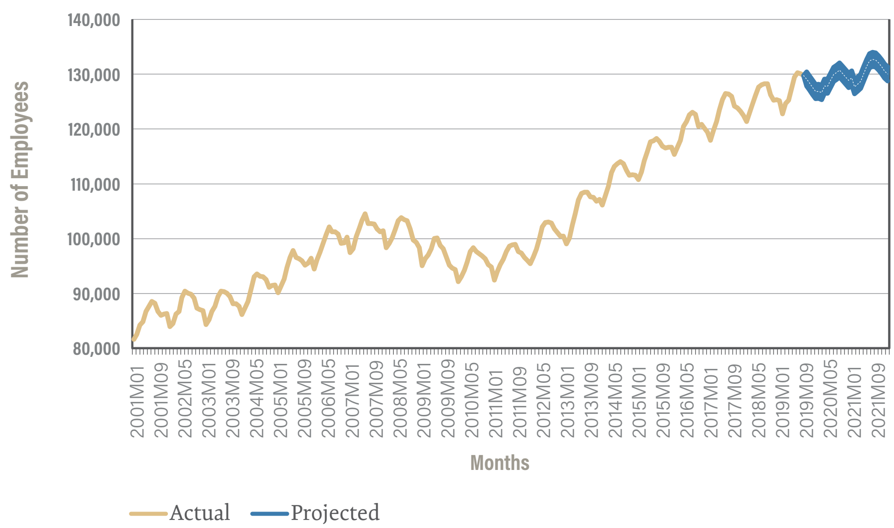
130,000

THE EXPECTED LEISURE AND HOSPITALITY SERVICES EMPLOYMENT LEVEL IN THE FIRST HALF OF 2020

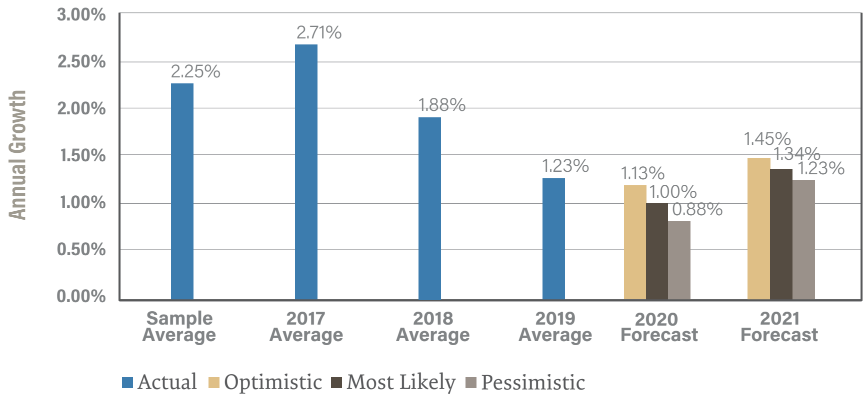
The long-term benchmark growth for leisure and hospitality services employment stands at 2.25 percent. Employment in this category grew less than this benchmark rate in 2019 and 2018 after exceeding the benchmark ▶ the previous two years. Projections point to an average annual growth of 1.00 percent in 2020 and 1.34 percent in 2021.

Trade, transportation and utilities employment was another category that drastically fell in growth. After performing above 2 percent in 2017 and 2018, growth in this category of employment slowed drastically to 0.92 percent in 2019. Employment levels in this category are projected to remain below 300,000 in the coming two-year period. For the first time since the recessionary years, average annual growth in 2019 came in lower than the long-term benchmark growth of 1.77 percent. ▶

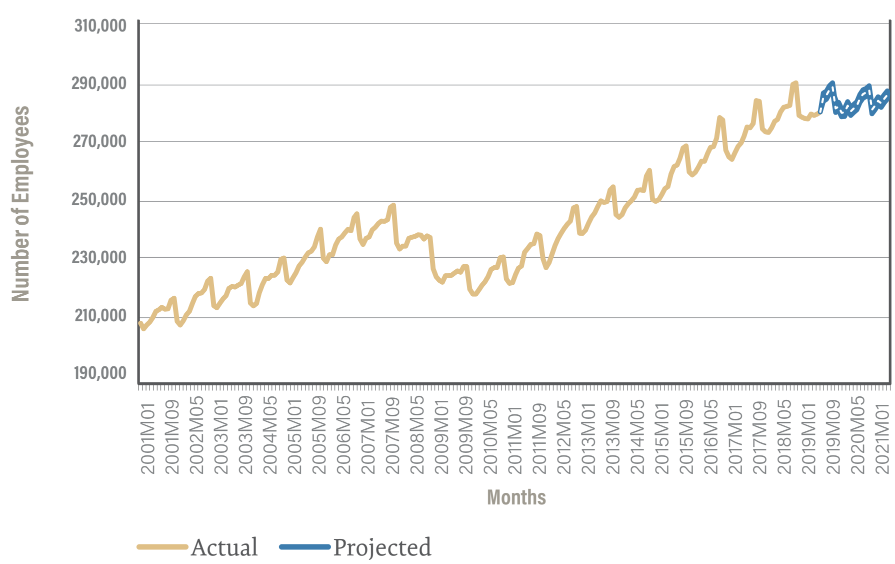
Leisure and Hospitality Services Employment



Leisure and Hospitality Services Employment: Historical vs. Projected Average Yearly Growth



Trade, Transportation and Utilities Employment



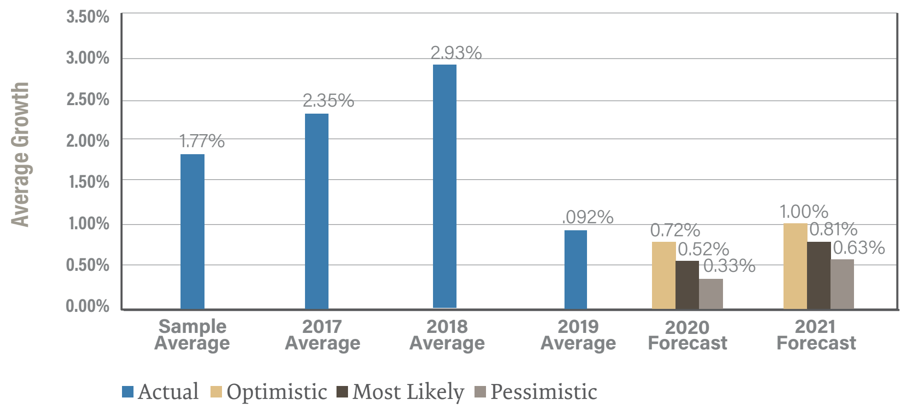
TRADE, TRANSPORTATION AND UTILITIES EMPLOYMENT DRASTICALLY FELL IN GROWTH

The Valley's growth in transportation and utilities employment trailed both the state and the nation in 2019. Because of the drastic drop, projections point to an average yearly growth of 0.52 percent in 2020 and 0.81 percent in 2021, with both years projecting to have a pace of growth lower than the typical 1.77 percent.

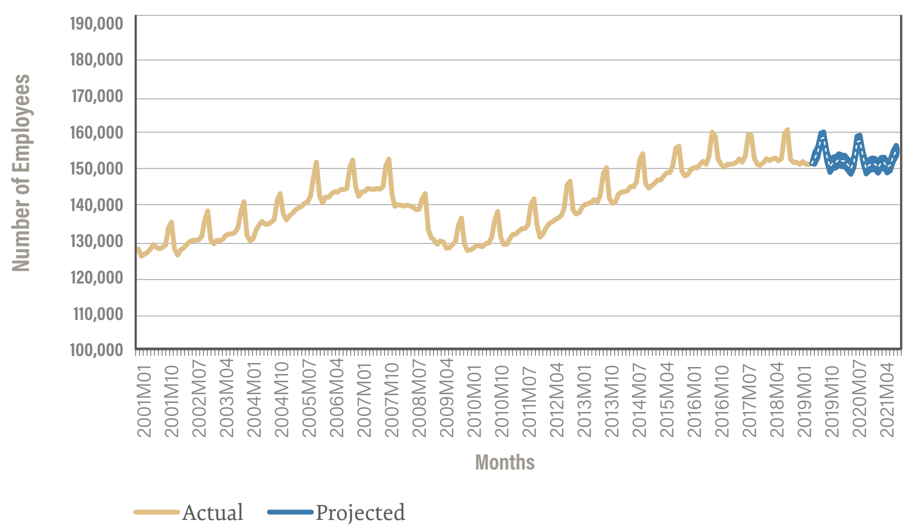
Perhaps the most striking change in employment came in retail trade employment. In earlier years during the expansion, retail trade employment was one of the fastest-growing categories of employment. In 2019, however, the series posted the first decline in employment since the end of the recession. Retail trade employment worsened by 0.33 percent in 2019, coming-in third from last among all categories to underscore the extent of correction. At this declining pace, the trend in retail trade employment is expected to stay below 160,000 in the months ahead.

