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THE CALIFORNIA ECONOMY: SINGING THE HOUSING BLUES

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Overview: Bubbles, Busts, Bonds and Budgets

The midterm elections are here and gone and Arnold Schwarzenegger has won another term at the head of the state. Things seem to be going well, and there is much good news. Many parts of the economy are doing better than ever, including manufacturing, logistics, tourism, professional services and the information sector. Government revenues continue to grow well and the slew of infrastructure bonds were just passed, giving California the ability to start investing in its highly stressed transport systems. Incomes are rising solidly and unemployment remains low. Energy prices have fallen, inflation has moderated and interest rates remain low. Along with all this, California is finally facing a national legislative body with a majority that matches California's political leaning, and the new Speaker of the House will come from San Francisco. For now California is no longer left in the political hinterlands of the nation.

But thinking towards 2007 the entire economy is being threatened by the very sector that drove so much of growth until just a couple years ago – housing. The bubble that has driven prices up to record high levels at both the state and national level has popped. Sales activity is plummeting, new building permits are falling, prices have flattened, and notices of foreclosures are starting to rise. The housing bulls have shamelessly continued to spin right through the pop. After denying there was a bubble at all, they then claimed that a soft landing was all but assured. And even when finally being forced to acknowledge that nominal prices decreases in housing are almost a certainty, they still claim in public forums that the worst is behind. It isn't, rather it is in front of us. The housing market will hit bottom sometime early in 2007, and the full consequences of the years of excess will only be known then.

In the wake of this slowdown will be a variety of direct and indirect problems. Employment growth will take a hit, particular in housing-related sectors such as mortgage banking, home building and renovation, retail, and in real estate. Perhaps as important will be the impact of housing prices on consumer spending, and what cooling in the market may due to overall spending. Add this up and you have a situation that predicts a slowdown in economic growth at best and the potential for an economic recession at worst. The difference between these two outcomes depends on the ability for the non-housing economy to continue to grow. This outcome is a toss up at this writing.

Implications for California

What does it all mean for the state? For one thing the state's budget problems, never really solved after the 2001 collapse, will come back to haunt us. While we do not face the same declines in revenues, this time the state has fewer options to cover the gap, with fewer reserves,

fewer places to find easy fat to cut from the budget and with a load of new debt. We may try to borrow our way out of our troubles again, but the bond markets will be shy about lending even more money to a state that cannot seem to face up to the fundamental decision to either cut deeply into some large social programs or raise taxes.

As for housing prices, we can expect to see slow nominal declines over the next couple years, even as the market bottoms out, but it is unlikely that—short of some secondary shock to the economy—we will see the same kind of price declines the state faced in the early nineties. It isn't clear that this is necessarily a good thing. California now is home to 5 of the 6 most expensive places to live in the nation. This fact makes it difficult for businesses who want to recruit from out of state, and drives middle class families far away from employment centers in search of affordable housing. The declines in the pace of building will cause our already bad housing shortage at the low end of the housing market to become that much worse.

California remains one of the best places to live in the US. So it will work through these issues and thrive again eventually. But the problems we face will take their toll over the next couple years. The good news is that in crisis comes opportunity. Perhaps this shock to the economy will help us create the political will necessary to fix some of the long-run problems we face.

Singing the Housing Blues

For several years, I have been warning Californians about the growing real estate bubble – and the potential negative impact it could have on the local and national economy when it broke. Now the waiting is over. The bubble has indeed popped and we are waiting to see the full consequences of the excesses witnessed over the last few years. The uniqueness of this bubble in terms of its size and longevity, along with the distended state of consumer finances and the mortgage frenzy, have put the U.S. and California economies in a place that is unique from a historical perspective – an interesting time for the victorious democrats to be taking over the reigns of government. What is clear is that a popping real estate bubble is a slow motion train wreck. Real estate is still in the midst of its decline, and the bottom of the market will not be seen until early 2007. The majority of economic risk still remains in next year's economy despite the current slowdown in GDP growth.

What is an asset bubble? It's a market where the selling price of the asset has been pushed far above any reasonable estimate of what the fundamental value can be. Remember that an asset is some product, financial or physical, that provides a stream of value in the future. The current price of the asset should be the net present value of these expected future flows. Because different people may have differing expectations of what these values might be, we have an active market in trading these products. For stocks, future flows are based on firm profits. For a bond, it's the coupon payments. For a house, it is the implied rental value that the home provides to its owners, whether they rent it out or live in it themselves, in the future.

The reason that asset markets sometimes become bubbles is that people tend not to think in terms of fundamentals, but instead in terms of trends. The trends in housing values were positive for real reasons between 1997 and 2003 in California and the rest of the U.S. During the

first half of this time period we had solid economic growth. Higher incomes pushed the implicit rental value of homes up because of the increase in demand.

