Regional Intelligence Report

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REGIONAL INTELLIGENCE REPORT

BEACON ECONOMICS Prepared by Beacon Economics, LLC

Santa Clara County

First Edition

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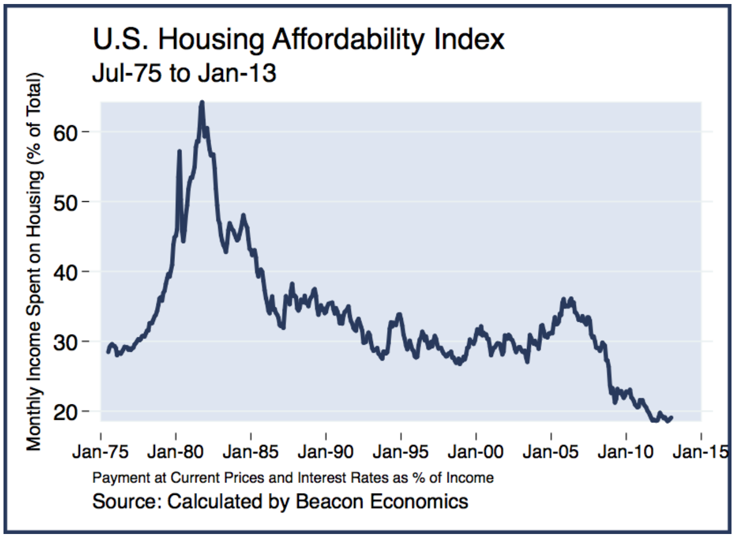
The National Economy

Beacon Economics' outlook for the U.S. economy has been on the bullish side for a couple of years now. Has that optimism panned out? On one hand, Beacon's dismissal of frequent warnings about a "double dip" recession was (obviously) correct. The U.S. economy, while far from a full recovery, has continued its expansion. But growth has also been modestly below Beacon's expectations—particularly during the middle part of 2012 when the economy slowed suddenly.

Still, Beacon Economics is more bullish now than at any time since the 'Great Recession' came to an end—in large part because the fundamentals are finally starting to catch up with expectations. Beacon's forecasts were a bit too early on the call of accelerated growth. Currently, Beacon Economics is expecting 3% growth through 2013 with continued gains in employment and continued falling unemployment rates (dropping to 7% by the end of the year) even as inflation remains relatively tame.

This optimism may seem more in line with trends that began at the end of last year. While it is true that fourth quarter growth in 2012 was less than 0.5%, this was driven by a number of anomalous issues in the data, rather than a true slowing of aggregate demand. Indeed, the contributions to growth from consumer spending, business investment, and residential construction all accelerated at the end of the year. And the first quarter of 2013 looks even better—preliminary growth estimates are well above 3%, even without including some of the more volatile line items.

As for fourth quarter negatives, first there was a sharp draw-back in inventories at the end of 2012 that shaved well over one percent off of growth. This kind of inventory decline can often follow a slowing economy—but in this case it seems to be more of an overreaction by industry to uncertainty created by the 'fiscal cliff' debacle. With consumer spending continuing to grow into 2013 (growth will likely come in at roughly 3% from the fourth quarter despite higher payroll taxes) and with manufacturing orders climbing again, it looks like things will bounce back nicely in 2013.



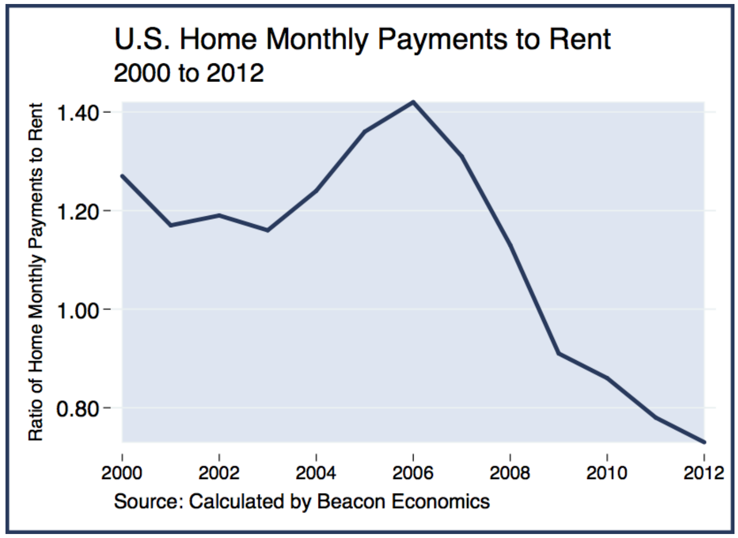
The second negative was a sharp decline in defense spending in the fourth quarter of last year, led by an $11 billion decline in what is known as Defense Services, namely research and development, and support services. The reduction occurred because the U.S. Defense Department works on multi-year contracts and needed to get ahead of the spending cut curve in anticipation of a potential sequestration-led funding decline if negotiations failed. That's one forecast the Defense Department seems to have gotten right. The good news is that most of the negative growth from the sequestration on Federal spending is already baked in to the growth numbers, since the overall cut in spending is close to $55 billion for the entire fiscal year. If the fourth quarter spending cuts stay in place for this year, they will represent a $44 billion budget savings without any other negative hits to growth. In other words this fourth quarter 2012 negative actually increases the outlook for growth in 2013—although the secondary effects from the cutbacks have yet to fully be felt by the economy.