Retail trade employment growth had been gradually slowing down and posting below-average growth in 2017 and 2018, consistent with a cooling economy. Growth in this category was faster statewide than in the Valley wide in 2018 and 2019, pointing to the vulnerable nature of the regional economy. Retail trade in employment is more sensitive to interest rate increases in the Valley than in the state and the nation. Projections point to further declines of 0.26 percent in 2020 and 0.63 percent in 2021.

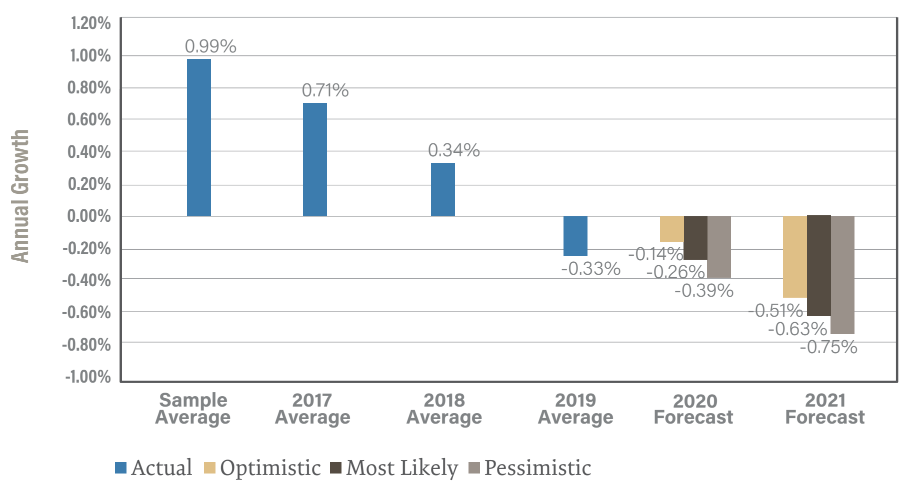
Trade, Transportation and Utilities Employment: Historical vs. Projected Average Yearly Growth



Retail Trade Employment



Retail Trade Employment: Historical vs. Projected Average Yearly Growth



Employment Indicators

Just when the Valley's wholesale trade employment was recovering from the effects of the drought, the economy began to cool, dampening the 2.91 percent growth observed in the preceding year. Valley wholesale trade employment grew 1.68 percent in 2019, trailing the typical growth rate of 1.98 percent. This growth rate remains relatively strong, considering that growth in the drought years was much slower.

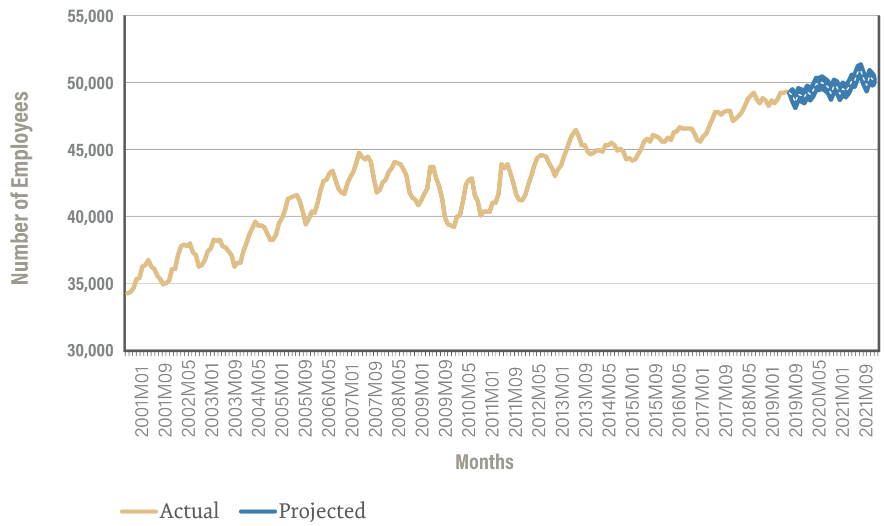
1.68%

VALLEY WHOLESALE TRADE EMPLOYMENT GROWTH IN 2019

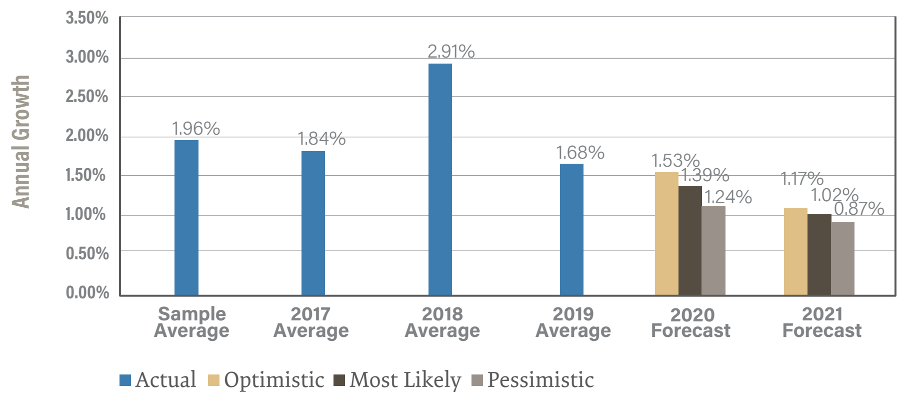
Wholesale trade employment is projected to remain below 53,000 during the next two years due to slower economic activity and the lingering effects of trade wars. The 1.68 percent growth in 2019 was the slowest observed since the end of the drought. Two-year projections point to an average annual growth of 1.39 percent in 2020 and 1.02 percent in 2021.

Valley information employment has not recovered from the recession. The decline came at a slower rate in 2018, but with the economy slowing, the rate of decline in information employment accelerated in 2019. Employment in this category declined nationwide and there was no significant growth statewide, but the worsening was at a faster rate in the Valley. The level of employment is projected to fall below 10,000 in the coming two-year period.