Then – when the economy cooled during the mild downturn of 2001 – mortgage rates began to fall dramatically, from above 9% to below 5% at one point in time. The mortgage rate is the primary driver of real estate discount rates. When the discount rate falls, those future value streams become worth more today, and hence the price of a home rises. A good rule of thumb is that a one percentage point shift in the mortgage rate leads to a ten percent swing in the fundamental price of an asset. Note that the implication here is that home buyers are not necessarily better off in a low interest rate environment – instead the lower rates are offsite by higher prices. For current home owners, they do see a real increase in their net worth as a result of falling rates, however.

At the start of 2003, all indicators pointed towards a slowing in home price appreciation. The economy and incomes were still recovering from the downturn, and interest rates started to come up at a slow pace. But this is when speculation started to play a role. For anyone outside of housing, buying a house looked like a heck of a deal. People betting on a continuation of these trends moved in to get some of this 'free money' and as a result caused prices to go up – a self-fulfilling prophesy.

This free money caused more people to want to get into the market, causing prices to go up even more and so on. The feeding frenzy built on itself. And it was fueled to even higher levels by a real estate industry that fell over itself telling everyone that everything was fine, and a mortgage market that allowed people to invest in properties they couldn't otherwise hope to afford on the basis of all sorts of shady dealing: no documentation loans, special introductory offers, negative amortization loans – offers that seem like a good deal. But they seem like a good deal only as long as prices continue to go up.

How big was this run up in prices? Historically speaking, what we have seen is absolutely unprecedented. From the start of the run up in prices in the late nineties until today California has seen prices rise by almost 200%. The median price of an existing single family house in the Bay Area was \$260,000 in 1997 – today that same median house costs \$690,000. In Southern California the figures are \$170,000 and \$500,000 respectively. To put this in perspective, in the last bubble overall prices in the state rose only about 100% in a period of time when inflation rates were higher.

And it isn't just in California. The increase in prices is unusual in size everywhere (although price increases have been largest here in California, with Florida and New York lagging as second place finishers), leading to a record increase in national prices. It is also unusual for being everywhere, as opposed to being only in one or two places in the nation. This time some of these prices increases are justified by the fall in interest rates and a generally robust economy which has been growing, on average, at a faster than normal pace for a decade now. But in no way can these factors explain all the increases or even a significant portion of them.

The run up in prices has been closely matched by a rapid run up in construction activity. Home builders have been eager to cash in on home buyers wanting to upgrade from their current residence as well as speculators who want to purchase homes for their investment value. Over the past three years, the U.S. economy built 1.40 new homes for each new household, considerably higher that the long run average of about 1.05 new units per new household. Spending on new residential construction as well as fixing up out existing homes hit a whopping \$5400 per household in real terms, twice the long run average rate of spending.

Nominal Price Appreciation*
1980's compared to current
markets, trough to peak

markets,	trough to p	cuit
	Current	80's
Bakersfield	182%	36%
Chico	176%	60%
Fresno	186%	49%
Los Angeles	232%	118%
Merced	228%	69%
Modesto	215%	103%
Napa	227%	124%
Oakland	222%	102%
Oxnard	220%	121%
Redding	165%	71%
Riverside	229%	79%
Sacramento	193%	93%
Salinas	257%	115%
San Diego	225%	96%
San Francisco	198%	144%
San Jose	204%	127%
San Luis Obispo	216%	122%
Santa Ana	238%	92%
Santa Barbara	247%	103%
Santa Cruz	213%	118%
Santa Rosa	204%	113%
Stockton	217%	85%
Vallejo	220%	93%
Visalia	142%	61%

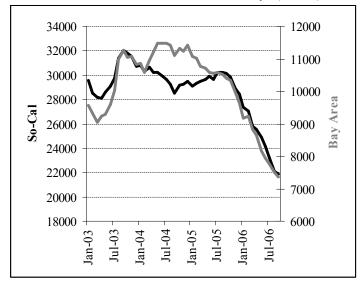
^{*} Based on the OFHEO Numbers

A tremendous amount of spin was handed out by various organizations that had a vested interest in the bubble. Numerous theories were floated to justify what was happening, from boomers buying second homes for retirement to increased demand being driven by inheritances. The truth is that this was a housing bubble whose only unusual feature was its size. It couldn't last; at some point in time, like any pyramid scheme, reality had to interpose itself on the market.

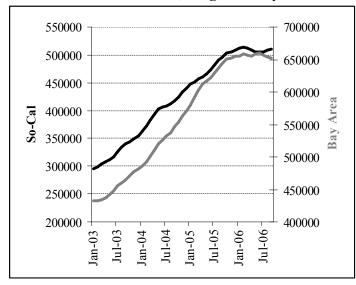
The leading indicator of the end of the bubble is market activity. When sales start to fall, it implies that the frenzy is over. The lack of activity causes a rapid build up in inventories of new and existing units. This in turn puts pressure on prices, which typically stop rising within six to nine months. The construction industry responds to the slowing with a major pull back in construction.

