



At Long Last, Normalization and Expansion

Moody's Economic Outlook for Sonoma County

2015
SONOMA
COUNTY

SONOMA COUNTY
EDB
ECONOMIC DEVELOPMENT BOARD

MOODY'S
ANALYTICS

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Sonoma County Outlook

U.S. ECONOMIC OUTLOOK
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RECENT PERFORMANCE

- After recovering from the Great Recession for nearly six years, the U.S. economy has entered a self-sustaining expansion. The unusually tough winter, the fallout on the energy industry from the West Coast port strike, and the nosedive in energy investment caused a tough start to the year, but the slowdown is over.
- Despite the first quarter slowdown, the U.S. job market continues to tighten. Some 3 million jobs were created last year, the most since 1999 at the height of the technology boom. Unemployment and underemployment are still substantial, with slack at just over 1% of the labor force. But this slack should be absorbed by fall 2016 and job growth is expected to pick up in coming months. The economy's strength is evident in the job market. Payroll employment added 280,000 jobs in May, bringing the total since the beginning of the recovery to 10.7 million jobs. The current pace of job creation is almost double that needed to reduce unemployment. More of the new jobs pay better than was the case earlier in the recovery.

A tightening labor market

- Signs of stronger wage growth may finally reflect a tightening labor market. Although the unemployment rate edged higher to 5.5% in May from 5.4% in April, a healthy inflow of job seekers accounts for most of the rise. Nearly 400,000 workers, many of whom were previously discouraged, joined the labor force. Accordingly, the labor force participation rate increased slightly from 62.8% to 62.9%. A steadily increasing share of new entrants—nearly two-thirds in May—are finding jobs.
- The share of unemployed workers out of a job for more than half a year is declining steadily, though it remains far higher than before the recession. Likewise, the number of workers employed part time for economic reasons remains elevated. Though trending down, it increased in May. The broadest U-6 measure of labor underutilization stayed at 10.8% in May as a result.

Long- vs. short-term unemployment

- Some contend that the labor market is tighter than the unemployment rate indicates, so wage and even price pressures will soon pick up. Proponents of this view distinguish between workers who have been unemployed fewer than six months and those out of work longer, arguing that the latter may have lost necessary work skills and may not be employable. The argument makes intuitive sense, and is consistent with the fact that short-term unemployment is back to prerecession levels. The headline unemployment rate is elevated because the number of long-term unemployed remains large. Still, this argument should not be overstated. A fair share of the long-term jobless remains employable and will fill jobs as they become available. Many likely worked in housing-related and government jobs, and will return to work as construction picks up and state and local governments resume hiring.
- That the long-term unemployed have skills they will use as jobs become available is evident from the Beveridge curve. The curve, which represents the relationship between unemployment and job openings, had shifted outward after the recession. That is, for a given number of job openings there were more unemployed workers, suggesting that many workers lacked the requisite skills. That is why those with a high school education or less have had a more difficult time finding jobs. Fortunately, that is slowly changing.

- The full-employment unemployment rate, also called the natural rate, of around 5% will be reached early next year. This is about half a percentage point below the current 5.5%.

Out of the workforce

- Individuals who for various reasons have stepped out of the workforce but say they want jobs account for a significant amount of job market slack. People in this group are not actively looking for work and thus not counted as unemployed, but will likely return to work once the job market tightens. Commuting, child care and other factors may make it uneconomical for many to work at current pay scales.
- This may understate the slack represented by those who left the labor force since the recession. Retiring baby boomers account for more than half the decline in labor force participation in recent years. Some of these workers were forced into retirement sooner than they would have preferred, and could be enticed back to work in the next few years as the labor market tightens. The tough job market also induced many younger workers to stay in school longer or return for additional study. While jobs were scarce they upgraded their skills, and college enrollment rates rose meaningfully. Education matters in the labor market. Thus, many of these newly minted college grads will likely soon re-enter the job market.
- Part-timers who cannot find full-time jobs also add to the slack. The size of this group ballooned in the recession, and while it has declined since, it remains larger than normal at about 0.4% of the labor force on a full-time equivalent basis. This will be the last part of the labor market to normalize, as part-time work is generally a bridge from unemployment to a full-time job.

What about wages?

- Though job growth is proceeding at the fastest pace since the late 1990s, wage growth has only recently shown signs of life. The changing composition of the labor force is a major reason, as the overrepresentation of older and more educated workers—two groups that tend to have lower unemployment rates—may have lowered the natural rate of unemployment.
- Yet it will not take long for wage growth to resume, as the share of the underemployed, or part timers, begins to shrink. A surplus of unemployed workers enabled employers to give a pass on wage hikes earlier in the recovery, but the pool of available workers is rapidly shrinking. As the job market tightens, some industries and occupations will experience these conditions before others, and they will ramp up their workers' pay sooner.

Handicapping the outlook

- Wages will grow more quickly as the remaining slack in the labor market is absorbed and job growth holds firm to its current solid pace. Most of the recent improvement in the labor market stems from increased hiring rather than fewer layoffs, which is a good indicator of labor market strength. Further, with fading fiscal drag, government hiring should increase. This has already begun at the state and local levels.
- One cause for concern is a mismatch between house price appreciation and single-family residential construction. While rising house prices normally would increase the amount of new construction in a normal market, existing-home sales have flatlined and new single-family construction is moored at less than half of its prerecession average. Slower wage growth and tight credit conditions are the primary reasons. However, as wage growth pulls in line with house price appreciation, home sales will pick up, and residential construction will follow suit. The outlook assumes that the large economic multiplier from single-family homebuilding will contribute significantly to employment growth. A further risk to the housing market could arise as the Federal Reserve normalizes monetary policy, creating the potential for a spike in mortgage interest rates.
- Low energy prices are weighing on business investment, and the global increase in liquidity from quantitative easing in Japan and the euro zone is pumping up the value of the U.S. dollar, subtracting from exports.

- On the international stage, China could stumble as its leaders attempt to wring some of the excesses out of their economy. Europe's problems could boil over again, as could the Russia-Ukraine conflict or China's rocky relationships with its neighbors. These threats notwithstanding, it is increasingly easy to see the U.S. economy finally kicking into a higher gear.

ASSUMPTIONS

Monetary Policy

- The Federal Reserve has begun what is expected to be a slow normalization of monetary policy. The first step was to end its bond-buying program, which it did in October. As a result of four rounds of quantitative easing, the Fed's balance sheet has more than $4 trillion in Treasury and mortgage securities. In a well-functioning economy, the Fed's balance sheet should be closer to $1 trillion.

- If the economy follows the path of the Moody's Analytics outlook, the Fed will begin raising short-term interest rates in September. Although the economy will achieve full employment by mid-2016, short-term interest rates will not normalize until early 2018. A steady but orderly rise in long-term rates is expected, with 10-year Treasury yields rising from the current near 2% to near 2.5% by the end of 2015, and rising to near 4% by late 2017. This is below the estimated 4.5% normalized 10-year Treasury yield consistent with full employment. Long-term yields will not normalize until global central banks end their quantitative easing programs, and the Fed's balance sheet shrinks. This is not likely until closer to the end of the decade.

- The economy should be able to handle the rise in interest rates. Lower unemployment and stronger wage growth should trump the impact of higher mortgage rates on the housing market, and steadily rising corporate earnings should underpin stock prices. The Fed should be able to manage the normalization of monetary policy, carefully calibrating its balance sheet and explaining its actions to bond investors to adjust interest rates.

Fiscal policy

- The federal government's fiscal situation continues to improve. The deficit is expected to stabilize at just over $500 billion in the next several years. The budget deal reached at the end of 2013 to keep the government open for at least two years is holding firm and government spending growth remains modest. This, combined with strong tax revenue increases, has resulted in a shrinking deficit.

- As part of the budget deal, lawmakers also agreed to increase the Treasury debt limit sufficiently that it should not be an issue until the fall. Fiscal policy is fading as a drag on economic growth. Austerity, which reduced real GDP by close to 1.5 percentage points in 2013, lowered expansion in 2014 by approximately 0.4 percentage point. The drag in 2015 and 2016 will be minimal. Under current fiscal policy, Washington will come close to the goal of achieving fiscal sustainability—future budget deficits that are small enough (near 3% of GDP) that the nation's debt-to-GDP ratio stabilizes, at least through the remainder of the decade.

- This will be enough to satisfy financial markets and allow the recovery to gain traction as anticipated in the baseline. Deficits and debt will begin to mount again early in the next decade given prospects for large increases in entitlement spending. Though healthcare inflation has slowed, do not expect this to continue. Medicare and Medicaid spending is likely to rise and further policy changes will need to be taken, and are assumed in the outlook.

U.S. dollar

- The value of the real broad trade-weighted U.S. dollar has surged by well more than 10% since last summer. This reflects stronger U.S. economic growth and prospects for monetary tightening, and disappointing growth and monetary easing in much of the rest of the world. Further dollar appreciation is likely, particularly against the euro. Behind this outlook is the expectation that the Federal Reserve will normalize U.S. monetary policy by early 2018, but the European Central Bank will not be able to normalize policy until near decade's end. While the long-run fair value euro/dollar exchange rate is an estimated $1.25, the euro is expected to fall briefly below parity with the dollar by this time next year.

- The dollar will also strengthen further against the Japanese yen, which has fallen sharply to more than ¥120 to the dollar since Abenomics began in late 2012. Further yen depreciation is expected through mid-decade given Japan's struggles, with the yen/dollar rate peaking at close to ¥140. The British pound should hold its own against the dollar over the next several years. The U.K. economy is expected to perform similarly to the U.S. economy, and the Bank of England should thus normalize British monetary policy along a similar path to the Federal Reserve.

- The dollar will remain strong against the currencies of most emerging economies as the Fed normalizes monetary policy, but it will depreciate slowly and unevenly against these currencies over the long run. The only major currency against which the dollar is expected to weaken over the next several years is the Chinese yuan. The real broad trade-weighted dollar's relative stability will prevail throughout the long-run horizon. The dollar will remain the global economy's principal reserve currency for the foreseeable future.

Energy prices

- Oil prices plunged to a low of less than $50 per barrel earlier this year. Prices have since rebounded closer to $60 per barrel. Behind the slump in oil prices was the previous ramp-up in global oil production, particularly among U.S. and Canadian shale oil producers, and the decision by Saudi Arabia not to curtail its production to accommodate the greater North American production.

- Oil prices should slowly rebound. Underlying this outlook is the already-apparent sharp pullback in North American shale oil production. Rig counts have been cut by more than half and production will soon begin to decline. Other higher-cost non-OPEC producers in the North Sea and Arctic are also curtailing investment plans.

- Global oil demand will also receive a lift from the lower prices. This is illustrated by the recent strength of vehicle sales in the U.S., particularly for gas-guzzling large SUVs and light trucks. In the long run, oil and gasoline prices are expected to trend higher, increasing at a pace that is just above the overall rate of inflation. Prices are expected to top $100 per barrel again early in the next decade.

FORECAST RISKS

Monetary policy and interest rates

- The baseline forecast hinges on the Federal Reserve's ability to gracefully normalize monetary policy. The odds of a rate hike this summer are low. First quarter economic data have disappointed, with gross output falling an annualized 0.7%, the result of unusually harsh weather and a pullback in energy-related investment. Chair Janet Yellen will likely wait for more positive data and confirmation that the slowdown was transitory before moving to raise rates. Further, the Federal Open Market Committee remains dovish, having lowered its estimate of the unemployment rate that is needed to nudge inflation up to its 2% target rate. For this reason, the baseline forecast assumes that the first hike will not occur until September.

- However, if the market and the Fed's timelines are not in sync ahead of the first hike, a sharp spike in rates and resulting bond market volatility could slow the U.S. expansion. Historically, the Fed's actions have moved faster than intimated by policy statements, catching investors off guard. Of note, traders have yet to fully price in a September rate rise, instead marking the December FOMC meeting for the first hike. An unhappy market surprise could lead to rapid selloffs and an upward shift of the yield curve, derailing the baseline forecast. The timing would be unfortunate, as tighter credit would slow wage gains and cool housing demand just as they were beginning to warm up.