Wholesale Trade Employment



Wholesale Trade Employment:
Historical vs. Projected Average Yearly Growth



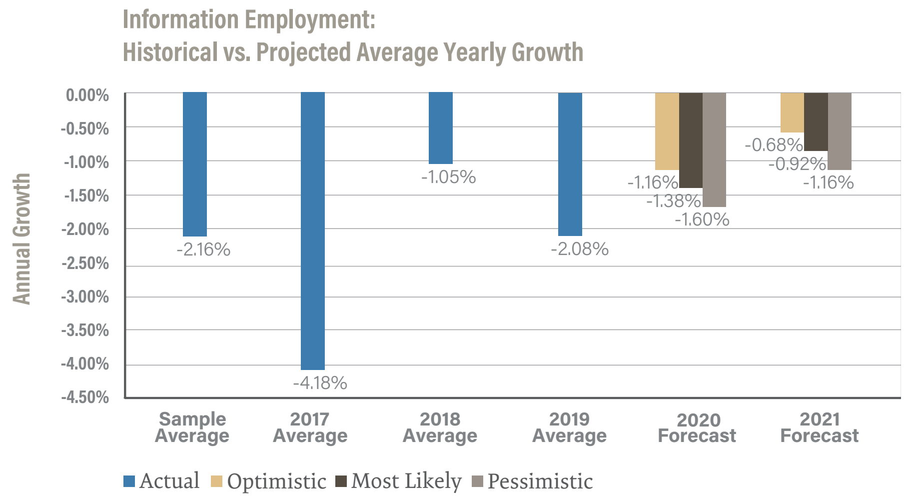
Information Employment

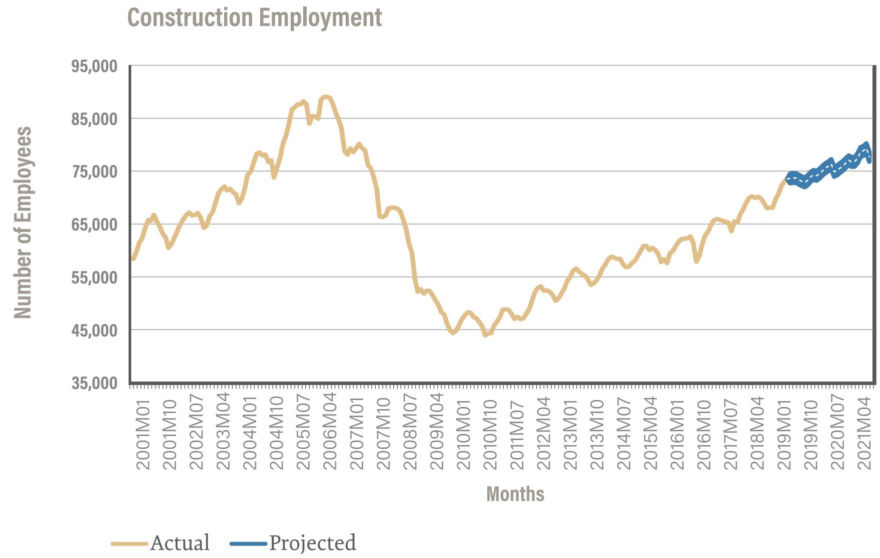
With the accelerating decline in 2019, the long-term benchmark rate of decline in Valley information employment fell further to -2.16 percent. Sustained growth for several years is needed for the growth rates to switch from negative to positive territory. Projections point to a slower decline of 1.38 percent in 2020 and 0.92 percent in 2021.

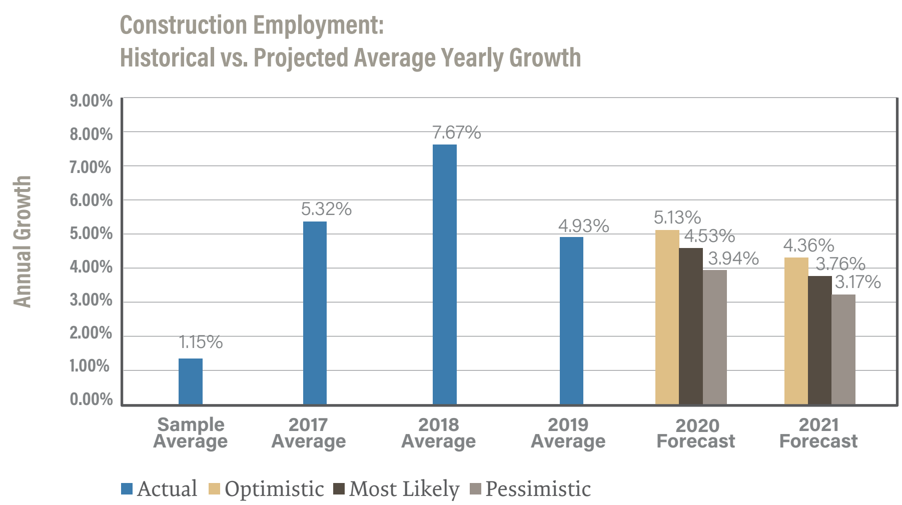
Valley construction employment was the fastest-growing category in 2019. The recovery in construction lagged following the end of the recession, and it appears the slowdown in construction employment also will come with a lag. Building permit fees are relatively high in the Valley and the time it takes to get a permit is longer than average. Measures have to be set in place to correct these misalignments and help solve the inventory problem in the Valley. The employment level in this category is expected to exceed 80,000 in the second half of 2020.

THE FASTEST-GROWING CATEGORY IN 2019 WAS VALLEY CONSTRUCTION EMPLOYMENT

The Valley's growth in construction employment exceeded both the statewide and national paces in 2019. It's important to point out that while construction employment grew the fastest among other categories of employment in the Valley, the average annual rate of 4.93 percent in 2019 was beneath the rates that prevailed in 2017 and 2018. Despite the slowdown, Valley construction employment grew more than three times the long-term benchmark rate of 1.15 percent in 2019. Projections point to an average annual growth of 4.53 percent in 2020 and 3.76 percent in 2021.








STUDENT CENTER




SKYJACK

Ongoing construction of the new Stanislaus State Student Center slated to open in Spring 2020.

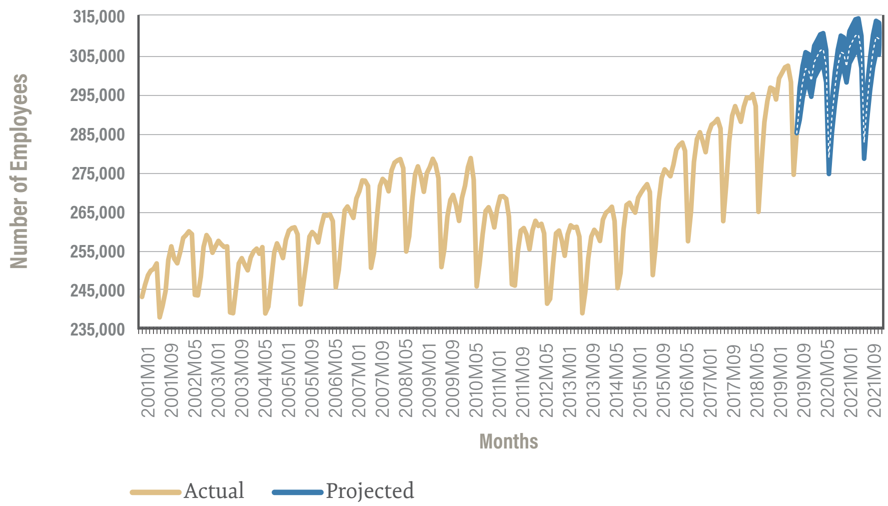
Unlike other employment categories in the Valley, government employment grew faster in 2019 then the preceding year. Government employment is another lagging variable, recovering later than other employment categories after a contraction and slowing later than most other categories after an expansionary phase of the business cycle. Government employment is projected to exceed 305,000 by the second half of 2020. ▶

2.61 PERCENT GROWTH IN GOVERNMENT EMPLOYMENT WAS THE FASTEST IN THE PAST THREE YEARS

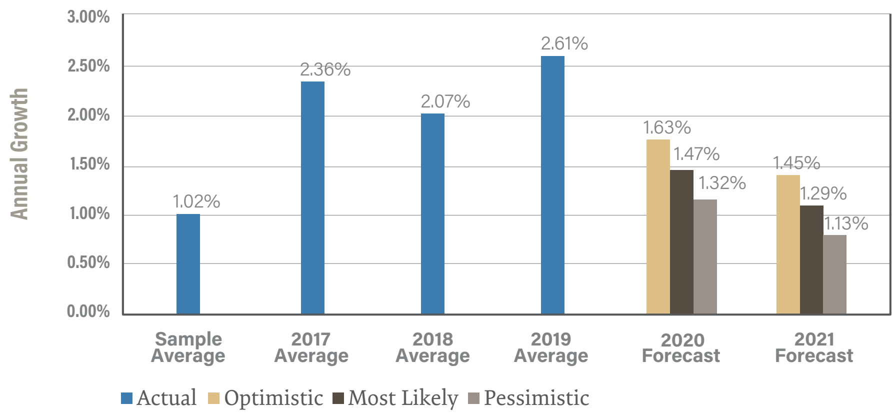
Growth in government employment, at 2.61 percent, was the fastest in the past three years. The growth in 2019 also was faster than the typical long-term growth of 1.02 percent. After above-average growth in recent years, a slowdown in government employment is expected. Projections point to an average yearly growth of 1.47 percent in 2020 and 1.29 percent on 2021. ▶

Valley financial activities employment was another category that posted a decline for the first time since the end of the recessionary years. The steady rate of growth that took place in the past 11 years switched from positive to negative territory, bringing with it worries about an oncoming recession. Financial indicators are the first to signal a recession, ahead of other coincidental indicators. The Fed's decision to cut rates, along with balance sheet expansion, did not help much in maintaining positive growth in this category of employment. ▶

Government Employment



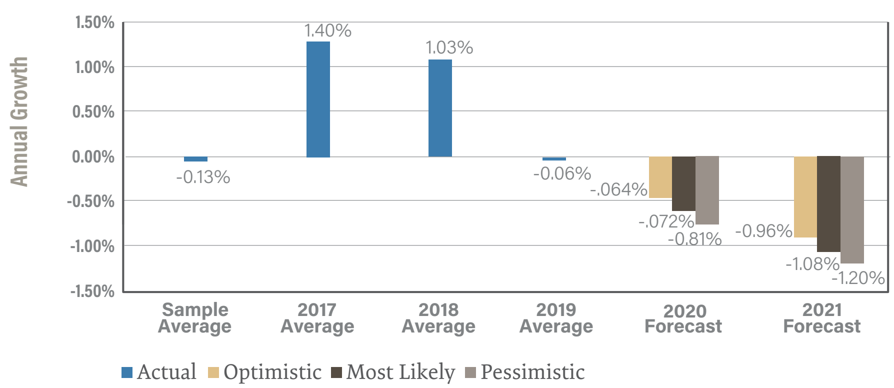
Government Employment:
Historical vs. Projected Average Yearly Growth



Financial Activities Employment

Financial activities employment is projected to remain below 43,000 in the years ahead. The long-term benchmark rate remained in negative territory and worsened a bit from the preceding year. At this declining pace, it does not appear likely that the financial activities employment long-term benchmark rate will switch to positive territory anytime soon. In line with a cooling economy, employment in financial activities is projected to decline further at 0.72 percent in 2020 and 1.08 percent in 2021.

