January 09

sacramento BUSINESS REVIEW

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Emerging Trends in Sacramento's Economy

2009 Economic Forecast

SACRAMENTO STATE
COLLEGE OF BUSINESS ADMINISTRATION

January 09

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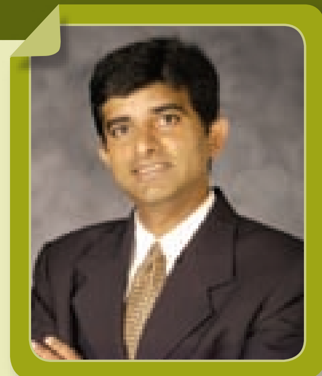
Message from the Dean



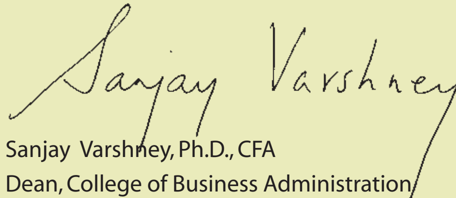
Dear Friends,

I am delighted to share the inaugural issue of the *Sacramento Business Review* with you. Our effort is funded and sponsored by the CFA Institute and produced by the Institute for Business Research and Consulting in the College of Business Administration at Sacramento State. You will find the *Sacramento Business Review* the most thoughtful, intellectually sophisticated, and comprehensive analysis of the Sacramento economy. In this issue, we not only report in detail on emerging trends but also make bold predictions for 2009.

In the current economic downturn and worst financial market performance since the Great Depression, you will find the *Sacramento Business Review* your best guide to the economy, various sectors and industries in the region, real estate market, the energy outlook, capital markets including the stock market, corporate performance in Sacramento, and employment. We will be providing periodic updates as our commitment to deliver the very best economic and financial research to the region.

I invite your feedback. Please do not hesitate to let me know how we may improve future issues or if you wish to be a supporting sponsor.

Warm regards,



Sanjay Varshney, Ph.D., CFA
Dean, College of Business Administration

Sanjay Varshney is Professor of Finance and Dean of the College of Business Administration at California State University, Sacramento. He previously served as the Dean of the Business School at State University of New York in Utica for five years. At age 31 he became one of the youngest deans in the country to lead a business school. His prior experience includes working at University of San Francisco, Citigroup, Arthur Anderson, and as a portfolio manager. He earned an undergraduate degree in Accounting and Financial Management from Bombay University, a Master's degree in Economics from the University of Cincinnati, and a Ph.D. in Finance from Louisiana State University in Baton Rouge. He also holds the *Chartered Financial Analyst* (CFA) designation. Dr. Varshney serves as the chief economist for the *Sacramento Business Review*.

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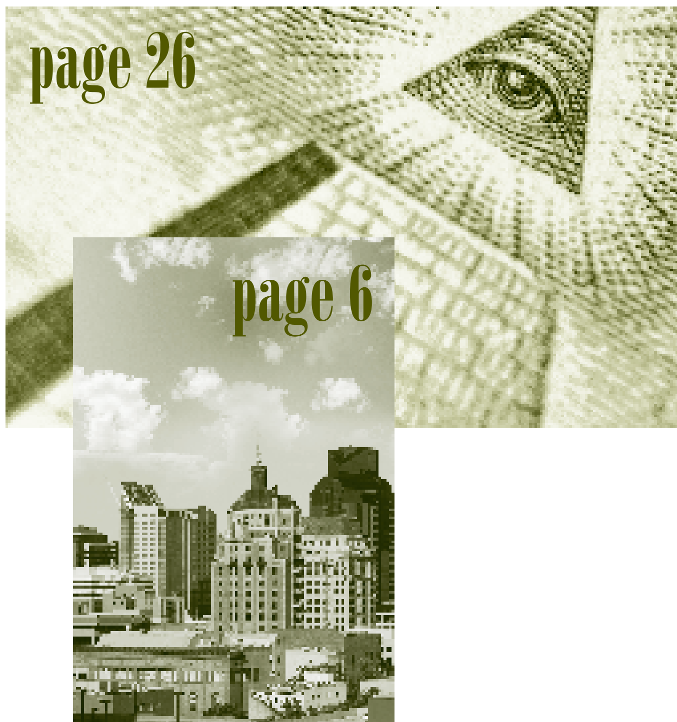

sacramento
BUSINESS REVIEW

Emerging Trends in Sacramento's Economy

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New *for* 2009

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Sacramento's Key Industry Sectors: Trends and Forecasts

"Just like many other places in the U.S., the Sacramento Metropolitan Area is facing the highest unemployment rate since 1994."

Brian Leu, CFA, Associate, *DCA Capital Partners*
Yang Sun, Ph.D., Professor, *College of Business Administration, Sacramento State*

While Sacramento is well-known as a hub for government services within California, the Sacramento Region, as a major metropolitan area, has a diverse base of employers and industries. In this paper, we examine the primary sectors that make up the region's employment base and the trends in employment by each sector over the last two decades. Although employment by nature is subject to seasonal swings, the unemployment rate in the region has risen steadily to 8.1% in the most recent month (November 2008), up from 5.6% just a year ago. Given the unprecedented economic slowdown and our overall negative outlook, we believe the unemployment rate in 2009 will likely settle around 10% as the local economy loses approximately 14,500 net wage and salary jobs in the first quarter of 2009, led by weakness in the Retail, Construction and Financial sectors. Partially offsetting this job loss, the Education, Healthcare and Technology and Business Services sectors are expected to continue to show resilient, albeit tempered, employment growth through this next year.

Sacramento was likely in its own local "recession" as early as 2Q07. We would be looking closer to the end of 2009 or early 2010 for a local recovery and job growth to return.

Overall Sacramento Employment: Trends and Forecasts

Just like many other places in the U.S., the Sacramento Metropolitan Area (hereafter Sacramento) is facing the highest unemployment rate since 1994. The most recent Sacramento unemployment rate was 8.1% for November 2008, just below the unadjusted California rate of 8.3%. The unadjusted U.S. unemployment rate for November 2008 was 6.5% (6.7% seasonally adjusted), which represented a loss of 533,000 in nonfarm payrolls. Sacramento, which has historically fared better than the state in terms of unemployment, has only recently (2006) reached the unemployment rate levels of California (see Figure 1). Given the unprecedented current economic slowdown, we expect the Sacramento unemployment rate will reach 10% in 2009, with the California unemployment rate likely reaching north of 10% before the end of 2009.

Sacramento displays similar seasonal trends to those observed across most of the country. The unadjusted unemployment rate spikes in January and February due to the end of most seasonal retail jobs and various weather-limited jobs and then spikes again around June when students enter the workforce looking for summer jobs.

Sacramento has experienced a steady growth in population and the corresponding civilian labor force over the last two decades. Given the recent sharp decline in the regional cost of home ownership, we expect to see this steady growth of population to continue, though the annual growth rate may slow down temporarily in 2009 until the local job market recovers.

Sacramento's Key Industry Sectors: Trends and Forecasts

Figure 1
Unemployment Rates (Not Seasonally Adjusted)

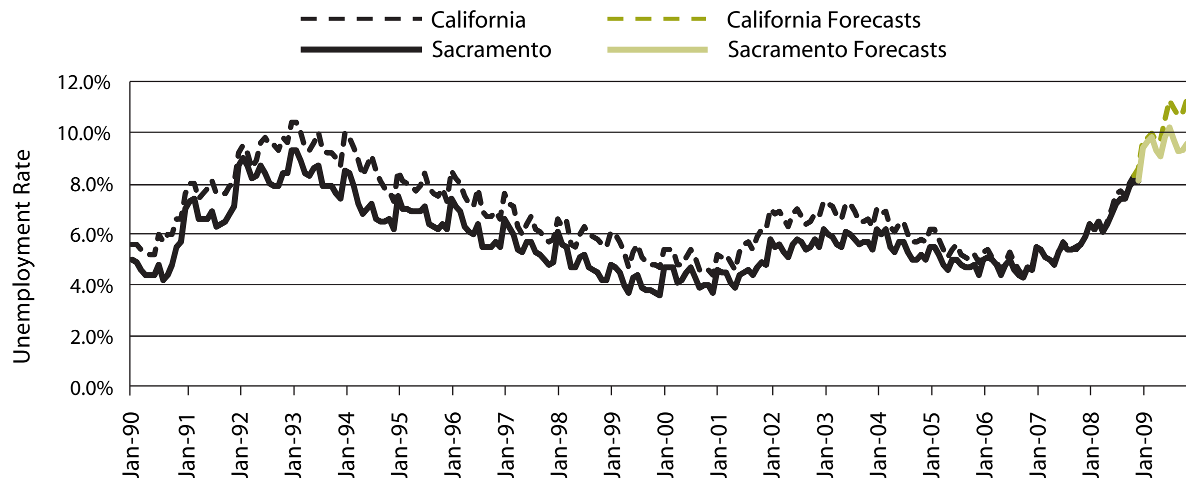
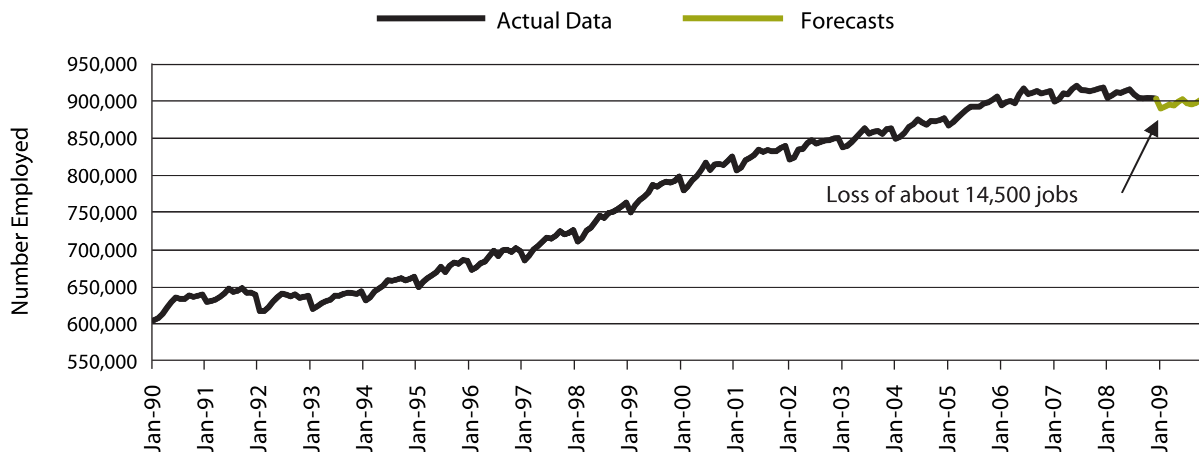


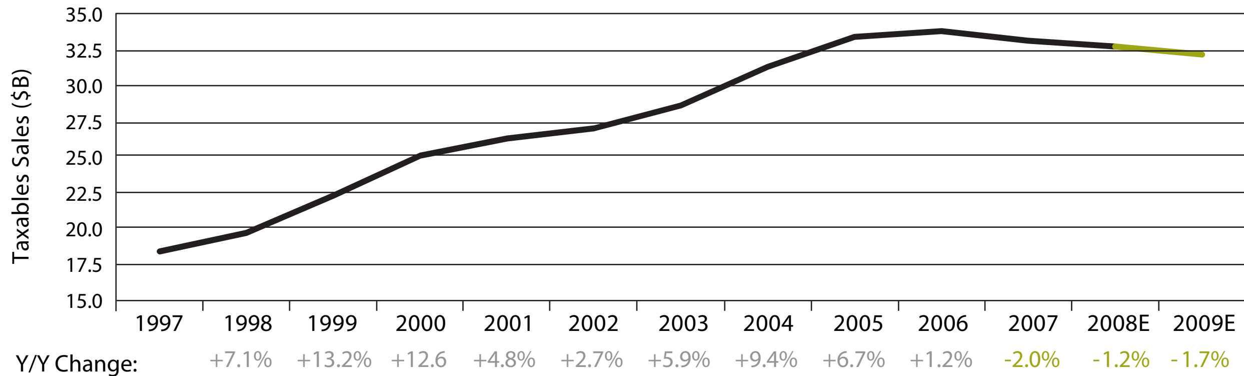
Figure 2
Sacramento Total Wage and Salary Employment



Sacramento's total wage and salary employment figure has declined to 903,500 in November 2008, down from 916,200 a year ago. We expect to witness a loss of approximately 14,500 jobs in the first quarter of 2009, though we expect a modest recovery towards the end of the year (see Figure 2).

We believe these downward trends have long since manifested themselves in the region's taxable sales. After years of relatively steady growth, taxable sales for the Sacramento region have declined from the 2006 peak level (see Figure 3). While only data through 3rd quarter of 2007 is currently available, we expect 2008 data to show a marked decline in taxable sales down to approximately $32.7 billion, a 1.2% decrease from 2007. In 2009, we expect the retail environment to remain particularly challenging and taxable sales to again decline by about 1.5-2.0% over 2008, driven primarily by depressed consumer spending and an increase in savings levels. We note that our forecasts are generally consistent with other Sacramento State forecasts, in particular the Sacramento Forecast Project maintained by Arthur N. Jensen, Emeritus Professor of Marketing at Sacramento State.

Figure 3
Sacramento Total Taxable Sales (all outlets)



Source: Board of Equalization, Authors' estimates

While this U.S. recession officially began in December 2007, we believe the Sacramento region felt the economic effects earlier given the region's large exposure to housing price declines, and the collapse in construction and in real-estate related financing activities. Using unemployment and taxable sales as a gauge, Sacramento was likely in its own local "recession" as early as 2Q07. Given our negative outlook, we would be looking closer to the end of 2009 or early 2010 for a local recovery and job growth to return, but we also believe there is a greater risk that a recovery occurs later than this rather than earlier.

"The basic structure of our local economy has remained relatively stable over the last two decades, with the private service sector making the largest gains as a percentage of the Sacramento economy..."

Breaking Down the Sacramento Market

Sacramento becoming increasingly private service-oriented

As California's capital, Sacramento not surprisingly has a large government presence in the local economy. Figure 4 shows the principal components of the human capital input for Sacramento, broken out between Goods Production, Farming and Service. The basic structure of our local economy has remained relatively stable over the last two decades, with the private service sector making the largest gains as a percentage of the Sacramento economy (61% in 2008 vs. 56% in 1990). Government jobs have actually declined as a percentage of the overall market as the region has diversified into other sectors. Compared to the rest of the state, Sacramento is more weighted to the service sector (vs. the production of goods) and, as expected, to government services in particular (26% for Sacramento vs. 16% for CA).

Construction plays an important role in the local economy

A closer look at the goods producing sectors of the Sacramento economy highlights another key difference between the California and Sacramento economies – Construction. Unlike the state as a whole, Sacramento has less farm-related and more construction-related activities (see Figure 5). Construction, which displays seasonal trends not unlike the farming sector, has become the largest production input in Sacramento since 2000 and hit its peak in 2005. Currently, construction contributes to 56% of Sacramento's goods production input. We view this larger exposure to real estate as one reason the region was hit particularly hard by the housing collapse, partially offset by the larger exposure to the relatively stable government sector.

Figure 4
Principal Components and Service Subsectors: Sacramento vs. California Employment

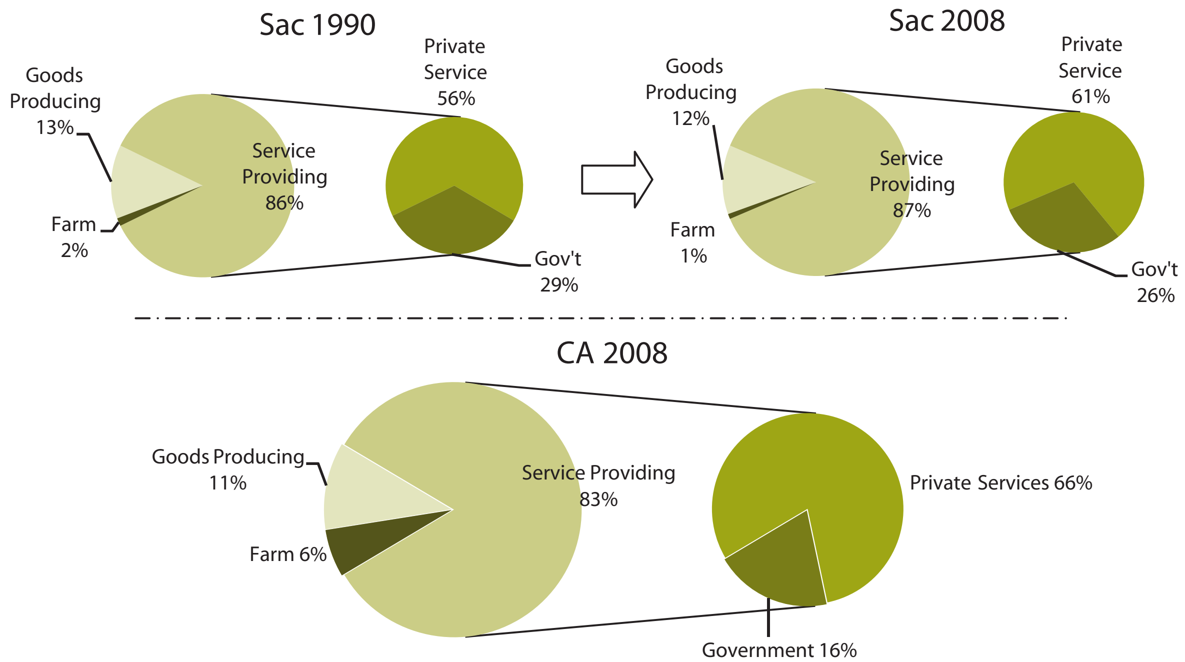
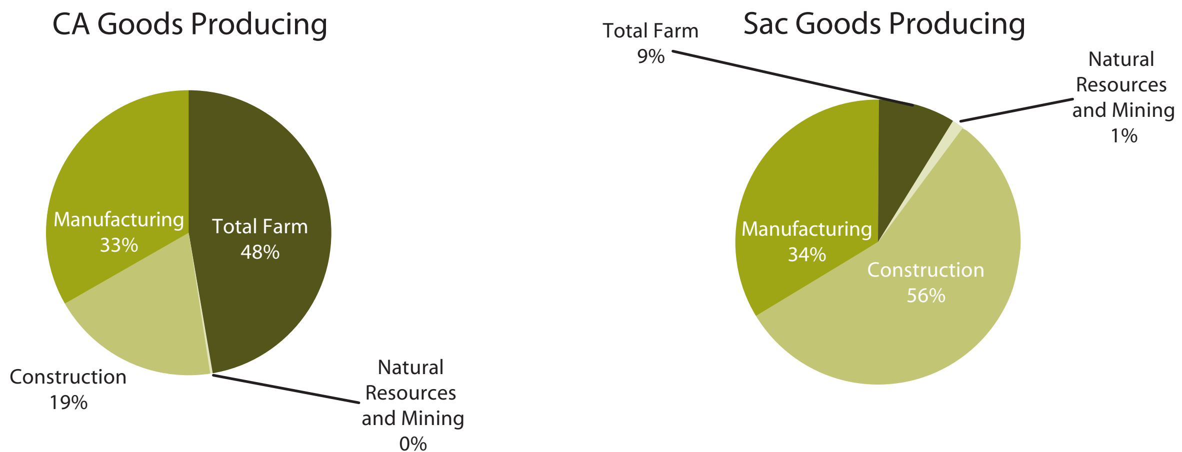


Figure 5
Goods Producing Sectors: Sacramento vs. California



Private service sector mix mirrors broader California

The private service sector represents all the non-government service providers in the economy and is the largest labor component in Sacramento. Figure 6 shows that the main subsectors that make up the private service sector of Sacramento are very similar to that of California. While Retail is the largest subsector, other major sectors in the regional economy include Professional and Business Services, Healthcare, Leisure/Hospitality and Financial Services.