The proof of the pudding is in the eating, so goes the saying. Wherever you fell on the bubble debate, it can longer be denied that the party is over. Unit sales, which had been at a plateau for over two years, started to fall rapidly in the last quarter of 2005, and as of September 2006 activity was now down by a full third. There is no slowing in this trend at this writing. and inventories of homes for sale continue to grow. For a while, the industry was talking about a soft landing, inasmuch as prices were still rising even as market activity was falling. But again, this talk is par for the course. Prices stopped growing within six months of the sales declines and have even seen some slight declines.

California Real Estate Sales Activity, (Units) SA



California Median Prices, Single Family Homes SA



Data Source: Dataquick

It should be noted that these data are noisy, and the percentage changes we're seeing are small, not enough to be indicative of a collapse in prices – indeed, a collapse in prices is highly unlikely given growth in labor markets and the strength within the non-housing portion of the market place (see the next two sections of this chapter). But do keep in mind that the worst is not over. Quite the contrary, this market has a way to go before the full extent of the problem is seen.

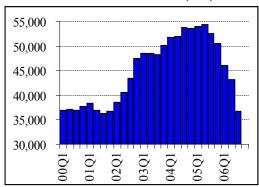
Impacts of the Slowdown

First consider the direct ramifications of the slowdown. Over the last few years the state has experienced a solid drop in the unemployment rate. This drop has had a lot to do with the construction markets. At the peak of the 2000 bubble the state directly employed 780,000 people in construction, with another 200,000 or so in construction in the informal sector (outside of normal payroll employment). Today the numbers are 940,000 and 350,000 jobs respectively. This surge in jobs has been due entirely to home building, both in primary construction as well as in home renovation.

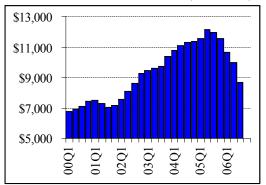
In 2000, the state permitted the construction of less than 150,000 units. In 2004 and 2005, 210,000 new units were permitted, a substantial increase even in the midst of what was a cool economy until late 2004. With the cooling of the housing market the number of permits has fallen very sharply. As of the third quarter of 2006, that had fallen to an annualized pace of 140,000, with no sign of slowing. Falling permits today means a loss of jobs in 6 to 9 months; 200,000 to 300,000 jobs here are directly at risk over the 2007-2008.

Construction isn't the only sector to take a direct hit. The mortgage industry has been flying high, but is also feeling a chill. With sales falling rapidly and home equity loans looking less and less like a good deal for those who want to cash out on the home ATM. To this new reality, we have to add in the risk that Orange County on its own faces as the de-facto home to the national sub-prime lending business. And all those people who have been filling out the ranks of the real estate industry (remember that the state now has a record number of people with real estate licenses in a market that is going to see reduced transactions for some time to come. Home builders will be similarly strained.

Residential Permits: Units (SA)



Residential Permits: Value (\$Bil, SA)



A Housing Shortage?

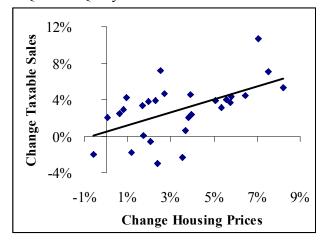
This result may seem like a surprise. We have been hearing about the massive "housing shortage" in California. There is a housing shortage in the state – indeed the state has build new residences relative to population growth at a pace that is 75% of the U.S. overall. In general the state's complex and time consuming zoning system for construction, combined with costly regulatory system, local zoning board intransigence, and stiff environmental rules have all served

to restrict the pace of building. However, the burden of this shortfall has not fallen upon California homeowners. Single-family homes are high margin projects and tend to be far more politically acceptable to local communities. Rather, the burden of this issue has fallen upon those who are normally in the lower end of the housing scale – renters and those who need low-priced, entry-level housing.

The result of this shortage was crowded housing, particularly in the southern portion of the state. California had, and continues to have, the second-worst crowded housing problem in the nation – where crowded housing is considered to be one or more people per room in the residence – currently at 8% of all housing units in the state. Unfortunately, what the state has not been building through the last few years has been this type of low cost housing. What we are building are high-end houses and high-end condos. The last few years have seen a change to a degree – primarily through a system that might be best termed trickle down housing. Building high-end units frees up low-end units. The overcrowding rate in the state was 10.5% in 2002.

This trickle-down effect has only been a limited fix, and dependent on demand for new homes to free up units at the lower end. Indeed, a sign of the mismatch is that the number of vacant housing units in the state has been rising despite the need. With the cooling of the market, demand at the top end is rapidly withering up and permits have fallen despite the still substantial need. With little sign of any substantial change in the building regulations that will help encourage more direct construction at the low end, it seems likely that the crowded situation will become that much worse.