Financial Activities Employment:
Historical vs. Projected Average Yearly Growth



Consistent with our earlier projections, slowing of the Valley's economy intensified in 2019. For the first time since the recessionary years, several categories of employment posted declines, while others like construction employment slowed further. Two of the eight counties in the San Joaquin Valley posted negative total employment numbers – an occurrence that had not been seen since the end of the recessionary years. Other counties, such as Fresno, posted faster growth than the previous year. In all, there is a greater number of employment and leading indicators that pointed to further slowdown in the coming two-year period.

The San Joaquin Valley's eight Metropolitan Statistical Areas (MSAs) are Fresno, Bakersfield-Delano, Hanford-Corcoran, Madera-Chowchilla, Merced, Modesto, Stockton and Visalia-Porterville. The aggregate data from these eight MSAs make up the total of single-family building permits in the Valley.

16.23%

INCREASE IN BUILDING PERMITS WAS THE FASTEST IN SEVERAL YEARS

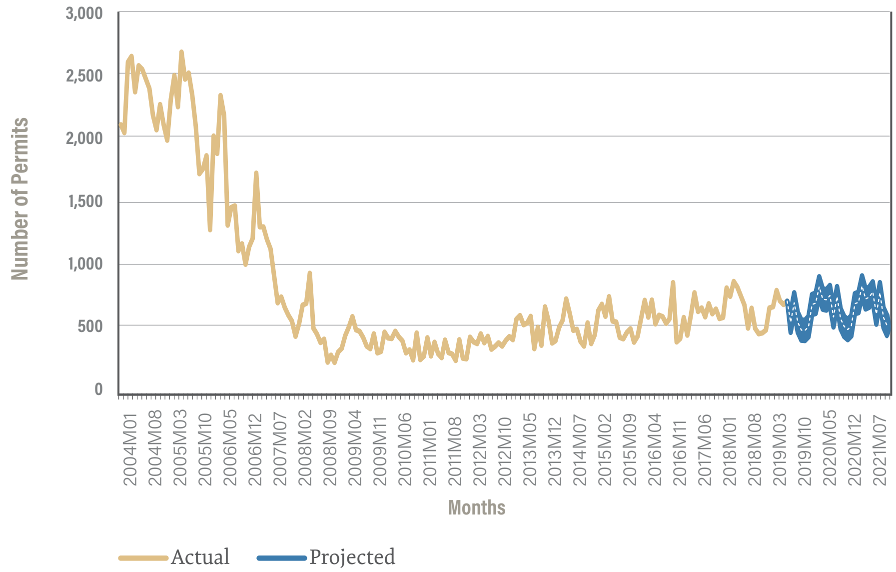
The 13.50 percent spike in 2018 was the fastest growth in building permits in the past several years. However, consistent with the historical behavior of the series, the 2019 growth is naturally expected to be much slower. Valley housing permits are expected to remain around 700 per month by the end of the first half of 2020.

The decline in 2019 is a normal mean-reverting behavior, given the huge spike that occurred in 2018. Relative to other MSAs, permit fees in the Valley are more expensive and take longer to obtain. It is important for policymakers to find new ways to decrease the time it takes to obtain a permit to help solve the low inventory problem in the Valley.

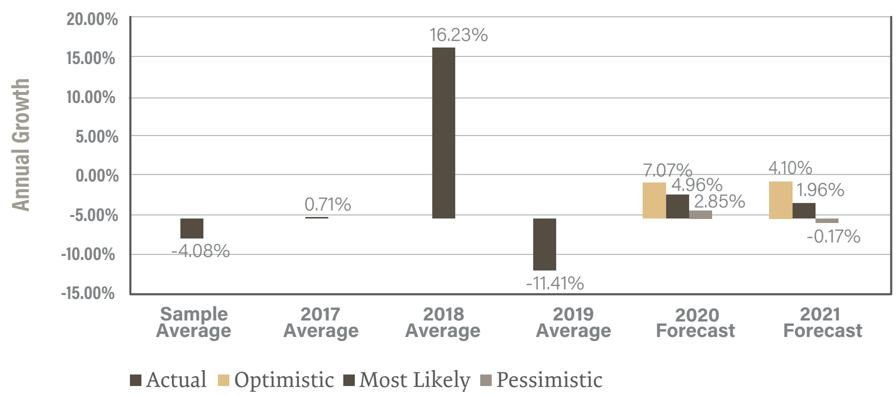
With 1,380 permits, Fresno issued the most housing permits in 2019, followed by 1,292 in Stockton and 1,142 in Bakersfield. Visalia issued 1,020 permits, while Madera and Merced issued 303 and 146 housing permits, respectively. Modesto issued only 10 building permits. There were no housing permits issued in Hanford-Corcoran. Projections point to average annual growth of 4.96 percent in 2020 and 1.96 percent in 2021.

Foreclosure filings continue to remain flat, following the Federal Reserve's rate cuts and balance sheet expansion designed to keep economic activity vibrant. As the slowdown intensifies, a turning point is naturally expected in the months ahead as more foreclosures will likely be reported than in recent years.

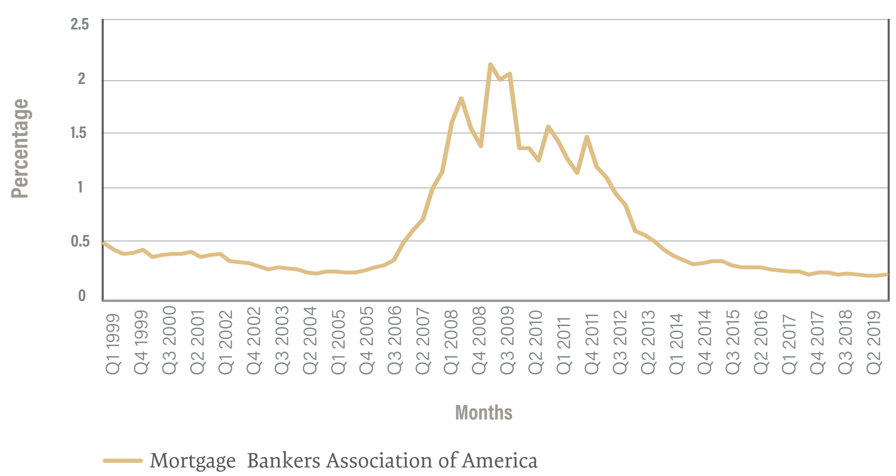
Single-Family Building Permits



Single-Family Building Permits: Historical vs. Projected Average Yearly Growth



Foreclosure Starts in California



The Federal Reserve rate cuts that took place in 2019 brought the 30-year rates well below 4 percent, which kept refinancing and home buying activity in the Valley relatively vibrant in 2019. With rising tensions in the Middle East, the price of oil started to trend upward in the second half of 2019, putting upward pressure on the inflation rate. ▶

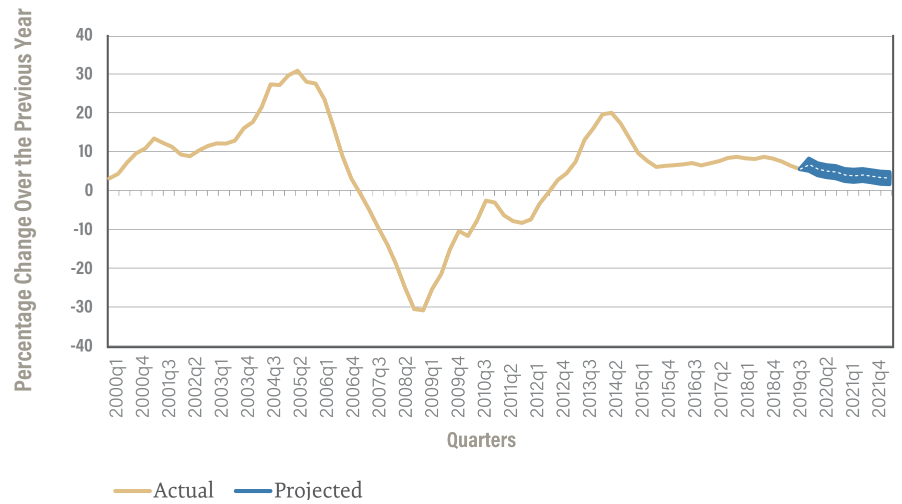
Home values in the Valley increased at a slower pace in 2019 than in 2017 and 2018. The average annual rate of increase of 5.75 percent in 2019 was little above the series' long-term rate of 5.14 percent. The shortage in housing inventory, along with the recent declines in long-term interest rates, are likely to keep home prices rising in the Valley but at rates much slower than the preceding years.