Optimism for the rest of 2013 is being driven by a number of strong growth trends. The most important of these is the resurgent housing market. Home prices, which started to rise at a significant pace at the tail end of 2012, will continue to rise through this year and through 2014, at a minimum. The reason for the jump in prices is simple—tight inventories and incredible affordability. In the shorter term, the surging housing market will affect many aspects of the economy—all for the good. At the top level, rising prices are stimulating a surge in construction. Housing starts climbed above 900,000 (SAAR) at the end of 2012 and will continue to rise as builders rush to meet the unexpected demand. In 2 to 3 years, housing starts will double, and as a result, residential construction will add somewhere between 0.6 and 0.9 percentage points to U.S. economic growth. This implies that all by itself, the housing market will offset the negative impact of the sequestration in 2013.

It isn't just housing that looks encouraging. There has also been a sudden increase in personal income, as well as an acceleration in job creation. While unemployment is still uncomfortably high, the nation has been adding over 200,000 jobs monthly for the past few months. Better job formation in the construction industry and few losses in the public sector, have pushed job totals up. Additionally, wages have started to grow faster. Nominal aggregate personal income had been growing at slightly over 2% per year for most of 2012, yet over the past four months the pace has more than doubled to almost 6%. This is another reason consumer spending was seemingly unfazed by the recent bump in income taxes. Disposable income was actually higher this February than it was in October 2012 despite increased tax rates.

The stock market certainly seems to be acknowledging the growing strength of the economy. Equity prices recently reached record high levels. This shouldn't be a surprise as conditions are ripe for a rally even beyond current levels. Interest rates remain low and corporate profits hit an all-time high in the fourth quarter of 2012. The only question is why it took so long for prices to catch up to fundamentals. The only answer is a lack of confidence in the ability of the U.S. economy to continue to expand, a doubt that seems to be fading as more and more signs of economic strength emerge.

Still, there are some weaknesses in the economy. The slow decline in commercial vacancies means that non-residential construction is not experiencing the same bounce as the residential sector. And of course the nation's leaders are still figuring out how to deal with the sequestration cuts. Although the Pentagon seems to have gotten ahead of their cuts, an equal amount will be cut and impact non-defense spending. These cuts have not yet begun and may well keep state and local spending growth slow.



The United States is also still grappling with budgetary issues—the impact of the sequestration is yet to be fully felt, and there are ongoing debates over both the budget and the debt ceiling. Thankfully, the largest potential hit to the economy, the $400 billion plus tax increase that would have kicked in at the start of the year, has been averted. And as noted, the $100 billion plus tax increase has not taken the wind out of the sails of consumers. Still, there is always the potential of something more serious occurring regarding the budget and debt ceiling debates given the bitter nature of negotiations between the two parties.

Overall, the U.S. economy seems to finally be on the mend. But there are still many longer-term issues the nation must address. Over the next couple of years businesses will be working through changes to the national healthcare system as a result of the Patient Protection and Affordable Care Act. And we have yet to tackle fundamental issues related to underfunded Federal entitlements and state and local pensions. Additionally, the United States is in the midst of a major social crisis whereby many low-skilled workers have simply dropped out of the labor force and ended up on the national disability rolls, as has been documented in a number of recent reports. But with immediate fears about the future diminished by a resurgent economy, hopefully more resources can and will be dedicated to dealing with these pressing issues.

California's Recovery Gains Steam

For the past few years, Beacon Economics has documented California's transition from recession to expansion. At times, this message has been met with skepticism, but recently revised estimates from California's Employment Development Department (EDD) show that the economic recovery has been even stronger than we've been told. Each year, the EDD undertakes an annual benchmarking process in which the monthly, survey-based data from the Current Employment Statistics is recalibrated using data from the more accurate, though more delayed, Quarterly Census of Employment and Wages. This year, those benchmark revisions show that California's employment recovery has been even stronger than previously reported—to the tune of more than 125,000 jobs.

Through December, California was reported to have added back 556,000 of the more than 1.3 million jobs lost during the downturn. However, these new benchmark estimates have increased that job growth to almost 680,000 positions. In other words, California's labor market has expanded by 4.9% since hitting bottom rather than the 4.0% that was originally being reported. Ultimately, this makes California one of the driving forces in the nationwide jobs recovery currently underway. Through January, California was the 11th-fastest-growing labor market in the nation since the U.S. market hit bottom in February 2010. And, despite the fact that 10 other states outpaced California on a percentage basis, the Golden State is second only to Texas in terms of the number of jobs created. Indeed, 12.4% of the roughly 5.5 million jobs added nationwide since the end of the downturn have been created in California.

This is roughly 100,000 fewer jobs than have been created in Texas over the same period, though it is important to keep in mind that Texas is in the midst of an energy boom and, unlike California, has not had to face a steep climb out of the deep recession. Indeed, California has added more jobs in total over the past two and a half years than the next two largest states (New York and Florida) combined. As noted, several smaller states, including North Dakota, Utah, Tennessee, Colorado, and Michigan, have outperformed California on a proportional basis, but together these five states have added 10,000 fewer jobs than California added on its own. In 2012, California consistently outperformed the rest of the United States in terms of employment growth. Whereas nationwide job growth (excluding California) averaged roughly 1.5% last year, growth in California averaged well over 2%. Thus, even though the state has at times been characterized as having too many regulations and an unfriendly business climate, California has been more than holding its own and in fact has been a driving force behind the national economic recovery to date.