Housing

- The housing market's positive short-term outlook is predicated on an acceleration in wage growth, a steady rise in longer-term interest rates as the Fed begins to normalize monetary policy, and continued improvement in household balance sheets. If any of these factors fails to play out as assumed in the baseline forecast, it would deal a significant setback to the housing recovery. A slower than expected rise in wages would hold back home sales and keep residential construction at a low simmer, while continued improvement in household credit conditions is essential given tighter lending standards in the aftermath of the Great Recession. Finally, a sharper than expected rise in long-term yields would increase borrowing costs and prompt many first-time buyers to postpone home purchases.

Asia

- Forecast risks from Asia's major economies create some uncertainty for the U.S. economy over the short term. The Japanese government's policies have yet to be tested. The success of Abenomics rests on increasing business investment, but thus far investors have remained wary because of weak consumer demand, limiting growth going forward. With public debt at 200% of GDP, a hike in bond yields could overwhelm government's ability to serve its debt, creating a fiscal crisis. Fiscal problems in Japan could further undermine business confidence and send shock waves internationally via financial markets.
- China's economy has not yet fully achieved a soft landing. The boost from lower interest rates and reserve ratio cuts has yet to spur the real economy, as growth in fixed investment, industrial production and retail sales remains weak. Recent data offer optimism that GDP growth is stabilizing around the government's 7% target for 2015. If further borrowing does not generate more investment and revenue, however, over-indebtedness may trigger financial instability. For a large economy such as China's, a crisis would add uncertainty to world financial markets.

Euro zone

- Growth in the U.S. could be hurt through trade and financial markets if financial conditions in the euro zone deteriorate. Deflation concerns are fading, but the euro area's recovery will likely be gradual given the lack of credit growth to the private sector. A stronger European recovery is within reach, although several hurdles remain. Aggregate demand could be significantly boosted if policymakers would agree on a large-scale investment program to complement the ECB's Asset Purchase Programme.
- The odds of a Greek exit are higher than ever before. The Greek government and euro zone creditors have been unable to reach an agreement on a resolution to the Greek debt. The immediate risk is that continued brinkmanship will push Greece into a disorderly default, with a large debt and interest payment due in late July as the likely trigger. If no agreement can be reached between Greece and its creditors, the government in Athens may not be able to meet its payment obligations. An exit from the euro zone also is a possibility. In that event, longer-term threats would begin to dominate the narrative. Traders could begin to sell off the debt of Europe's southern periphery, pushing borrowing costs higher and straining budgets in Italy and Spain. U.S. exports would suffer and there could be more bond market volatility.

Energy development

- Lower prices and somewhat stronger economic growth will boost oil demand in the U.S. more than in other parts of the world. Lower prices have led to cuts in capital expenditures and lower oil supply. Declining U.S. oil production will lead to higher prices and a subsequent rebound of new supply. Longer term, greater oil production in the U.S. will support the U.S. current account.

Regional Economic Outlook

Sonoma County CA
Steve Cochrane, 610.235.5114; Jesse Rogers, 610.235.5165

SUMMARY (back to top)

Sonoma County's economy is charging forward and is on the verge of a self-sustaining expansion. Its primary drivers—vinyards, winemaking, and travel and tourism—are all fueling growth. Sonoma County has regained all of the jobs lost in the 2008-2009 recession and total employment now stands above its prerecession peak. The unemployment rate has fallen sharply to 4.3%, even as labor force participation rates have stabilized and the labor force has expanded.

House prices have recovered more than half of their peak-to-trough loss, but residential construction has slowed in line with the national pace. Despite a brief rally in the second half of 2014, residential construction remains at a cyclical low nearly six years after the recesssion, as house price gains eclipse growth in wages and salaries. Meanwhile, residential construction employment remains well below prerecession levels. Population growth has strengthened for the second consecutive year, clocking in at 1% in 2014. However, it is still more than half a percentage point below its long-term historical pace. But as the labor market tightens, strong population growth will combine with household formations to drive demand for single- and multifamily construction.

Sonoma will continue to grow at a solid pace this year as the long-awaited recovery in consumer spending kicks in, driving demand for high-quality wine and supporting Sonoma's buoyant tourism industry. However, growth will trail the U.S. and state rates as Sonoma's high-tech and manufacturing industries contribute less to job growth than in previous business cycles. Nevertheless, as the local labor market strengthens, stronger demand for housing will lift employment in construction and private services. Over the long term the local travel and tourism industry, with increasingly broad offerings, coupled with a skilled and innovative workforce will support growth. Growth related to the wine industry and manufacturing will be positive but more limited.

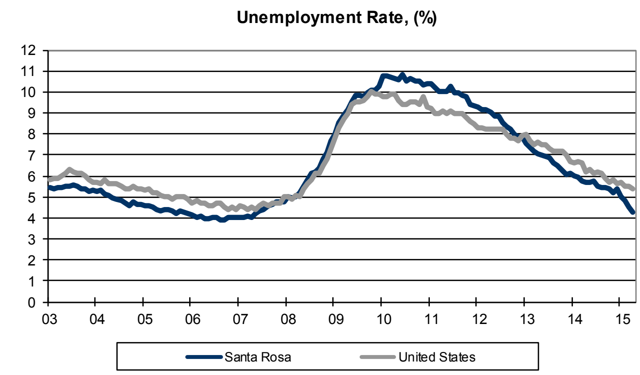
High-tech research and development and the promotion of Sonoma's tourism and creative industries will be critical to growth over the long term. Training and retaining a new generation of skilled workers will be essential to drive business creation and new investment in the county.

RECENT PERFORMANCE (back to top)

- Sonoma County's economy has maintained a rapid pace of growth since the local recovery began nearly three years ago. Wage and income gains are strengthening, and the unemployment rate has fallen sharply even as the labor force participation rate has stabilized.

Sources: BLS, Moody's Analytics

- Not only is the unemployment rate falling, but the gap between the U.S. and the local rate has reversed. At its peak, the local jobless rate was 1 percentage point above the national rate. But as of April, Sonoma County's rate is 1.2 percentage points below the national average.



Sources: BLS, Moody's Analytics

- The leisure and hospitality industry is a crucial factor driving overall employment growth. As of December, air passenger traffic at Charles M. Schulz-Sonoma County Airport was up by 4.3% from a year earlier, and travel through San Francisco International Airport has increased even more rapidly. Sonoma County has benefited greatly from the boom in Bay Area tourism.

Santa Rosa					
Employment, Recent Performance					
April 2015					
	Annualized growth rate				
	3-mo	6-mo	12-mo	5 yr	10 yr
Total	2.3	3.9	2.1	2.9	0.4
Construction	30.6	24.7	11.5	6.3	-2.0
Manufacturing	-4.8	0.0	-1.7	0.2	-1.7
Wholesale Trade	2.4	0.6	3.7	3.6	1.0
Retail Trade	-3.3	2.2	0.6	2.7	0.2
Transportation and Utilities	-2.1	2.9	2.2	2.0	1.8
Information	18.2	7.2	3.4	2.1	-2.9
Financial Activities	-2.5	0.3	1.1	-0.1	-2.4
Professional and Business Services	13.1	6.8	4.8	2.2	0.5
Education and Health Services	2.2	5.8	1.3	3.8	2.9
Leisure and Hospitality	-1.3	5.7	3.6	4.2	2.1
Government	0.1	-1.1	1.0	3.1	0.3
	Percent				
Unemployment rate	4.5	4.9	5.2	7.9	7.0

- According to Smith Travel Research, hotel occupancy rates rose just 1 percentage point from 2013 to 2014, but at 74% they remain close to their prerecession high. Further, the average daily room rate in county hotels rose by 12% over the same period, reflecting stronger pricing power.

- Sonoma County's modest housing recovery is in line with the national trend. Single-family construction permits remain at a cyclical low, while multifamily permits have rebounded unevenly. House price appreciation has slowed in recent months although at about 10% over the year is still nearly double the national average. Price appreciation is driven largely by a lack of new supply as population growth has accelerated. Further, with the ratio of single family completions to household formations well below the U.S. average, there is signifiant pent-up demand for single family homes, and foreclosures have fallen to low levels. Thus, homebuilding should soon begin to accelerate and create economic growth.

- Consumer credit continues to make large strides across loan categories, futher improving household balance sheets. Automobile and bankcard delinuencies have fallen back to their prerecession levels and local consumer credit quality is improving rapidly in a pattern that is similar to that across much of the country. The recovery in household net worth will support stronger consumer spending over the next year.

NEAR-TERM OUTLOOK (back to top)

- Sonoma County's growth will decelerate slightly in the near term as the economy approaches full employment and remaining slack in the labor market is absorbed. With payroll employment and economic output above their prerecession peaks, job growth is expected to cool slightly from its current 2% year-on-year pace. However, strengthening macroeconomic fundamentals will support Sonoma County's key industry clusters. As consumers grow more confident and wage growth strengthens across the region and the nation, increased consumer spending will bolster Sonoma County's leisure and hospitality industry and increase demand for higher-priced domestic wines. Meanwhile, growth in business investment will enable local technology-producing industries to expand.

TOURISM

- Sonoma County's tourism industry is rapidly gaining momentum. Tourism spending in Sonoma County hit a five-year high in 2014 and is poised for further growth. Leisure and hospitality payrolls surged by more than 5% over the past year. This pace cannot be maintained over the long term, but the industry will continue to steadily create jobs. The current forecast is underpinned by a combination of low oil prices and stronger wage growth that will raise household disposable income across the West and nationwide as the economy reaches full employment.

- Hotel occupancy rates are expected to improve further on the back of a strong consumer recovery. Slow growth in supply will allow hotels to maintain pricing power over the near term, as several proposed projects such as a 200-room addition to the Graton Resort & Casino have yet to materialize.

- Job growth in Sonoma County's tourism cluster—one of nine identified by the Economic Development Board—has been among the steadiest of all clusters since the end of the Great Recession. The county's tourism industry also ranks among California's top performers in room rates and occupancy. Sonoma County has benefited from pent-up demand for business and leisure travel, especially among higher-income travelers.

- Sonoma County's growing allure for international tourists is a key factor in the cluster's long-term stability. The county's attractions have drawn an increasingly diverse pool of global tourists, helping to reduce outfall from economic weakness in any given country. Strong growth in developing Asia is a source of potential growth of visitors to Sonoma County: Arrivals of Chinese tourists to the U.S. are expected to grow by an annual average of 17% over the next five years, while India's strengthening economy is another positive sign.

- The outlook for pricing of Sonoma County's leisure services is favorable in the near term. While the rapid tightening of the labor market will begin to put upward pressure on local wage rates, hotel room rates have more than kept pace, a plus for lodging establishments' profitability. However, pricing power will be more prevalent at higher-end accommodations than among lodgings that cater to budget-conscious travelers. The still-high personal savings rate and an aversion among many households to take on new debt make middle-income leisure travelers particularly cautious with their travel budgets. The industry will be even more dependent on high-income visitors in the near term, but spending constraints for middle-income visitors will begin to ease next year as wage growth accelerates.

AGRICULTURE, FOOD AND WINE

- Demand for wines produced in Sonoma County is expected to strengthen this year and next as higher-end wine consumers continue to shift toward quality after favoring lower-priced bottles in the wake of the recession. Total revenue for U.S. wineries rose 3.6% by value in 2014 as retailers relied less on discounts and consumers traded up to higher-priced bottles. Inventories are building after a third year of record yields, but rising demand will enable the county's high-end wineries to maintain pricing power, boosting profitability. Growth in on-premise sales will provide a lift to smaller wineries that rely more on visitor traffic for sales.