The fastest increase in home values took place in Madera, which reported an 8.30 percent average annual increase in 2019. This increase was no surprise, given that Madera issued fewer housing permits in 2019. The second-fastest increase in home values was in Merced at 6.51 percent, followed by 6.01 percent in Stockton. ▶ Modesto's increase in home prices in 2019 was 5.88 percent, while prices increased 5.67 percent in Fresno and 4.89 percent in Bakersfield. Visalia and Hanford reported the slowest increase in home prices, at an average annual rate of 4.65 percent and 4.10 percent, respectively.

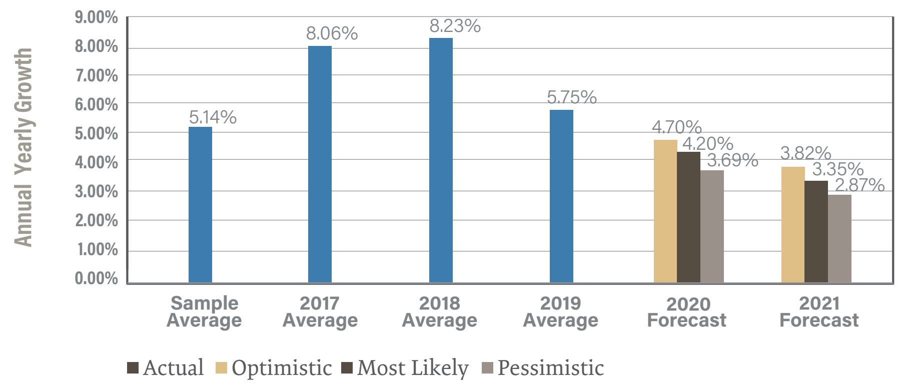
Rate cuts and balance sheet expansion did not prevent the economic activity from slowing down any further. The rising price of oil with the increase in Middle East tensions is another dragging factor on the economy. Building permits will likely continue to increase in the coming months, as the construction sector happens to be a lagging indicator and also as a response to the Valley's low inventory. Housing values are likely to increase at a slower pace than previous years, given the intensifying slowdown in economic activity. ▶

30-Year Fixed Rate

Yearly Percentage Change in Housing Prices



Yearly Growth in Housing Prices:
Historical vs. Projected Average Yearly Growth



Inflation and Prices

The yearly rate of inflation in 2019 came down but was still little above the typical rate of 2.32 percent. Rising tensions in the Middle East and the resulting increase in the price of oil will likely increase the inflation rate in the coming months. ▶

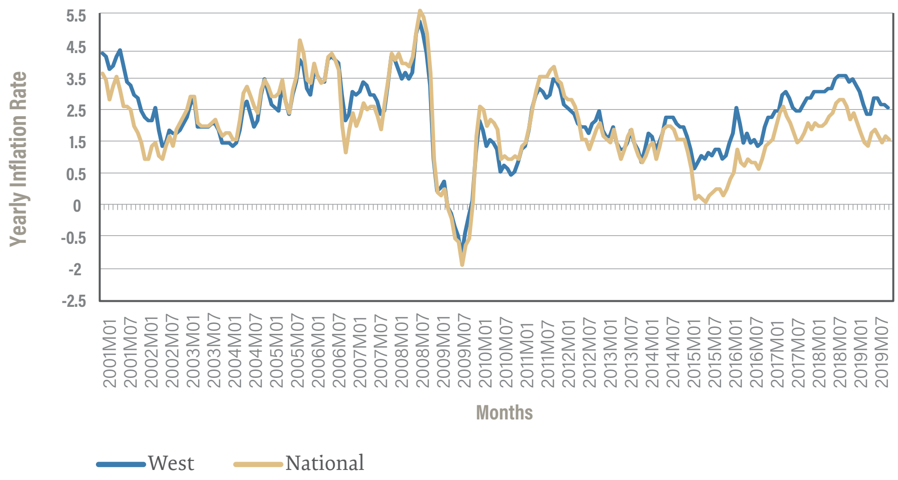
THE RATE OF INFLATION IN THE WEST AND THE NATIONAL RATE WIDENED IN 2019.

The discrepancy between the rate of inflation in the West and the national rate widened in 2019. This was a discrepancy that emerged in 2014 and is continues to display an increasing rate. Faster increases in the overall price level in the West is mainly the result of higher cost of living in the West relative to the rest of the nation. Home values generally tend to be higher on the West Coast, as are the price of necessities such as gasoline. ▶

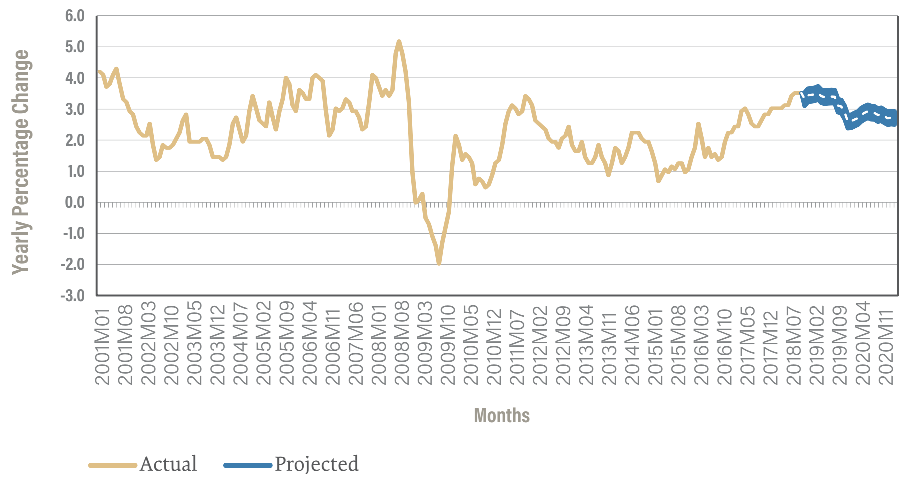
The average yearly rate of inflation in 2019 was 2.66 percent, less than the 3.35 percent of 2018. Several factors will likely cause the overall price level to rise above this rate in the coming months, including rate cuts on the part of the Federal Reserve along with balance sheet expansion and the rising price of oil emanating from the conflicts in Saudi Arabia and Iran. The slowing economy, however, will likely create downward demand-pull pressure, offsetting the upward pressure coming from the cost-push side. ▶

For the past three years, the rate of inflation came in higher the long-term benchmark rate. Thus, the Valley consumer will continue to feel a further decline in purchasing power in the months ahead. Projections point to a yearly inflation of 2.87 percent in 2020 and 2.60 in 2021.