The components of the Professional and Business Services subsector are shown in Figure 8. The largest labor input within this subsector comes from Administration and Support Services, which include Employment Services, Investigation and Security Services, and Services to Buildings and Dwellings. Waste Management and Remediation Services only contribute a small portion of the overall labor base. The Professional, Scientific, and Technical Services sector, which includes research and development in the high-technology industry, has grown at a steady rate and has become a significant part of the local economy. Healthcare is a major subsector regionally with about 87,000 employees and some of the larger local employers, including Sutter Health, Health Net and Vision Service Plan.

Figure 6
Private Service Sector Components: California vs. Sacramento

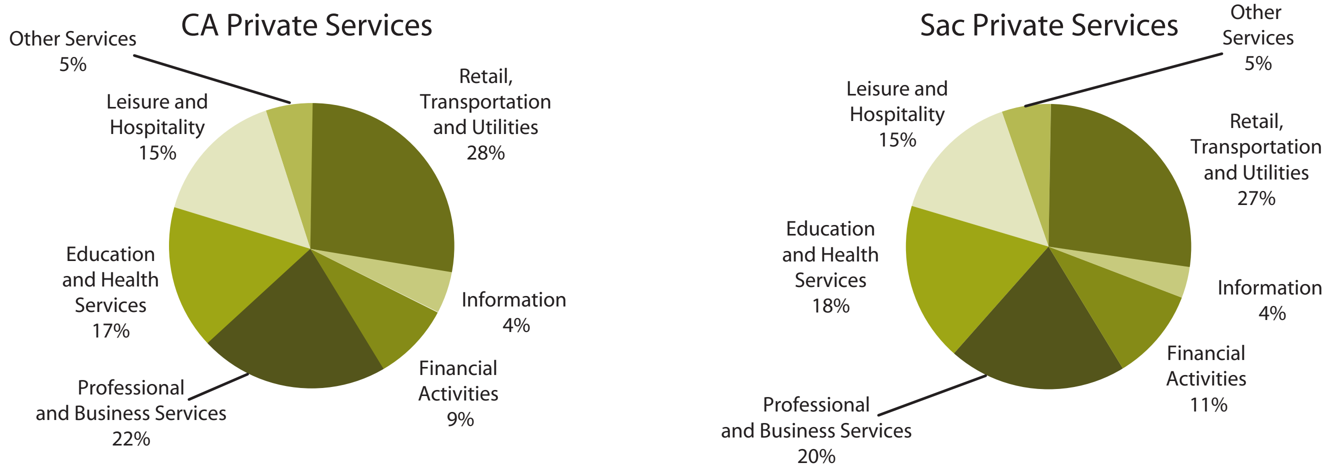


Figure 7
Components of the Retail Subsector in Sacramento

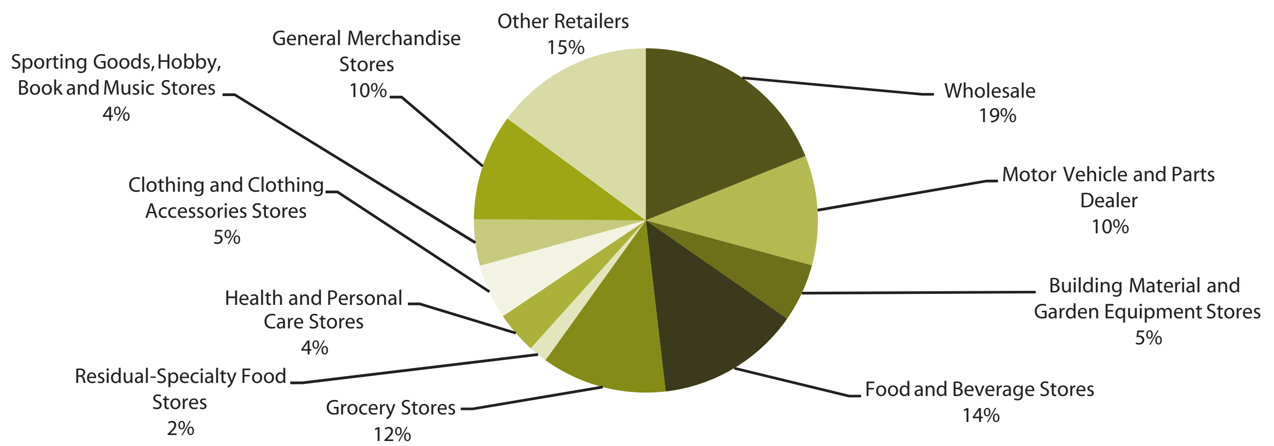


Figure 8
Components of Professional/Business, Education, and Health Services in Sacramento

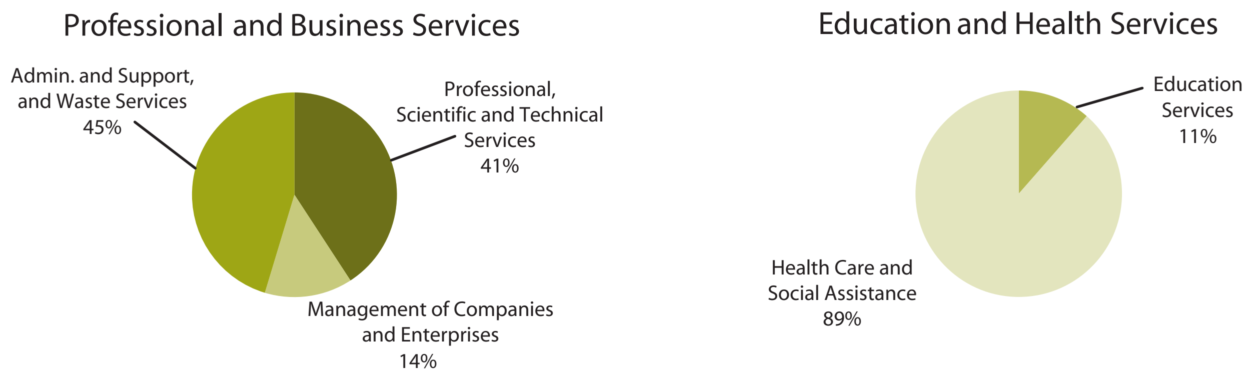
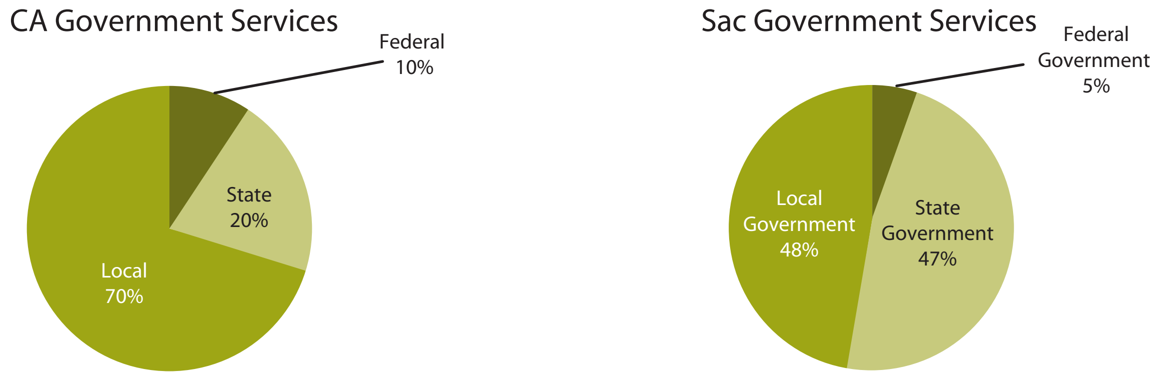


Figure 9
Components of Government Services: California vs. Sacramento



As previously mentioned, Government is an important contributor to Sacramento's economy. It hires about 26% of the total employment and generates approximately 20% of the economic output (GDP). Compared to the broader state of California, Sacramento has a larger presence of state government services, as expected, and relatively less federal government labor (just 5%, down from 16% in 1990) – see Figure 9.

Given the economic slowdown and our overall negative outlook, we believe the unemployment rate in 2009 will likely settle around 10% as the local economy loses approximately 14,500 net wage and salary jobs in the first quarter of 2009, led by weakness in the Retail, Construction and Financial sectors. Partially offsetting this job loss, the Education, Healthcare, Technology and Professional Business Services sectors are expected to continue to show resilient, albeit tempered, employment growth through this next year.

Sector-by-Sector Outlook

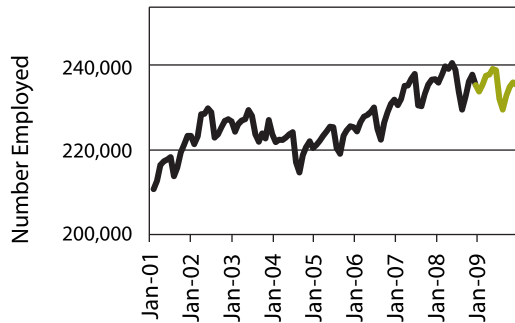
Unlike the technology bubble and dot-com crash, the current recession and credit crisis have had widespread effects across nearly every sector. Indeed, we expect few sectors to weather this storm without some degree of job loss. On balance, we expect a net 14,500 jobs to be lost in 2009, primarily in the seasonally weak first quarter. Modest gains in Technology and Business Services and Healthcare are expected to be more than offset by declines in Construction, Retail and Financial Services (see Figures).

Government

Government employment, as a major piece of the local economy, has steadily grown over the last four years. While we expect federal fiscal stimulus spending to reach unprecedented levels in 2009, we believe the outlook for local and state governments spending to be less optimistic, largely constrained by declining revenue sources – lower

retail sales, lower property tax, and lower income tax. We expect to see a minor job loss in the government sector because natural attrition may not be immediately replaced. That said, we believe this sector will be one of the more resilient in terms of job loss, with employment levels largely holding steady through 2009.

Figure 10 – Government

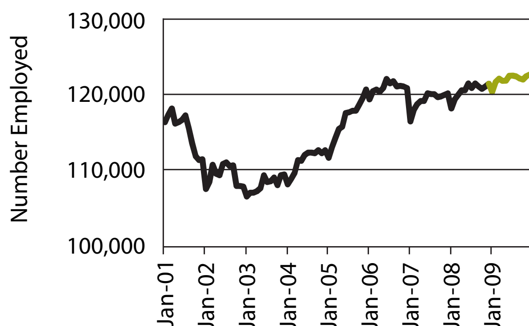


Technology and Business Services

As one of the few sectors growing through this downturn, the Technology and business services sector will likely fare better than the economy on average in 2009. That said, we believe the sector is not immune to the broader economic environment. The Sacramento Area Regional Technology Alliance (SARTA) index, which aims to measure the health of the regional technology economy, began to decline in the first quarter of 2008 and is further evidence that the technology sector is feeling the effects of the slowdown. We expect the local technology sector to come under continued pressure as cash-constrained companies and clients reign in expansion and purchasing plans in 2009.

However, we view the professional services sector as one of a few bright spots regionally that will be able to effectively weather the economic storm and manage a growing labor force. Service sectors such as legal, accounting, and administrative services are expected to generally fare better than their retail, financial and leisure service counterparts because we expect relatively robust demand for these types of professional services, despite the financial downturn. Grouping together the high-tech manufacturing, research and scientific services, and professional and business services, we expect to see a modest 0.5% year-over-year job growth in the technology and business services sector in 2009.

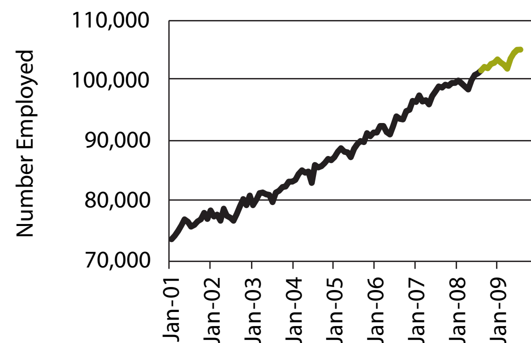
Figure 11 – Technology and Business Services



Healthcare and Education Services

Thus far, the healthcare sector has proven itself to be rather non-cyclical. A growing population combined with an aging demographic provides a degree of support for continued demand growth in the healthcare industry. While we believe that, given the economic environment, hospital census will be down as many elective procedures are put off and job losses will likely eventually affect insurance enrollment, we expect the healthcare sector to grow in 2009. We also expect education services to continue to be resilient despite the downturn. Overall, we are forecasting about a 3% year-over-year growth of employment in healthcare and education services in 2009.

Figure 12 – Healthcare and Education Services



Retail

Approximately one in every ten jobs in the Sacramento region is in the retail sector. Starting in the spring of 2007, the year-over-year change in the number of retail jobs has turned negative, with a decline of 4.2% in November 2008 versus this time last year.

Figure 13 – Retail

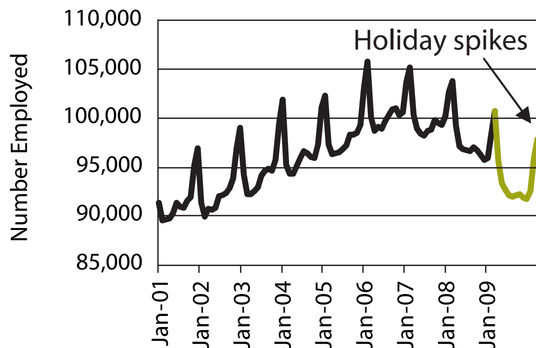


Figure 14 – Recent High-profile Retail Bankruptcies

Company	# of Sacramento Area Stores	Total Stores (est.)
Mervyn's	9	149
Circuit City	5	1,500
KB Toys	4	461
Linens N' Things	4	371
Shoe Pavillion	2	64
Sharper Image	2	184

Source: Company data and filings

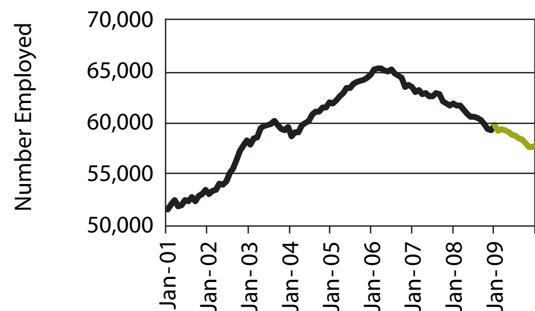
We expect regional retail employment trends to continue to be pressured by an unprecedented economic downturn and lack of consumer confidence and credit. The December 2008 reading of the Consumer Confidence Index of 38 was the all-time low since its inception in 1967. November retail sales were down 1.8%, according to the U.S. Commerce Department, led by the auto sector which was down 2.8%. We also believe retail bankruptcies have yet to fully work through the employment figures. Over the past twelve months since November 2007, 304 U.S. retail companies have filed for bankruptcy, a 50% increase over the previous year period and we expect additional retailers to seek bankruptcy protection or store closings as the effects of the consumer spending slowdown and dismal holiday sales make their way through to company balance sheets and companies rationalize away underperforming stores and conserve cash. Even some of the more recent high-profile retail bankruptcies (see Figure 14) have yet to result in actual store closings yet due to holiday period liquidations.

Housing price declines and stock market uncertainties have placed an enormous downward pressure on consumer wealth. While gas prices have moderated significantly, the once available home-equity line of credit that helped fuel consumer spending during the housing boom has all but evaporated. We believe that the recent downward trend in the retail labor force will continue at a 3% to 5% year-over-year decline in 2009.

Financial Services

The financial services labor force has declined about 9% from its peak in early 2006. While insurance carriers have largely held steady thus far through this financial crisis, the credit intermediation and real estate-related subsectors have seen the worst losses. We expect 2009 to remain particularly challenging for the financial services sector as banks consolidate and adjust to the new credit environment, consumer borrowing remains muted, and real estate market activity remains depressed. We expect about a 3% year-over-year decline in this sector's labor force through most of the year.

Figure 15 – Financial Services

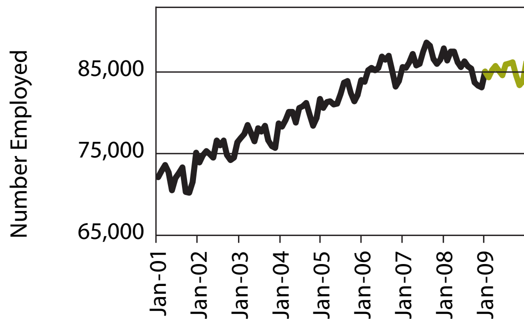


Leisure and Hospitality Services

The leisure and hospitality services sector has boomed in Sacramento over the last decade, as the population has grown and consumer spending has flourished. In the summer of 2008, however, the sector saw year-over-year declines in employment as restaurants experienced a perfect storm – high fuel and transportation prices, rising food costs and retreating consumer spending. While fuel and food costs have moderated in late 2008, the average local consumer still remains strained by the recent housing price collapse, the stock market crash, rising unemployment

and tightening credit. We expect a 1% to 2% year-over-year decline in the first half of 2009 and a moderate recovery in the second half of 2009 as more optimistic consumers begin returning to restaurants.