- The 2014 harvest was the third-largest on record with exceptional quality, but there are signs of oversupply among grapes destined for the mid-tier and bulk markets. The drought affecting California is expected to lower the quantity of the 2015 harvest, but as long as quality is unharmed, a leaner crop will have the silver lining of easing concerns over excess supply.

- The value of direct shipments surged 15.5% in 2014 to $1.8 billon, well ahead of the value of U.S. wine exports. Sonoma County wineries benefited greatly from the increase, notching a 13.6% gain in sales volume and accounting for 24% of total U.S. sales in the direct shipping market. The present year bodes well for direct sales, with Massachusetts becoming the 40th state to permit direct shipping. The state's large volume of wine sales and high per capita consumption will boost the direct sales market in 2015. Direct sales offer further potential for growth. Although 10 states have yet to legalize sales via this channel, the overall trend is positive and Pennsylvania's legislature is debating a bill to permit direct sales.

- Longer term, the outlook for Sonoma County wines is favorable. Per capita wine consumption in the U.S. continues to rise after surpassing its high-water mark in 2007. Meanwhile, millennials are drinking more wine than other generations at their age, offering additional upside potential. With conjunctive labeling for Sonoma County wines now required as of 2014, local name recognition will be boosted domestically and internationally in a similar manner to Napa County. Conjunctive labeling requires the inclusion of "Sonoma County" on the label along with any subregion of origin.

- However, the road ahead is not without curves. First, a stronger domestic currency poses the single greatest risk to Sonoma County vintners. A stronger dollar will make U.S. wines more expensive for foreign consumers, while lowering the price of imported wines in the U.S. Second, though the millennial generation—aged approximately 22 to 33—shows a rising preference for wine compared with other generations, high student-loan debt burdens and a preference for value over premium brands pose near-term risks to consumer demand. While the boomer generation is beginning to retire, millennials have yet to enter their peak earning years, posing a risk to spending on luxury goods. Third, winemakers will face increased competition from the craft beer industry, which is rapidly increasing its share of the adult beverage market. Of course, although this may be a headwind for Sonoma County winemakers, local craft breweries are among those leading the charge in creating demand for new beers.

- Despite the stronger dollar, the value of U.S. wine exports in 2014 reached $1.49 billion, the second-highest on record in nominal dollar terms. Despite a 15% fall in sales to the European Union, Japan, China and Hong Kong—four of the five largest export markets for U.S. vintners—greater wine consumption in emerging markets bolstered total sales.

- Wine imports rose a modest 3.5% to $6.6 billion, in line with previous years' gains. Imports from France and Italy—the two largest sources of wine imports—rose by 8% and 5%, respectively. Latin American imports declined for the second straight year after rising for more than a decade. Imports from Chile were down 7.6%, and wine sales from Argentina fell 6.8%.

TECHNOLOGY

- Sonoma County has benefited for decades from a thriving technology industry, but employment in technology-producing industries has languished since the 2001 tech bust and the Great Recession. However, the county's technology industries are starting to regain their footing. High-tech hiring accelerated in the second half of 2014 and outpaced that of total employment in the first four months of this year. Still, payrolls and real earnings remain one-fifth below their level in early 2008. This is in contrast to booming tech-producing industries in Silicon Valley.

- Despite the declining prominence of technology manufacturing industries in Sonoma County, many firms and entrepreneurs from the 2000 tech boom have survived and still call Sonoma County home. There is an indication of some remaining comparative advantage for tech-producing industries in terms of its skilled labor pool, its installed base in the county, and its proximity to tech-producing areas elsewhere in the Bay Area.

- Since the middle of 2009, Sonoma County's technology industries have benefited from recovering business IT investment. County producers of broadband and testing equipment, for example, benefited from federal stimulus spending for rural broadband systems as well as from the upgrading to gigabit connection speeds for business and personal use. Robust growth in the global smartphone market has been an additional source of support for the county's electronic testing equipment makers.

- Prospects for tech-related professional services have brightened. Sonoma County's top tech employers have steadily added to their local research and development operations even while downsizing their local manufacturing base. Though high-tech employment is expected to increase only modestly, strong wage growth means that each additional job will contribute more to the local economy.

- Rising demand for green technologies is a source of potential growth. These may include, over the long term, a broad set of industries that improve efficiency of water use; enhance lighting, heating and cooling efficiency of buildings; or allow agriculture to make better use of land and water resources. The county is among the state's top counties in terms of installed or in-development solar capacity, ahead of several larger Bay Area and Central Valley counties and is home to one the largest wholesalers of solar equipment in the U.S. Sonoma Clean Power, a public provider of electricity from clean sources, is now the county's default electricity provider, and surrounding counties' interest in replicating Sonoma Clean Power's success could draw further investment.

- The federal Affordable Care Act has the potential to benefit Sonoma County's medical device manufacturers. The higher number of insured households will expand the pool of possible recipients of medical devices designed and manufactured in the county. Further, an aging population will bolster demand for an array of medical and testing equipment.

CREATIVE PROFESSIONAL SERVICES

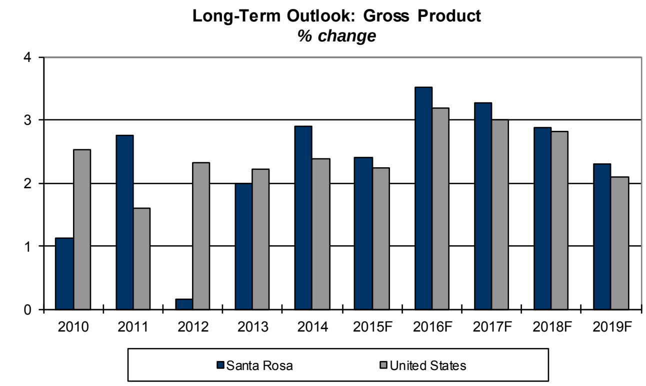
- Creative professional services play a fundamental role in the research, design and development of goods and services as well as the production of information services and entertainment. These include scientific researchers, computer systems designers, software publishers and engineers, as well as motion picture producers, journalists, artists, and performers. A second, broader definition of creative services includes those that play a supporting role in the creative process, such as legal services and accounting. By the first measure, Sonoma County's creative industries employ approximately 9,000, representing 4.5% of total payroll employment. This number excludes countless others that are self-employed.

- Creative professional services employment plummeted in the wake of the recession, as the tech sector was particularly hard-hit by a shifting of research jobs to low-cost centers overseas. Further, many smaller local companies have been reluctant to hire. This contrasts sharply with broader statewide and nationwide trends in which creative industries have accounted for a continually rising share of employment, output and wages over the past decade.

- Given the area's relatively skilled workforce, its location close to even-higher concentrations of creative talent in the Bay Area, and its highly valued quality of life, the potential to accommodate, attract and develop a larger creative professional services cluster in Sonoma County creates further upside potential for the area. However, employment in creative professional services is projected to increase only modestly and remain at about its current proportion of the workforce.

- Though a small share of total creative cluster employment, Sonoma County boasts a higher concentration of independent artists, writers and performers than the national average. The county's numerous arts and entertainment organizations and support from local development councils are all factors that support a vibrant artistic community. Independent artists and performing arts companies will be further bolstered by support from Creative Sonoma, a new arts council dedicated to the promotion of the arts and creative industries and workers in the area.

LONG-TERM OUTLOOK: POSITIVE FACTORS (back to top)



Source: Moody's Analytics

- Sonoma County's basic industries such as its wineries and specialty foods, travel and tourism, and technology production provide considerable long-term potential for growth. These industries build on the comparative advantages that are inherent in the county's resources—its workforce, its natural resources, and its capital.

- These resources are plentiful. For example, the metro area's workforce is relatively skilled. According to the 2013 American Community Survey, 32% of the adult population has a college degree, slightly above the U.S. rate of 30% and California's 31% rate. Its natural resources are bountiful, as attested to by its rich soil; mild climate; and extensive shoreline, forests and parklands. It has built up local capital through entrepreneurship over the past several decades. Per capita income in Sonoma County exceeds the national and statewide averages.

- The long-term outlook for winemaking remains especially favorable given the industry's deep roots in the county and favorable growing climate for high-quality varieties. Total wine consumption in the U.S. surpassed France's in 2010 even with the lingering effects of the recession. Per capita consumption still lags, suggesting ample room to expand. International markets are increasingly important, particularly in East Asia. A third year of record yields raises concerns over excess supply, but strong demand will enable higher-end wineries to maintain pricing power.

- The long-term outlook for Sonoma County tourism is favorable. The region is gaining recognition, and its proximity to Bay Area attractions and the international gateway through San Francisco will continue to support tourist traffic. Moreover, the strong popularity of wine and the wine-related culture underpins the positive fundamental outlook for the industry. The emergence of local craft breweries as well as the expansion of the visitor experience toward wellness programs and spa experiences adds further long-term upside potential.

- Travel and tourism also have the potential to expand internationally as the region—including its wine-producing areas—becomes better known overseas and as accommodations and attractions improve. This is especially pertinent because overseas travelers tend to spend more per day than domestic travelers. There is good potential for accelerating demand from Asian travelers over the next several years given the continued expansion of developing Asian economies.

- Domestic demographic trends suggest healthy longer-term prospects as well. The first wave of baby boomers has reached retirement age, with well-developed tastes for travel and recreation in addition to the discretionary income to fund these tastes. Retirees in the coming decade will generate strong demand for travel to the wine country. Experience shows that retirees many times choose to retire in places to which they love to travel, suggesting that travel and tourism could influence housing market trends over the coming decade.

- Specialty food products have the long-term potential to complement the wine industry within the region. These include olive oils, cheeses, and a range of organic vegetables and meat products. Such goods are linked to tourism as well, as visitors sample these products locally and then generate new markets once they return home. Similarly, these niche industries play an increasingly important role as suppliers to restaurants throughout the San Francisco Bay Area. Consumer demand for locally grown products is bound to rise in coming years.

- The expansion of Charles M. Schulz-Sonoma County Airport is bringing a greater volume of air service to the county. A $55 million runway expansion project was completed in October. The main runway, which was lengthened to 6,000 feet, is now long enough to attract regional jet service to the airport. This will help to increase service beyond Horizon Air's existing flights to and from Los Angeles, Portland OR, San Diego and Seattle. New flight originations from Denver and Phoenix top the list of potential new flights to bring more business and leisure travelers to the county.

- In terms of business costs, Sonoma County is relatively inexpensive compared with its Bay Area peers. According to the Moody's Analytics Cost of Doing Business Index, Sonoma County's business costs were the fourth-lowest in the nine-county San Francisco Bay Area as of 2013, the most recent year in which the index is available. Relative to the U.S., business costs are 10% lower than those in the San Francisco metro division (San Francisco and San Mateo counties) and 20% lower than those in the San Jose metropolitan area. Moreover, Sonoma County's business costs are significantly below the U.S. average in three of the index's four components: unit labor costs, office rents, and the average tax burden. However, California's energy costs are relatively high. As a result, Sonoma County's overall cost of doing business is 12% higher than the U.S. average as of 2013.

Index of Relative Business Costs - 2013

	Labor Cost		Tax Burden		Energy Cost		Office Space		Overall Index	
	Index	*Rank*	Index	*Rank*	Index	*Rank*	Index	*Rank*		*Rank*
Santa Rosa	**98**	***141***	**98**	***70***	**166**	***38***	**81**	***98***	**112**	***64***
San Francisco-Oakland-Fremont	124	15	95	96	166	21	103	27	121	15
San Jose-Sunnyvale-Santa Clara	121	4	95	105	166	54	116	9	129	5
Oakland-Fremont-Hayward	107	64	96	100	166	52	88	37	108	24
Denver-Aurora-Lakewood	111	39	68	341	96	225	76	75	97	109
Seattle-Tacoma-Bellevue	105	96	84	219	104	134	105	35	103	55
Portland-Vancouver-Hillsboro, OR-WA	91	248	85	207	86	279	98	47	91	139
Sacramento--Arden-Arcade--Roseville	100	146	96	95	166	50	80	99	112	67
Salt Lake City	95	270	88	163	82	363	73	116	87	272

Notes:
1) Rank is out of 401 metro areas.
2) U.S. average=100.
3) Labor costs are measured by total earnings per employee at the 3-digit NAICS level.
4) Tax burdens are measured by all taxes excluding severance, education, and hospital taxes relative to personal income.
5) Energy costs are measured by cents per kWh for industrial and commercial users.
6) Office costs are measured by rent per square foot.
7) In the overall index, labor costs have 47% weight, energy costs have 25% weight, and office costs have 21% weight and taxes have 7% weight.