Aside from noting the positive upward revisions, it is also important to point out that the progress being made in California's labor markets has not been restricted to the coastal areas. It's true that San Francisco and the South Bay have led the charge in terms of job growth since the recovery began, and they continue to post some of the highest job-growth figures in the state. However, every single major region in California has also made the transition to job growth. The Central Coast has shown particularly strong growth of late, led by a surge in employment in San Luis Obispo County—underscoring the importance of tourism in our statewide recovery. It is also noteworthy that growth, which began in the large urban centers located predominantly along the coast, has begun to spread to other coastal and inland regions across California, with areas like the North Bay, East Bay, and Inland Empire all starting to outpace the state. As the economy improves and demand from domestic sources increases, these areas will likely experience accelerated growth in 2013 and beyond.

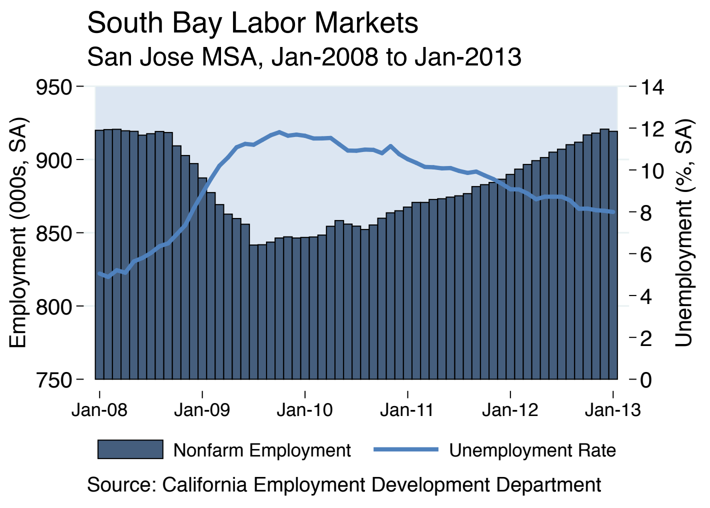
United States Job Growth by Selected States

Location	Feb-10 (000s, SA)	Jan-13 (000s, SA)	Change (000s, SA)	Change (%)	Share of Job Growth (%)
Texas	10,245.1	11,038.5	793.4	7.7	14.5
California	13,845.3	14,529.2	683.9	4.9	12.5
New York	8,505.1	8,865.8	360.7	4.2	6.6
Florida	7,144.5	7,471.9	327.4	4.6	6.0
Michigan	3,834.1	4,053.9	219.8	5.7	4.0
North Carolina	3,840.2	4,046.4	206.2	5.4	3.8
Illinois	5,590.0	5,777.5	187.5	3.4	3.4
Ohio	5,001.0	5,181.1	180.1	3.6	3.3
Pennsylvania	5,566.4	5,746.5	180.1	3.2	3.3
Georgia	3,838.5	3,998.1	159.6	4.2	2.9
United States	129,320.0	134,810.0	5,490.0	4.2	100.0

Source: U.S. Bureau of Labor Statistics

South Bay Labor Markets

With many workers eager to return to work or begin a first job, the South Bay has been lucky to see an increase in the number of employment opportunities offered by various local businesses. As a result, the unemployment rate has steadily receded since reaching a high of 11.8% in October 2009. Over the last year, the unemployment rate has declined from 9.1% in January 2012 to 8.0% in January 2013. Nonetheless, the South Bay's unemployment rate is still above historical norms, and also well above the 6.5% target rate set by the Federal Reserve, last attained in mid-2008. As of January's labor force count of 946,300 people, local establishments would have to add 14,000 jobs to reach the 6.5% target rate.



Meanwhile, total nonfarm job counts have returned to pre-recession levels. Over the year, nonfarm jobs grew by 3.4%, to 919,800 in January 2013, and are up by 6.0% from two years ago. The California Employment Development Department recently revised job counts for 2012 based on their March 2013 benchmark. The total nonfarm job estimate hardly changed, as it was previously understated by only 200 jobs (other areas had massive revisions). However, various sectors experienced more job growth than originally estimated, leaving other sectors on the sour end of the equation.

The three sectors with significant employment revisions in the new benchmark were Construction and Natural Resources, Professional and Business Services, and Leisure and Hospitality. Construction and Natural Resources also grew more over the year than any sector in the South Bay—employment increased by 12.8% (4,300 jobs), to 37,600 jobs. Prior to the recent benchmark revision, payrolls in the sector were understated by 1,000 jobs. The recent surge in Construction and Natural Resources employment is a sign that builders have caught on to the South Bay's soaring real estate market. Professional and Business Services jobs grew by 8.3% (14,300 jobs) over the year, to 188,100 jobs. Prior to the benchmark revision, payrolls in the sector were understated by 6,400 jobs. Leisure and Hospitality jobs grew at a moderate 4.8% (3,900 jobs) over the year, to 83,800 jobs. Prior to the benchmark revision, payrolls in the sector were understated by 2,700 jobs.

The two sectors downgraded in the 2013 benchmark were Manufacturing, and Education and Health Services. Manufacturing jobs grew by only 0.1% (200 jobs) over the year, to 157,300 jobs. Prior to the recent benchmark revision, payrolls in the sector were overstated by 2,700 jobs. Health and Education Services grew by 2.1% (2,500 jobs) over the year, to 119,100 jobs. Prior to the recent benchmark revision, payrolls in the sector were overstated by 5,000 jobs.