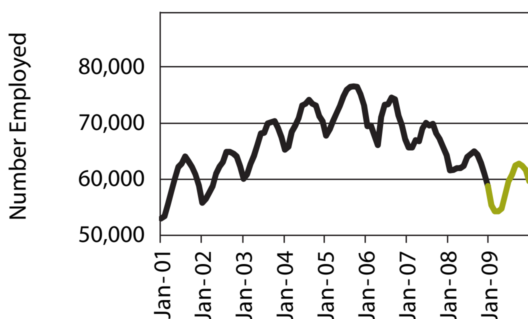
Figure 16 – Leisure and Hospitality Services



Construction

As we previously mentioned, construction is a large and important sector of the local economy. Construction employment peaked in the summer of 2005, roughly corresponding to the peak of housing prices, and has trended sharply downwards since, losing over 15,500 jobs since 2005. Local specialty trade contractors have been hit especially hard, as the pace of new construction work has slowed significantly. We expect those contractors who were frugal during the boom years and who have a large exposure to maintenance/retrofit work to fare better than the peer group. In 2009, we expect little material improvement in the construction sector. We expect a loss of another 6,000 to 7,000 construction-related jobs in early 2009 before a slight uplift in the seasonally strong summer months. While there are signs that the Sacramento housing inventory levels are improving, we believe foreclosures and high vacancy rates will continue to place downward pressure on the overall residential and commercial real estate recovery.

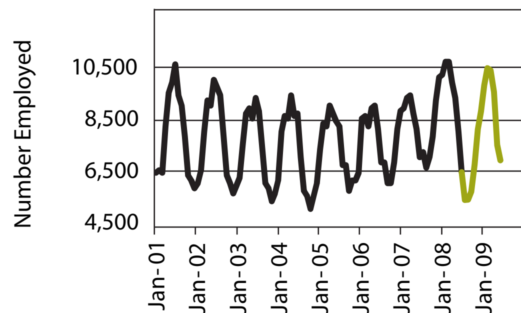
Figure 17 – Construction



Farm

Overall, we expect farm employment in 2009 to remain roughly in line with 2008 levels and to demonstrate the seasonality typical of agriculture labor. At just over 10,000 during peak seasons, farm labor makes up a relatively small proportion of the broader regional economy.

Figure 18 – Farm



Data Sources

The quantitative analysis is based on the Sacramento Metropolitan Statistical Area monthly employment data published by the *Labor Market Information Division in the Employment Development Department of the State of California* (available at http://www.labormarketinfo.edd.ca.gov). As of our publishing date, the most recent monthly unemployment rate reading was for November 2008. The Sacramento-Arden Arcade-Roseville Metropolitan Statistical Area (MSA) includes the counties of Sacramento, El Dorado, Yolo, and Placer (Yuba and Sutter counties were excluded from this analysis). Since our model explicitly accounts for seasonality throughout the year, the unemployment rate figures in this paper are "unadjusted" figures.

Real Estate Trends in the Sacramento Region

Marc Ross, CFA, Real Estate Investment Broker, *CB Richard Ellis*
Sudhir K. Thakur, Ph.D., Professor, *College of Business Administration, Sacramento State*

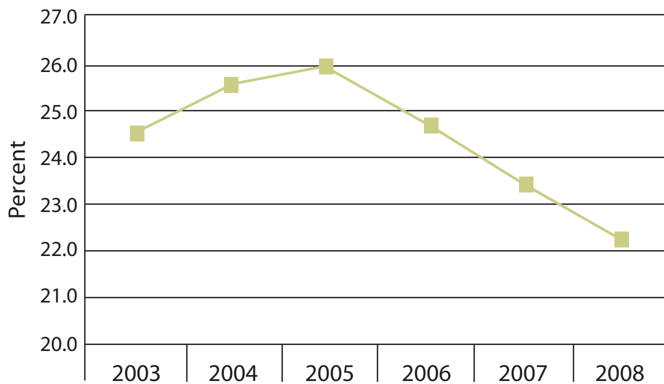
What began a few years ago as a correction to an inflated residential market has now become an industry-wide infirmity transcending all sectors of real estate. Everyone in the region has been touched in one way or another.

Consumers have seen their shopping and dining options reduced with the flurry of restaurant closings and surge of retailers declaring bankruptcy. Real estate owners of all property types have watched their balance sheets suffer. Management companies have had to focus much more of their attention on tenant retention as fewer tenants are out looking for space and competition for those that are has intensified (often even within their own building as the amount of sublease space rises). Odds are even the casual observer knows someone who has lost their home, with over 19,000 regional residential foreclosures this past year and nearly 29,000 since the beginning of 2007.

The composition of our economy has dramatically changed as well. As the engine of regional growth for many years, employment in the real estate industry peaked as a proportion of all employment in 2005. By the end of 2005 - coinciding with the peak of the residential market - 26% of all jobs in the region were real estate related. Since that time the real estate sector has steadily lost jobs and now represents only 22% of overall employment.

Real Estate Trends in the Sacramento Region

Figure 1
Real Estate Employment as a Percentage of Sacramento Total Employment



Source: Department of Finance, California

When will the correction end and the healing begin?

While even the most optimistic real estate experts are hesitant to predict any meaningful recovery in 2009, we believe it will likely bring us to or near the bottom of the cycle. Whether we reach the bottom soon and how long we remain there is primarily dependant on two things: 1) the depth and duration of the current economic recession, and 2) the return of a functioning credit market. If local employers continue to shed jobs and the lending environment remains in its current paralysis, prices and transaction volume will continue to decline, likely into 2010. Conversely, if the recession is short-lived and the credit markets return to normalcy, we expect to see a bottoming out of pricing by year-end.

> *"We believe the Sacramento real estate market is further along in the cycle than many other markets..."*

On balance, we believe the Sacramento real estate market is further along in the cycle than many other markets, having already incurred a significant correction in pricing. Further, the large presence of state government will temper the regional impact of the economic recession, as it has in previous downturns, providing for some relative stability.

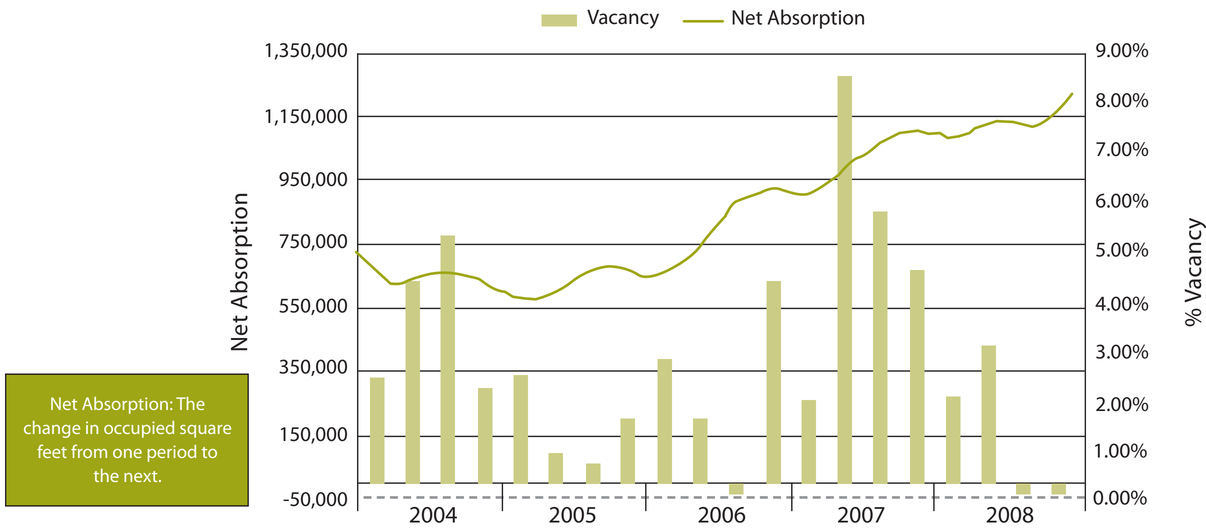
Bear markets are difficult to stomach, but for the long-term investor, they provide immense opportunity. Given the breadth of this real estate downturn and the concomitant economic weakness, it is easy to get overwhelmed with pessimism. However, for those investors waiting on the sidelines with capital to deploy, we anticipate the next 12 to 18 months will provide abundant, excellent long-term investment opportunities at very attractive prices. Let's not forget that strong population growth, relative affordability, quality schools, job diversities, cultural sophistication, endless recreational activities, and proximity to several world-renowned destinations continue to make Sacramento's long-term outlook very bright!

Retail

While all sectors of commercial real estate are facing a headwind today, the retail sector is particularly challenged due to its relatively high dependence on a healthy residential market. With home equity diminishing and new residential construction at a standstill, most national retailers have postponed or pulled out of new development deals. Also, new franchisees and other would-be "mom & pop" retailers do not have the capital to start a business or expand. As a result, several notable projects have been put on hold this year including the partially built Elk Grove Promenade, a 1.1 million square foot open-air mall, and The Landing, a 439,700 square foot retail and theater complex scheduled to replace the drive-in movie theater just west of Rancho Cordova.

Owners of existing complexes are also feeling pressure. With bankruptcy filings of small retail businesses on the rise and fewer tenants looking for space, tenant retention has become a priority for landlords. To retain tenants, landlords

Figure 2 – Retail
Vacancy vs. Net Absorption | Sacramento MSA



Source: CBRE

are offering increasing incentives on renewals and, in some cases, are even renegotiating existing leases - agreeing to more favorable terms for their tenants. With abundant competition for new creditworthy tenants, landlords are offering generous tenant improvement allowances (in multiples of what were offered just a few years ago) and aggressive concessions (in some cases up to a year of free rent).

The region has seen its share of notable casualties this past year, including:

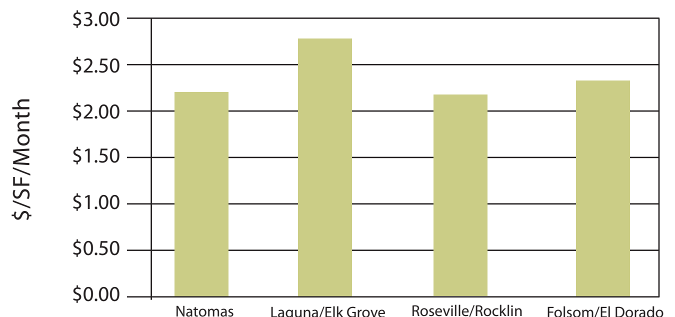
- Mervyns filed bankruptcy, forcing the closure of all 9 stores in the region
- Starbucks announced the closing of 600 stores nationally, including 5 in the region, with rumors of another round of cuts
- Linens & Things filed bankruptcy and is closing all 4 stores in the region
- Shoe Pavilion filed bankruptcy, forcing the closure of both stores in the region
- High-profile restaurant closings: Melting Pot (Rocklin), 55 Degrees (Downtown), Masque Ristorante (El Dorado Hills), Rusty Duck (Natomas), Fins Market & Grill (Midtown & Davis), Macaroni Grill (Arden-Arcade), Elk Grove Brewery (Elk Grove), Islands (Elk Grove)
- Fourteen car dealerships have closed - some with multiple franchises. Greater Sacramento's new-car franchises have closed at two-and-a-half times the national average

Additionally, we anticipate more bankruptcy announcements and store closings during the first quarter of 2009 as retailers, hoping the holiday shopping season will save them, realize they do not have the financial wherewithal to keep their doors open.

However, despite the daily pounding of negative news in the media, there remain bright spots. As consumers focus more on necessities, the value-oriented retailers are benefiting with strong sales and many are expanding locally (Goodwill, Big Lots, Ross, Winco, Dollar Tree, 99 Cents). Drug stores Rite Aid, Walgreen's, and CVS continue to expand in the region. BevMo, Autozone, and several fast food restaurants are also still actively looking for new locations. Further, Fresh & Easy, a U.K. based neighborhood grocer, is aggressively expanding in the region with approximately 20 store sites identified. The first wave of stores is expected to open next spring and they are continuing to search for more sites.

Overall we think the retail sector will largely remain weak until the residential market rebounds.

Figure 3 – Retail
Growth Area Asking Rents | 4th Quarter, 2008 | Sacramento MSA



Source: CBRE

Office

The State of California's large and active local presence is once again buoying the Sacramento office market during an economic slowdown. While a significant decline in the private sector has caused overall leasing activity to fall nearly 30% in 2008, the government sector has remained very active. The state currently lists 44 active requirements totaling 1.1 million square feet of space, roughly a quarter of which will represent growth in state-leased space. However, it is unknown at this time what impacts the state's much publicized budget problems may have on these requirements.

> *"The most active private sector leasing activity is in the health care, engineering and software related technology industries."*

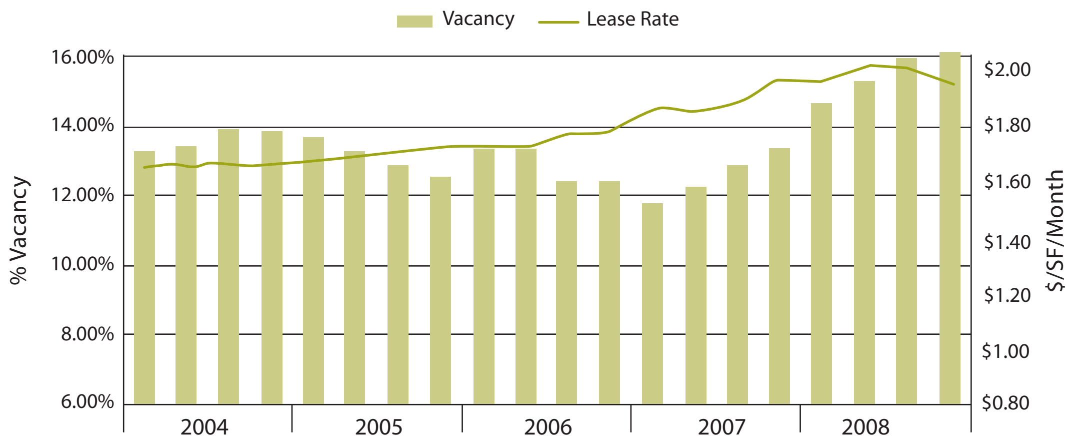
The most active private sector leasing activity is in the health care, engineering and software related technology industries.
The most common leasing activity today is lease renewals. With the scarcity of tenants seeking new space, tenant retention has become an increasing priority for landlords. When possible, landlords are renewing leases with existing tenants well before their leases expire, offering greater concessions including longer periods of free rent and right-to-cancel-early clauses. Feeling more uncertain about the future, tenants are favoring shorter lease terms (12 – 24 months) so that they can reevaluate where the economy and their businesses are going before making long-term commitments.

Since the mortgage meltdown and ensuing economic crisis began just over a year ago, many companies related to the financial and real estate sectors have downsized or left the market altogether. This has created a surge of office space in which the tenant has vacated but continues to pay rent, called sublease or "shadow" space. Over the past year, roughly 775,000 square feet of shadow space has been created, though it is not included in vacancy calculations since the tenant continues to pay rent.

With slower than average leasing activity this year, much of the shadow space being offered for sublease remains empty and is converting to vacancy as those leases expire. This turnover of shadow space, along with significant speculative development and a large number of tenants contracting caused vacancy to increase from 13% to over 16% since the beginning of the year.

Despite an increase in vacancy, concessions, and competition for tenants, landlords remain reluctant to reduce rental rates. However, we see rents softening next year, along with a continued increase in vacancy and heightened competition to attract and retain tenants.

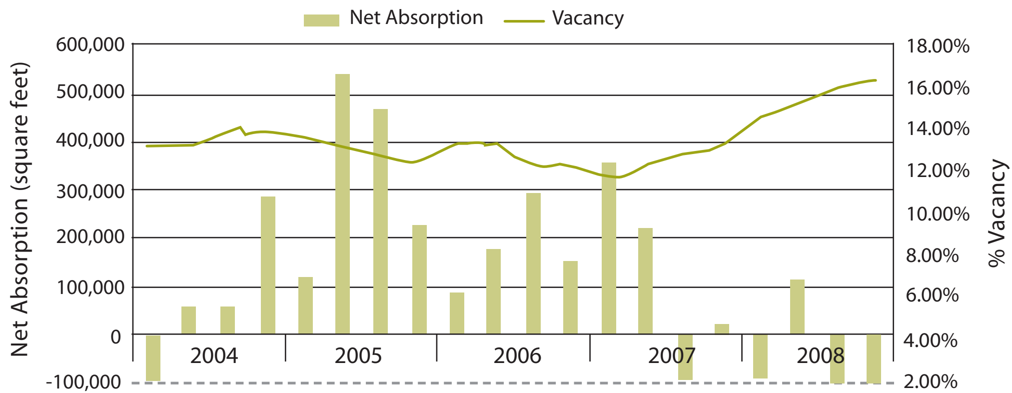
Figure 4 – Office
Vacancy Rate vs. Asking Lease Rates | Sacramento MSA



Source: CBRE

Figure 5 – Office
Vacancy vs. Net Absorption | Sacramento MSA

Net Absorption: The change in occupied square feet from one period to the next.