Source: Moody's Analytics

- As in many other locations, the bursting of the housing bubble in 2006 had the silver lining of greatly increasing housing affordability in Sonoma County. With the recent rebound in house prices, affordability has reversed its trajectory, with house price appreciation outstripping income gains over the past year. A similar shift has been observed in the U.S. and statewide, and has weighed on residential construction and home sales. Moreover, though rising house prices have narrowed the large gap in housing affordability between Sonoma County and the San Francisco metro division, Sonoma County still maintains an edge in housing affordability relative to San Francisco and much of the rest of the Bay Area.

LONG-TERM OUTLOOK: NEGATIVE FACTORS (back to top)

- Congestion and the need for infrastructure improvements may limit long-term growth potential. Despite current highway improvements, access to San Francisco and Oakland is limited to roads that are frequently congested, with reduced traffic speed. This is particularly important, since most goods and visitors flow in and out through these areas and rely on their airports and ports for longer journeys. The improvement of Highway 101 is a long-term project that will eventually speed travel times to Marin County and San Francisco.

- Another weakness of the local economy is the specialized nature of the economy, as indicated by its low diversity index of just 0.45. Winemaking, tech production, and travel and tourism are the primary drivers of growth in the local economy, but these three industries are especially sensitive to the ebbs and flows of the business cycle, creating potential for a volatile pattern of expansion over the long term. This is indicated by the area's volatility index of nearly 190, which is ahead of that of nine-tenths of all metro areas and divisions. This poses some downside risk should the U.S. economy falter once again on its path toward longer-term growth. Sonoma County's economy could react with another sharp downturn.

- An increasing incidence of drought is a concern for the prospects of Sonoma County's wine industry. Though last year's grape harvest was the third-largest on record, a fourth consecutive year of severe dry conditions is expected to lower the quantity, if not quality, of the grape harvest. Stricter environmental regulations will increase costs for Sonoma County's wine industries, especially smaller vineyards and wineries. Restrictions on the use of Russian River water—used to protect vineyards from springtime frosts—and regulations on the hillside cultivation of wine grapes as the amount of land available for cultivation dwindles are among the challenges the industry faces.

Employment Diversity and Volatility

	Diversity[1]	Volatility 2014			
	2014	Total[2]	Systematic[3]	Nonsystematic[3]	Beta[4]
Santa Rosa	**0.45**	**189**	**91**	**9**	**1.72**
San Francisco-Oakland-Hayward	0.57	144	91	9	1.31
Oakland-Fremont-Hayward, CA	0.77	141	93	7	1.32
Vallejo-Fairfield, CA	0.56	125	77	23	0.96
Portland-Vancouver-Hillsboro, OR-WA	0.75	141	99	1	1.39
United States	1.00	100	100	0	1.00
Median	0.51	117	81	19	0.93

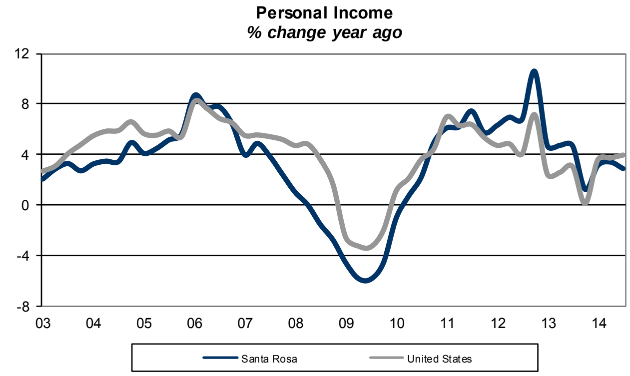
Notes:

1) Diversity is defined as the extent to which an MSA's industrial structure approximates that of the nation. The more closely the MSA's economy resembles the national economy, the higher the value. The diversity measure is bounded between 0 and 1. 1 means the MSA has the same industrial structure as the U.S., 0 means it has a totally different industrial structure than the U.S. Diversity is estimated using data for 2013.
2) Total volatility is the standard deviation of an MSA's employment growth. This relative deviation has been indexed to the United States = 100. Volatility is estimated using data for 2013.
3) Systematic fluctuation is that portion of an area's economy that is associated with national economic fluctuations. Nonsystematic volatility is that portion of an area's volatility not associated with national economic fluctuations.
4) Beta measures the magnitude of an area's sensitivity to national economic conditions. The U.S. average, by definition, is 1. A one percentage point increase in national employment will cause that portion of a metro area's employment base to rise by the percentage value of beta.

Source: Moody's Analytics

INCOME (back to top)

- Per capita income in Sonoma is high, exceeding the U.S. and statewide averages.



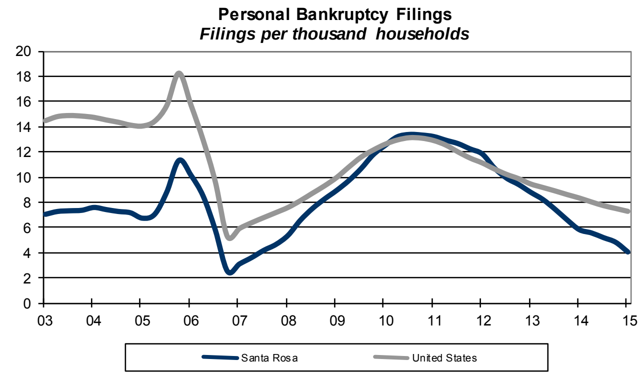
Sources: BEA, Moody's Analytics

- Sonoma County's real per capita income has fully recovered after plunging in the aftermath of the Great Recession. Real per capita income growth has kept pace with the U.S. and California rates. Though the county's better-paying industries were hit hard by the recession, a shift toward high-value research and development and growth in high-end tourism have bolstered income growth.

- With the unemployment rate having dropped below 5%, there will be increasing pressure on wages in a tightening labor market. Expect personal income growth to maintain a rapid rate of increase in the near-term before settling down. The long-run unemployment rate will be between 4% and 5%, staying near April's rate of 4.3%.

BALANCE SHEETS (back to top)

- Consumer credit conditions have greatly improved in Sonoma County. The bankruptcy filing rate surpassed the national average in 2009, but it fell back below the national average in 2012 and has now opened a substantial gap, reflecting better credit conditions among Sonoma County households.



Sources: Administrative Office of U.S. District Courts, Moody's Analytics

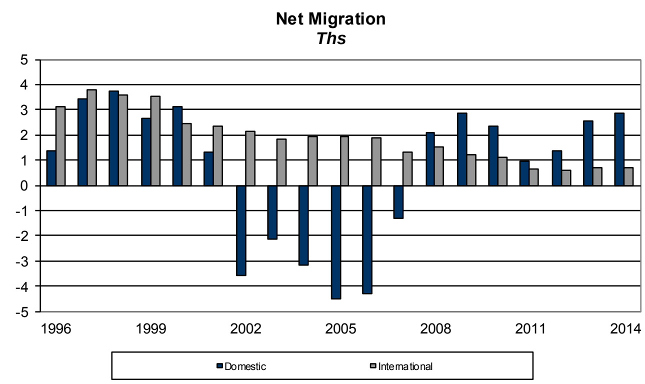
- Delinquency rates on all major types of consumer credit are approaching their pre-recession averages, as estimated by Equifax. Delinquency rates for auto, bankcard and first mortgage loans are well below the state and U.S. rates. As in other areas, student loan delinquencies in the county are trending upward.

- The decline in Sonoma County's mortgage delinquency rate is once again under the U.S. average, driven by stability in the county's labor market. The mortgage delinquency rate is expected to fall further below the U.S. and California rates. This bodes well for a smaller pipeline of distress home sales in the near term, which will help to bolster house prices, home sales and home building.

DEMOGRAPHIC TRENDS (back to top)

- Demographic trends are generally favorable for Sonoma County. Population growth has held steady at 1% for the past two years, accelerating from a post-recession low of 0.6% in 2011. Current growth is well below the county's 20-year average of more than 2% growth that prevailed prior to 2000, but this is a marked improvement from 2002 to 2007, when annual population gains remained below 0.5%, including declines in 2005 and 2006. It is also well ahead of the U.S. average growth rate of 0.7% that has prevailed since 2011.

- An uptick in positive net domestic migration into the county has helped maintain population growth. Domestic net migration has returned to historical levels after a lull from 2002 to 2007. Improving housing affordability in the county, above-average job and income growth, and harder-hit labor markets outside the county have helped to boost net domestic migration.



Sources: Census Bureau, Moody's Analytics

- Sonoma County's population growth is expected to be slightly faster the U.S. average of 0.8% for the remainder of this decade. This rate of increase would be consistent with long-term trends and would provide adequate labor force growth for the expanding economy. It is based on assumptions of continued growth in the economy and of housing affordability stabilizing not far below its current level.

- Yet there is some downside risk to this outlook. Sonoma County's population is somewhat skewed toward the older cohorts. An above-average share of its population is between the ages of 45 and 65. In the near term, this highly productive cohort will contribute to strong productivity growth. But over the coming years, this cohort will begin exiting the labor force through retirement, which will begin to erode the area’s above-average labor force participation rate and weigh on its long-term productivity.

- Over the long term, population gains will increasingly depend upon immigrant households. This will begin to reshape the population. Since immigrant households are generally younger and larger, they will provide a boost to long-term labor force growth as their children age into the working-age groups. But in the meantime, the challenge will be to provide the education and training needed for the younger population to fully participate in the county’s workforce and the broader economy.

Population Profile	% of total Population, 2013	
	Santa Rosa	US
Age 5-19	18.1	19.7
Age 25-44	25.1	26.4
Age 45-64	28.8	26.3
Over age 65	16.0	14.1
Birth Rate, (# of Births per 1000)	10.5	12.5
Death Rate, (# of Deaths per 1000)	8.1	8.1
Median Age (2010 Census)	39.9	37.2

Source: BOC

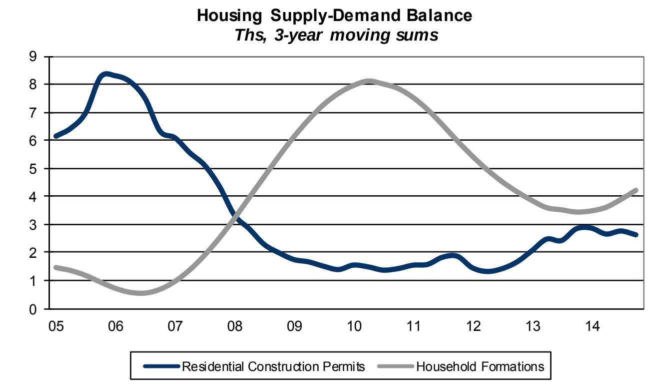
Migration Flows - Santa Rosa-Petaluma, CA Metro Area

Into Santa Rosa-Petaluma, CA Metro Area	Number of Migrants	From Santa Rosa-Petaluma, CA Metro Area	Number of Migrants
San Francisco-San Mateo-Redwood City, CA Metropolitan Division	2,532	San Francisco-San Mateo-Redwood City, CA Metropolitan Division	1,878
Oakland-Fremont-Hayward, CA Metropolitan Division	987	Oakland-Fremont-Hayward, CA Metropolitan Division	979
Sacramento--Arden-Arcade--Roseville, CA Metropolitan Statistical Area	695	Sacramento--Arden-Arcade--Roseville, CA Metropolitan Statistical Area	737
Napa, CA Metropolitan Statistical Area	470	Vallejo-Fairfield, CA Metropolitan Statistical Area	531
Los Angeles-Long Beach-Glendale, CA Metropolitan Division	418	Napa, CA Metropolitan Statistical Area	468
San Jose-Sunnyvale-Santa Clara, CA Metropolitan Statistical Area	374	Los Angeles-Long Beach-Glendale, CA Metropolitan Division	415
Vallejo-Fairfield, CA Metropolitan Statistical Area	338	San Jose-Sunnyvale-Santa Clara, CA Metropolitan Statistical Area	395
San Diego-Carlsbad-San Marcos, CA Metropolitan Statistical Area	313	San Diego-Carlsbad-San Marcos, CA Metropolitan Statistical Area	316
Riverside-San Bernardino-Ontario, CA Metropolitan Statistical Area	223	Riverside-San Bernardino-Ontario, CA Metropolitan Statistical Area	209
Santa Ana-Anaheim-Irvine, CA Metropolitan Division	213	Portland-Vancouver-Hillsboro, OR-WA Metropolitan Statistical Area	186
Inmigration	**12,934**	**Outmigration**	**12,424**
		Net Migration	**510**

Note:
Net Migration: Number of Migrants is the net flow of migrants.