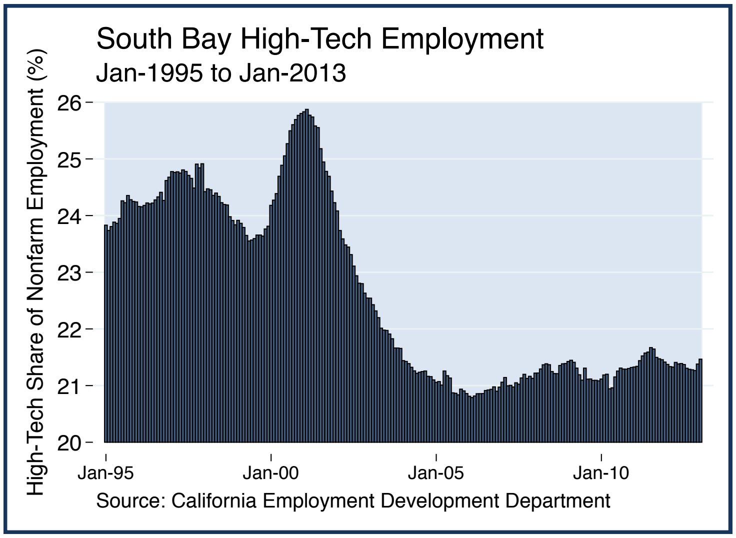
Employment by Industry
San Jose MSA, January 2012 to January 2013 (SA)

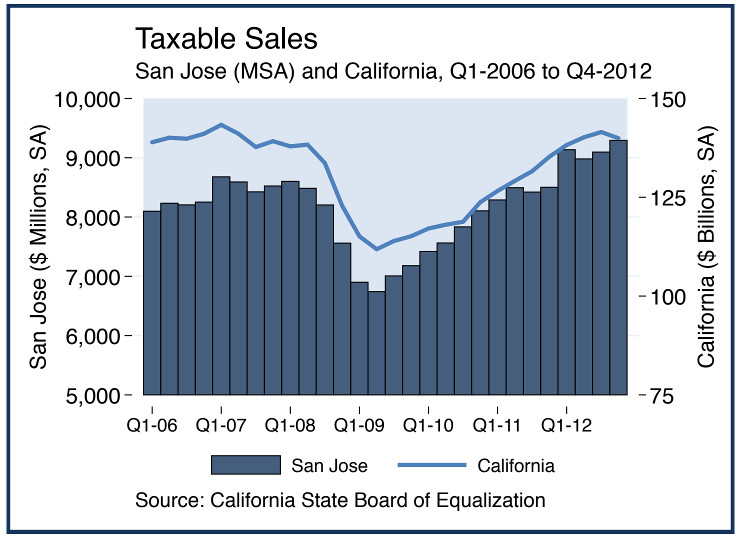
	Jan. 2012	Jan. 2013	Annual Chg. (%)	Annual Chg.
NR/Construction	33,300	37,600	12.8	4,300
Professional/Business	173,800	188,100	8.3	14,300
Transport,Warehouse,Util.	12,600	13,400	6.6	800
Leisure and Hospitality	79,900	83,800	4.8	3,900
Information	49,400	51,400	4.2	2,100
Wholesale Trade	34,100	35,400	3.8	1,300
Education/Health	116,600	119,100	2.1	2,500
Retail Trade	83,500	85,100	1.9	1,600
Financial Activities	33,300	33,400	0.3	100
Manufacturing	157,100	157,300	0.1	200
Other Services	24,400	24,000	-1.6	-400
Total Private	**798,000**	**828,600**	**3.8**	**30,600**
Government	91,800	91,200	-0.7	-600
Total Nonfarm	**889,800**	**919,800**	**3.4**	**30,000**
Farm	5,100	4,800	-5.4	-300

Source: CA Employment Development Department, estimates by Beacon Economics

The South Bay's technology-related employment, which encompasses portions of various sectors, such as Manufacturing and Information, accounted for 197,000 jobs in January 2013, or 21.5% of total nonfarm jobs. In comparison, California's technology-related employment was 1.1 million jobs the same month, or 6.9% of the state's nonfarm total. The current share of the South Bay's technology-related employment is slim when compared with the 25.9% share observed during the dot-com boom.[1]

[1]Technology employment calculated using Beacon Economics' Tech IIR.





Technology employment in the South Bay is unique in that six out of ten jobs are in Manufacturing and the rest are in services, such as software development and research. In comparison, only one out of three technology jobs in the state are in Manufacturing. This is an important fact because job growth in the two varies. Technology manufacturing jobs have increased by 1.9% over the year and by 2.8% from two years ago, while jobs in technology services have increased by 6.4% over the year and by 12.4% from two years ago. These trends are symbolic of the slowing technology manufacturing industry and a booming technology services industry.

Business Climate Remains Hot

The South Bay's business establishments continue to propel local and state finances by providing ample growth in sales tax revenues. During the first quarter of 2012, taxable sales in the combined Santa Clara and San Benito counties grew beyond the pre-recession peak from four years ago. Taxable sales have since grown even further, reaching $9.3 billion in the fourth quarter of 2012. With the 9.3% increase from a year before, compared to the 3.7% increase throughout California over the same period, taxable sales are approaching historical highs last seen in the dot-com era ($9.7 billion). A dot-com-like crash, however, is not anticipated as recent taxable sales growth is sustainable, unlike the 25% annual growth seen in early 2000.