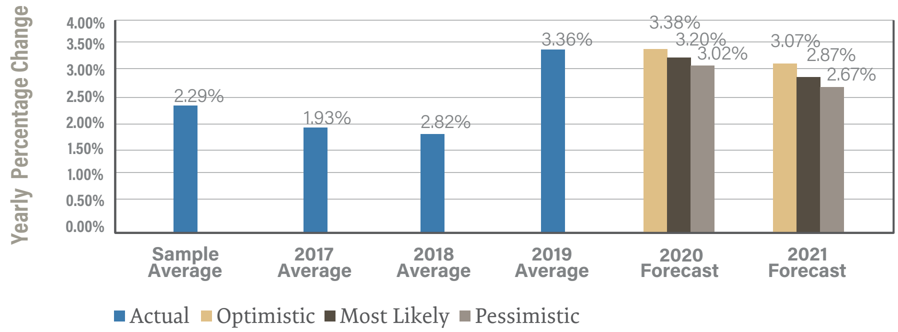
Inflation Rate: Nationwide vs. West



U.S. West Inflation Rate



U.S. West Inflation Rate: Historical vs. Projected Average Yearly Growth



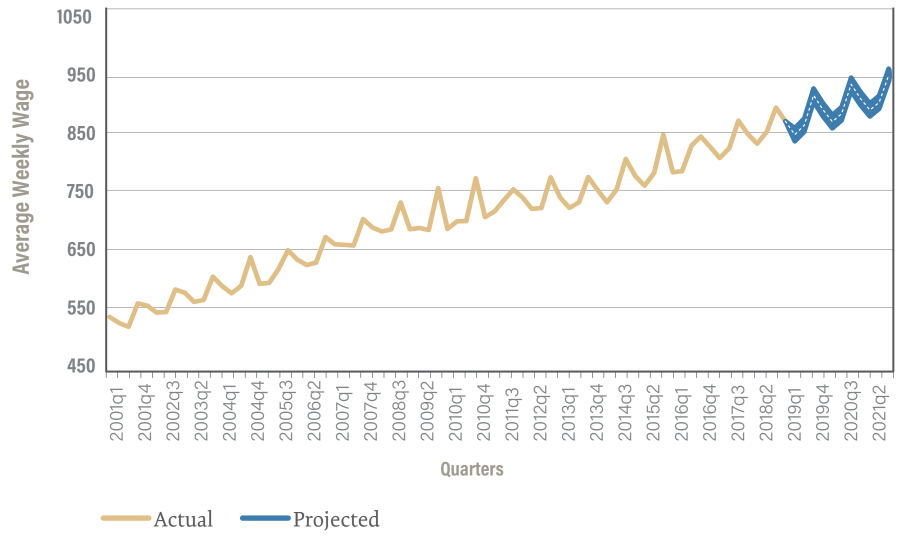
IN 2019, AVERAGE WEEKLY WAGES ROSE 2.61 PERCENT

Average weekly wages rose 2.61 percent in 2019, about the same rate as in 2017 and 2018. Wage pressures on the cost-push side have continued to exist in 2019. In all of these three years, the increase in wages was slower than the long-term benchmark rate of 2.83 percent. Projections point to a slower increase in the coming months, in line with a cooling economy. At this pace, average weekly wages in the Valley will likely reach $875 by the fourth quarter of 2020.

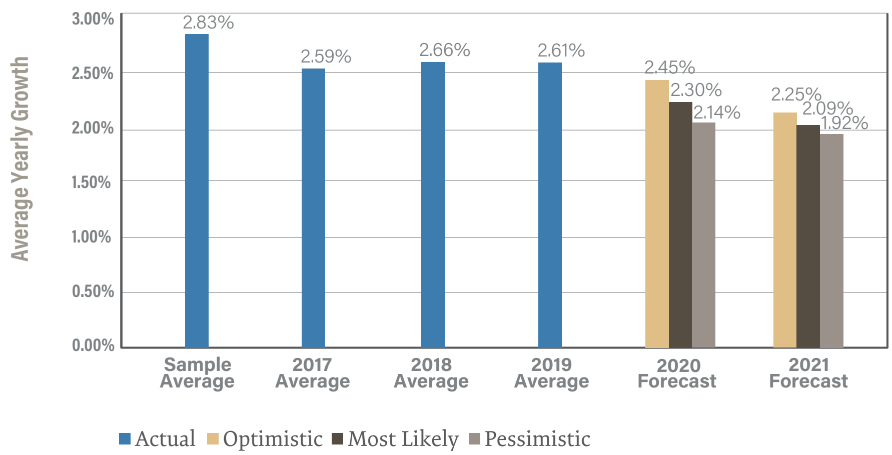
Unemployment rates in the Valley have been slowly inching upwards in 2019. Individuals are not finding jobs as easily as in prior years because a greater number of firms have reached capacity and others have been forced to lay-off workers due to a slowing demand for goods and services. Wages have grown about the same rate as the rate of inflation in 2019. Projections point to an increase in average weekly wages at an annual rate of 2.30 percent in 2020 and 2.09 percent in 2021.

The rate of inflation increased at about the same pace as the increase in wages, making 2019 a unique year in this regard. Wages increased 2.61 percent in 2019 and the increase in the rate of inflation was 2.66 percent, keeping real wages constant in 2019. However, projections of the inflation rate and wages point to a of gradual loss in purchasing power in the months ahead as the inflation rate is likely to stay above the rate of increase in wages .

Quarterly Average Weekly Wages



Weekly Wage Growth:
Historical vs. Projected Average Yearly Growth



Yearly Wage Growth vs. Inflation

Banking and Capital Markets

In line with our projections, Valley community bank deposits grew slower than the two preceding years. Slower growth in bank deposits is mainly attributed to the two rate cuts in 2019 by the Federal Reserve.

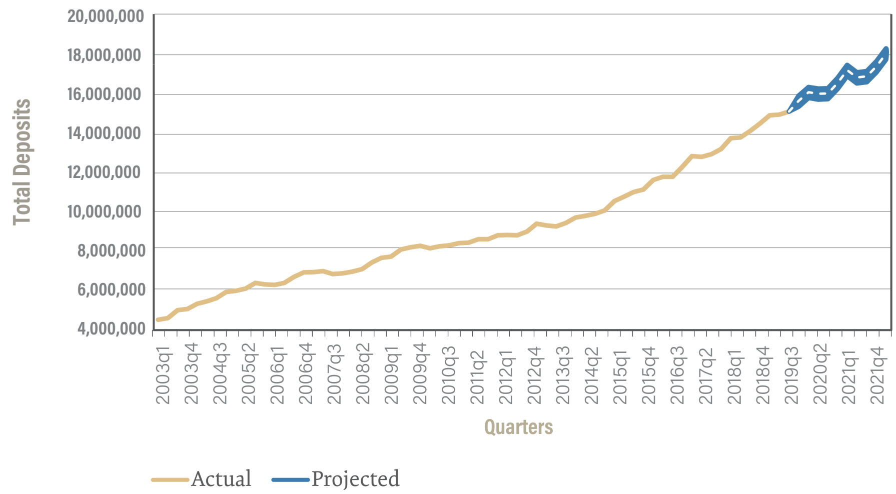
SLOWER GROWTH IN BANK DEPOSITS IS MAINLY ATTRIBUTED TO FEDERAL RESERVE RATE CUTS WIDENED IN 2019.

In addition to the rate hikes, the slowing economy is expected to dampen the rate of growth in Valley total bank deposits. Community bank deposits in the Valley are projected to increase at an average annual rate of 6.35 percent in 2020 and 5.08 percent in 2021.

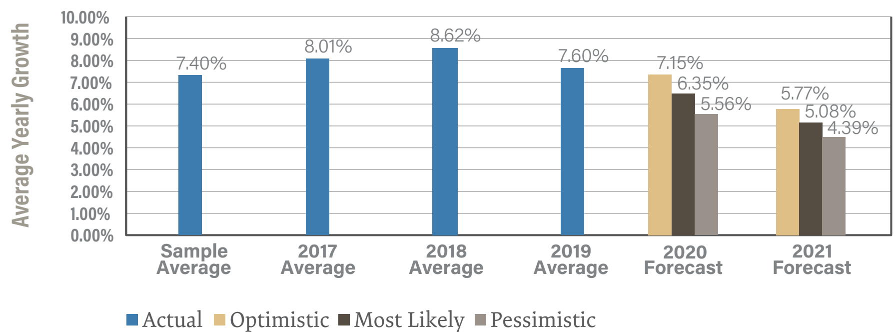
BANK ASSETS IN NON-ACCRUAL CONTINUED TO INCREASE IN 2019.

Following the turning point reached in the third quarter of 2017, bank assets in non-accrual continued to increase in 2019. There will likely be a temporary decline in bank assets in non-accrual following the Federal Reserve's rate cuts in 2019, but the general trend is likely to continue to slope upward in the years ahead as the rate of unemployment continues to increase.