Home Prices and Taxable Sales 05Q4 to 06Q2 by California MSA



Crowded housing is not a small issue. Expensive workforce housing puts pressure on infrastructure systems and middle class families are forced to live far away from jobs in order to be able to afford a place to live. It makes it difficult for firms to recruit high quality workers from out of state. Lower income, primarily new immigrant, families now typically pay 40% to 50% of their household income to cover their rent. Under these circumstances they do not have the resources necessary to support their children's efforts to obtain an education, either financially or time wise when both parents are working 40+ hours per week. This lack of resources puts a strain on public education and our social safety net.

Consumer Spending

Lastly there are the secondary effects. First is the potential impact on consumer spending. Spending in the U.S. has reached a new height, with personal savings rates dipping into negative territory; this is the first time since the Great Depression that we have seen this situation. There

are few explanations for all this spending beyond all the new housing wealth being created in the U.S. and here in California.

In 2005, the state saw almost half a trillion dollars in new housing wealth created, an amount that adds to 50% of total income in the state. Given the condition of current markets, this impact will turn slightly negative in 2007. That shift will be a huge swing in wealth creation, and might very well have a distinct impact on consumer spending.

The pace of home market slowing has not been even. Some places are still seeing prices rise, albeit at a slower pace. Other markets started popping earlier, and are already experiencing some declines in home prices, for example in Sacramento. Taxable sales growth slowed sharply in those markets that have seen price growth of homes slow sharply relative to those that are slightly behind the curve. Yet it is clear that the cooling will continue to spread, and have a deeper impact on consumer spending across the state and indeed across the nation.

Another secondary impact is what the cooling housing market means for the U.S. overall. The building industry is tanking – it's not just here in California. Consumers hold record levels of debt, and the pace of over-building in many parts of the US is tremendous. The U.S. overall has averaged 1.5 new housing starts per new household over 2004-2006. But the long run average is 1.05. This gap is close to 1.5 years worth of excess supply of homes. The excess will not be erased quickly. A slowing U.S. economy will have an impact on the state economy, causing more turbulence in the economy. And we have to factor in the potential melt down of the mortgage markets. That melt down is still a large unknown on the horizon.

State Fiscal Implications

What is clear is that housing will slow the economy tremendously next year. And for a state that has been relying on borrowed money to cover its state fiscal deficits for a number of years now hoping for revenues to catch up with spending, the slowdown cannot be good news. Given the governor's budget plan for fiscal year 2006-07, the state would have been left with less than \$1 billion in reserves after using \$8 billion in leftover bond money to cover the current budget gap. Now the state faces a cooling housing market, cooling taxable sales and a cooling employment market. None of this was built into the budget projections. Public revenues lag the economy and the pain has not filtered to Sacramento yet. But it will, and the budget problems created in the latter part of the nineties, which has never really been fixed, will come back to haunt the state. One has to wonder if Governor Schwarzenegger won't be wishing that he had not won a second term when these budgetary woes shake out!

The scenario outlined above sounds fairly bad, but there is one point of good news. From 2001 to 2004, the state's economy was largely driven forward by the housing economy. Over the period 2005-2006, we saw a shift in this toward the non-housing part of the economy. As will be shown in the next section, there are signs of strength here that may help to offset the cooling housing market – somewhat.

California Business

California has seen some solid trends in the business economy. Despite the complaints about bad business climate and various so-called "job-killer" problems such as workers' comp costs, the state's economy continued to grow faster in 2005 than the nation overall. In real terms state output grew at 4.3% according to the Gross State Product numbers released by the Bureau of Economic Analysis, as compared to 3.6% for the nation overall in the same year. Growth in 2004 was 5.2% in the state compared to 4.2% for the U.S. overall.

Manufacturing

Leading the way for economic growth in the has been state which manufacturing. contributed almost a fourth to overall output. This outcome may be a surprise to anyone following the lackluster employment situation for that sector, which has failed to add few jobs during the economic rebound that started in 2003 This strikingly different measure is one of the real results of the information technology revolution and outsourcing.

Manufacturing firms in California have expanded their ability to produce output by finding cheaper inputs from other nations, investing in new manufacturing methods that exploit the amazing low price of computing power,

California Gross State Product Numbers*

Camornia Gross State Froduct Numbers						
	Real GDP		Growth Rates			
	2005	Share	2004	2005		
Total	1,469,459		5.2%	4.3%		
Agriculture	19,992	1.4%	-2.0%	0.4%		
Construction	57,303	3.9%	6.2%	4.2%		
Manufacturing	181,763	12.4%	5.2%	8.2%		
Transportation	35,083	2.4%	2.5%	2.2%		
Utilities	21,417	1.5%	2.1%	1.5%		
Retail trade	112,874	7.7%	7.7%	3.3%		
Wholesale trade	87,356	5.9%	2.3%	3.0%		
Information	105,950	7.2%	17.2%	7.3%		
Finance and insurance	108,376	7.4%	4.1%	8.8%		
Real estate and leasing	226,126	15.4%	7.4%	3.0%		
Professional technical	122,241	8.3%	6.3%	8.5%		
Management companies	20,693	1.4%	0.8%	-11.1%		
Administrative	44,358	3.0%	4.5%	5.0%		
Educational services	9,188	0.6%	1.1%	0.9%		
Health care	81,652	5.6%	3.7%	5.5%		
Arts, entertainment	16,875	1.1%	1.5%	1.1%		
Accommodation food	37,758	2.6%	5.4%	4.5%		
Other services	31,509	2.1%	1.4%	2.4%		
Government	145,709	9.9%	0.3%	0.5%		