Source: CBRE

Industrial

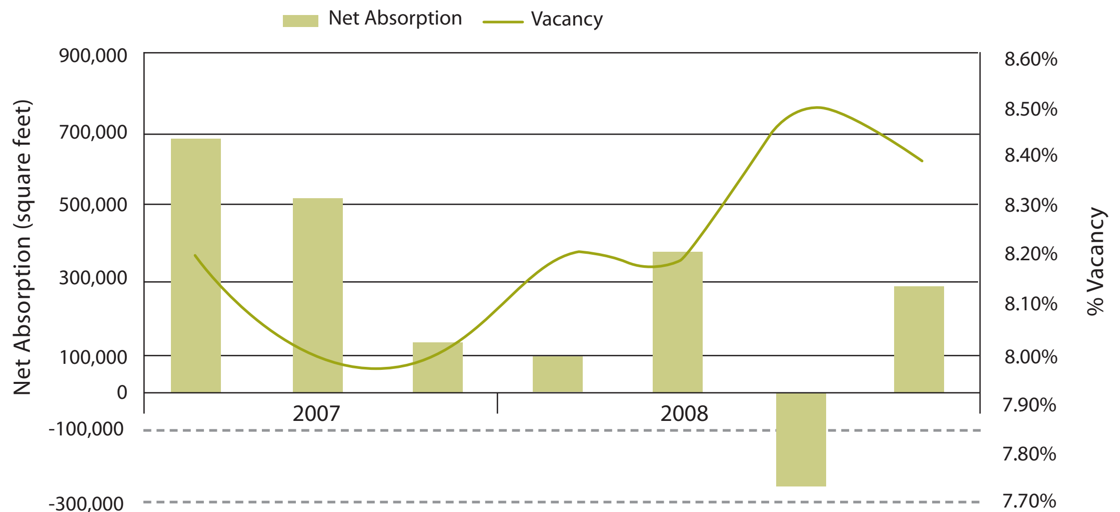
While Sacramento is known to have a resilient industrial market, recent months have proven it is not entirely immune to a struggling economy. After a relatively strong first half of the year, the region experienced over 250,000 square feet of negative net absorption during the third quarter, the first time in over six years net absorption in Sacramento was negative.

The vacancy rate moved up 0.3% during 2008, though it remains fairly low at 8.4%. The availability rate, perhaps a more meaningful measure of market health in that it also takes into account sublease space, is currently at 10.7%. The amount of sublease space, which continues to grow, is giving tenants more bargaining power as sublessors become more aggressive in their attempt to fill space.

Interestingly, asking lease rates are not falling, an indication that many landlords are reluctant to lock in lower rental rates long-term. Instead, they are choosing to attract tenants by offering concessions such as free rent and/or a generous tenant improvement allowance. That being said, short-term leases, in the 12-18 month range, can be made below the asking rate. Many tenants, nervous about the economy and therefore reluctant to commit to a long-term renewal/lease, seem to favor this.

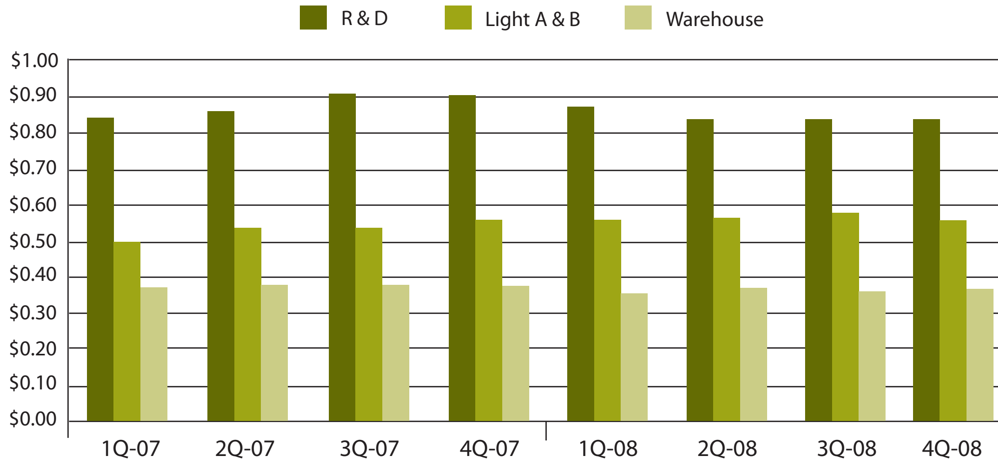
Figure 6 – Industrial
Vacancy vs. Net Absorption | Sacramento MSA

Net Absorption: The change in occupied square feet from one period to the next.



Source: CBRE

Figure 7 – Industrial
Average Asking Lease Rents | Sacramento MSA



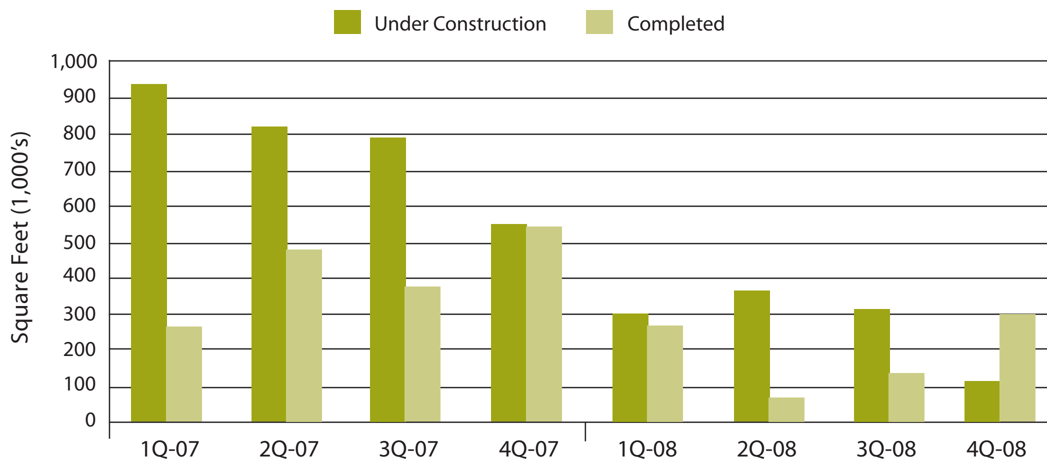
Source: CBRE

When the market does improve, there will not be much competition from new buildings. With a shortage of entitled or industrial zoned land, rising fees, more difficulty in obtaining financing, and modest rent growth projections near-term, it is becoming increasingly difficult to financially justify new construction. While nearly 300,000 square feet of industrial space was completed last quarter, the development pipeline is virtually empty for the foreseeable future.

> *"When the market does improve, there will not be much competition from new buildings."*

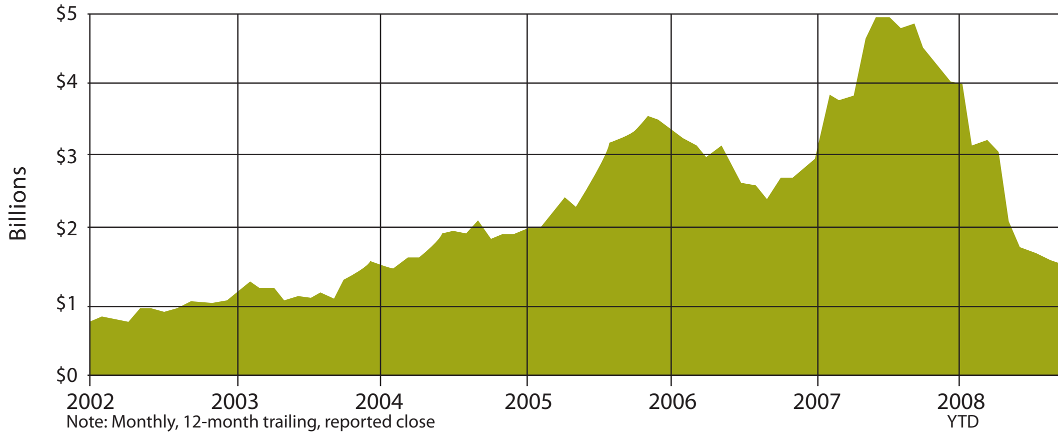
We expect "more of the same" in 2009, with flat rental rate growth, a slight increase in vacancy, and virtually no new construction.

Figure 8 – Industrial
Construction Activity | Sacramento MSA



Source: CBRE

Figure 9 – Investments
Dollar Volume/Sales through October 2008 (all property types) | Sacramento MSA



Source: CBRE

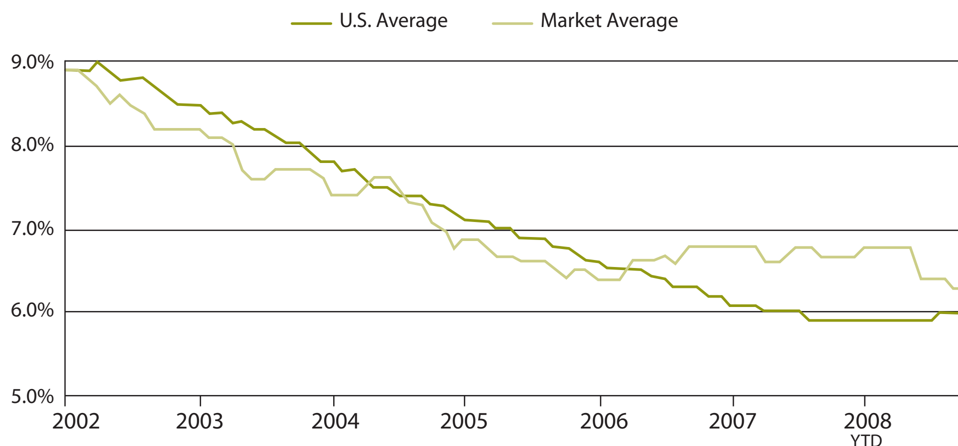
Investments

The regional real estate investment market is currently in a transitional period, with pronouncedly slower moving transactions, lower transaction volume, and general downward pressure on pricing.

Concerned with uncertainties at every level of the economy, commercial real estate buyers have become more cautious and are gravitating towards what they historically know to be safe – well-located, primarily single-tenant investments with creditworthy long-term leases. Viewed as having more risk, multi-tenant properties with short or mid-term leases (shorter than 10 years), particularly in peripheral areas, are having more difficulty selling as buyers require increasingly higher rates of return. Value-added commercial properties are also having difficulty clearing the market unless discounted to reflect the challenged leasing fundamentals and the difficulties associated with obtaining new financing for these types of properties.

The multi-housing market, by comparison, is experiencing fairly solid rental fundamentals. Many single-family home owners/residents, displaced by the wave of foreclosures, have moved into apartments. However, general economic uncertainties have also caused a "flight to quality" in the multi-housing investment market, with a distinct buyer preference for newer, stabilized class A or class B value-add properties in quality locations. Rates of return for these investments have remained fairly stable with only a slight

Figure 10 – Investments
Cap Rate (%)/Sales through October 2008 (all property types) | Sacramento Region



Source: CBRE

drift upwards. Sales activity for older class C properties has slowed considerably as only those sellers with extraordinary motivation have dropped pricing to the point necessary to clear the market. Required rates of return for these lower quality assets have fluxed upward much more aggressively.

Adding to the slowdown in transactional time frames and transaction volume is the added scrutiny placed on buyers by lenders, both commercial and multi-housing alike. Lenders are requiring larger down payments while lending options have become fewer. Those lender options that remain have tightened underwriting standards, thereby reducing leverage thresholds. As buyers commit more capital, more attention is being focused on underlying fundamentals and more consideration is placed on every step in a transaction.

There is a sense among the buying public that a bottom has not yet been reached, causing some pause in buyer activity. However, opportunistic buyers, many of whom sat on the sidelines during the recent boom, have begun to emerge once again – a signal pricing has become more appealing and that a renewal of transaction activity may not be far away. We see the regional market staying in a "wait-and-see" mode until early next year, when we believe an increase in the availability of capital (once the debt market settles), coupled with a return of value-added purchasers (as opportunistic buys become more plentiful), will foster an increase in the number of transactions. The long-term investment fundamentals of the Sacramento region remain very strong.

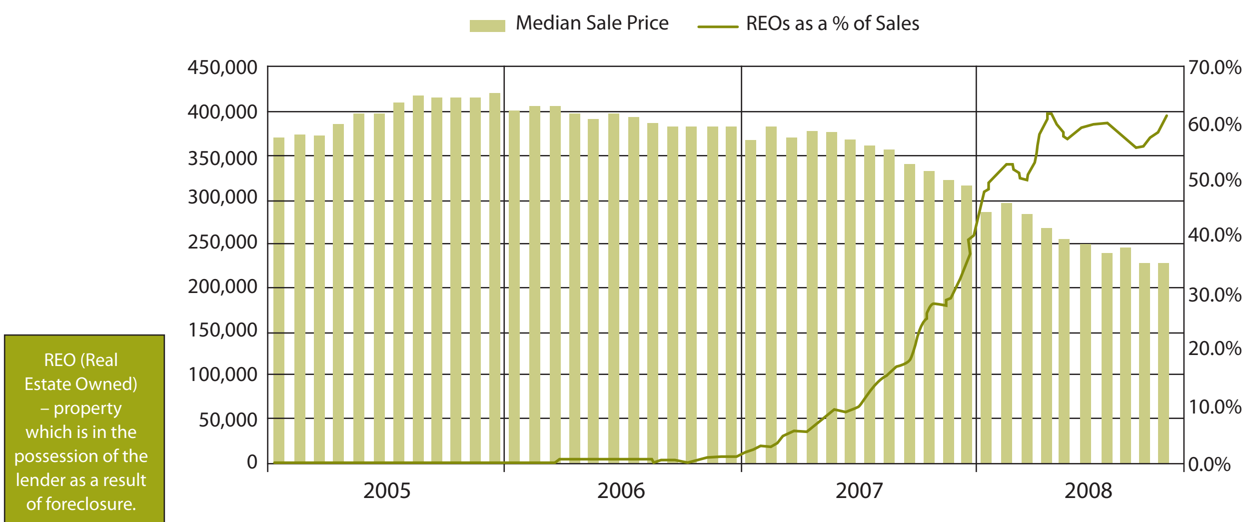
Residential

As we prepare to enter our fourth year in housing downturn there remains no imminent recovery on the horizon. The fledgling residential market, initially driven down almost exclusively by the implosion of "funny money" financing, now faces an economic recession, potentially extending the days of high foreclosure rates and delaying a recovery due to increasing unemployment and financial hardship.

The median sale price in the Sacramento region has been on a steady decline since the end of 2005, falling nearly 46% through October. While there are homes that have dropped in value by that amount (and more), this statistic is also influenced by a change in the type of homes being sold. Progressively more inexpensive homes, driven largely by REOs, are dominating the sales market. In late 2005, now considered to be the peak of the market, REOs represented just 0.2% of all sales in the region. During the past three years the number of REOs has grown to become the driving force in sales activity today, representing over half of all sales.

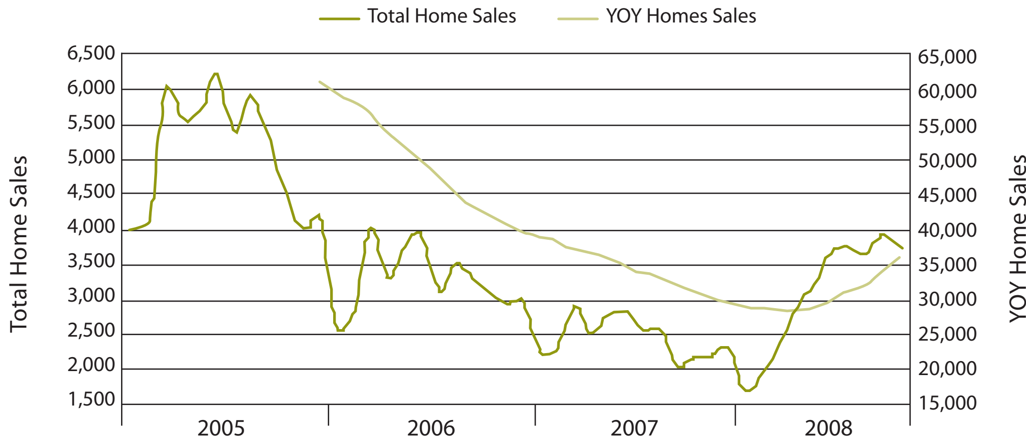
One glimmer of good news is that sales activity is up. After bottoming out in the first quarter of this year, sales on both a monthly and year-over-year basis have been slowly but steadily rising. This upward trend of sales activity after a

Figure 11 – Residential
Median Sale Price (all homes) vs. REOs as a % of Sales | Sacramento MSA



Source: MDA DataQuick

Figure 12 – Residential
Total Sales (all homes) | Sacramento MSA



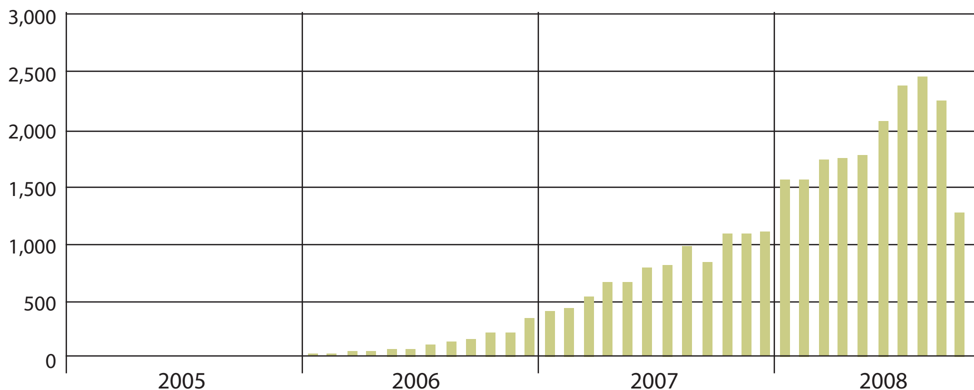
Source: MDA DataQuick

prolonged slump is typically the first sign of an impending recovery. Could this mean the market is stabilizing? It certainly suggests that pricing has become attractive enough to lure more investors and entry-level home buyers off the sidelines. However, the moderate renewal in activity is confined mostly to the lowest price segment and does not represent broad market stabilization across all price segments.

Further, we still face an elevated foreclosure rate. What began as a wave of foreclosures caused by the fallout of bad sub-prime loans is now also being fueled by rising unemployment. Changes to the state's formal foreclosure process and lender efforts to modify loans have resulted in a drop in foreclosures during the 4th quarter. However, we believe these efforts are largely delaying the inevitable and, with continued job losses, we will see the trend of rising foreclosures resume in early 2009.

While a recovery is at least a year (or two) away, it is likely we will reach or approach the bottom of the downturn by the end of 2009. The local residential market is further along in the cycle than most the rest of the country, having already incurred a significant correction in pricing. As such, we expect the Sacramento region to be one of the first markets to recover. However, whether we reach the bottom soon and how long we remain there is dependent on how quickly the credit markets thaw and the depth and duration of the current economic recession. One thing is for certain, everyone will be watching closely as a healthy residential market is a key precursor for the rest of the real estate sectors to recover.