Source: Moody's Analytics calculation from 2011 IRS data

RESIDENTIAL REAL ESTATE (back to top)



Sources: BOC, Moody's Analytics

- House prices in Sonoma County have recovered more than half of their post-recession loss and now stand at 2005 levels. Further, house prices have risen at nearly double the U.S. pace over the past year, according to the Federal Housing Finance Agency's House Price Index. However, despite strong price gains, the pace of residential construction has yet to break out of its post-recession lull. The pace of new- and existing-home sales declined slightly in 2014, but the mix improved significantly, with the share of distressed properties shrinking to its prerecession average.

- Resididential construction permit issuance improved only incrementally in 2014, in line with the slower pace nationally, as stalling wages and slower than expected rates of household formations weighed on demand for housing. Much of the improvement has been confined to multifamily construction, with millennials and other potential first-time buyers putting off purchases. As wage growth accelerates, the strengthening recovery and an improving labor market will stimulate a gradual rise in new residential construction over the coming decade.

- Mortgage delinquency and foreclosure rates have fallen greatly. Foreclosed properties, as a percentage of total households, have fallen to their lowest level since RealtyTrac started keeping records in 2007, while CoreLogic records indicate that distress sales have fallen to 10% of total sales after averaging in excess of 40% from 2008 to 2011. Nor are foreclosures likely to resume any time soon; Equifax reports that first mortgages in Sonoma County that are in delinquency or some stage of foreclosure have fallen to 2% of all first mortgages, down from a peak of more than 11% in 2010, and Moody's Analytics expects this downward trend to continue.

- Longer term, the housing outlook is brighter. Relatively strong population growth, improved affordability, and low interest rates, combined with an accelerating economy and an increasingly diminished excess supply of housing, will help the housing market recover.

COMMERCIAL REAL ESTATE (back to top)

- Sonoma County's commercial real estate market is finally catching up to improvements in the local labor market. Strong growth in retail and office-using employment has increased net absorption and lowered vacancy rates for office, industrial and retail space. Vacancy rates for office, industrial and retail space have hit a five-year low, spurring the development of several new properties.

- Though manufacturing employment has retreated in recent months, local food and beverage manufacturers are growing, driving improvement in the market for industrial space. The industrial vacancy rate has fallen from 15% in 2012 to 7% as of the first quarter, according to Keegan & Coppin Co. As business and consumer confidence increases and demand for premium food and beverage goods improves, demand for industrial space will continue to strengthen.

- Slack remains in the market for office space, but conditions have improved measurably over the past year. The accelerating pace of office-using employment has enabled the market to recover from the departure of several large employers in prior years; the office vacancy rate has fallen more than 3 percentage points to 17.5% as of the first quarter. As local businesses expand, office vacancies will decline further.

- Retail space is Sonoma County's best-performing commercial real estate component. Retail vacancy rates are below 5%, the lowest rate in more than five years. The rebounding economy is creating more demand for retail space.

- The issuance of permits for new commercial real estate construction is improving, with the nonresidential permit dollar volume steadily increasing since mid-2012. Further, the issuance of permits for alterations is rising as companies acquire available space and take advantage of low interest rates and relatively low construction costs.

FORECAST RISKS (back to top)

- The pace of growth of the U.S. economy, and with it, demand for Sonoma County's goods and services, could be curtailed by a variety of downside risks. Chief among them is slower than expected wage growth. Though the U.S. economy is rapidly approaching full employment, the remaining slack in the labor market could press down on wages, further delaying an acceleration in labor income. If slower than expected wage growth translates into reduced spending on tourism and luxury goods, the outlook for the tourism and wine industries could considerably darken.

- A second downside risk would be a slower than expected recovery in the housing market. If the slow pace of residential construction continues, it would dampen the outlook for the economy because of the large multiplier effect from single-family homebuilding and the above-average share of construction employment in Sonoma County.

- A slowing global economy also would be an impediment for Sonoma County's tourism and tech-producing industries. Sonoma County has benefited in recent years from an uptick in international tourist visits to the U.S., particularly from emerging Asia. If Europe's recovery stalls or if Asia's economy decelerates further than expected, inflows of international tourists could slow considerably, reducing demand for wine exports and leisure and hospitality services. A downshift in global growth would further reduce demand for exports of electronics equipment produced in the county, while a stronger than expected dollar would be a further headwind for both goods and service exports.

- On the upside, the large improvement in the foreclosure rate will aid residential construction. Sonoma County's foreclosure rate has fallen faster than expected, as has the share of foreclosed homes to total home sales. A shrunken pipeline of foreclosed homes on the market will boost house prices, increasing the incentives for the provision of new supply of housing units. An accompanying improvement in consumer credit conditions will lend additional upside potential to housing by unleashing pent-up demand for single-family homes.

- The share of Sonoma County’s workforce aged 25 to 44 is in line with the national average, but a failure to provide young workers with the training necessary to succeed in the county’s leading industries presents a downside risk to long-term growth. Employers could face a potential shortage of workers in coming years as a result of the looming retirement of the baby boomer cohort. Thus, education and workforce training become an increasingly rising priority. The population share of the 15 to 35 age cohort is at a peak, and it will be imperative to provide high school and college graduates with training, internships, and the mentoring necessary to succeed in Sonoma County’s growth industries. Without this support, the county would struggle to retain its highly skilled workforce, a considerable factor in its long-term growth.

MAJOR EMPLOYERS (back to top)

Major Employers: Santa Rosa, CA Metropolitan Statistical Area

Rank	Employer	Industry	Employee
1	Kaiser Permanente	Education or Health Service	2,555
2	Graton Resort & Casino	Leisure and Hospitality	2,000
3	Sutter Medical Center of Santa Rosa	Education or Health Service	1,797
4	St. Joseph Health System	Education or Health Service	1,740
5	Safeway Inc.	Retail Trade	1,200
6	Keysight Technologies	Manufacturing	1,200
7	Amy's Kitchen	Manufacturing	870
8	Medtronic CardioVascular	Manufacturing	840
9	Cyan	Information	~700
10	Wal-Mart Stores Inc.	Retail Trade	650
11	Kendall-Jackson Wine Estates	Manufacturing	640
12	Jackson Family Wine	Retail Trade	640
13	AT&T	Information	600
14	Hansel Auto Group	Retail Trade	570
15	Lucky	Retail Trade	550
16	River Rock Casino	Leisure and Hospitality	500
17	Pacific Gas and Electric Co.	Trans./Warehouse/Utilities	500
18	Petaluma Acquisitions	Manufacturing	455
19	Ghilotti Construction Co.	Construction	425
20	Exchange Bank	Financial Activities	400
21	The Home Depot U.S.A. Inc.	Retail Trade	390
22	Redwood Credit Union	Financial Activities	322
23	Korbel	Manufacturing	320
24	G&G Supermarket	Retail Trade	300
25	Mary's Pizza Shack	Leisure and Hospitality	268

Source: North Bay Business Journal: Book of Lists, February 2014
North Bay Business Journal: Book of Lists, February 2015
North Bay Business Journal: Book of Lists, January 2012
North Bay Business Journal: Book of Lists, January 2013

DEMOGRAPHIC PROFILE (back to top)

Indicator	Units	Santa Rosa-Petaluma, CA Metropolitan Statistical Area	U.S.	Rank	Year
Households					
Households, % change (2008-2013)	Ann. % change	1.3	0.9	87	2013
Population w/ B.A. degree or higher	% of adult population	31.8	29.1	95	2012
Median household income	$	61,029	52,250	57	2013
% change year ago		*2.5*	*1.7*	245	2013
Population					
Per capita income	$	47,879	44,200	55	2012
% change year ago		*4.5*	*4.4*	48	2012
Population	thousands	495	316,129	132	2013
% change year ago		*0.9*	*0.7*	130	2013
White	%	87.7	77.7	147	2013
Black or African American	%	1.9	13.2	334	2013
Hispanic	%	25.9	17.1	60	2013
Asian	%	4.1	5.3	90	2013
Net domestic migration, rate	Persons/ths. pop.	5.4	0.0	62	2013
International migration, rate	Persons/ths. pop.	1.0	2.7	261	2013
Poverty rate	%	58.7	48760.1	223	2012
Median age	years	39.9	37.2	311	2010
Household Cost Indexes					
Housing affordability index		93.3	198.8	373	2013
Median existing home price	$ ths	438.1	193.9	14	2013
% change year ago		*23.0*	*12.0*	25	2013
Cost of living	Index: U.S.=100	119.06	100	357	2012

Table 1: Sonoma County Clusters

Industries within clusters are listed by their North American Industry Classification System codes

Composition of Economic Clusters

1) Agriculture, Food and Wine

111,112	Farming
311	Food manufacturing
3121	Beverage manufacturing

2) Technology-Producing Industries

3344	Semiconductors and other electronic components
3345	Navigational, measuring, electromedical, and control instruments
3391	Medical equipment and supplies

3) Wealth Management

5211	Monetary authorities - central bank
5222	Nondepositiry Credit Intermediation
5223	Activities Related to Credit Intermediation
5231	Securities and Commodity Contracts Intermediation and Brokerage
5232	Securities and Commodity Exchanges
5239	Other Financial Investment Activities
5251	Insurance and Employee Benefit Funds
5312	Offices of Real Estate Agents and Brokers

4) Tourism

4811	Scheduled air transportation
4812	Nonscheduled air transportation
4851	Urban Transit Systems
4853	Taxi and limousine services
4855	Charter bus industry
4881	Support activities for air transportation
4884	Support Activities for Road Transportation
7112	Spectator Sports
7121	Museums, Historical Sites, and Similar Institutions
7131	Amusement Parks and Arcades
7132	Gambling Industries
7139	Other Amusement and Recreation Industries
7211	Traveler accommodation
7212	RV (Recreational Vehicle) Parks and Recreational Camps
7213	Rooming and Boarding Houses
722	Food services and drinking places

5) Health and Wellness

621	Ambulatory health care services
622	Hospitals
623	Nursing and residential facilities
8121	Personal Care Services

6) Creative Professional Services

5112	Software Publishers
5121	Motion Picture and Video Industries
5331	Lessors of Nonfinancial Intangible Assets (except Copyrighted Works)
5411	Legal services
5412	Accounting, taxes, bookkeeping, payroll services
5413	Architectural, Engineering, and Relates Services
5414	Specialized design services
5415	Computer Systems Design and Related Services
5416	Management, scientific, and technical consulting
5417	Scientific Research and Development Services
5418	Advertising and related services
5419	Other professional, scientific, and technical services
7113	Promoters of Performing Arts, and Sports, and Similar Events
7114	Agents and Managers for Artists, Athletes, Entertainers and Other Public Figures
7115	Independent Artists, Writers, and Performers