^{*} The numbers shown here are value added measures — they measure total output minus the cost of all material inputs. In short it represents the net output of industry capital and labor. This is why construction, which is a large employment sector, is a small share of gross state product. The value added is relatively small. Conversely a small income and employment sector such as real estate and leasing is very large, as most of the value added in this industry has little to do with purchased inputs. Part of this sector is the rental value of all residential housing in the state for the year.

and using this capital deepening to handle increasing output. State exports have also been growing at a solid pace. The sector has now returned to where it was in 2000 at the peak of the tech boom. This time, however, the success is real. Firms are earning record profits.

Other Important Sectors

Also contributing to growth in 2005 was professional services and finance and insurance. Growth in these sectors is a solid sign; these are high income industries that support much of the rest of the economy. This expansion is a shift from 2004, when growth was centered on information and the real estate rental and leasing industry.

There are other solid signs of a growing economy in the state. Hotels have seen occupancy rates rise sharply, and nightly rates are rising as the traffic flows increase. The airports remain busy and the highways are packed – always a good sign that business is getting done. This activity may seem surprising given the state's lack of investment in its fundamental infrastructures, especially during the budget crisis. Yet congestion and high housing prices are more of a drag on growth than a reverser of it. We must remember that congestion and high housing costs are in large part due to our own economic success within the state. If that success slows, the slowdown will take pressure off infrastructure and reduce congestion. I am not arguing that congestion shouldn't be addressed—even as a drag on growth this sector can be a problem. Clearly, the infrastructure initiative that the governor pushed will be a welcome relief for state residents and businesses. But the potential short-run negative impacts are less severe than often touted.

The non-residential real estate market has also improved in 2006. Vacancy rates in office markets fell in every major market in the state—with the exception of the Inland Empire which experienced a massive increase in the stock of existing space (12% in one year, albeit on a small base) that it couldn't all be absorbed. This increase is associated with the growth in professional jobs in the economy. Rental rates also increased sharply in many markets—again indicative of more demand for space. This outcome is surprising since from an historical perspective vacancy rates are still quite high—there is a lot of empty space in the market. We might speculate that these seemingly contradictory results are due to tighter conditions in central regions, while peripheral facilities—what once seemed logical in the build frenzied markets of 1998 and 1999—continue to languish at the peripheries. With record profits being enjoyed by corporate America it seems probable that businesses are willing to bid high amounts for plum locations.

Industrial space – including both warehouses and manufacturing facilities – also saw falling vacancy rates and solid rental growth – indicative of the continued expansion of port traffic and logistics through the southern California region as well as the healthy state of the manufacturing sector.

Retail space has been the star of the non-residential world in California, with vacancy rates below 2% in some markets. Rental growth was less strong than for office markets, but then this reflects the fact that rental rates in this market did not drop as much in the wake of the 2001 downturn in the markets. This strength is hardly surprising given the strong taxable sales numbers in the state. Santa Clara expanded by a full 10.3%, while San Francisco and the Inland Empire saw growth of 8% over 2005-2006 – second quarter to second quarter.

Taxable Sales Growth 2005Q2 to 2006Q2,

	,	
	2006Q2	
Los Angeles	34,468	6.1%
Orange	14,309	4.5%
San Diego	12,134	4.3%
Santa Clara	8,208	10.3%
San Bernardino	7,924	7.8%
Riverside	7,546	8.2%
Alameda	6,369	6.0%
Sacramento	5,279	-0.4%
San Francisco	3,478	8.4%
Contra Costa	3,465	3.3%
San Mateo	3,261	5.3%
Fresno	3,136	7.0%
Ventura	3,082	4.0%
Kern	3,012	15.5%
San Joaquin	2,366	-0.8%
Sonoma	1,993	5.1%
Placer	1,908	6.6%
Stanislaus	1,834	1.5%
Balance CA	16,956	5.6%

insignificant as the real estate markets cooled in Sacramento and San Joachim before anywhere else. Indeed prices in the region began to fall as of the first quarter of 2006, as opposed to the third quarter for the bulk of the state. In short, the spillover impact of the cooling real estate market on spending had yet to kick in on the rest of the state, but will be felt soon.