Figure 13 – Residential
Monthly Foreclosures (Based on Number of Trustees Deeds Filed) | Sacramento MSA



Source: MDA DataQuick

2009 Energy Outlook: Greenbacks May Be the Most Valuable Commodity for Green Energy Firms

"Despite strong support from the incoming Obama administration, the clean-energy industry may face serious challenges throughout the upcoming year."

In recent years, the clean-energy industry has benefited from: i) dramatic fossil-fuel price increases, ii) growing concerns related to global warming and energy security, iii) government subsidies, and iv) access to abundant debt and equity capital. With the Sacramento region striving to become a hub for clean-energy technology ("cleantech"), the success of this endeavor will require continued momentum in 2009.

Despite strong support from the incoming Obama administration, the clean-energy industry may face serious challenges throughout the upcoming year. Less-accommodative debt and equity markets will make it more difficult for capital-intensive cleantech firms to access funding sources. At the same time, pressures to switch to costlier alternatives may subside unless fossil-fuel prices return toward their July 2008 highs. We do not foresee such a pricing scenario unfolding during 2009.

While we have little doubt that clean technologies will become more prevalent in the years ahead, the key question is whether some of the region's clean-energy firms will have the capital to survive until then.

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2009 Energy Outlook: Greenbacks May Be the Most Valuable Commodity for Green Energy Firms

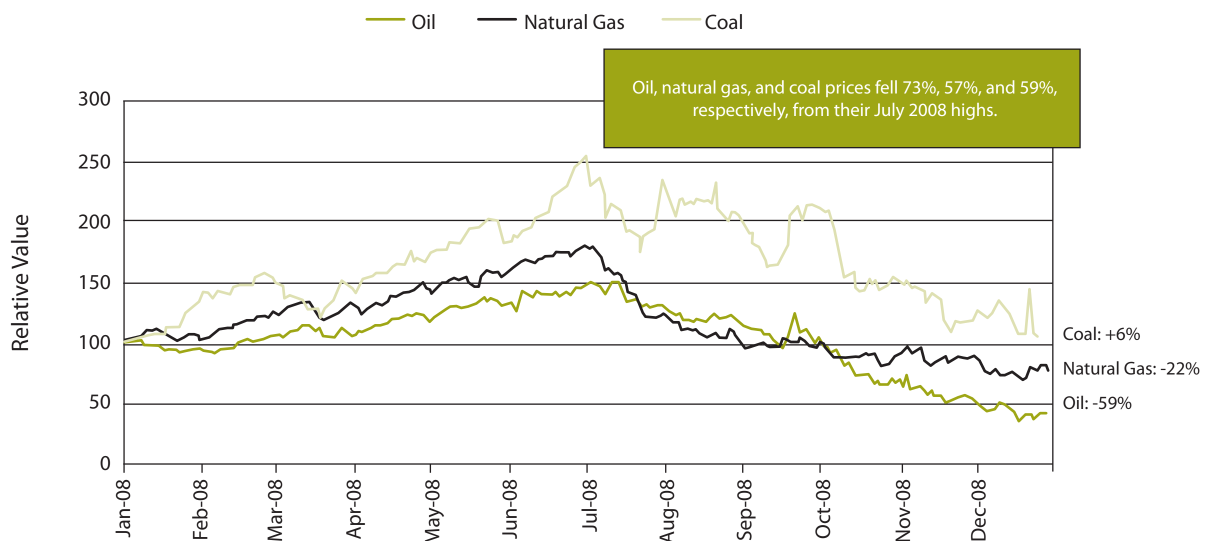
Recent History

Energy price movements were anything but dull in 2008. The first half of the year was marked by dramatic oil, gas, and coal price increases due to the combination of strong emerging-market demand expectations, U.S. dollar depreciation (most commodities are priced in dollars) and ample buying by momentum investors. During this period, many alternative-energy firms benefited since their environmentally friendly technologies (relative to those of fossil fuels) were becoming more competitive from a cost standpoint.

In July, however, energy prices reversed course as global economic growth showed signs of slowing and the U.S. dollar strengthened against other major currencies. Once energy prices began to decline, momentum investors started pulling their money out. And when the credit markets seized up in September, energy prices fell precipitously due to concerns about a severe global recession (see Figure 1).

Clean-energy firms were not insulated from these events. The combination of highly constrained credit markets and lower energy prices adversely impacted publicly traded cleantech stocks. In particular, the Solar and Renewable Electricity PurePlay Indices,[1] created and tracked by Sacramento-based Camino Energy, both fell by more than 50% during the second half of 2008 (see Figure 2).

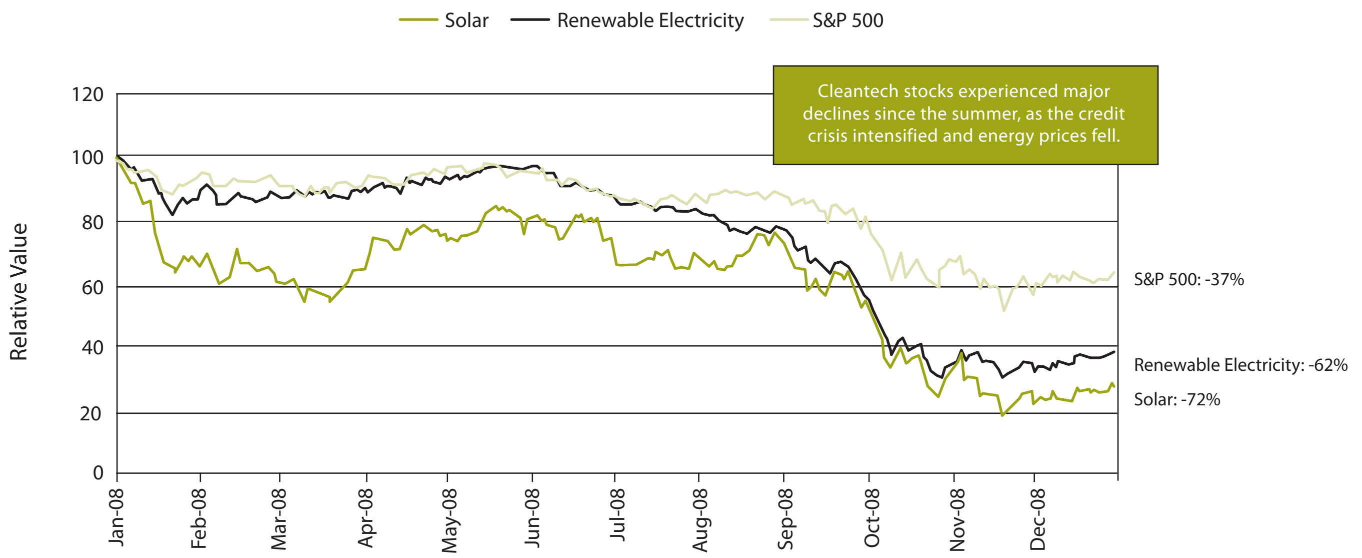
Figure 1
2008 Price Changes: Oil, Natural Gas, and Coal



Source: U.S. Energy Information Administration

Figure 1 shows the relative price changes for rolling one-month oil, natural gas, and coal futures during 2008.

Figure 2
2008 Performance: Cleantech Stock Indices



Source: Camino Energy

Figure 2 shows the relative price changes for Camino Energy's Solar and Renewable Electricity PurePlay Indices during 2008.

Key Factors in 2009

In our opinion, the key determinants of the clean-energy industry's near-term success are: i) the pace of a global economic recovery and ii) the restoration of functioning capital markets.

We believe the global economy will need to exhibit signs of recovery during 2009 for clean-energy companies to avoid significant headwinds. A recovery would increase global energy demand and would almost certainly drive fossil-fuel prices higher, thereby resurrecting the strong push for alternatives. In addition, an economic recovery would enrich government tax coffers, reducing potential pressures to cut subsidies for renewables.

A solid recovery in 2009 will undoubtedly depend on the health of the capital markets. And we believe both the debt and equity markets will need to improve considerably for many cleantech firms to remain financially viable during the year ahead. Given the capital-intensiveness of this relatively nascent industry, the ability to access financial resources is imperative.

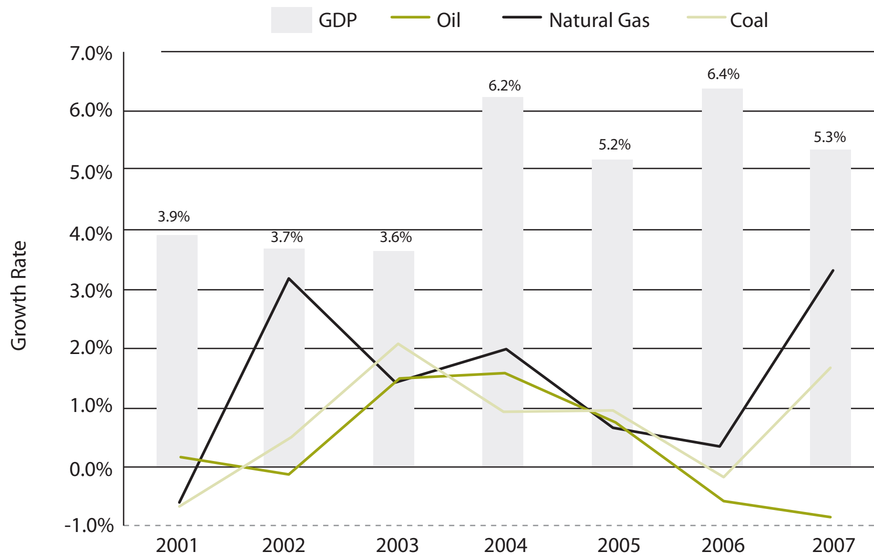
Fossil-Fuel Price Outlook

It is our view that the pace of a potential economic recovery will have the greatest influence on fossil-fuel prices during 2009. Not only have developed economies around the world recently entered into recessions, but many emerging economies have also been impacted given their reliance on exports to the developed world. These economies would need to exhibit signs of dramatically reversing course for global energy demand to strengthen and push fossil-fuel prices higher. Throughout the year ahead, we think odds of energy prices approaching their 2008 highs are extremely low in light of the worst global credit crisis since the Great Depression.

Developed-Market Demand

Despite relatively healthy economic growth in OECD[2] countries this decade, energy consumption in these developed economies has grown only at a minimal pace (see Figure 3). Now, with the United States, European Union and most developed Asian economies having entered recessions, we cannot envision a plausible scenario where energy demand from developed economies would increase considerably during 2009.

Figure 3
OECD Economic Growth and Energy Consumption



Despite healthy economic growth in recent years, OECD energy consumption increased at a tepid pace. With the global economy now having entered a recession, we cannot plausibly forecast strong developed-market demand in 2009.

Source: OECD, U.S. Energy Information Administration

Figure 3 shows OECD gross domestic product (GDP) growth and annual rates of changes in OECD oil, natural gas, and coal consumption.

Furthermore, in the midst of the global credit crisis, our thesis is that many developed economies will undergo a lengthy and sizable "deleveraging" process, where numerous businesses and consumers will be forced to repair their balance sheets that had become bloated with debt in recent years. This deleveraging is expected to constrain energy demand throughout 2009.

Many businesses had already started scaling back consumption earlier this year when energy prices were rising. Though fossil-fuel prices have since fallen, we think it is unlikely that many businesses will have the willingness and/or financial capacity to ramp up spending during the upcoming year given the recessionary economy, tighter credit conditions and depressed stock markets.

Figure 4 shows how industrial production in the United States, Europe and Japan has declined in recent months due to the credit crisis and subsequent economic slowdown. Considering that industrial producers are heavy energy users, the demand is likely to remain suppressed until a robust global recovery begins to take shape. We do not foresee this scenario occurring until late 2009 (at the earliest).

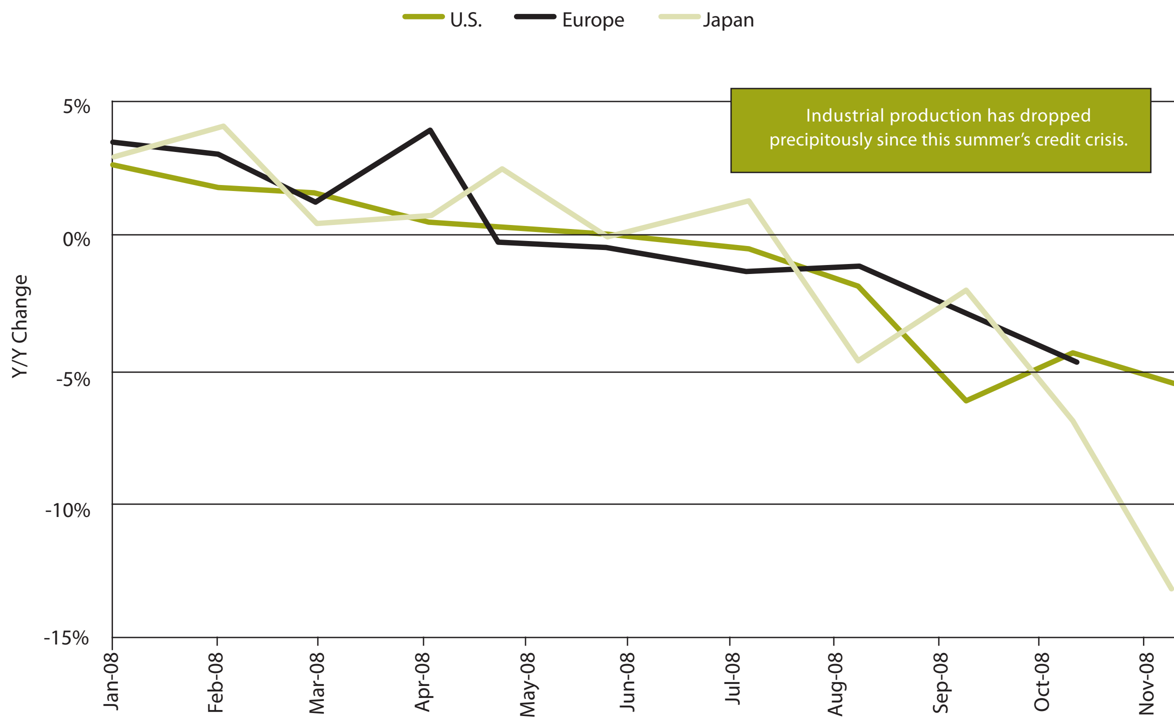
Besides businesses, many consumers living in developed economies are likely to continue curbing their energy usage during 2009. Though oil and gas prices have fallen more than 70% since July 2008, it remains difficult to predict a sizable pick-up in consumer demand given the recessionary economy coupled with more limited access to credit.

Emerging-Market Demand

The primary driver behind this decade's energy-price appreciation has been demand from emerging markets, most notably China and India (see Figure 5). Economic growth in these countries has been tremendous and has spurred sizable infrastructure projects to support larger, more-mobile middle classes.

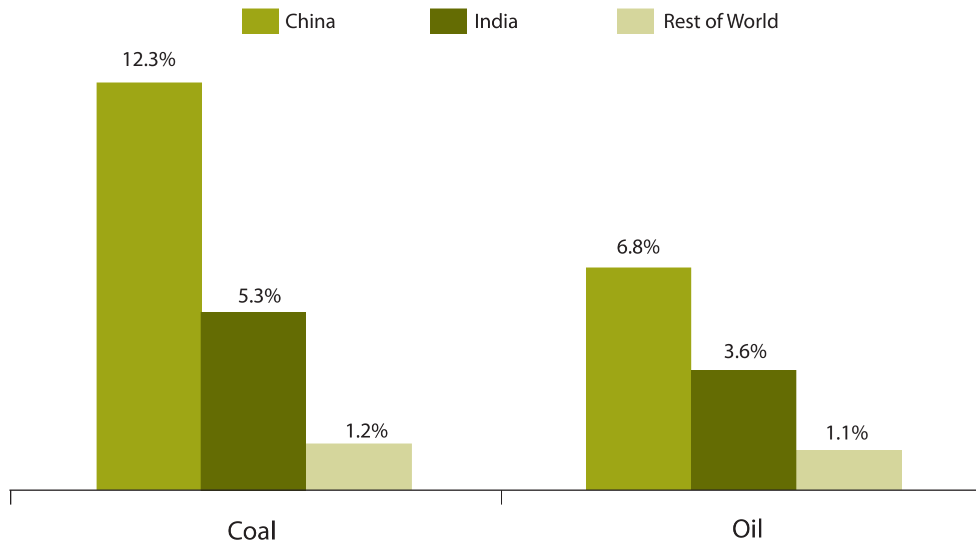
According to the U.S. Energy Information Administration, China is the world's leading coal consumer, burning nearly three times as much coal as the United States (the world's number two consumer of coal). More than half of China's coal consumption is for industrial use, as the country has become the world's leading producer of steel and pig iron,[3] much of which is used for China's infrastructure development. A sizable percentage of China's voracious energy demand has ultimately been funded by trade surpluses with developed economies, including the United States.

Figure 4
2008 Industrial Production: Year/Year Change



Sources: U.S. Federal Reserve, Eurostat, Japan Ministry of Economy, Trade & Industry

Figure 5
"Chindia" Energy Consumption Growth: 2000-2007



Sources: U.S. Energy Information Administration

Figure 5 shows the compound annual growth rate (CAGR) of coal and oil consumption from 2000 to 2007.

Though for a time it appeared that nothing could slow Chinese commodity demand, signs have emerged that growth in the Middle Kingdom has subsided. With a global economic slowdown and credit crisis on the heels of the Beijing Olympics, China's export growth has begun to moderate as its developed-market trading partners have scaled back. Chinese industrial production has already started to wane,[4] and we believe the end result will be a slower rate of energy consumption until the global economy can stage a healthy recovery.

Energy demand is also slowing in many other emerging economies. A lot of these countries possess abundant natural resources and had benefited from rising commodity prices, which increased trade surpluses with developed-market trading partners. However, with virtually all commodity prices having fallen drastically since July 2008, many emerging economies have started to suffer financially. Most will almost certainly be forced to curb their energy usage in 2009.