Total Bank Deposits (in $ Thousands)



Total Bank Deposits:
Historical vs. Projected Average Yearly Growth



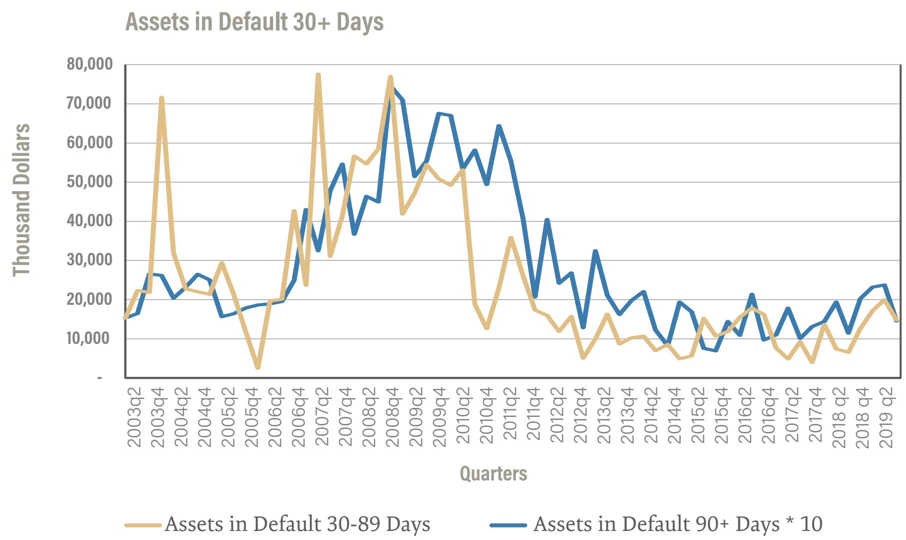
Assets in Nonaccrual

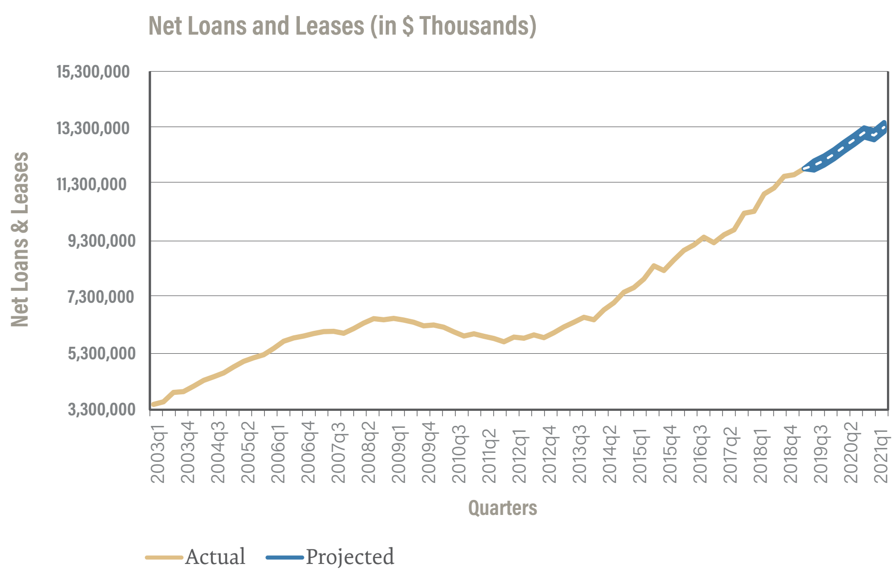
A consistent upward trend in assets in non-accrual is observed in assets in default 30-to-89 days. The assets in default 30-to-89 days and assets in 90-plus days are increasing faster than assets in non-accrual. Assets in default 90-plus days appear to have a parallel trend to assets in default 30-to-89 days. Although both series have declined in the second quarter of 2019, this decline is seen as temporary, given the slowing and ▶ recently occurring declining trend in Valley employment levels.

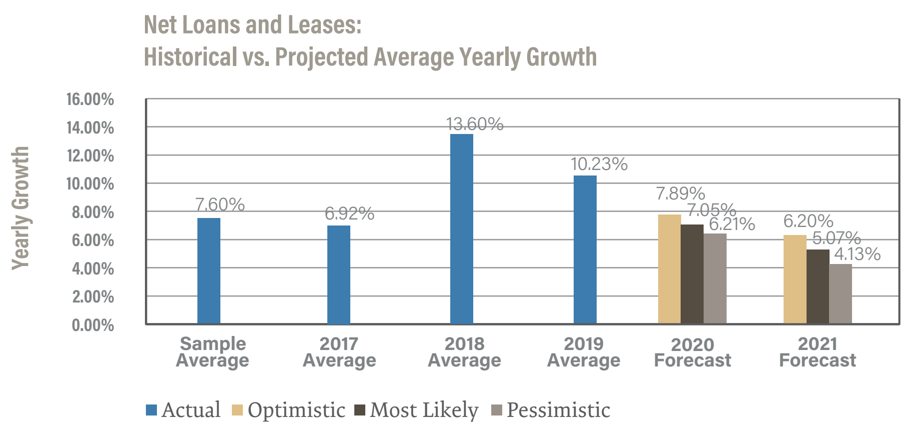
Net loans and leases also grew at a much slower rate in 2019 relative to the two preceding years. However, banks continued to extend loans at a faster rate than taking-in deposits. Because banks are continuing to lend at a faster rate than they are accepting in deposits, net loans and leases growth is expected to slow further in the coming months. ▶

Because Valley banks continued to extend loans at faster rate than the rate they took in deposits, Valley banks have used their reserves to extend loans. Bank profitability will likely be lower than the preceding year due to Federal Reserve's rate cuts in 2019. In the coming months, and in line with a slowing economy, both deposits and loans will likely grow below historic benchmark rates. Net loans and leases are projected to increase at an average yearly rate of 7.05 percent in 2020 and 5.07 percent in 2021.

Long-term interest rates have fallen following the two rate cuts in 2019. As economic activity continues to slow, default rates will likely increase further in the coming months. Both total ▶ deposits and net loans and leases will increase at a slower rate in the two-year interval and the increase in net loans and leases will become more consistent with the rate of increase in total bank deposits.







External Sector

External sector pertains only to the activity of the Valley's sole port, the Port of Stockton. Ships that berth on the port only load and off-load bulk items, not containers. The main items the Port handles are items such as cement, rebar, liquid fertilizer and rice. Forecasts will be generated for these series when the number of observations satisfies the minimum requirement.

Imports of materials used in construction have decreased drastically in 2019 compared to those years during which there was no trade war. The worsening impact of trade wars can be seen from 2017 onwards. Cement imports by tonnage was 902,310 in 2017, decreasing to 753,396 in 2018 and to 562,296 in 2019. The cost of domestic cement is higher, adding to the already high cost of home prices and making it more difficult to purchase a home in the Valley.

Another major imported item affected by higher tariffs is rebar, also used in construction. Rebar imports have decreased significantly since 2017. Imports of rebar by tonnage were 41,427 in 2017, decreasing to 20,398 in 2018 and to 14,581 in 2019. The same result of lower imports holds when compared with the same number of months in 2018 and 2019. The domestic price of rebar is also higher than imported rebar, which would be another item increasing the cost of construction in the Valley.

Cement Imports (by tonnage)

Year	2015	2016	2017	2018	2019
January	19,000	32,098	48,302	28,086	34,240
February	22,849	57,180	29,940	33,497	13,123
March	49,817	19,000	39,259	77,112	79,607
April	0	24,238	111,167	75,474	67,101
May	53,475	31,390	48,748	106,062	59,814
June	0	76,157	102,850	66,571	76,465
July	54,270	63,339	86,705	120,649	65,617
August	31,000	77,150	73,276	56,292	32,800
September	31,525	0	95,518	31,881	59,431
October	49,859	42,343	86,583	37,605	74,100
November	32,600	70,560	104,609	59,280	
December	29,603	37,030	75,353	60,888	
Total	**373,997**	**530,486**	**902,310**	**753,396**	**562,298**

Steel Imports (by tonnage)

Year	2015	2016	2017	2018	2019
January	0	9,969	5,771	0	12,098
February	13,962	21,615	0	0	0
March	26,233	4,271	0	0	0
April	7,295	0	2,177	8,046	0
May	8,377	14,461	7,774	0	0
June	9,030	7,842	4,565	3,597	2,483
July	0	0	8,608	0	0
August	18,364	41,180	4,812	0	0
September	3,957	15,771	7,720	8,151	0
October	16,059	16,623	0	605	0
November	1,572	3,572	0	0	
December	7,903	0	0	0	
Total	**112,752**	**135,304**	**41,427**	**20,398**	**14,581**

Many farmers had imported liquid fertilizer to fight the drought in the past. Liquid fertilizer imports had reached a total value of 700,555 tons in 2017. Slightly lower liquid fertilizer was imported in 2019 relative to 2018 but compared to 2017 both years' import numbers are drastically smaller.