7) Construction and Green Services

23	Construction
327	Non-metallic minterals (clay, cement, concrete products)
5617	Services to buildings and dwellings
5621	Waste collection
5629	Remediation and Other Waste Management Services
2211	Electric Power Generation, Transmission and Distribution

8) Retail Trade

RT	Retail Trade

9) Wholesale Trade

42	Wholesale Trade

Table 2: Sonoma County Historical Summary Indicators

	2008	2009	2010	2011	2012	2013	Annual Growth 08-13
			Economy				
Gross Metro Product (Bil 2005$)	20.2	18.8	19.1	19.5	19.8	20.3	0.1
% Annual Change	-3.1	-7.0	1.7	1.8	1.6	2.5	
Gross Metro Product (Bil $)	21.9	20.8	21.1	21.9	22.7	23.6	1.5
% Annual Change	-0.7	-5.0	1.6	3.6	3.5	4.1	
Non-farm Employment (Ths)	188.3	173.5	169.8	171.6	175.0	182.5	-0.6
% Annual Change	-2.2	-7.9	-2.1	1.1	2.0	4.3	
			Components of Employment				
Mining and Natural Resources	0.2	0.2	0.2	0.2	0.2	0.2	1.1
Construction	12.8	9.9	8.9	8.6	8.8	9.8	-5.3
Manufacturing	22.0	20.2	19.9	20.2	19.6	20.0	-1.8
Trade, Transportation, and Utilities	35.3	32.2	32.0	32.4	33.5	35.1	-0.1
Wholesale Trade	7.7	6.7	6.6	6.6	6.9	7.3	-0.9
Retail Trade	23.2	21.5	21.5	22.0	22.7	23.5	0.3
Transportation and Utilities	4.4	4.0	3.9	3.8	3.9	4.2	-1.1
Information	2.8	2.6	2.5	2.5	2.6	2.6	-1.8
Financial Activities	8.5	7.8	7.7	7.6	7.4	7.4	-2.7
Professional and Business Services	22.1	18.3	18.8	18.0	18.1	18.9	-3.1
Education and Health Services	26.8	27.1	27.1	27.3	28.8	29.9	2.2
Leisure and Hospitality	21.0	20.1	20.1	20.5	21.8	22.6	1.5
Other Services	6.4	6.1	5.9	6.1	6.3	6.6	0.5
Government	30.4	29.2	26.8	28.4	28.0	29.4	-0.6
Labor Force (Ths)	260.1	256.7	254.7	257.0	258.5	260.4	0.0
% Annual Change	0.9	-1.3	-0.8	0.9	0.6	0.7	
Number of Employed (Ths)	245.1	232.1	227.9	231.7	236.5	242.9	-0.2
Number of Unemployed (Ths)	15.0	24.7	26.8	25.3	21.9	17.5	3.2
							Average
Unemployment Rate (%)	5.8	9.6	10.5	9.8	8.5	6.7	8.5
			Income, Demographics, and Consumption				
Personal Income (Mil $)	21,868.8	20,653.9	21,080.2	22,356.7	23,548.2	24,724.8	2.5
% Annual Change	-0.9	-5.6	2.1	6.1	5.3	5.0	
Real Personal Income (Mil 2000$)	21,856.2	20,655.7	20,736.1	21,478.7	22,211.4	23,060.8	1.1
Per Capita Income ($)	46,147.7	43,013.9	43,458.9	45,821.3	47,945.5	49,902.1	1.6
Median Household Income ($)	64,073.2	61,580.0	59,697.8	58,309.9	58,188.5	59,520.9	-1.5
Personal Bankruptcy Filings	1,503.0	2,170.0	2,490.0	2,296.0	1,776.0	1,258.0	-3.5
Consumer Price Index	248.9	244.4	250.5	254.8	257.3	260.4	0.9
Population (Ths)	473.1	479.5	484.7	487.5	490.6	495.0	0.9
% Annual Change	1.2	1.4	1.1	0.6	0.6	0.9	
Age <4	28.1	28.1	28.2	28.1	27.7	28.0	0.0
Age 5-19	92.0	92.4	92.2	91.0	90.5	89.8	-0.5
Age 20-24	31.3	31.8	32.2	32.8	33.2	33.6	1.4
Age 25-44	120.9	121.3	121.9	121.9	122.3	123.2	0.4
Age 45-64	137.6	140.3	142.4	143.5	142.1	142.9	0.8
Age >65	63.3	65.6	67.9	70.3	74.7	77.5	4.1
Households (Ths)	181.0	183.8	186.5	188.5	191.1	192.9	1.3
% Annual Change	1.4	1.6	1.5	1.0	1.4	1.0	
Net Migration (Ths)	3.6	4.1	3.5	1.5	1.9	3.1	
							Average
Total Housing Permits	612	442	477	632	560	832	593
% Annual Change	-32.2	-25.2	-57.2	-27.8	7.9	32.5	
Single Family Permits	1,357	910	544	371	287	449	653
Multi Family Permits	68	71	190	183	248	418	196
Median Exist. Home Price (SA, Ths $)	407.9	348.7	362.3	332.6	355.9	438.1	1.4
% Annual Change	-29.0	-14.5	3.9	-8.2	7.0	23.1	
Existing Home Sales (Ths)	7.4	8.0	6.4	8.4	8.3	10.1	6.5
Mortgage Originations (Mil $)	3.6	5.6	4.9	4.0	5.2	4.8	6.3
							Average
Affordability Index	82.9	104.2	98.9	108.6	113.8	93.3	100
Nonres. Building Permits (Mil $)							
Total	180.4	68.6	90.0	94.2	109.3	103.3	-10.6
Office Buildings	12.0	0.0	0.0	0.0	33.2	3.6	-21.4
Retail Space	32.0	5.3	1.5	1.9	5.6	41.5	5.3
Industrial	3.6	1.2	0.0	0.0	0.1	0.0	-87.7

Table 3: Sonoma County Forecasted Summary Indicators

	2014	2015	2016	2017	2018	2019	Annual Growth 14-19
			Economy				
Gross Metro Product (Bil 2005$)	20.8	21.6	22.2	22.6	22.8	23.1	2.1
% Annual Change	2.5	3.7	2.7	1.8	1.2	1.1	
Gross Metro Product (Bil $)	24.5	26.0	27.3	28.5	29.5	30.5	4.4
% Annual Change	4.1	6.0	5.0	4.3	3.6	3.3	
Non-farm Employment (Ths)	187.3	192.1	197.1	199.7	200.0	199.8	1.3
% Annual Change	2.6	2.6	2.6	1.3	0.1	-0.1	
			Components of Employment				
Mining and Natural Resources	0.2	0.2	0.2	0.2	0.2	0.2	2.5
Construction	9.7	10.4	10.9	10.9	10.5	10.2	0.9
Manufacturing	20.7	21.0	21.4	21.5	21.4	21.2	0.5
Trade, Transportation, and Utilities	35.8	36.0	36.2	36.2	36.0	35.7	-0.1
Wholesale Trade	7.6	7.6	7.7	7.7	7.7	7.6	0.1
Retail Trade	23.8	24.0	24.1	24.0	23.8	23.5	-0.2
Transportation and Utilities	4.4	4.4	4.4	4.5	4.5	4.5	0.7
Information	2.6	2.6	2.7	2.7	2.7	2.7	1.1
Financial Activities	7.4	7.5	7.7	7.8	7.8	7.7	0.8
Professional and Business Services	19.2	20.0	20.9	21.4	21.5	21.5	2.3
Education and Health Services	29.9	31.2	32.6	33.7	34.3	34.8	3.1
Leisure and Hospitality	23.1	23.8	24.7	25.2	25.4	25.5	2.0
Other Services	6.5	6.6	6.8	6.9	6.8	6.7	0.7
Government	32.1	32.6	33.1	33.3	33.4	33.4	0.8
Labor Force (Ths)	263.9	268.7	273.8	276.9	278.8	280.4	1.2
% Annual Change	1.4	1.8	1.9	1.2	0.7	0.6	
Number of Employed (Ths)	248.8	253.7	259.1	263.2	265.1	266.2	1.4
Number of Unemployed (Ths)	15.1	15.0	14.6	13.8	13.8	14.3	-1.1
							Average
Unemployment Rate (%)	5.7	5.6	5.3	5.0	4.9	5.1	5.3
			Income, Demographics, and Consumption				
Personal Income (Mil $)	26,043.1	27,894.0	29,775.3	31,370.6	32,585.6	33,692.6	5.3
% Annual Change	5.3	7.1	6.7	5.4	3.9	3.4	
Real Personal Income (Mil 2000$)	23,907.3	25,033.1	26,150.0	26,875.9	27,235.7	27,548.4	2.9
Per Capita Income ($)	52,137.6	55,384.7	58,605.5	61,219.2	63,059.9	64,700.8	4.4
Median Household Income ($)	61,538.5	64,239.6	66,881.0	69,301.8	71,206.4	73,040.3	3.5
Personal Bankruptcy Filings	1,077.3	1,006.1	1,034.6	1,138.7	1,311.4	1,487.3	6.7
Consumer Price Index	264.6	271.4	279.4	289.0	298.6	307.2	3.0
Population (Ths)	499.0	503.0	507.6	511.9	516.2	520.2	0.8
% Annual Change	0.8	0.8	0.9	0.9	0.8	0.8	
Age <4	28.5	28.9	29.4	29.5	29.6	29.7	0.8
Age 5-19	88.9	88.2	87.9	88.1	88.5	89.1	0.0
Age 20-24	33.6	33.1	32.4	31.5	30.7	29.9	-2.3
Age 25-44	124.1	125.1	126.6	128.5	130.3	132.2	1.3
Age 45-64	143.7	144.6	145.3	145.5	145.3	144.6	0.1
Age >65	80.2	83.1	85.9	88.7	91.7	94.7	3.4
Households (Ths)	195.1	197.9	200.7	203.1	205.3	207.1	1.2
% Annual Change	1.2	1.4	1.4	1.2	1.1	0.9	
Net Migration (Ths)	2.8	2.8	3.3	3.0	3.0	2.7	
			Residential Housing Market				**Average**
Total Housing Permits	809	999	1,270	1,520	1,708	1,821	1,355
% Annual Change	-2.8	23.5	27.1	19.7	12.4	6.6	
Single Family Permits	425	658	1,033	1,229	1,380	1,453	1,030
Multi Family Permits	385	341	237	291	328	369	325
Median Exist. Home Price (SA, Ths $)	477.9	493.3	507.5	528.0	547.1	561.3	3.3
% Annual Change	9.1	3.2	2.9	4.0	3.6	2.6	
Existing Home Sales (Ths)	10.7	11.5	11.5	11.6	11.9	12.1	2.5
Mortgage Originations (Mil $)	3.4	3.5	2.8	2.8	3.3	3.5	1.1
							Average
Affordability Index	82.0	74.8	69.7	69.5	69.1	69.2	72.4
Nonres. Building Permits (Mil $)			**Nonresidential Construction**				**Average**
Total	90.9	79.0	82.3	84.2	85.1	85.4	84.5
Office Buildings	2.8	3.8	4.4	4.7	4.8	4.8	4.2
Retail Space	20.1	18.8	19.9	20.6	21.0	21.4	20.3
Industrial	7.4	11.8	12.1	11.8	10.9	9.9	10.7