The South Bay's taxable receipts grew by 10.7%, from $86.3 million in the fourth quarter of 2011 to $95.6 million in the fourth quarter of 2012, while the state's gross receipts grew by a still modest 6.8%, based on Beacon Economics' seasonally adjusted figures. Much like the growth in taxable sales, the growth in gross receipts in the fourth quarter was particularly impressive. On a quarter-to-quarter basis, gross receipts increased by 4.3% in the South Bay compared with an increase of 1.3% statewide.

Receipts from the Autos and Transportation category grew by 11.2% over the fourth quarter, the most of all categories tracked. An estimated $11.8 million in Autos and Transportation receipts were collected during the fourth quarter of 2012, roughly one-eighth of total receipts. The improvement in the labor markets and growth in personal income are helping South Bay residents feel comfortable purchasing longer-term durable goods like cars, a positive sign of things to come in the local economy. Nearly one-tenth of vehicles purchased in the Bay Area are hybrids,[2] which explains why the South Bay's Fuel and Service Stations receipts only grew by 0.2% over the quarter ($7.6 million).

Tax receipts from the Building and Construction category grew by 5.8% over the quarter, to $6.0 million. Meanwhile, statewide Building and Construction receipts grew by 3.9%. The rising cost of building material, particularly lumber in recent months, contributed to rising tax receipts in the South Bay and the state, but local demand for commercial and residential real estate is the main driver. Building and Construction is yet another example of the South Bay's increasing demand for services and longer-term durable goods.

[2]R.L. Polk & Co.

On other end of the spectrum, lower-cost goods and services were scaled back: General Consumer Goods tax receipts increased by only 0.5% over the quarter, to $19.4 million; Food and Drugs receipts declined by 3.4%, to $3.7 million; and Restaurants and Hotels receipts increased 0.6%, to $9.1 million. Nevertheless, overnight tourism flourished as occupancy rates in the San Jose/Peninsula region increased from 73.4% in 2011 to 76.2% in 2012, while the average daily room rate increased by 7.9%, to $138.88.[3] In other words, the tax receipts growth in Restaurants and Hotels was boosted by out-of-town visitors.

Spending by Business and Industry also grew remarkably over the fourth quarter. Receipts increased by 4.5% over the quarter, to $24.3 million, compared with the 1.1% increase across the state.

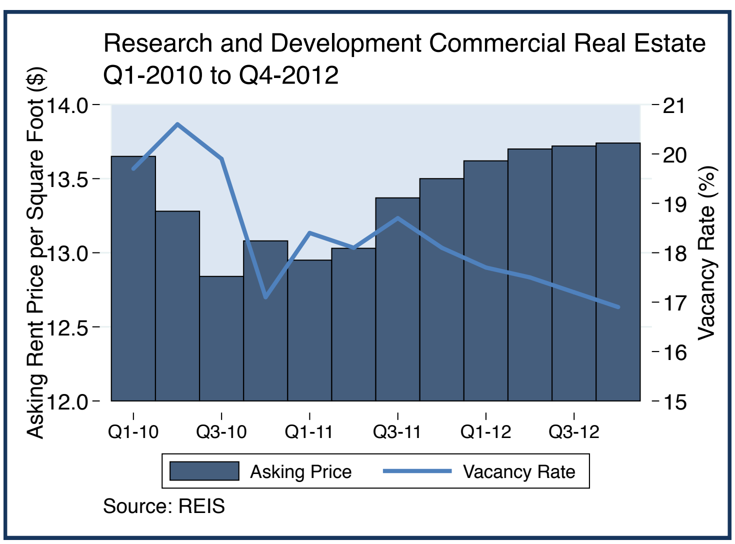
Gross Receipts by Category
San Jose MSA, Select Quarters ($ Thousands, SA)

	2012 Q4	2012 Q3	2011 Q4	2012 Q3-Q4 (% Chg.)	2011-2012 Q4-Q4 (% Chg.)
Autos and Transportation	11,806	10,613	9,587	11.2	23.1
Building and Construction	5,979	5,654	5,497	5.8	8.8
Business and Industry	24,292	23,249	20,674	4.5	17.5
Restaurants and Hotels	9,095	9,041	8,651	0.6	5.1
General Consumer Goods	19,371	19,282	19,164	0.5	1.1
Fuel and Service Stations	7,586	7,571	7,424	0.2	2.2
Food and Drugs	3,709	3,840	3,685	-3.4	0.7
Total	**95,580**	**91,671**	**86,348**	**4.3**	**10.7**

Source: HdL Companies

Commercial Real Estate

The rising asking price for research and development facilities, the South Bay economy's gold mines, began to level off in 2012, as landlords attempted to fill vacant properties. From the fourth quarter of 2011 to the fourth quarter of 2012, the average asking price increased by 1.7%, compared with a 3.2% increase the year before. The leveling off in asking prices is one reason the vacancy rate declined from 18.1% to 16.9% over the same period. In addition, there were vast improvements in the modernization of structures, as captured by the recent increase in construction permits for nonresidential alterations.



A similar trend is visible in office properties—the average asking price increased by 3.1% from the fourth quarter of 2011 to the fourth quarter of 2012, while the vacancy rate declined from 21.9% to 19.0%. Construction permits for new offices increased for the fourth consecutive year in 2012. The demand for office space reflects an improving labor market, especially for the Professional and Business Services and Information sectors (which include jobs in technology services).