It is evident that liquid fertilizer is high in demand, underscoring the dire necessity to store more water in the Valley. Given that no action has taken place in terms of creating more water storage, imports of liquid fertilizer will likely remain high in the years ahead.

Sulfur, tire chips, coal, and rice are examples of exports from the Port of Stockton. Exports of rice have begun decreasing gradually since 2016. In 2018, 86,023 tons of bulk rice was exported. The amount of bulk rice exported in 2019 was 88,023 tons, or about the same as 2018. When exports from 2018 and 2019 are compared to 2016, one can see the decrease in exports. Most of exported rice goes to Japan. Other exported items, such as almonds, grapes and wines have decreased significantly in 2019, gravely hurting those farmers in the Valley who have incurred huge losses due to retaliatory effects of trade wars.

Liquid Fertilizer (by tonnage)

Year	2015	2016	2017	2018	2019
January	57,419	22,047	62,361	46,160	40,134
February	24,615	62,027	73,335	27,929	72,297
March	120,300	29,046	49,100	73,753	44,678
April	66,159	95,408	43,752	19,103	85,797
May	40,036	139,119	118,362	146,210	89,684
June	79,493	79,444	81,620	70,681	37,445
July	46,500	65,449	58,047	18,187	95,491
August	13,749	17,510	32,604	60,956	14,855
September	48,115	22,401	56,993	14,935	56,510
October	18,523	36,038	37,259	74,093	45,000
November	41,438	68,056	12,398	39,800	
December	75,931	21,575	74,723	37,330	
Total	**632,279**	**658,120**	**700,555**	**629,137**	**581,890**

Rice (by tonnage)

Year	2015	2016	2017	2018	2019
January	13,000	25,001	26,001	0	26,008
February	0	0	0	12,000	0
March	13,001	24,001	0	12,000	0
April	12,074	13,001	25,037	13,005	13,001
May	0	25,001	13,001	12,000	12,000
June	12,000	23,002	13,001	12,016	0
July	27,000	0	0	13,001	0
August	12,000	11,065	0	0	24,014
September	12,000	0	0	0	13,001
October	12,000	0	0	0	
November	0	26,001	12,000	12,000	
December	49,006	12,000	0	0	
Total	**162,083**	**159,071**	**89,040**	**86,023**	**88,023**

Concluding Remarks

In line with our projections, the slowdown in the Valley economy intensified in 2019. Leading indicators, such as the inverted yield curve, ISM's purchasing managers and new export orders indexes, along with a consumer confidence index now at multi-year lows all point to further slowing of economic activity in 2019.

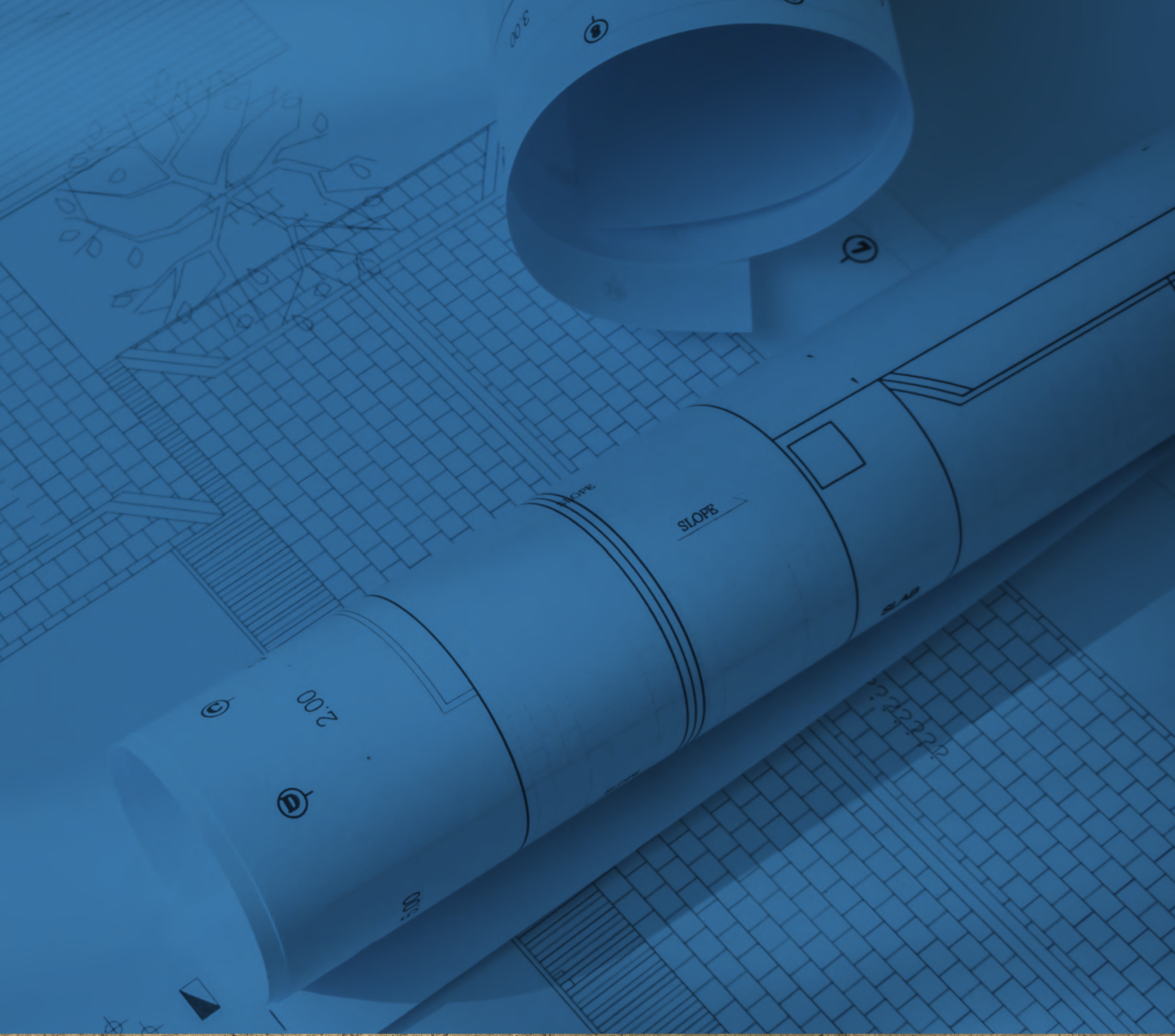
Total employment growth posted a monthly decline for the first time since the end of the recessionary years. Also, for the first time since the end of the recessionary years, two counties posted total employment declines in 2019, while three reported slower growth from the preceding years. Fresno's total employment grew the fastest in 2019, while the worst decline occurred in San Joaquin County. Valley construction employment grew the fastest in 2019 but the growth was slower than the two preceding years. Information employment continued to worsen in 2019 but the worsening was faster than in previous years. Also, for the first time since the end of the recessionary years, manufacturing, retail trade and financial activities employment posted declines in 2019.

Average yearly housing prices growth in 2019 was less than the preceding two years. Consistent with a slowing economic activity, home values are likely to continue to rise at even slower rates in the coming months. Given the historical pattern, building permits are likely to increase at rates more consistent with the series' long-term benchmark rate.

The rate of inflation came down to 2.66 in 2019 but in all of the past three years, inflation rate remained above the typical rate of 2.32 percent. Rising tensions in the Middle East will likely increase the price of oil, putting cost-push pressures for a while on overall prices. Consequently, inflation is likely to remain above the long-term benchmark rate in the coming two-year interval. The rate of inflation stayed at par with wage growth, making 2019 a unique year, during which Valley consumers maintained their purchasing power.

Both Valley bank deposits and net loans and leases increased at rates much slower than the preceding years in 2019. Valley net loans and leases continued to increase at a faster rate than total bank deposits as banks extended loans more than deposits received in 2019. Bank assets in nonaccrual continued to trend upward in 2019. Bank assets in default 30-to-89 days and assets in default 90-plus days also trended upward but at a faster rate than bank assets in nonaccrual in 2019.

In all, all regional and national indicators point to further slowing of economic activity in the coming months. As the longest-lasting period of expansion comes to an end, it is important for the business community to begin positioning itself to consider this change in the dynamics of the Valley economy.



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