Table 4: Sonoma County Historical Employment by Cluster
Thousands

	2008	2009	2010	2011	2012	2013	Compound Ann. Growth Rate 08-13	Pct. Share of Employment 2013
Total	197.6	183.2	179.4	181.2	184.6	192.3	-0.5	100.0
% Change	-2.3	-7.3	-2.1	1.0	1.9	4.2		
1. Agriculture, Food and Wine	15.8	15.4	15.6	15.3	15.3	15.5	-0.4	8.1
% Change	-1.8	-2.8	1.4	-1.6	-0.4	1.6		
2. Technology-Producing Industries	4.6	4.4	4.1	4.3	3.8	4.0	-3.0	2.1
% Change	6.0	-5.8	-6.0	4.4	-11.1	4.7		
3. Wealth Management	2.0	1.9	1.8	1.8	1.8	1.9	-1.9	1.0
% Change	-24.7	-8.0	-6.3	0.6	0.0	4.5		
4. Tourism	21.5	20.5	20.4	20.8	22.2	23.1	1.5	12.0
% Change	0.6	-4.6	-0.3	1.8	6.7	4.1		
5. Health and Wellness	19.0	18.9	19.2	19.5	20.2	20.6	1.7	10.7
% Change	1.9	-0.1	1.2	1.9	3.3	2.3		
6. Creative Professional Services	12.7	10.0	10.1	9.2	8.8	8.9	-6.9	4.6
% Change	-2.8	-21.7	1.4	-9.2	-4.6	1.5		
7. Construction and Green Services	17.4	13.9	12.9	12.6	12.9	14.2	-3.9	7.4
% Change	-8.2	-19.9	-7.7	-2.3	2.5	10.7		
8. Retail Trade	23.2	21.5	21.5	22.0	22.7	23.5	0.3	12.2
% Change	-3.7	-7.2	0.1	2.2	3.2	3.7		
9. Wholesale Trade	7.7	6.7	6.6	6.6	6.9	7.3	-0.9	3.8
% Change	-1.7	-12.0	-2.6	0.0	5.1	6.0		
Sum of Clusters	123.9	113.2	112.1	112.0	114.5	119.1	-0.8	61.9
% Change	-2.5	-8.6	-1.0	-0.1	2.2	4.1		
Other	73.7	70.0	67.3	69.1	70.2	73.2	-0.1	38.1
% Change	-1.9	-5.1	-3.9	2.8	1.5	4.4		

Table 5: Sonoma County Forecasted Employment by Cluster

Thousands

	2014	2015	2016	2017	2018	2019	Compound Ann. Growth Rate 14-19	Pct. Share of Employment 2019
Total	197.4	202.3	207.3	210.0	210.2	209.9	1.2	100.0
% Change	2.6	2.5	2.5	1.3	0.1	-0.1		
1. Agriculture, Food and Wine	16.3	16.5	16.7	16.7	16.7	16.6	0.4	7.9
% Change	4.8	1.3	1.2	0.3	-0.4	-0.6		
2. Technology-Producing Industries	4.0	4.1	4.3	4.3	4.3	4.3	1.3	2.1
% Change	1.1	2.4	2.7	1.5	0.3	-0.1		
3. Wealth Management	1.8	1.8	1.8	1.8	1.8	1.8	0.4	0.9
% Change	-4.2	0.8	2.0	1.2	-0.6	-1.3		
4. Tourism	23.7	24.4	25.2	25.7	25.9	26.0	1.9	12.4
% Change	2.4	3.0	3.4	2.1	0.7	0.4		
5. Health and Wellness	20.7	21.5	22.4	23.1	23.4	23.7	2.8	11.3
% Change	0.0	4.0	4.2	3.1	1.6	1.3		
6. Creative Professional Services	8.7	8.9	9.2	9.3	9.3	9.3	1.3	4.4
% Change	-2.1	2.6	2.7	1.5	0.0	-0.2		
7. Construction and Green Services	14.3	15.2	16.0	16.2	15.9	15.6	1.7	7.4
% Change	0.2	6.4	5.1	1.1	-1.8	-1.9		
8. Retail Trade	23.8	24.0	24.1	24.0	23.8	23.5	-0.2	11.2
% Change	1.2	0.7	0.3	-0.5	-0.7	-1.0		
9. Wholesale Trade	7.6	7.6	7.7	7.7	7.7	7.6	0.1	3.6
% Change	3.3	1.1	0.9	0.0	-0.7	-0.8		
Sum of Clusters	120.8	124.0	127.3	128.8	128.8	128.4	1.2	61.2
% Change	1.4	2.7	2.6	1.2	0.0	-0.3		
Other	76.6	78.3	80.1	81.2	81.4	81.5	1.2	38.8
% Change	4.7	2.1	2.3	1.4	0.3	0.0		

Table 6: Sonoma County Historical Gross Regional Product (Output) by Cluster

Millions of current dollars

	2008	2009	2010	2011	2012	2013	Compound Ann. Growth Rate 08-13	Pct. Share of Total Output 2013
Total	21,884.8	20,787.0	21,125.3	21,890.8	22,650.1	23,577.8	1.5	100.0
% Change	-0.7	-5.0	1.6	3.6	3.5	4.1		
1. Agriculture, Food and Wine	1,504.6	1,730.3	1,667.6	1,650.7	1,789.9	1,993.4	5.8	8.5
% Change	1.2	15.0	-3.6	-1.0	8.4	11.4		
2. Technology-Producing Industries	695.9	761.3	679.5	708.1	767.6	799.7	2.8	3.4
% Change	8.4	9.4	-10.7	4.2	8.4	4.2		
3. Wealth Management	1,297.6	1,090.7	989.7	1,026.6	1,066.2	1,113.3	-3.0	4.7
% Change	-13.6	-15.9	-9.3	3.7	3.9	4.4		
4. Tourism	997.6	946.4	1,003.4	1,072.5	1,145.8	1,202.2	3.8	5.1
% Change	-2.1	-5.1	6.0	6.9	6.8	4.9		
5. Health and Wellness	1,541.1	1,614.3	1,684.2	1,749.3	1,796.5	1,801.0	3.2	7.6
% Change	6.7	4.8	4.3	3.9	2.7	0.3		
6. Creative Professional Services	2,229.4	1,756.0	1,856.7	1,772.6	1,714.1	1,669.2	-5.6	7.1
% Change	3.2	-21.2	5.7	-4.5	-3.3	-2.6		
7. Construction and Green Services	1,682.2	1,437.0	1,347.5	1,334.9	1,383.6	1,486.2	-2.4	6.3
% Change	-10.0	-14.6	-6.2	-0.9	3.6	7.4		
8. Retail Trade	1,607.3	1,580.0	1,639.1	1,683.5	1,809.6	1,868.6	3.1	7.9
% Change	-10.4	-1.7	3.7	2.7	7.5	3.3		
9. Wholesale Trade	1,208.2	1,047.8	1,098.8	1,158.6	1,242.6	1,310.0	1.6	5.6
% Change	-2.0	-13.3	4.9	5.4	7.3	5.4		
Sum of Clusters	12,763.9	11,963.9	11,966.7	12,156.7	12,715.9	13,243.8	0.7	56.2
% Change	-2.9	-6.3	0.0	1.6	4.6	4.2		
Other	9,120.9	8,823.1	9,158.7	9,734.2	9,934.1	10,334.0	2.5	43.8
% Change	2.6	-3.3	3.8	6.3	2.1	4.0		

Table 7: Sonoma County Forecasted Gross Regional Product (Output) by Cluster
Millions of current dollars

	2014	2015	2016	2017	2018	2019	Compound Ann. Growth Rate 14-19	Pct. Share of Total Output 2019
Total	24,538.1	26,004.9	27,308.4	28,479.7	29,512.3	30,489.3	4.4	100.0
% Change	4.1	6.0	5.0	4.3	3.6	3.3		
1. Agriculture, Food and Wine	2,022.5	2,119.9	2,249.4	2,340.9	2,414.2	2,511.9	4.4	8.2
% Change	1.5	4.8	6.1	4.1	3.1	4.0		
2. Technology-Producing Industries	839.2	910.6	977.3	1,040.1	1,103.0	1,168.2	6.8	3.8
% Change	4.9	8.5	7.3	6.4	6.1	5.9		
3. Wealth Management	1,173.2	1,193.6	1,220.1	1,258.1	1,281.6	1,296.1	2.0	4.3
% Change	5.4	1.7	2.2	3.1	1.9	1.1		
4. Tourism	1,270.4	1,366.4	1,437.6	1,500.7	1,558.6	1,614.9	4.9	5.3
% Change	5.7	7.6	5.2	4.4	3.9	3.6		
5. Health and Wellness	1,815.0	1,954.2	2,076.5	2,203.2	2,314.9	2,418.5	5.9	7.9
% Change	0.8	7.7	6.3	6.1	5.1	4.5		
6. Creative Professional Services	1,671.7	1,773.5	1,858.6	1,941.0	2,018.2	2,095.7	4.6	6.9
% Change	0.1	6.1	4.8	4.4	4.0	3.8		
7. Construction and Green Services	1,519.8	1,644.4	1,727.9	1,749.9	1,748.4	1,753.8	2.9	5.8
% Change	2.3	8.2	5.1	1.3	(0.1)	0.3		
8. Retail Trade	1,919.8	2,057.6	2,123.0	2,143.5	2,198.6	2,247.2	3.2	7.4
% Change	2.7	7.2	3.2	1.0	2.6	2.2		
9. Wholesale Trade	1,378.0	1,430.8	1,464.3	1,502.5	1,544.9	1,592.1	2.9	5.2
% Change	5.2	3.8	2.3	2.6	2.8	3.1		
Sum of Clusters	13,609.5	14,451.0	15,134.6	15,679.9	16,182.5	16,698.3	4.2	54.8
% Change	2.8	6.2	4.7	3.6	3.2	3.2		
Other	10,928.6	11,553.9	12,173.8	12,799.8	13,329.8	13,791.0	4.8	45.2
% Change	5.8	5.7	5.4	5.1	4.1	3.5		

Table 8: Sonoma County Historical Gross Regional Product (Output) by Cluster

Millions of 2000 dollars

	2008	2009	2010	2011	2012	2013	Compound Ann. Growth Rate 08-13	Pct. Share of Total Output 2013
Total	20,219.5	18,806.3	19,133.1	19,474.6	19,778.3	20,278.9	0.1	100.0
% Change	(3.1)	(7.0)	1.7	1.8	1.6	2.5		
1. Agriculture, Food and Wine	1,356.7	1,495.8	1,486.5	1,373.1	1,416.2	1,506.7	2.1	7.4
% Change	(10.1)	10.2	(0.6)	(7.6)	3.1	6.4		
2. Technology-Producing Industries	866.1	941.3	884.5	965.1	979.7	997.7	2.9	4.9
% Change	16.5	8.7	(6.0)	9.1	1.5	1.8		
3. Wealth Management	1,194.0	1,016.8	903.4	931.3	954.5	988.1	-3.7	4.9
% Change	(16.2)	(14.8)	(11.1)	3.1	2.5	3.5		
4. Tourism	905.9	823.4	876.3	933.6	970.9	990.9	1.8	4.9
% Change	(4.9)	(9.1)	6.4	6.5	4.0	2.1		
5. Health and Wellness	1,410.1	1,422.2	1,464.5	1,505.1	1,509.8	1,492.8	1.1	7.4
% Change	4.4	0.9	3.0	2.8	0.3	(1.1)		
6. Creative Professional Services	2,021.5	1,575.9	1,654.4	1,571.0	1,486.0	1,428.3	-6.7	7.0
% Change	1.3	(22.0)	5.0	(5.0)	(5.4)	(3.9)		
7. Construction and Green Services	1,460.5	1,207.4	1,156.9	1,134.0	1,149.8	1,194.6	-3.9	5.9
% Change	(10.0)	(17.3)	(4.2)	(2.0)	1.4	3.9		
8. Retail Trade	1,532.5	1,480.7	1,589.2	1,583.1	1,682.5	1,733.6	2.5	8.5
% Change	(11.7)	(3.4)	7.3	(0.4)	6.3	3.0		
9. Wholesale Trade	1,142.4	923.3	960.4	987.1	1,042.6	1,092.1	-0.9	5.4
% Change	(4.0)	(19.2)	4.0	2.8	5.6	4.7		
Sum of Clusters	11,889.6	10,886.8	10,976.2	10,983.5	11,192.0	11,424.6	-0.8	56.3
% Change	(5.1)	(8.4)	0.8	0.1	1.9	2.1		
Other	8,329.8	7,919.5	8,156.9	8,491.1	8,586.3	8,854.3	1.2	43.7
% Change	(0.0)	(4.9)	3.0	4.1	1.1	3.1		