Retail properties, however, did not enjoy similar success. The average asking price for retail properties increased by only 0.7% from the fourth quarter of 2011 to the fourth quarter of 2012, while the vacancy rate remained at 6.0%. This trend is in keeping with the slow job growth in the retail trade sector and the slow growth in gross receipts from the General Consumer Goods category.

Construction Permit Values for Commercial Property ($ Millions)
San Jose MSA, 2007-2012

	Retail	Industrial	Office	Hotel	NR Alterations
2007	120	60	429	15	1,083
2008	154	49	212	-	999
2009	78	1	54	16	761
2010	70	36	109	-	740
2011	35	62	119	11	1,108
2012*	40	21	223	14	731

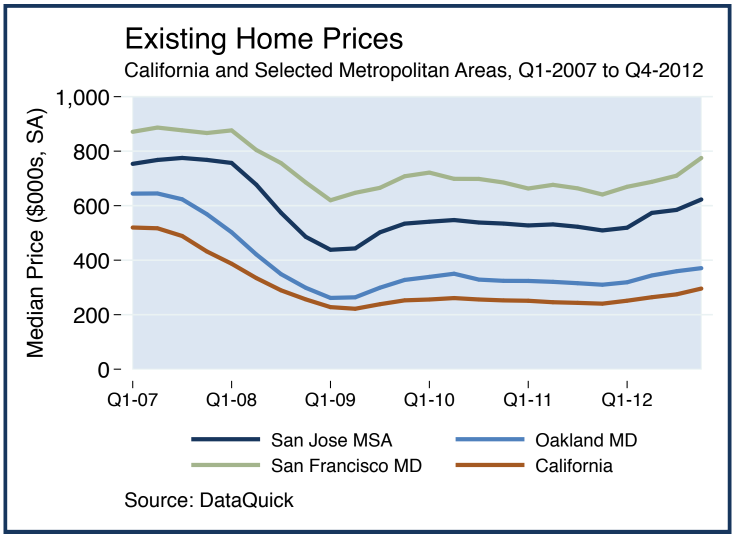
*Includes January-September for 2012
Source: Construction Industry Research Board

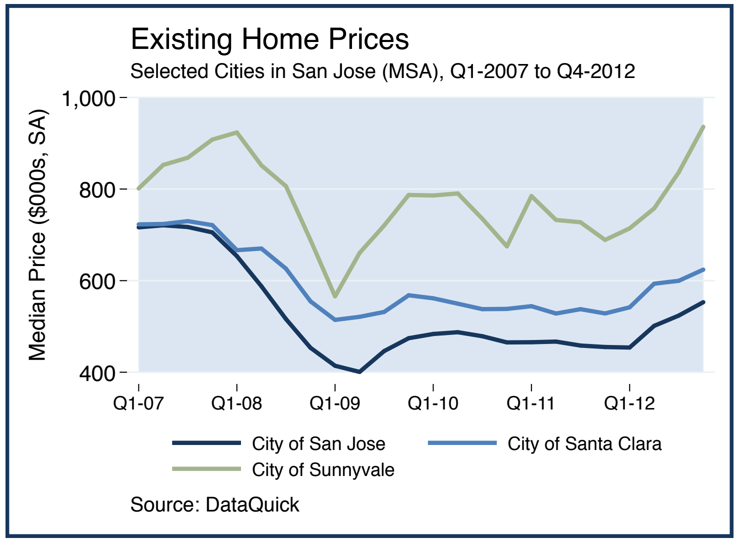
Home Prices, Sales Soar; Lack of Inventory A Concern

Even though the housing recovery is currently taking off throughout the nation and the state, residential property owners in the South Bay still find themselves leading the pack. Take the median sales price of existing single-family homes, for example. In the fourth quarter of 2012, the median price appreciated at a rate of 22.3% over the year, to $622,000. This trend was similar throughout the entire Bay Area and state, as the median sales price of existing single-family homes in San Francisco increased by 20.9% over the year (to $775,000), by 19.6% in Oakland (to $370,700), and by 23.0% throughout the state (to $295,700). Over the same period, within the South Bay:

- The median price in the City of San Jose increased by 21.5%, to $553,000.
- The median price in the City of Santa Clara increased by 18.1%, to $624,000.
- The median price in the City of Sunnyvale increased by 35.9%, to $935,000.

[3]PKF Consulting.





However, changes in the median price are susceptible to changes in the type of homes sold over time. In other words, the median sales price may have increased because more lucrative homes were sold rather than because home values appreciated. Nevertheless, the Clear Capital home price index, which considers repeat sales and price-per-square-foot index models, demonstrates a 16.0% year-over-year increase in South Bay real estate prices in the fourth quarter of 2012. In addition, the Trulia asking price index, which adjusts for home and neighborhood attributes, grew by 14.6% in the fourth quarter of 2012 from a year ago. Therefore, while the sales mix played a role in median price growth, appreciation was the bigger force.