Global Energy Supplies

In light of lower projected global demand for oil, natural gas and coal, we do not believe that any of these commodities will face notable supply shortages during the upcoming year. While there are always potential supply shocks due to geopolitical conflicts and natural disasters, we do not foresee major supply-side risks unless demand were to ramp up rapidly in 2009. As noted earlier, this scenario is unlikely.

Constrained Capital Markets

With fossil-fuel prices having declined in recent months, clean-energy sources have become less competitive from a cost standpoint. Though government subsidies and concerns about the environment and energy security should still spur demand for renewable energy, we think the pace of this demand will deteriorate until the global economy can stage a healthy recovery.

"With fossil-fuel prices having declined in recent months, clean-energy sources have become less competitive from a cost standpoint."

Considering the competitive headwinds (from now-less-expensive fossil fuels) that many cleantech firms are likely to face during 2009, having access to sufficient financial resources is imperative for weathering the downturn. A number of clean-energy companies could face significant financing hurdles during the months ahead unless the capital markets become more accommodative.

Credit Markets

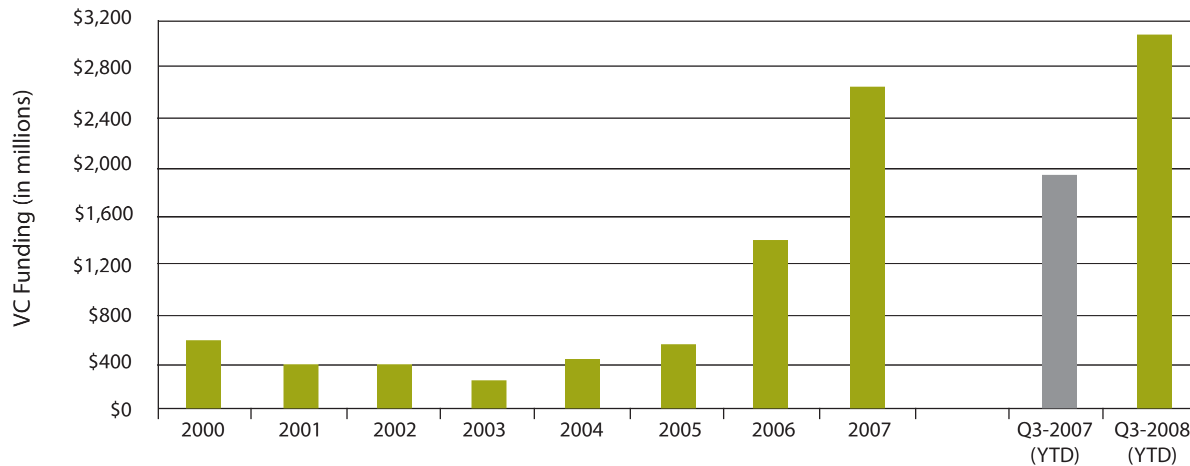
Given the sizable costs that are often required to develop clean-energy infrastructure, many projects require substantial capital. As such, clean-energy firms frequently rely on debt financing for a large portion of their capital needs. However, in the midst of the current credit crisis, accessing debt has become highly prohibitive, if not impossible, for most cleantech firms.

Even relatively well-capitalized alternative energy firms have been impacted by the credit-market problems. enXco, a California-based subsidiary of a French energy conglomerate, recently closed the first and only wind-power project since the credit crisis began. Facilitating the funding for the project was a difficult process though. Mark Tholke, enXco's Southwest Regional Director, said that debt costs for Shiloh II, a Solano County wind farm that will sell power to PG&E, worsened materially since the summer.[5] The subsequently greater debt-service obligations (because of higher interest rates) required the renewable-energy developer to invest a lot more equity into the project.

Municipal utilities such as SMUD, which can borrow on a tax-exempt basis, have not been immune from the global credit problems either. Jim Tracy, SMUD's Chief Financial Officer, noted how the A-rated utility was able to issue insured bonds in June 2008 at 4.4%. By late November 2008, SMUD's cost for bonds (of similar maturity) had risen to nearly 6%.[6] Since debt service is a large component of SMUD's solar and wind power projects, higher debt-service obligations have made SMUD's renewable energy efforts much more costly. That said, Tracy notes that SMUD has not abandoned its goal of sourcing 23% of its energy from renewables by 2011, up from 12% in 2006.[7]

For smaller electric cooperatives and public power systems that have been approved to issue federal tax credit bonds known as Clean Renewable Energy Bonds (CREBs), credit spreads have also widened considerably. In particular,

Figure 6
VC Funding to the Cleantech Industry: 2000-Q3 2008



Sources: PricewaterhouseCoopers, National Venture Capital Association, Thomson Reuters

the rate on 10-year CREBs in July 2007 was less than 6%, representing only a 100 basis-point (1.00%) spread to the 10-year U.S. Treasury, which yielded roughly 5% at the time. On December 31, 2008, 10-year CREBs were priced at a 267 basis-point spread (2.67%) to the equivalent Treasury.[8]

Equity Financing

With affordable credit difficult to obtain, there is a greater emphasis on raising equity capital to fund clean-energy endeavors. However, given the sizable stock-market declines since the summer, it is now more prohibitive for publicly traded firms to raise new equity. The stock-market volatility has also created a more uncertain environment for private-equity and venture-capital (VC) investors.

For publicly traded clean-energy firms with low stock prices, issuing additional shares is more dilutive to existing shareholders and runs the near-certain risk of driving the stock price down further. And the ability to even float additional shares assumes that equity investors are willing and able to provide funding – something not many appear eager to do in this investment climate.

Perhaps more importantly, the depressed equity markets could temporarily drive away private funding to the cleantech industry. As Figure 6 shows, VC funding to the cleantech industry had been increasing exponentially in recent years, when the capital markets were healthy and energy prices were rising.

Today, with cleantech initial public offerings coming to a halt and acquisition funding tougher to access, exit strategies for private investors have become more uncertain. These factors may explain why private-equity and VC funding (in aggregate) to cleantech companies fell 24% in the third quarter of 2008 (relative to Q2 2008 levels).[9] Since energy-price declines and the credit crisis did not intensify until the end of the third quarter, it would not be surprising to observe even lower private funding levels during upcoming quarters.

Capital-market losses are also likely to reduce investors' ability (not just willingness) to provide new funding to VC and private-equity firms that invest in cleantech. With large institutions such as CalPERS experiencing sizable portfolio losses in recent months,[10] their capacity to allocate new money toward alternative investments will almost certainly be diminished.

The "Lag Effect"

Though we believe the pace of new VC and private-equity funding to cleantech will slow significantly in the months ahead, many clean-energy firms with existing capital commitments should find themselves in a better position to weather the downturn. Dr. Barbara Grant, Managing Director at American River Ventures, a Roseville-based VC firm that specializes in cleantech, notes that venture funding tends to work with a lag effect because VC firms typically commit capital via several installments over time (as opposed to a

lump sum upfront). Therefore, newer cleantech companies facing short-term, industry-related hurdles should still be able to depend on existing financial commitments from their VC partners.

Ian Westberg, Sacramento-based Regional Manager of the Venture Pipeline Group at law firm DLA Piper, believes cleantech companies that are meeting their financial goals should not be at risk of losing their pre-existing funding commitments. Westberg indicates that, even in today's climate, startup firms with promising new technologies and strong management teams will have access to equity funding from VC firms.[11]

American River Ventures' Dr. Grant adds that cleantech firms on the demand side, which includes those companies specializing in energy efficiency, are expected to fare better in the current environment because they are less capital-intensive and deliver investment returns over a shorter time frame. On the other hand, supply-side renewable energy firms tend to entail greater capital commitments and longer investment horizons. Thus, their ability to obtain additional equity financing in the near future could be in question.[12]

Government's Role

Despite a global recession and lower fossil-fuel prices, government support for clean energy has thus far remained steadfast, arguably providing the best hope that cleantech momentum will continue during 2009.

Barack Obama's recent presidential victory should prove beneficial to the cleantech industry, as the candidate has promised to invest $150 billion in clean energy during the next 10 years.[13] Though the incoming President has yet to specify how this plan would be implemented, many are optimistic a "Green New Deal" would help fund a broad range of clean technologies.

At the state level, California has set precedents with respect to renewable energy. In November 2008, Governor Arnold Schwarzenegger ordered state power companies to obtain one-third of their electricity from renewables by 2020.[14] This mandate followed a 2006 bill to substantially reduce California's greenhouse gas emissions by 2020.

Will Things Be Different This Time?

While the widespread government backing of cleantech is certainly encouraging, we remain concerned that the urgency to commit significant government resources to green energy could subside in the near future. With federal and state budget deficits ballooning due to the recession, government support of cleantech could wane if fossil-fuel prices remain near current levels. Following the 1970s oil supply shocks, lawmakers created a bevy of renewable-energy incentives, but these incentives eventually disappeared in the early 1980s after energy prices fell dramatically. Moreover, state governments have had a propensity to relax renewable-energy mandates if targets are not being achieved.[15] It remains to be seen whether things will be different this time.

Cleantech proponents point to recent federal legislation as an indicator that elected officials are now more determined to take proactive steps to address climate change and energy security. As part of October's financial-rescue package, Congress provided $17 billion in cleantech tax incentives, extending production and investment tax credits for wind (by one year), geothermal (by two years) and solar energy (by eight years).[16] The fact that Congress passed these measures along with a $700 billion spending bill may indicate that things will be different this time around.

Local Cleantech Firms

According to Gary Simon, Chairman of Sacramento-based incubator CleanStart, there are 98 cleantech companies in the greater Sacramento region that employ approximately 2,000 workers (in aggregate).[17] Four of these firms are publicly traded: Pacific Ethanol, Solar Power, Inc., Premier Power Renewable Energy, Inc. and Blue Point Energy (listed as Chapeau, Inc.).

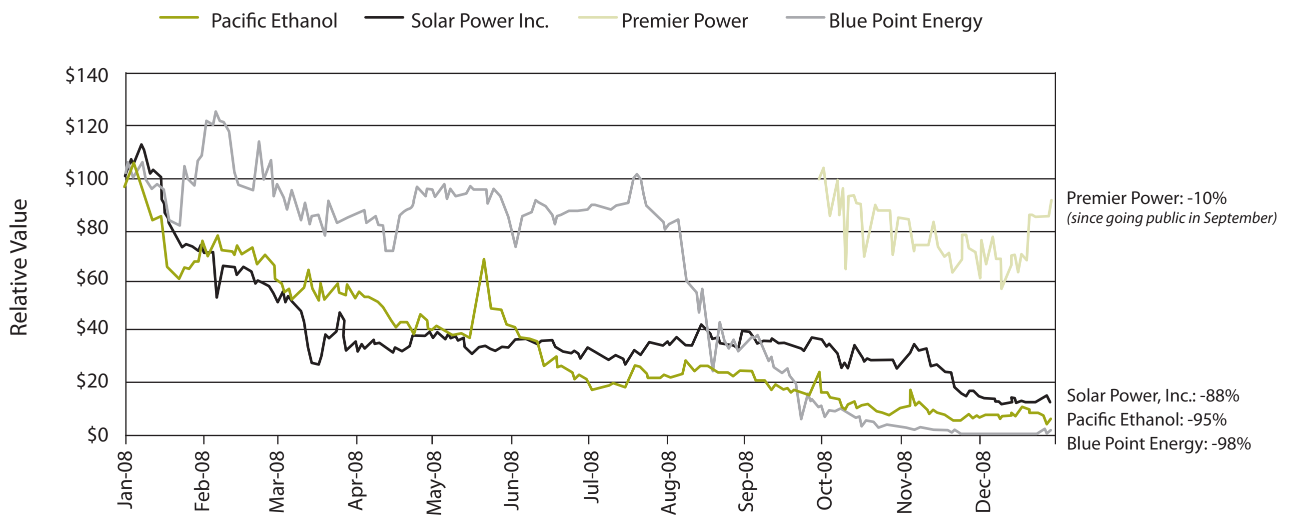
The aforementioned companies illustrate some of the issues that many clean energy firms are presently facing. Each is relatively new, capital-intensive, and cannot sufficiently fund investment activities with cash from operations. They must therefore rely heavily on debt and equity financing.

In light of the credit crisis, accessing debt financing will be nearly impossible for these local firms unless the lending environment improves. And since each has experienced substantial stock-price depreciation in 2008 (see Figure 7), none will likely be able to float additional shares to raise new equity.

Pacific Ethanol

Pacific Ethanol, headquartered in Sacramento, has been adversely impacted by both corn and oil prices during 2008 and will likely need additional capital soon. The company, which burned through more than $200 million of cash (from operations and investing activities combined) during the past year, is obligated to repay creditors nearly $40 million in early

Figure 7
2008 Local Cleantech Stock Performance



Stock-Price Source: Yahoo! Finance

Figure 7 shows the relative value of $100 invested in each of the Sacramento region's publicly traded cleantech stocks during 2008. For Premier Power Renewable Energy, the value presented captures the time since the company went public in September 2008.

Table 1
The Sacramento Region's Publicly Traded Cleantech Firms: Recent Financial Performance

Company	Trailing 12-month Revenues	Trailing 12-month Cash Used: Operations	Trailing 12-month Cash Used: Investment	Cash & Marketable Securities[1]	Short-term Debt Obligations[2]
Pacific Ethanol[3]	$713,879,000	($42,670,000)	($165,976,000)	$21,431,000	$47,907,000
Needs to restructure debt obligations to avoid defaulting on nearly $40 million due in Q1 2009					
Solar Power, Inc.[3]	$40,232,000	($8,367,000)	($925,000)	$3,342,000	$346,000
Will need to improve operating margins to avoid potential liquidity constraints in 2009					
Premier Power Renewable Energy[3]	$30,600,194	($388,839)	($368,868)	$5,446,853	$1,316,720
Should have ample liquidity through 2009, thanks to $5.7 million private placement in September 2008					
Blue Point Energy[4]	$730,123	($13,591,719)	($1,340,497)	$2,417,020	$2,301,376
Filed for Chapter 11 bankruptcy on October 31, 2008					

1) Cash & Marketable Securities do not include restricted cash held by Solar Power, Inc.
2) Short-term Debt Obligations consist of debt scheduled to mature within 12 months.
3) Balance sheet figures and trailing 12-month revenue and cash flow figures are as of September 30, 2008.
4) Balance sheet figures and trailing 12-month revenue and cash flow figures for Blue Point Energy are as of March 31, 2008.

2009. As of September 30, 2008, the company had only $21 million of cash and marketable securities on its balance sheet (refer to Table 1).

Unless Pacific Ethanol is able to renegotiate its debt repayment terms, there is a strong possibility the company will be forced to enter into bankruptcy since access to new equity capital is currently limited.

Solar Power, Inc.

Roseville-based Solar Power, Inc., a manufacturer, supplier and installer of photovoltaic solar-power solutions, may also be faced with capital constraints in 2009. The company spent more than $9 million of cash during the past year and had only $3.3 million remaining on its balance sheet (as of September 30, 2008).

Though the company nearly tripled its top-line revenues through the first nine months of 2008 (relative to the first nine months of 2007), it generated a greater operating loss. Unless Solar Power, Inc. can increase its operating margins and/or raise additional capital by mid-2009, the company could experience liquidity problems.

Premier Power Renewable Energy

Premier Power Renewable Energy, Inc., based in El Dorado Hills, designs, engineers and installs photovoltaic systems in the United States and Spain. We believe the company is presently in the best financial shape (relative to the other publicly traded, local cleantech firms) due to a $7 million private placement in September 2008.

Though the company used more than $2 million of cash from operations during the first nine months of 2008, it still had $5.4 million of cash on its balance sheet as of September 30, 2008. Moreover, the company has few existing debt obligations.

Blue Point Energy

Blue Point Energy, the El Dorado Hills-based energy management company, filed for Chapter 11 bankruptcy on October 31, 2008, due its inability to access additional capital.

Conclusion

For the Sacramento region to achieve its goal of becoming a cleantech hub, it will have to navigate some serious short-term challenges. There is a strong possibility that a number of local firms will not have the financial capacity to survive 2009. In addition, certain firms may be purchased during a consolidation wave, where better-capitalized players acquire smaller cleantech entities. Such merger-and-acquisition activity would present the risk of local cleantech jobs leaving the region.

However, if the region can overcome these near-term industry obstacles, the future should be bright. We have little doubt that clean energy will become more prevalent over time, as finite fossil fuels get depleted and emerging clean technologies become more cost-effective. Therefore, it would behoove local policymakers to follow the lead of federal and state officials and concern themselves with climate change, ensuring that the greater Sacramento region's *business climate* provides a friendly environment for the cleantech industry.

References

[1] Information about Camino Energy's PurePlay Indices can be accessed at www.caminoenergy.com.

[2] OECD is the Organization for Economic Co-operation and Development, whose membership consists of 30 developed-market countries.

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[5] M. Tholke, telephone interview, November 2008.

[6] J. Tracy, interview held at SMUD headquarters, Sacramento, California, November 2008.

[7] SMUD, *2007 Status Report on Renewable Energy at SMUD* (May 10, 2007), p. 2.

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[9] "Clean Energy Investment Falls Sharply," *Financial Times*, 10 November 2008.

[10] CalPERS experienced a 21% decline in assets under management since June 30, 2008. "Calpers Sells Stock Amid Rout to Raise Cash for Obligations," *The Wall Street Journal*, 25 October 2008.

[11] I. Westberg, interview held at DLA Piper office, Sacramento, California, November 2008.

[12] B. Grant, Ph.D., interview held at American River Ventures office, Roseville, California, November 2008.

[13] Barack Obama, *New Energy for America*, my.barackobama.com/page/content/newenergy (November 2008).

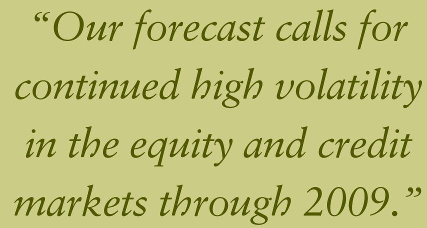
[14] "Green Trends in California: Cooling Off," *The Economist*, 22 November 2008.

[15] "Alternative Energy Suddenly Faces Headwinds," *The New York Times*, 21 October 2008.

[16] "Highlights of $700 Billion Market Rescue Bill," *The Wall Street Journal*, 3 October 2008.

[17] G. Simon, telephone interview, November 2008.