Table 9: Sonoma County Forecasted Gross Regional Product (Output) by Cluster

Millions of 2000 dollars

	2014	2015	2016	2017	2018	2019	Compound Ann. Growth Rate 14-19	Pct. Share of Total Output 2019
Total	20,793.5	21,568.3	22,158.2	22,552.6	22,816.9	23,068.7	2.1	100.0
% Change	2.5	3.7	2.7	1.8	1.2	1.1		
1. Agriculture, Food and Wine	1,598.4	1,651.9	1,712.9	1,739.0	1,749.9	1,779.6	2.2	7.7
% Change	6.1	3.3	3.7	1.5	0.6	1.7		
2. Technology-Producing Industries	1,037.2	1,099.6	1,155.3	1,200.3	1,241.6	1,285.3	4.4	5.6
% Change	4.0	6.0	5.1	3.9	3.4	3.5		
3. Wealth Management	1,019.9	1,015.2	1,015.0	1,020.9	1,014.7	1,003.6	-0.3	4.4
% Change	3.2	(0.5)	(0.0)	0.6	(0.6)	(1.1)		
4. Tourism	1,023.2	1,076.3	1,107.6	1,127.9	1,142.8	1,157.7	2.5	5.0
% Change	3.3	5.2	2.9	1.8	1.3	1.3		
5. Health and Wellness	1,472.5	1,550.4	1,611.5	1,668.0	1,710.1	1,747.5	3.5	7.6
% Change	(1.4)	5.3	3.9	3.5	2.5	2.2		
6. Creative Professional Services	1,411.5	1,464.5	1,501.7	1,530.2	1,552.6	1,577.4	2.2	6.8
% Change	(1.2)	3.8	2.5	1.9	1.5	1.6		
7. Construction and Green Services	1,185.3	1,253.4	1,287.8	1,272.2	1,239.9	1,216.2	0.5	5.3
% Change	(0.8)	5.8	2.7	(1.2)	(2.5)	(1.9)		
8. Retail Trade	1,736.2	1,819.6	1,836.5	1,808.7	1,809.9	1,809.3	0.8	7.8
% Change	0.2	4.8	0.9	(1.5)	0.1	(0.0)		
9. Wholesale Trade	1,130.4	1,147.9	1,149.0	1,150.0	1,153.6	1,162.7	0.6	5.0
% Change	3.5	1.5	0.1	0.1	0.3	0.8		
Sum of Clusters	11,614.5	12,078.9	12,377.2	12,517.4	12,615.0	12,739.2	1.9	55.2
% Change	1.7	4.0	2.5	1.1	0.8	1.0		
Other	9,179.0	9,489.4	9,781.0	10,035.2	10,201.9	10,329.5	2.4	44.8
% Change	3.7	3.4	3.1	2.6	1.7	1.3		

Table 10: Sonoma County Historical Productivity (Output per Worker)
Thousand of current dollars

	2008	2009	2010	2011	2012	2013	Compound Ann. Growth Rate 08-13
Total	110.7	113.5	117.8	120.8	122.7	122.6	2.1
% Change	1.6	2.5	3.8	2.6	1.5	-0.1	
1. Agriculture, Food and Wine	95.1	112.5	106.9	107.6	117.2	128.4	6.2
% Change	3.1	18.3	-4.9	0.6	8.9	9.6	
2. Technology-Producing Industries	149.7	173.9	165.1	164.8	200.9	200.0	6.0
% Change	2.3	16.1	-5.0	-0.2	21.9	-0.5	
3. Wealth Management	635.1	579.9	561.7	579.2	601.9	601.2	-1.1
% Change	14.7	-8.7	-3.2	3.1	3.9	-0.1	
4. Tourism	46.5	46.2	49.1	51.6	51.6	52.0	2.3
% Change	-2.6	-0.5	6.3	5.0	0.1	0.8	
5. Health and Wellness	81.3	85.3	87.9	89.6	89.0	87.2	1.4
% Change	4.7	4.9	3.1	1.9	-0.6	-2.0	
6. Creative Professional Services	175.2	176.2	183.8	193.1	195.7	187.8	1.4
% Change	6.2	0.5	4.3	5.1	1.3	-4.0	
7. Construction and Green Services	96.8	103.2	104.8	106.3	107.5	104.3	1.5
% Change	-2.0	6.6	1.6	1.4	1.1	-3.0	
8. Retail Trade	69.4	73.5	76.2	76.6	79.8	79.4	2.7
% Change	-7.0	5.9	3.6	0.5	4.1	-0.5	
9. Wholesale Trade	157.5	155.3	167.1	176.3	179.9	178.9	2.6
% Change	-0.3	-1.4	7.7	5.5	2.0	-0.5	
Sum of Clusters	103.0	105.7	106.7	108.5	111.1	111.2	1.5
% Change	-0.5	2.6	1.0	1.7	2.4	0.1	
Other	123.7	126.0	136.2	140.8	141.6	141.1	2.7
% Change	4.5	1.9	8.0	3.4	0.6	-0.3	

Table 11: Sonoma County Forecasted Productivity (Output per Worker)
Thousand of current dollars

	2014	2015	2016	2017	2018	2019	Compound Ann. Growth Rate 14-19
Total	124.3	128.6	131.7	135.6	140.4	145.3	3.2
% Change	1.4	3.4	2.5	3.0	3.5	3.5	
1. Agriculture, Food and Wine	124.4	128.7	134.9	140.0	145.0	151.7	4.1
% Change	(3.2)	3.5	4.8	3.8	3.5	4.7	
2. Technology-Producing Industries	207.5	220.0	229.9	241.1	255.0	270.3	5.4
% Change	3.8	6.0	4.5	4.9	5.8	6.0	
3. Wealth Management	661.4	667.5	669.0	681.4	698.4	715.3	1.6
% Change	10.0	0.9	0.2	1.8	2.5	2.4	
4. Tourism	53.7	56.1	57.0	58.3	60.1	62.0	2.9
% Change	3.2	4.4	1.7	2.2	3.1	3.2	
5. Health and Wellness	87.9	91.0	92.8	95.6	98.8	101.9	3.0
% Change	0.7	3.5	2.0	3.0	3.4	3.2	
6. Creative Professional Services	192.1	198.7	202.6	208.5	216.7	225.5	3.3
% Change	2.3	3.4	2.0	2.9	3.9	4.1	
7. Construction and Green Services	106.4	108.2	108.1	108.3	110.2	112.7	1.2
% Change	2.0	1.7	(0.1)	0.2	1.7	2.3	
8. Retail Trade	80.6	85.7	88.1	89.5	92.5	95.5	3.5
% Change	1.5	6.4	2.8	1.5	3.3	3.2	
9. Wholesale Trade	182.2	187.1	189.9	194.9	201.7	209.6	2.8
% Change	1.9	2.7	1.5	2.6	3.5	3.9	
Sum of Clusters	112.7	116.5	118.9	121.7	125.7	130.0	2.9
% Change	1.4	3.4	2.1	2.4	3.2	3.5	
Other	142.6	147.6	152.1	157.7	163.7	169.3	3.5
% Change	1.0	3.5	3.0	3.7	3.8	3.4	

Table 12: Sonoma County Historical Productivity (Output per Worker)

Thousands of 2000 dollars

	2008	2009	2010	2011	2012	2013	Compound Ann. Growth Rate 08-13
Total	102.3	102.7	106.7	107.5	107.1	105.4	0.6
% Change	-0.8	0.3	3.9	0.8	-0.3	-1.6	
1. Agriculture, Food and Wine	85.7	97.2	95.3	89.5	92.7	97.1	2.5
% Change	-8.4	13.4	-2.0	-6.1	3.5	4.7	
2. Technology-Producing Industries	186.3	215.0	214.9	224.6	256.5	249.5	6.0
% Change	9.9	15.4	0.0	4.5	14.2	-2.7	
3. Wealth Management	584.4	540.6	512.7	525.5	538.8	533.5	-1.8
% Change	11.2	-7.5	-5.2	2.5	2.5	-1.0	
4. Tourism	42.2	40.2	42.9	44.9	43.8	42.9	0.3
% Change	-5.5	-4.7	6.7	4.6	-2.5	-2.0	
5. Health and Wellness	74.4	75.1	76.4	77.1	74.8	72.3	-0.6
% Change	2.5	1.0	1.7	0.9	-2.9	-3.4	
6. Creative Professional Services	158.9	158.1	163.7	171.1	169.6	160.7	0.2
% Change	4.2	-0.5	3.5	4.5	-0.9	-5.3	
7. Construction and Green Services	84.1	86.7	90.0	90.3	89.4	83.8	-0.1
% Change	-2.0	3.2	3.8	0.3	-1.1	-6.2	
8. Retail Trade	66.2	68.9	73.9	72.0	74.2	73.7	2.2
% Change	-8.3	4.1	7.2	-2.5	2.9	-0.7	
9. Wholesale Trade	148.9	136.8	146.1	150.2	150.9	149.1	0.0
% Change	-2.3	-8.1	6.8	2.8	0.5	-1.2	
Sum of Clusters	96.0	96.2	97.9	98.0	97.8	95.9	0.0
% Change	-2.6	0.2	1.8	0.1	-0.3	-1.9	
Other	113.0	113.1	121.3	122.8	122.4	120.9	1.4
% Change	1.9	0.1	7.2	1.3	-0.3	-1.2	

Table 13: Sonoma County Forecasted Productivity (Output per Worker)
Thousands of 2000 dollars

	2014	2015	2016	2017	2018	2019	Compound Ann. Growth Rate 14-19
Total	105.3	106.6	106.9	107.4	108.5	109.9	0.9
% Change	-0.1	1.2	0.2	0.5	1.1	1.3	
1. Agriculture, Food and Wine	98.3	100.3	102.8	104.0	105.1	107.5	1.8
% Change	1.3	2.0	2.5	1.2	1.0	2.3	
2. Technology-Producing Industries	256.5	265.7	271.7	278.2	287.0	297.5	3.0
% Change	2.8	3.6	2.3	2.4	3.2	3.6	
3. Wealth Management	575.0	567.8	556.6	552.9	552.9	553.9	-0.7
% Change	7.8	-1.3	-2.0	-0.7	0.0	0.2	
4. Tourism	43.2	44.2	43.9	43.8	44.1	44.5	0.6
% Change	0.8	2.1	-0.5	-0.3	0.6	0.9	
5. Health and Wellness	71.3	72.2	72.0	72.4	73.0	73.7	0.7
% Change	-1.4	1.2	-0.2	0.4	0.9	0.9	
6. Creative Professional Services	162.2	164.1	163.7	164.3	166.7	169.7	0.9
% Change	0.9	1.1	-0.2	0.4	1.4	1.8	
7. Construction and Green Services	83.0	82.5	80.6	78.8	78.1	78.1	-1.2
% Change	-1.0	-0.6	-2.3	-2.3	-0.8	0.0	
8. Retail Trade	72.9	75.8	76.3	75.5	76.1	76.9	1.1
% Change	-1.1	4.1	0.6	-1.0	0.8	1.0	
9. Wholesale Trade	149.5	150.1	149.0	149.2	150.6	153.1	0.5
% Change	0.2	0.4	-0.8	0.1	1.0	1.6	
Sum of Clusters	96.2	97.4	97.3	97.2	98.0	99.2	0.6
% Change	0.3	1.3	-0.1	-0.1	0.8	1.2	
Other	119.8	121.3	122.2	123.7	125.3	126.8	1.2
% Change	-1.0	1.2	0.8	1.2	1.3	1.2	

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