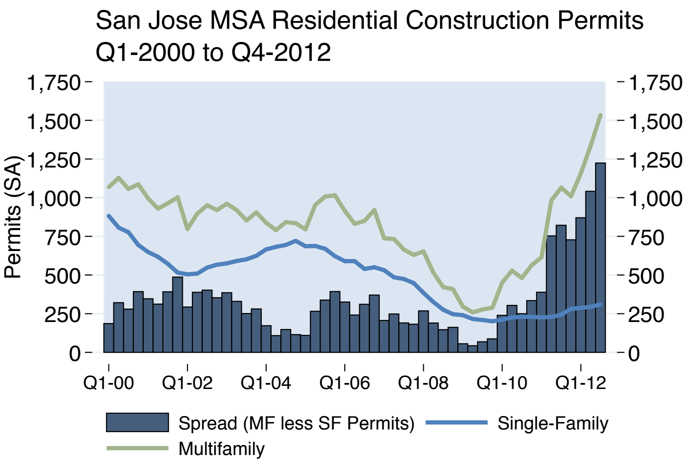
The number of homes sold in the South Bay grew as well. Existing home sales totaled 3,900 in the fourth quarter of 2012, up 17.4% from the same quarter in 2011, compared to a 9.6% increase throughout California. New home sales in the South Bay increased 71% over the year, to 484 in the fourth quarter of 2012, while sales across the state increased by 40%.

A lack of inventory may be an issue preventing South Bay home sales from making further gains in 2013. Home sale inventory in the fourth quarter of 2012 for Santa Clara County declined to a 1.5 months' supply from a 4.5 months' supply the same quarter in 2011. Comparably, the state's home inventory during the fourth quarter of 2012 stood at 3.0 months' supply. Furthermore, default notices were down by 56% in the fourth quarter of 2012 from a year ago, and foreclosures were down by 54% over the same period. New home construction won't correct circumstances because permits for single-family homes have lacked significant growth. Further gains in home sales in the South Bay may have to depend on the "hidden inventory"—homes that would be on the market were it not for negative equity.

There is also positive news in the market for condominiums as median prices and sales are up over the year. The median price for existing condominiums in the South Bay increased by 38.1% over the year, to $389,700 in the fourth quarter of 2012. Comparably, condominium prices have increased by 33.3% in San Francisco ($591,900), by 30.9% in Oakland ($250,500), and by 19.8% across the state ($270,800). Condominium sales are up by 7.3%, compared to a 27.9% increase in San Francisco, a 0.5% decrease in Oakland, and a 15.7% increase across the state. Data for condominium inventory are not available, yet the lack of inventory is less likely an issue as construction of multifamily units has grown excessively. The spread of multifamily permits less single-family permits is at historical highs, putting the multifamily to single-family ratio at 5:1, compared with 10:1 in San Francisco and 1:1 in Oakland.

Builders seem keen on multifamily housing as sales and prices continue to appreciate; however, the recent upswing in demand for the South Bay's high-value real estate is an extension of the region's recent remarkable income growth. Single-family homes may prove to be in short supply in the coming years.

[4]Clear Capital Market Reports and Trulia.com, based on average year-over-year growth for the months of October, November, and December.



Source: Construction Industry Research Board

Personal Income Growth in South Bay Leads All MSAs

The U.S. Bureau of Economic Analysis recently released county personal income figures for 2011. Personal income in the South Bay increased by 9.0% over the year, to $113.8 billion, compared with the 5.2% increase statewide. Per capita personal income, meanwhile, increased by 7.6% in 2011, to $61,000, yet still remains lower than per capita personal income in San Francisco, which grew by 4.8%, to $61,400.

When compared with other regions of similar size or larger, the South Bay ranked first in the nation in income growth in 2011—measured both as a whole and on a per capita basis. The source of personal income, whether generated through wages, salary, and supplements to salary, or through proprietors' income, helps us understand a region's source of growth. In the South Bay, income derived from wages, salary, and supplements to salary grew by 9.1% in 2011, while proprietors' income only grew by 4.4%. In comparison, the next three fastest-growing regions relied much more on proprietors' income than the South Bay, in tune with the structure of their economies. For example, while the share of personal income earned by proprietors in the South Bay is 6% of total income, Detroit's share is 10% of total income, and Houston's and Tulsa's shares are 20% of total income.

The Big Picture: Technology

The South Bay's extraordinary economic growth in 2011 was driven by the technology sector as various indicators in the technology industry demonstrated ample growth over the year. However, in 2012, many of the same technology indicators either slowed or regressed, a possible concern for the region's future. More specifically, the indicators that reflect the Manufacturing sector are weakening, but those that reflect the service sector remain strong.

Top 20 MSAs in Personal Income per Capita Growth
Select MSAs, 2011

		Personal Income		Per Capita Personal Income	
Rank	Metropolitan Statistical Area	($ Thousands)	(Annual % Chg.)	($)	(Annual % Chg.)
1	**San Jose-Sunnyvale-Santa Clara, CA**	**113,844**	**9.0**	**61,028**	**7.6**
2	Tulsa, OK	39,996	7.6	42,236	6.8
3	Detroit-Warren-Livonia, MI	171,473	6.1	40,009	6.2
4	Houston-Sugar Land-Baytown, TX	289,790	7.9	47,612	5.9
5	Oklahoma City, OK	51,124	7.6	40,002	5.9
6	Grand Rapids-Wyoming, MI	27,305	6.6	35,024	5.8
7	Cleveland-Elyria-Mentor, OH	87,622	5.3	42,365	5.6
8	**Bakersfield-Delano, CA**	**26,744**	**6.6**	**31,400**	**5.5**
9	Pittsburgh, PA	106,146	5.6	44,982	5.5
10	Akron, OH	28,066	5.1	40,011	5.4
11	Colorado Springs, CO	26,409	6.8	39,994	5.3
12	Des Moines-West Des Moines, IA	26,092	6.7	44,966	5.1
13	Honolulu, HI	44,927	6.0	46,624	5.1
14	Richmond, VA	54,641	5.8	43,046	5.1
15	Hartford-West Hartford-East Hartford, CT	64,401	5.1	53,081	5.0
16	New Haven-Milford, CT	42,606	4.8	49,478	5.0
17	Portland-Vancouver-Hillsboro, OR-WA	93,449	6.3	41,302	4.9
18	Columbus, OH	74,688	5.9	40,188	4.9
19	Baltimore-Towson, MD	139,528	5.5	51,126	4.9
20	**San Francisco-Oakland-Fremont, CA**	**269,588**	**6.0**	**61,395**	**4.8**