Capital Markets Review: The Global Markets and Their Impact on *Sacramento*



The tumultuous events of 2008 have affected nearly every asset class in virtually every part of the global capital markets. Sacramento investors and employers have also been significantly impacted as aggregate financial asset values are down roughly 40% this year. We look at the chain of events that led to the crisis we now face and assess current risks and opportunities within the equity and credit markets. We also introduce a new employment-weighted index of major publicly-traded companies in the Sacramento area.

Our forecast calls for continued high volatility in the equity and credit markets through 2009. We believe a bottom will be made within the next year as the lagged effects of aggressive policy response will override the fear and chaos currently driving market price movements. We favor large cap domestic equities, emerging market equities, high-quality municipal, corporate and global sovereign debt in this environment. We also believe that our new Sac-CFA index will outperform the broader markets as we emerge from the recession.

Jason Bell, CFA, Vice President and Investment Manager, *Wells Fargo Private Bank*
Hao Lin, Ph.D., CFA, Professor, *College of Business Administration, Sacramento State*

Capital Markets Review: The Global Markets and Their Impact on Sacramento

Equity Market Review and Analysis

A perfect storm of events has caused near record declines and unprecedented volatility in the equity markets, leaving investors rattled and fearful about the future. The bursting of the housing bubble and resulting credit and banking crises have been exacerbated by massive deleveraging and the onset of a large global recession.

Fears of a financial Armageddon and a resulting global ice age are rampant, but are an unlikely outcome. Though plenty of near-term risks remain, there are budding indications that the markets are in a mature state of the bottoming process. The Fed's interventions have been methodically removing risk and while the next bull market will take some time to materialize, the worst of the bear may indeed be past.

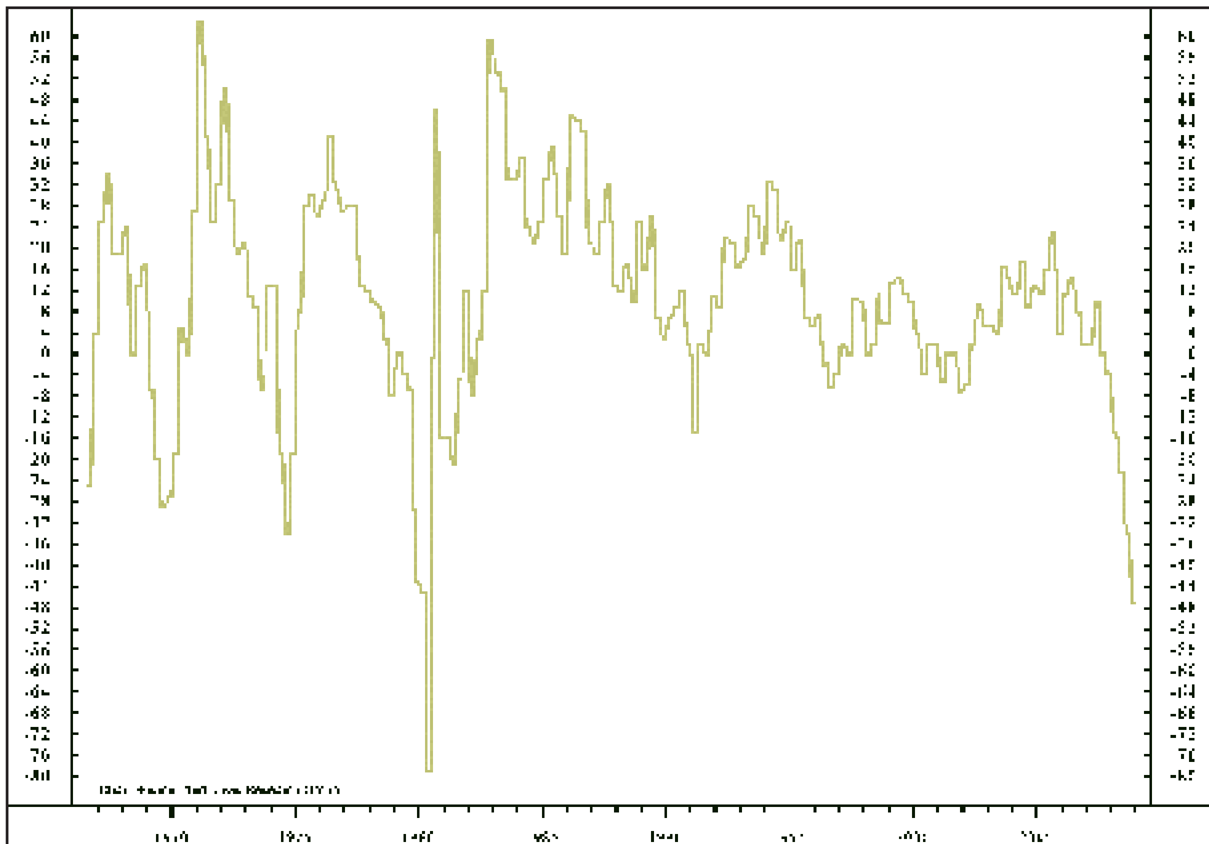
Money in the Bank?

The magnitude of the global capital destruction resulting from the U.S. housing bubble is staggering: over $700B dollars has been purged from the banking system's balance sheets and by a recent IMF estimate, there is another $400B left to be written off. Banks have raised over $500B in emergency investment capital, but they will need to raise more to shore up their balance sheets as additional writedowns occur.

Eroding asset values within the capital markets have caused banks to raise lending standards drastically, resulting in the contraction of credit to cash-strapped consumers. According to the most recent Federal Reserve Senior Loan Officer Survey, lending standards are amongst the tightest on record.

Figure 1: Banks Willing to Make Consumer Loans – Net %

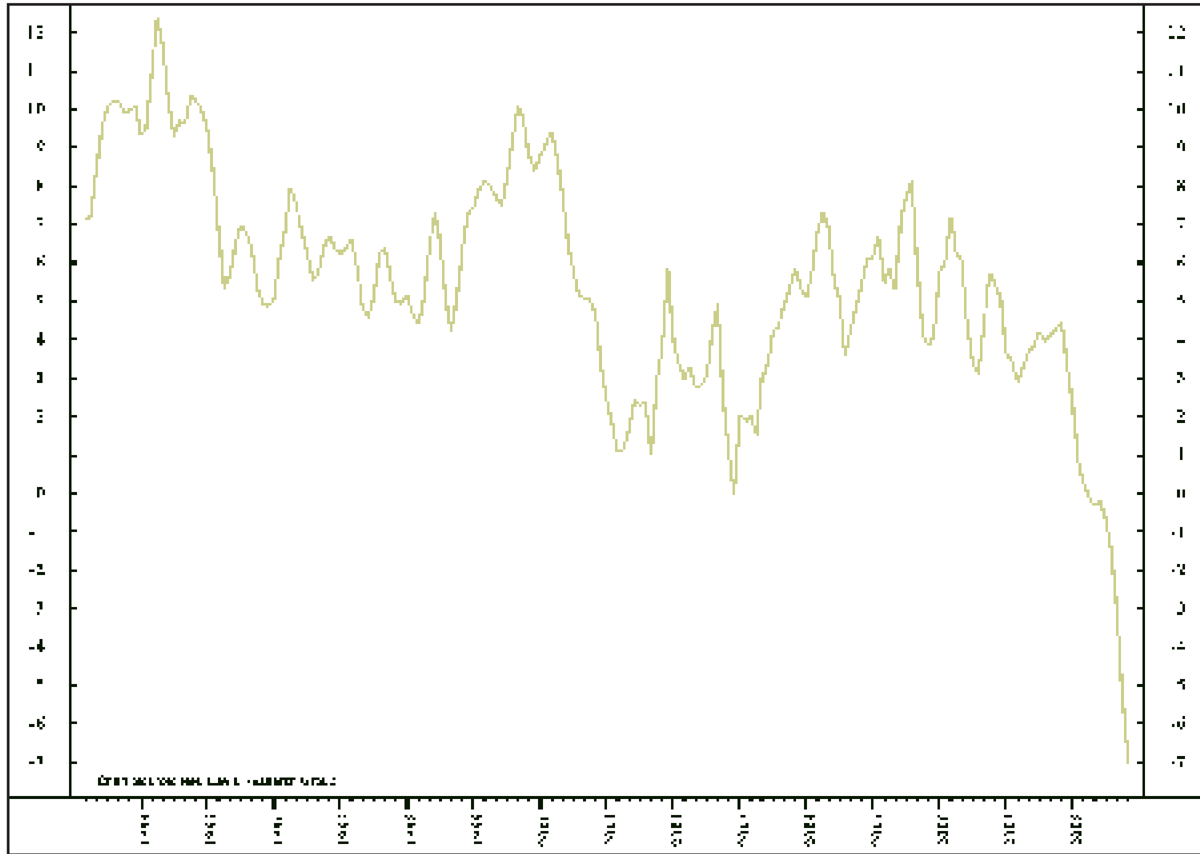
Monthly Data 8/31/66 –1/31/2009 (Log Scale)



Source: Ned Davis Research Group | www.ndr.com

Figure 2: Discretionary Consumer Spending

Monthly Data 3/31/93 –11/30/2008 (Log Scale)



Source: Ned Davis Research Group | www.ndr.com

This dynamic will continue for some time as residential housing inventories continue to rise, forcing banks to protect their respective balance sheets. Most of the fallout from the first tranche of subprime borrowers has passed, but the next worrisome domino to fall is the $100B of Alt-A borrowers who face their first mortgage resets in 2009 and 2010. If recent history is a guide, more housing supply will enter the market, further depressing prices, reducing homeowner equity and reinforcing this vicious cycle.

The compound effects of shrinking home prices, reduced financial asset values, lower personal income growth and increasing unemployment have taken their toll. On a year over year basis, consumer net worth is down nearly 18% in Q4 of 2008, which is one of the most rapid and drastic declines on record. U.S. consumers have pushed confidence indicators to recessionary levels and domestic spending is contracting sharply.

On the positive side, there have been unprecedented monetary and fiscal policy responses to these recent events. While the final implications of the government's efforts are still unknown, the Fed has reduced real interest rates (i.e., net interest rates after accounting for the effects of inflation) to their lowest levels in 28 years. Creative injections of liquidity have prevented an economic collapse, and have started to re-liquefy the commercial paper markets, a critical step in stabilization.

Equity Markets Outlook

The key to a sustained recovery in the global equity markets is the stabilization of the banking system and a return of investor confidence. The current cycle of fear has pushed the markets into deeply oversold territory, regardless of asset quality. Inexpensive valuation and massive policy response will ultimately trump the panic-driven sell-off in the markets, allowing a resumption of normalcy as risk appetites increase again. Our expectation is for stability to start to emerge in the broad equity markets in the latter half of 2009 as investors start down the path to recovery.

United States

U.S. equities were the first to enter the bear market and will be the first to exit as the Fed's accommodative stance will keep exports competitive and borrowing costs low. However, the markets will be choppy in the next year, and investors would be wise to seek areas of the market that have access to capital, pricing power and stable revenue streams in a slowing global economy.

Large cap stocks have an advantage in a risk-averse environment as they generally have more globally diversified revenue streams and are usually deemed lower credit risks relative to their small cap brethren. Small cap stocks have declined slightly less than large cap stocks this year but that may reverse the longer the credit crunch persists. Small caps generally have a greater reliance on domestic revenue and tend to have more limited access to capital in time of economic stress.

"Volatility in bond prices has been higher this year than the previous ten years..."

Eurozone

The relative advantage that the Eurozone long held over U.S. markets is over for the time being. Increased energy costs, an expensive currency and restrictive monetary policy have squeezed the growth out of the trading region. Germany, the economic engine of continental Europe, is now facing weakening domestic consumption and slowing export markets.

The Eurozone still has the potential for higher longer-term GDP growth rates than the U.S., largely due to the fact that they run a current account surplus, as opposed to America's current account deficit. However, the ECB's delay in cutting interest rates will result in the Eurozone lagging the rest of the world's economic recovery by at least twelve months. As such, an underweight stance is warranted in these markets.

Emerging Markets

Emerging Markets sidestepped the U.S. housing contagion during the first half of 2008, but corrected sharply as global recession fears raced through the equity markets. Many emerging economies, which benefitted from the once red-hot global commodity demand, are now suffering due the resulting collapse in commodity prices and the strengthening dollar. Our view is that these price declines will be transitory as the longer-term demographic and supply/demand forces remain unchanged. Though slowing, infrastructure capital expenditures in these countries are still relatively robust as urbanization and strong personal income growth trends also continue to drive the majority of demand. Long term fundamentals remain intact and the Emerging Markets should resume their leadership trend as the crisis subsides.

Credit Markets Review and Analysis

Volatility in bond prices has been higher this year than the previous ten years, as a consistent stream of bad news and once-deemed impossible events has continually destabilized the broad debt markets. Painful but necessary policy responses have kept the credit markets on life support even though the major participants have been inexorably changed. The price of credit remains high and its availability scarce, but the fundamental pieces of the puzzle are being assembled to lead investors back to a more normal environment.

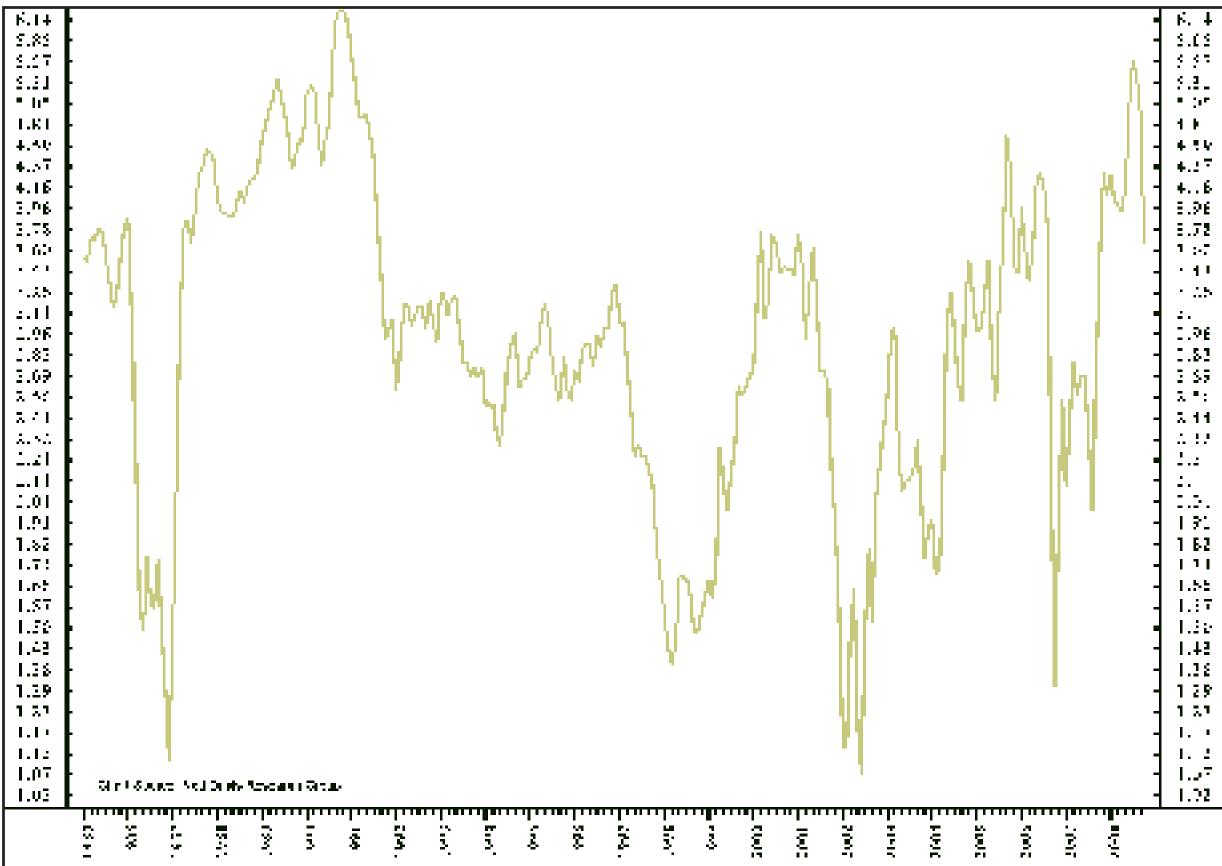
What Were the Odds…?

Early 2008 saw the collapse of the $330B auction-rate securities market and failure amongst municipal bond insurers, which drove municipal bond prices down to 20 year lows. High yield and mortgage spreads spiked to ten year highs in March as Bear Stearns imploded, caught in a catastrophic liquidity squeeze. The government's backstop of JP Morgan (and the remnants of Bear) quelled fears and spreads started to narrow as investors hoped the worst had passed, but escalating problems in the credit markets pummeled bank balance sheets, further reducing liquidity and pushing the price of bank debt to near-fatal levels in the third quarter.

The run on Indymac Bank served only as a precursor to the dramatic chain of events that resulted in the failures of Fannie Mae and Freddie Mac. The ensuing bankruptcy of Lehman Brothers further exacerbated the financial market panic and hastened the climactic

Figure 3: Consumer Price Index (year-to-year change)

Monthly Data 1/31/85 –10/31/2008 (Log Scale)



Source: Ned Davis Research Group | www.ndr.com

demise of AIG, and Washington Mutual, the mergers of both Wachovia and Merrill Lynch as well as a crisis of confidence for many insurance companies and Citigroup.

The significance of the failures within the banking system cannot be overstated. Fannie Mae and Freddie Mac served as a central clearinghouse in the global mortgage-backed securities market for more than three decades and currently guarantee or own more than $5 trillion in mortgages and related securities. AIG, prior to its mercurial death-spiral, boasted a $1 trillion balance sheet and had significant involvement in nearly every corner of the world's finances.