As for new nonresidential construction, while the nominal values of nonThe one exception to these changes is in Sacramento and San Joaquin, where taxable sales have actually declined by 0.4% in 2005-2006, second quarter over second quarter, on the basis of declining sales starting in the first quarter of 2006 (seasonally adjusted). Retail vacancies went up by a bit. This is not

Non-Residential Markets

	Vacancy Rates		Rental	Stock	Gr.
	05 Q3	06 Q3	Gr.	000's sf	Stock
Offices					
East Bay	17.4%	17.2%	6.3%	88,718	0.7%
Inland Empire	12.0%	12.9%	4.0%	25,254	12.5%
Los Angeles	15.7%	14.8%	6.2%	334,893	0.4%
Orange County	12.0%	11.1%	9.7%	114,755	1.5%
Sacramento	13.4%	12.7%	3.8%	74,910	2.3%
San Diego	11.5%	10.7%	4.5%	103,710	1.8%
San Francisco	18.0%	16.1%	20.4%	107,313	0.6%
San Jose	22.0%	20.0%	11.4%	73,030	0.2%
Retail					
East Bay	3.9%	1.7%	3.3%	107,259	0.9%
Inland Empire	9.5%	10.7%	4.0%	143,224	4.0%
Los Angeles	9.3%	8.1%	5.2%	324,531	1.4%
Orange County	5.4%	3.8%	4.6%	128,148	0.9%
Sacramento	8.3%	8.8%	3.5%	65,967	3.9%
San Diego	3.3%	1.6%	6.6%	107,624	1.2%
San Francisco	7.0%	4.8%	4.9%	71,557	0.9%
San Jose	12.2%	11.3%	2.4%	63,195	2.0%
Warehouse					
East Bay	8.8%	7.2%	7.7%	114,787	0.2%
Inland Empire	5.6%	5.2%	7.7%	303,990	5.4%
Los Angeles	4.8%	3.9%	9.0%	446,250	0.6%
Orange County	7.6%	5.9%	6.6%	107,156	0.6%
Sacramento	9.2%	8.5%	5.0%	74,011	2.4%
San Diego	8.2%	7.2%	3.6%	73,947	1.4%
San Francisco	7.0%	7.0%	3.8%	35,116	0.0%
San Jose	9.9%	8.7%	5.6%	42,669	-0.6%

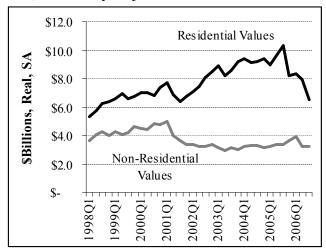
Data Courtesy of Portfolio & Property Research (PPR)

residential building permits have gone up over 2005-2006, this increase was mainly due to the growing costs of construction rather than a true increase in the amount of building. In real terms the number of permits in the state remains below where it was in 2000, and has actually tailed off slightly in the last two quarters 2006. This result is surprising given the amazing low cap-rates on sales of commercial properties in the state, driven down by low interest rates and lots of capital trying to find a worthwhile return.

One bit of spin that was floated was that the expected boom in nonresidential construction will be able to pick up the slack in the wake of a cooling housing market. The answer here to this is 'not a chance.' At the height of the housing boom, residential permits came in at \$38 billion annually. Even at the height of the economic boom in the late nineties. non-residential construction only tallied up to less than \$20 billion half the size of the residential market. Additionally. most non-residential spending uses fewer workers construction dollar—these are different kind of projects that typically are more capital intensive than standard home building.

California Building Permits

Real, Seasonally Adjusted



More significantly, the rapid decline in the value of residential permits, which fell by a third over 2006, was not offset by any increase in non-residential spending. Public spending may begin to pick up with the various infrastructure initiatives – but this money still needs to be collected, distributed, and bid on by various companies. This process is not likely to be of short duration. By the time the funds do kick in, the worst of the damage to the economy will already have been done. And we are assuming that the infrastructure money will not somehow be diverted for more immediate needs in the fiscal crisis that is likely to be coming to California.

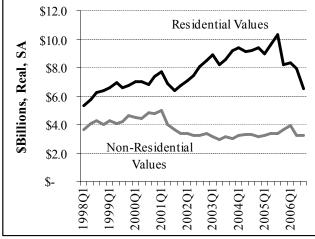
The General Business Outlook

The outlook for the business (non-housing) economy is decent. We can expect the

cooling U.S. economy to have a downward impact on exchange rates, good news for export-oriented an economy such as California's. And our manufacturing sector looks solid from a revenue and profit perspective. performance of the manufacturing sector combined with a lack of build up in employment since 2001 will reduce the impact of slowing growth in the state by limiting the potential for a secondary employment hit (job losses in this sector) that could make the already-bad real estate markets look downright horrible think 1990 to 1994 when the aerospace industry collapsed.

California Building Permits

Real, Seasonally Adjusted



Still there are some serious risks. It is clear that real estate will have a negative impact on consumer spending, and this depressing effect can have an impact on various sectors in the state including retail, wholesale, and some service sectors such as leisure and hospitality. The

significance of these issues remains to be seen. Also significant is the potential negative impact of another state fiscal crisis – both in terms of the direct impact of slashed government spending and the potential impact of regulatory and tax uncertainty in the state. And in the long run, the state is now saddled both with some of the highest home prices in the nation and a distinct lack of workforce housing. These issues weigh heavily on businesses looking to recruit workers from out of state, and will remain a drag on growth in the near future.