*Includes MSAs with personal income greater than $25 million
Source: Bureau of Economic Analysis

Local venture capital funding increased by 25.1%, from $9.3 billion in 2010 to $11.6 billion in 2011, surpassing the pre-recession high. Funding increased for eight out of the top ten types of businesses receiving funding, including software and semiconductor production businesses. In 2012, venture capital funding declined by 6.5%, to $10.9 billion. By type, only three beat the trend—software, media and entertainment, and consumer products and services. Venture capital funding for semiconductor production declined by 46.1%, or $465 million.

Economic indicators that cover the broader technology industry demonstrate a similar trend in manufacturing and services:

- Nationwide, private fixed investment in technology goods and services increased by 4.2% in 2011.[5] More specifically, investments in both computer and peripheral goods (7.6%) and software production (6.8%) grew substantially over the year. However, as technology investment stalled in 2012, increasing by only 2.9%, investment in computer and peripherals (1.3%) was pulled back more than investment in software production (5.2%).

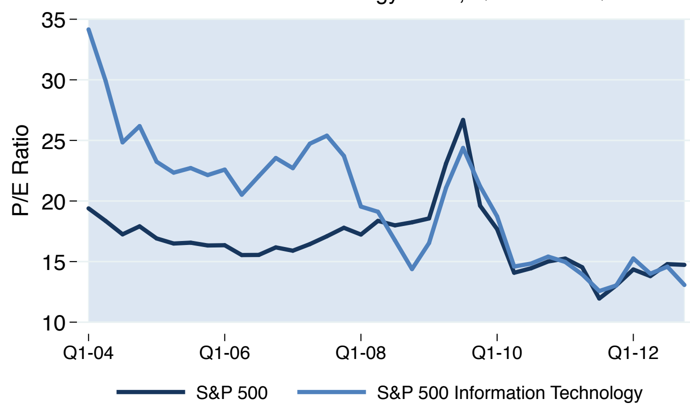
- California's exports of computers and electronics products declined by 3.2% in 2012, after increasing by 7.0% the year before.

- Worldwide semiconductor sales show a similar trend, increasing by 1.9% in 2011, but subsequently decreasing by 3.3% in 2012.

- Industrial production of technology goods also declined in 2012. Industrial production of "high-technology goods" grew by only 2.3% in 2012, compared with the 2.7% growth in non-high-technology goods. The previous year, high-technology goods production had increased by 9.7%, compared with a 3.0% increase for the non-high-technology industries.

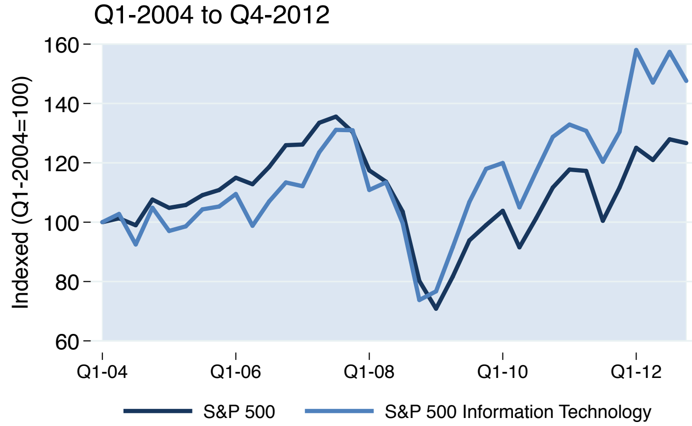
- Stock prices for technology companies, measured by the S&P 500 Information Technology Index, grew by 13.1% from the fourth quarter of 2011 to the fourth quarter of 2012, but was outperformed by the S&P 500 (13.3%). The previous year, the Information Technology Index, which grew by 1.3%, had outperformed the S&P 500 (0.0%). The long-term trend, however, shows that the technology index has outperformed the S&P 500 since the first quarter of 2004. Furthermore, during the first quarter of 2012, the price-to-earnings ratio (P/E), a standard in measuring risk, was 34.2 for the technology index while the P/E ratio for the S&P 500 was 19.4. In other words, technology stocks were perceived as less risky as earnings were forecasted to outperform the S&P 500. Moving forward, the P/E ratio for the technology index was 13.1 in the fourth quarter of 2012, while the S&P P/E ratio was 14.7. Technology companies are now perceived as risky as earnings are forecasted to underperform the S&P 500.

Price-to-Earnings Ratios for the S&P 500 and S&P 500 Information Technology Index, Q1-2004 to Q4-2012



Source: IHS Global Insight

S&P 500 and S&P 500 Information Technology Q1-2004 to Q4-2012



Source: IHS Global Insight

[5] Bureau of Economic Analysis. Technology goods and services is defined as information-processing equipment and software.

BEACON ECONOMICS

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