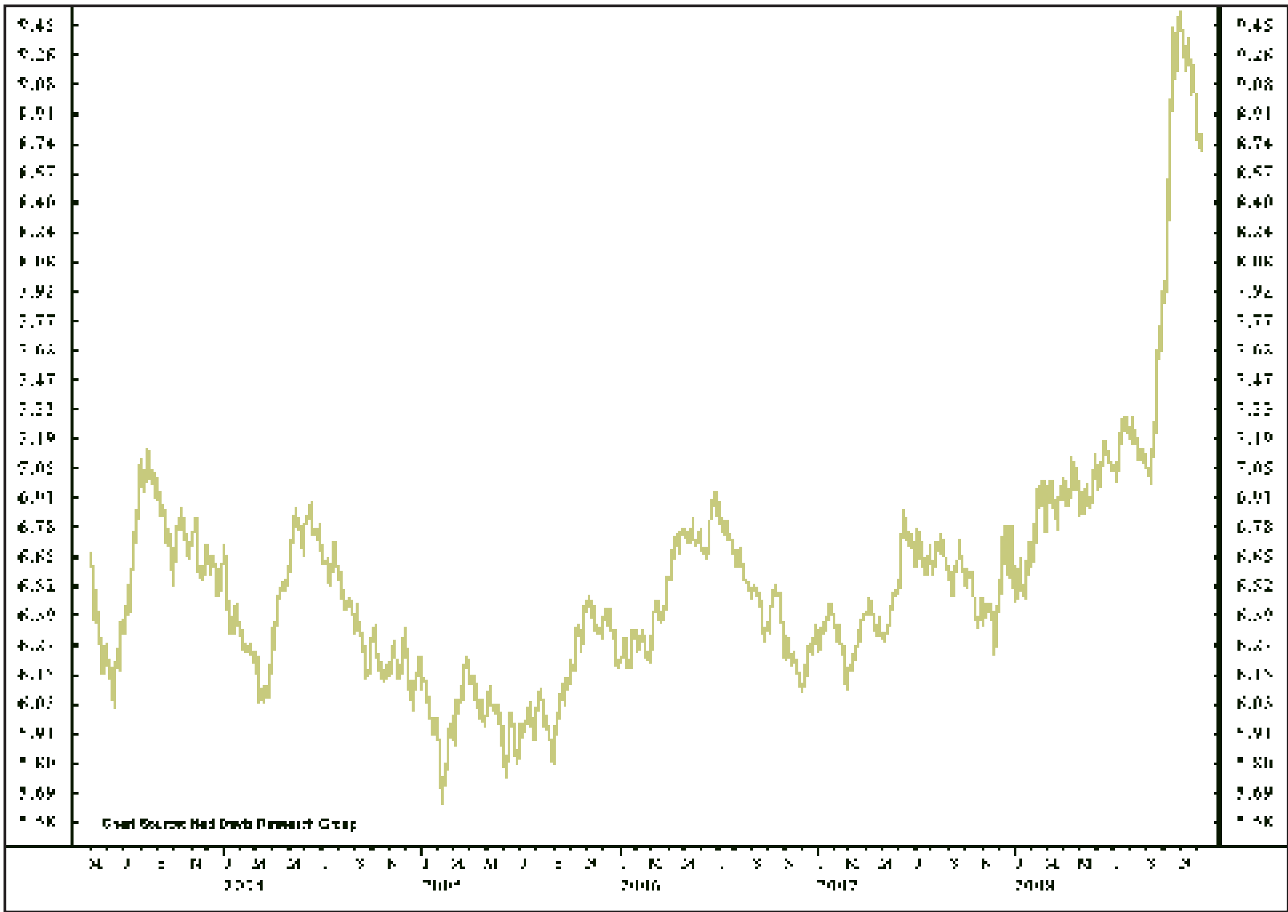
A dizzying myriad of Federal programs and related acronyms have emerged as regulators have responded to the seemingly endless stream of challenges: TARP, CPFF, PDCF, TAF, TALF, and TSLF amongst others. Alarmingly, these programs have taken the size of the Fed's balance sheet from $1 trillion to $2 trillion dollars, doubling it within a span of three months. While the facilities have helped provide some degree of short term stability, there has been little mention or understanding of their longer-term implications. Regardless, the government's interventions have been necessary to prevent the utter collapse of significant portions of the capital markets. In any resulting scenario, the collateral damage from the failures of so many key players in the global banking system will be deep and long-lasting.

Credit Markets Outlook

2008 has witnessed some of the most volatile times in the credit markets since the Great Depression. More and more, the government has been removing market-wide risk within the banking system, paving the way for damaged institutions to begin the healing process and the cycle of credit extension to begin again. In the coming quarters, we expect deflationary pressures to trump

Figure 4: Moody's Baa Corporate Bond Yield

Monthly Data 4/30/03 –12/11/2008 (Log Scale)



Source: Ned Davis Research Group | *www.ndr.com*

headline inflation and allow a coordinated central bank approach of looser monetary policy. In the short term, inflation expectations will continue to ease, putting downward pressure on long yields and requiring central banks to keep short rates low, ensuring a positively-sloped yield curve.

As credit risk is transferred from the banking system to the government, spreads will continue to contract and normalize again. The 28 year low in real interest rates has created a disincentive to save (and an incentive to spend/invest) so the deleveraging cycle will eventually wind down and demand for business and consumer loans should return. Timing this cyclical shift from deleveraging to releveraging will be particularly difficult, and a cautious approach to investing cash assets is warranted.

Treasuries

The fall's seismic events have led to the most severe crisis of confidence seen in a generation as failures of some of the world's largest financial institutions sent investors rushing to the safety of U.S.-backed debt instruments. December 9th marked one of the peaks of the panic as demand for short term Treasury bills pushed the price so high that they actually traded with a *negative* yield.

The propensity for negative news is still high and Treasury yields remain stubbornly low as investors are loath to hold any instrument associated with risk. Government debt remains overbought and holds little value from an investment standpoint.

Corporate

High quality corporate debt has been the antithesis to the U.S. government debt markets. Yield spreads in the broader corporate debt markets have skyrocketed as panicked investors have indiscriminately sold off any debt that was not guaranteed by the full faith and credit of the U.S. government. As a result, excellent value can be found within the corporate debt markets, particularly outside the financial sector where balance sheets are generally healthy, boasting plenty of cash and low debt levels.

Though plans are being formulated for the government to relieve banks of some of their non-performing assets, spreads on financial sector debt remain rightfully high as a tremendous amount of uncertainty remains within the banking system. Caution is advised for those looking at debt of financial institutions, as the final implications of the crisis have yet to reveal themselves and price volatility will remain elevated.

"Caution is advised for those looking at debt of financial institutions, as the final implications of the crisis have yet to reveal themselves and price volatility will remain elevated."

Municipal

The combination of municipal bond insurers' credit rating downgrades and a massive dose of risk-aversion has caused significant downdrafts in municipal bond prices. Tremendous value still remains along the entire curve as municipal bonds, which normally trade at 80% of a comparable Treasury instrument, are still trading

Table 1: Sac-CFA Index Constituents

No.	Company	Symbol	Local Employment	$ Revenue (millions)*	YTD Return (%)**	Economic Sector	% of Index
Panel A: Incorporated Locally							
1	GenCorp Inc.	GY	1,700	745	-75.5	Industrials	4.6%
2	The McClathy Co	MNI	1,550	2,260	-84.4	Consumer Discretionary	4.2%
3	SureWest	SURW	827	207	-28.7	Telecommunication Services	2.2%
4	Volcano Corp	VOLC	505	131	30.6	Health Care	1.4%
5	Waste Connections	WCN	215	959	-8.6	Industrials	0.6%
6	American River Bank	AMRB	86	40	-34.4	Financials	0.2%
7	ThermoGensis Corp	KOOL	83	na	-75.3	Health Care	0.2%
8	InsWeb Corp	INSW	58	33	-76.6	Information Technology	0.2%
9	Unify Corp	UNFY	55	20	-54.2	Information Technology	0.1%
10	Pacific Ethanol	PEIX	45	462	-91.8	Energy	0.1%
Panel B: Incorporated Elsewhere							
11	Intel Corp	INTC	7,000	38,334	-48.2	Information Technology	18.8%
12	Hewlett-Packard	HPQ	5,311	104,286	-30.1	Information Technology	14.3%
13	AT&T California	T	4,828	118,928	-31.3	Telecommunication Services	13.0%
14	Target	TGT	3,482	63,367	-32.5	Consumer Discretionary	9.4%
15	Wells Fargo & Co	WFC	3,167	53,593	-4.3	Financials	8.5%
16	Safeway	SWY	2,289	42,286	-36.3	Consumer Staples	6.2%
17	Pacific Gas & Electric	PCG	2,206	13,237	-11.7	Utilities	5.9%
18	Union Pacific Railroad	UNP	1,370	16,283	-20.3	Industrials	3.7%
19	Franklin Templeton	BEN	1,200	6,257	-46.9	Financials	3.2%
20	DST Output	DST	1,200	2,303	-50.2	Information Technology	3.2%

**12 month trailing revenues as of 09/30/08. ** Returns through 11/30/2008.*

at yield ranges from 105% to 120% of government debt. The entire municipal debt curve continues to remain above the Treasury curve, indicating the flight to quality premium remains high for government debt.

Though a high degree of concern currently centers on the California municipal debt market, we believe the probability of long-term principal loss is exceedingly low. Even in the case of the country's largest municipal bankruptcy on record, Orange County, all principal and interest payments were eventually made to bondholders.

"Historically, it has been most profitable to gain exposure to this segment of the fixed income asset class subsequent to financial crises."

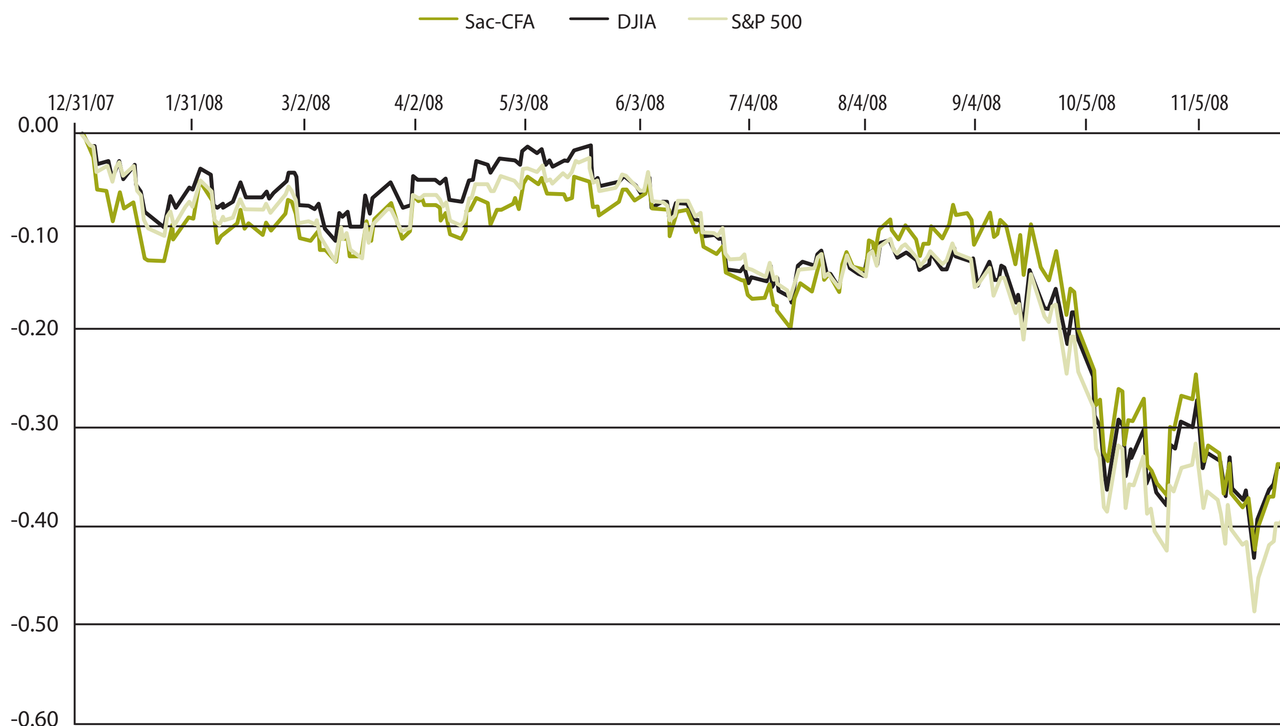
High Yield

Not surprisingly, spreads on high yield debt have widened along with every other debt instrument not guaranteed by the U.S. government. The cyclical buying opportunity is nearing for high-yield debt as spreads have reached over 1800 basis points, a level not seen in the past twenty years. Historically, it has been most profitable to gain exposure to this segment of the fixed income asset class subsequent to financial crises.

Global

Divergent priorities between central banks have created a significant differential in global benchmark rates and an opportunity for investors to profit from alternative monetary policy philosophies. Traditionally, the Fed has led easing and tightening cycles and has taken a growth-first inflation-second approach, whereas the BoE and ECB have been slower to adjust policy rates and have utilized an inflation-first growth-second strategy. As a result, high-grade global bonds are attractive at these levels.

Figure 5: YTD Return: Sac-CFA Index vs. DJIA, S&P 500



Impact on Sacramento's Publicly-Traded Firms

Virtually all of Sacramento's publicly-traded companies have been swept up in the current tumult. To measure the impact of the financial markets on our regional businesses, we have created the Sac-CFA Index, an employment-weighted index of publicly-traded companies that are either incorporated locally or are incorporated elsewhere, but are major employers in our region. Only companies listed on the New York Stock Exchange or NASDAQ were included, due to infrequent trading patterns of companies listed on the OTC Bulletin Board or Pink Sheets. Prices have been adjusted for stock splits and dividends and are weighted by each company's local employment level to calculate the daily index value.

Recent Performance

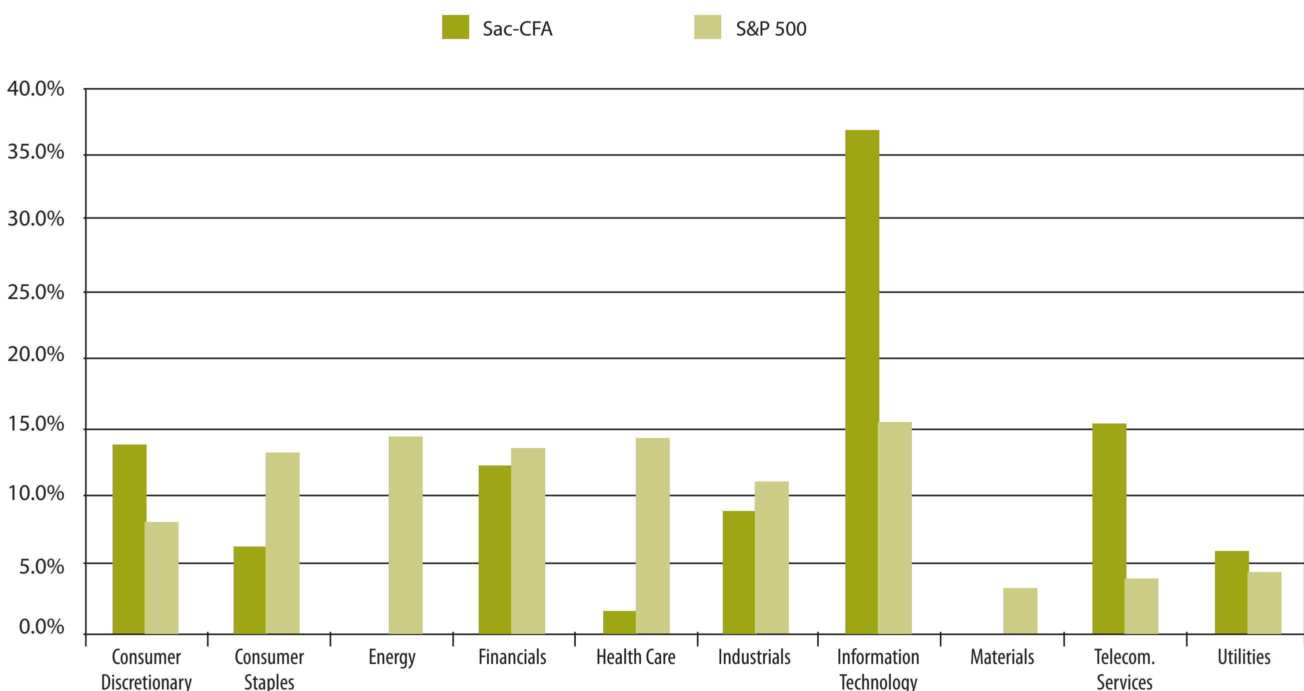
As of 11/30/08, the DJIA and S&P 500 have lost 33.4% and 38.9% respectively. As the top five employers represent 64% of the index, the performance of the Sac-CFA index is heavily influenced by its technology, discretionary and financial constituents. Not surprisingly, the index generally trades in line with the major averages and has lost 33.9% this year, underperforming the DJIA by .5% and outperforming the S&P 500 by 5.1%.

"Virtually all of Sacramento's publicly-traded companies have been swept up in the current tumult."

Most major equity indexes, regardless of market capitalization, style and geography are down between 30% and 40% this year. It is interesting to note that the Sac-CFA index has some distinct leaders and laggards relative to those indexes as the range of returns amongst the twenty constituents is +30% to -90%.

The employment-weighted index is dominated by the technology (semiconductors and computer hardware), consumer discretionary (retail and publishing) and financial sectors (banking and asset management). Relative to the S&P 500, the Sac-CFA Index is underweight in the more stable sectors such as industrials, consumer staples and healthcare.

Figure 6: Sector Comparison



> *"Due to its composition, the 2009 outlook for the Sac-CFA Index is relatively bright."*

Outlook for Index Performance

Due to its composition, the 2009 outlook for the Sac-CFA Index is relatively bright. Stock prices in the technology and consumer discretionary sectors tend to reflect improving economic changes sooner than other sectors in the market. This characteristic should act as a tailwind for Sacramento as the world makes its way through the recession. Technology companies tend to have low debt levels and usually hold up well during economic downturns. Also, a major component of the index's discretionary sector is Target, which should fare well as consumers shift their preferences from luxury goods to more value-focused expenditures. Target's advantage should continue as a new age of thrift becomes more accepted by battered American consumers. Sacramento's financial employers should find stock price stability as the credit markets normalize and the equity market puts in its final bottom in 2009.

Sources:

International Strategy and Investment, Bloomberg, BCA Research, Wells Fargo Private Bank, Wells Capital Management, Ned Davis Research, International Monetary Fund, Moody's, Wall Street Journal, CFA Institute, Thomson/Reuters, Sacramento Business Journal, Yahoo Finance. All charts from Ned Davis Research are reproduced with permission.

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