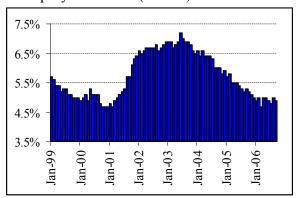
State Employment

There have been many mixed signals in California labor markets in 2006. On the positive side, the unemployment rate remains at very low five percent in the state. To put this in perspective, in mid-2000 at the peak of the tech bubble the unemployment rate had dropped to a very low 4.7 percent, in a labor market that was arguably overheated. This time there is little evidence of a similar problem.

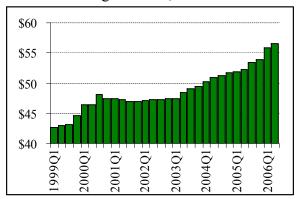
Overall worker income grew by 9% (nominal) over 2005-2006 (2nd quarter to 2nd quarter) again the best showing since 2000. On a per-worker basis, growth was about 8%. Even with rising energy prices, California workers saw a substantial increase in their buying power.

Yet even as individual workers have enjoyed solid labor markets, California overall saw a slowdown in employment growth in 2006. On the payroll side, employment grew by a paltry 0.9% (seasonally adjusted annualized rate). In

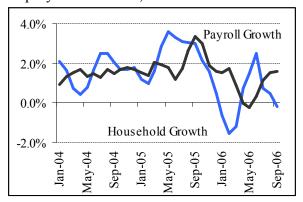
California Labor Market Indicators
Unemployment Rate (SAAR)



Per Worker Wage Income, \$1000's SAAR



Employment Growth, SAAR



2005, the state saw growth rates of 2%. The lower rate in 2006 was mostly due to an unusual slowdown in employment during the summer.

Measurement Problems

During 2005-2006, payroll employment experienced upward revisions with the new benchmark adjustment. This result is not surprising in an economy that is in the midst of

recovering maior from a downturn. as the Current **Employment** Statistics (CES) survey used measure to employment on a month-to-month basis misses employment driven by the creation of new firms during the The year. benchmarking process catches these jobs. Over 2005-2006, the update process has added about 0.5% to overall job growth. By this measure, things may be better than we think, and the income numbers would tend to support this possibility.

The problem this time is that our other major measure of employment in the state—those from the Current Population Survey (CPS) often termed the "household survey"—is indicating that a major revision is in order. These numbers are based on direct interviews with workers rather than records of a fixed subset of firms, and thus tend to pick up what the payroll survey may miss. Over the 2005-2006, the household survey grew at a much faster pace than the payroll numbers—indicative ofundercounting issue on the payroll side. This time it is quite the opposite—with the household numbers growing at a substantially slower pace. Last year before the benchmark revisions the two series

Are the Household Revisions Real?

On a side note, it is clear why the payroll numbers were revised up in 2005, given the new-firm bias of the CES program. It isn't clear why the household numbers were revised down so sharply with the last benchmark. The household numbers are adjusted to state estimates through the use of population weights. A change in the weights will cause an increase in decrease in the total number of workers in the state. These weights were reduced in 2006, even though California continues to see strong population growth.

The revised '05 benchmark household numbers showed a drop in the participation rate in California (the percent of the working age population actually in the labor force), something that would seem highly unlikely in a state with a tight labor market, rising incomes, and a population that continues to see growth in the number of low skilled immigrant families who often need to incomes to make ends meet. Instead, it seems that the change was made simply because there was an uncomfortably large and growing gap between the household and payroll series.

More likely the household numbers in reality reflected the continued growth of the informal sector—those jobs that are not easily counted in the payroll numbers for any variety of reasons. It is interesting inasmuch as we may expect to see future upward revisions in the household numbers if the cooling housing market has a negative impact on this informal part of the workforce, as it likely will given the number of new non-payroll jobs that have formed in construction, real estate and other home services in the midst of the real estate boom.

showed a 3% growth rate for household employment and a 1.4% rate for the payroll numbers respectively. When revised, the two series were re-estimated at 2% each. This time it is reversed at 0.3% and 0.9%, respectively.

Two Basic Segments

The California economy can be broken into two basic segments: an external sector that produces products and services to buyers outside the region, and the internal sector that sells its output to those within the region. The internal sector, including retail, construction, healthcare and similar sectors, has been driving overall payroll growth. This trend reversed itself in 2006, in large part due to the softening of the real estate markets. These internal sectors are starting to slow, even as external jobs—which started to grow at a decent pace in the middle of 2004 after a number of years of languishing.

California Payroll Jobs by Sector Seasonally adjusted growth rates, annualized for 2006

	Jobs	Growth	SAAR	Contribu	itions	Contr.
Sector	Sep-06	2005	2006	2005	2006	Shift
Total	15,414	2.0%	0.9%			
Information	481	-1.9%	2.9%	-0.06%	0.09%	0.15%
Non-Durables M	551	-0.8%	1.5%	-0.03%	0.05%	0.08%
Government	2,452	1.1%	1.5%	0.17%	0.23%	0.06%
Management	222	-1.5%	0.3%	-0.02%	0.00%	0.03%
Transport	493	0.1%	0.9%	0.00%	0.03%	0.02%
Educ / Health	1,620	1.7%	1.8%	0.18%	0.19%	0.01%
Durables M.	959	-0.8%	-0.9%	-0.05%	-0.06%	0.00%
Other	522	2.3%	1.3%	0.08%	0.04%	-0.03%
Wholesale	685	2.2%	1.2%	0.10%	0.05%	-0.04%
Professional	986	4.0%	2.3%	0.25%	0.14%	-0.10%
Leisure	1,520	3.1%	1.9%	0.30%	0.19%	-0.11%
Financial Act.	945	2.8%	0.9%	0.17%	0.06%	-0.12%
Retail	1,667	1.5%	0.4%	0.17%	0.04%	-0.12%
Admin Support	997	3.3%	1.0%	0.21%	0.06%	-0.15%
Agriculture	375	4.7%	-3.1%	0.11%	-0.08%	-0.19%
Construction	915	7.8%	-2.3%	0.45%	-0.14%	-0.59%

The biggest single shift in growth rates was in the construction sector. In 2005, this single sector grew by 7.8% and accounted for nearly a quarter of total state job growth. But in 2006, construction began what promises to be a long slide in the number of jobs. At this writing, it has shrunk by 2.3%. This one sector accounts for half of the slowdown in growth. The direct impact of housing on the economy can already be seen clearly.

Yet other signs are also ominous. Other internal jobs have seen a sharp slowing in their growth rates, also contributing to the overall slowdown in employment growth. Jobs in administrative support, which includes temporary employment services, slowed from 3.3% to 1%, as has growth in financial activities (which includes real estate and mortgage banking) 2.8% to 0.9%, retail (1.5% to 0.4%) and leisure (3.1% to 1.9%).

Fortunately for the state, the external economy continued to keep apace. Non-durable manufacturing has been adding jobs at a solid pace even as durable manufacturing has stabilized. The information sector, which includes motion pictures, has been adding jobs at an accelerated pace. The public sector has also seen solid growth, and currently contributes about a fourth of the new jobs added to the state. Manufacturing and information jobs are notoriously unstable, however. If these sectors turn back, as they are liable to do, the economy will yet again drop to a zero growth category.

These same trends showed up in the regional data. Those centers of the external economy—primarily the Bay region, but also Los Angeles to some extent, remained relatively stable, or have seen an acceleration in their growth rates. Those economies that have been driven forward by housing, on the other hand, have seen a sharp slowing of their growth rates. The Inland Empire and Orange County, for example, saw slowing in the pace of job growth in the past (only to have substantial upward revisions in the new benchmark).

The Near-Term Job Outlook

In summary, the 2007 employment outlook looks mediocre-to-poor for the state. A slowing economy will reduce the pace of job growth further, with construction financial and risk. activities particular at Unemployment will likely begin to rise as well, as the informal sector - driven to a record size in large part by the booming real estate economy – starts to shrink. These two sectors alone can cause employment growth to come in at significantly below its average least 200,000 pace. At

California Non-Farm Payroll Growth by Region

	Current	2006	2005	
	Sep-06	% AR	% AR	Change
California	15,039	1.1%	2.2%	
San Francisco	963	2.0%	1.3%	0.7%
San Jose	880	1.5%	1.0%	0.5%
East Bay	1,061	1.7%	1.4%	0.3%
Los Angeles	4,077	1.2%	1.2%	0.1%
San Diego	1,305	1.4%	1.7%	-0.3%
Ventura	298	1.6%	2.1%	-0.5%
Orange County	1,514	1.4%	2.2%	-0.8%
Inland Empire	1,256	2.5%	4.1%	-1.6%
Santa Barbara	174	0.9%	2.4%	-1.6%
Sacramento	902	1.2%	2.8%	-1.7%
Bakersfield	230	3.2%	5.2%	-2.0%
Fresno	293	-0.9%	1.6%	-2.5%
Santa Rosa	185	-2.3%	2.2%	-4.4%

construction jobs are at risk as the housing market continues to cool and as homeowners are unwilling to invest in housing upgrades in a market that does not promise such high returns. The potential impact on real estate and mortgage banking is less clear, but equally worrisome. If mortgage foreclosures spike up, the activity will support some jobs even as the real estate market sinks. But in that case, the potential for spillover to the rest of the economy is larger, and other internal jobs will remain at risk.

Endnotes:

¹ This chapter was completed in November 2006 and includes data and information available up to that date.