

Economic Context

2007 Valuation of State-Assessed Properties

Overview of U.S. and California Economies

U.S. Economy and Financial Markets

Economy Overcomes Weak Residential Markets in 2006. In 2006 the economy grew at a rate very close to its long-term average despite volatility in energy prices and falling residential real estate prices and sales. U.S. real gross domestic product (GDP) increased 3.3 percent in 2006, slightly higher than the ten-year average of 3.2 percent annual growth. Growth was led by exports, which increased 8.9 percent after adjusting for inflation.

Real consumer spending rose 3.2 percent in 2006, down from 3.5 percent growth in 2005. Durable goods increased 5.0 percent, while nondurables increased 3.7 percent.

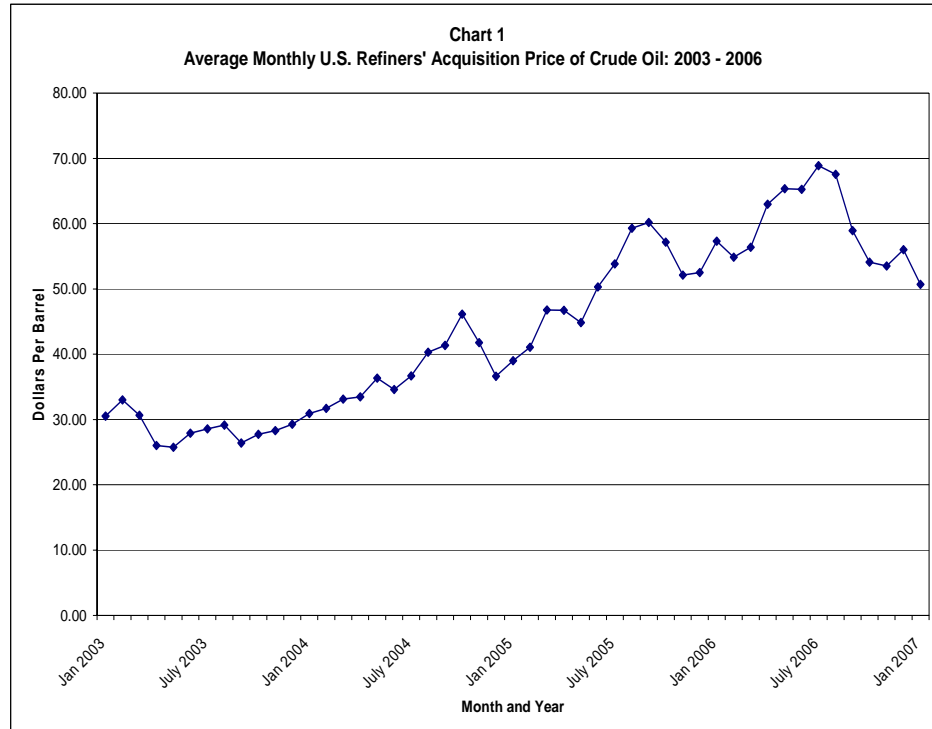
The weakest major sector of the U.S. economy in 2006 was residential investment. Real residential investment declined 4.2 percent in 2006, the steepest decline since 1991.

Energy Costs Decline From Mid-2006 Levels. The average annual U.S. refiners' acquisition price of crude oil increased about 20 percent in 2006, capping a fourth consecutive year of double digit increases. The annual average crude oil price was \$60.09 per barrel in 2006. However while crude oil prices increased for the year, monthly data show that they declined in mid-2006, and have generally stabilized at prices less than \$60 per barrel. After peaking at \$68.87 per barrel in July 2006, prices generally declined the rest of the year (see Chart 1).

Overall Inflation Rate Edging Downward. The U.S. consumer price index rose 3.2 percent in 2006, down slightly from 3.4 percent in 2005. Costs of medical care and residential rent were responsible for much of the increase in 2006.

Long Term Interest Rates Close to Short Term Rates. The Federal Reserve Board began increasing the target for the federal funds interest

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rate in late June 2004 and continued to steadily increase rates until mid-2006. Through much of 2006 long term interest rates were only slightly higher than short term rates. In 2006 the interest rate for three-month U.S. Treasury bills averaged 4.7 percent, while ten-year U.S. treasury bonds averaged a yield of 4.8 percent. During the 1990s, ten-year U.S. treasury bond yields averaged a much higher rate, 6.7 percent.

Profits before taxes have more than doubled from 2002 to 2006.

Corporate Earnings Strong. Strong economic growth, productivity growth, relatively low interest rates, and increasing energy prices combined to result in rapid growth in corporate profits in recent years. U.S. corporate earnings before taxes increased 19 percent in 2006, following gains of 33 percent gain in 2005 and 26 percent in 2004. Profits before taxes have more than doubled from 2002 to 2006.

Major Stock Indices Up In 2006. Major stock market indices posted moderately strong increases in 2006. On an annual average basis, the Standard and Poor's composite stock index increased 9 percent in 2006. The NASDAQ stock index increased 8 percent over the same time period.

Slower Growth Expected in 2007. Many economic forecasters expect economic growth to slow somewhat from that of 2006. A February 2007 survey of about 50 professional forecasters polled by the Federal Reserve Bank of Philadelphia calls for real GDP to increase 2.8 percent in 2007.¹

¹ "Survey of Professional Forecasters," Federal Reserve Bank of Philadelphia, February 13, 2007.

California Economy

California Parallels National Economy. Available data indicate that the California economy generally mirrored the U.S. economy in 2006. California nonagricultural employment (one of the broadest measures of economic activity available to states on a timely basis) increased 1.9 percent in 2006, a bit faster than the 1.8 percent growth in U.S. nonagricultural employment. The California unemployment rate averaged 4.9 percent, a bit above the U.S. average of 4.6 percent. Other major California economic indicators -- including personal income, wages, and housing activity -- posted changes similar to their national counterparts in 2006.

As with much of the rest of the nation, residential construction activity fell dramatically in California in 2006 following a real estate boom of previous years. A total of 164,000 residential building permits were issued in 2006, down from 209,000 in 2005. Despite the steep decline, residential permits issued in 2006 were close to the ten-year annual average of 162,000 units. The inflation-adjusted total value of nonresidential construction rose 8.4 percent in 2006, partially offsetting the decline in residential home construction activity.

Many forecasters expect the California economy to follow the U.S. economy slowdown in 2007. According to the March 2007 issue of the *Western Blue Chip Economic Forecast* (which includes a survey of eight California economists) the average forecast calls for California nonagricultural employment to increase 1.0 percent in 2007. These forecasters also predict that California personal income will increase 5.2 percent and that taxable sales will increase 4.2 percent in 2006.

Electricity and Natural Gas Industries

Recap of 2006 Assessments. Electric, natural gas, and water companies accounted for about 62 percent of all Board-assessed values in fiscal year 2006-07. Electric generating facilities firms accounted for 17 percent of the total value for these companies. The vast majority of the remaining 83 percent of assessed values for electric, natural gas, and water companies were accounted for by the large regulated utilities: Pacific Gas & Electric, Southern California Edison, Southern California Gas, and San Diego Gas and Electric.

Natural Gas

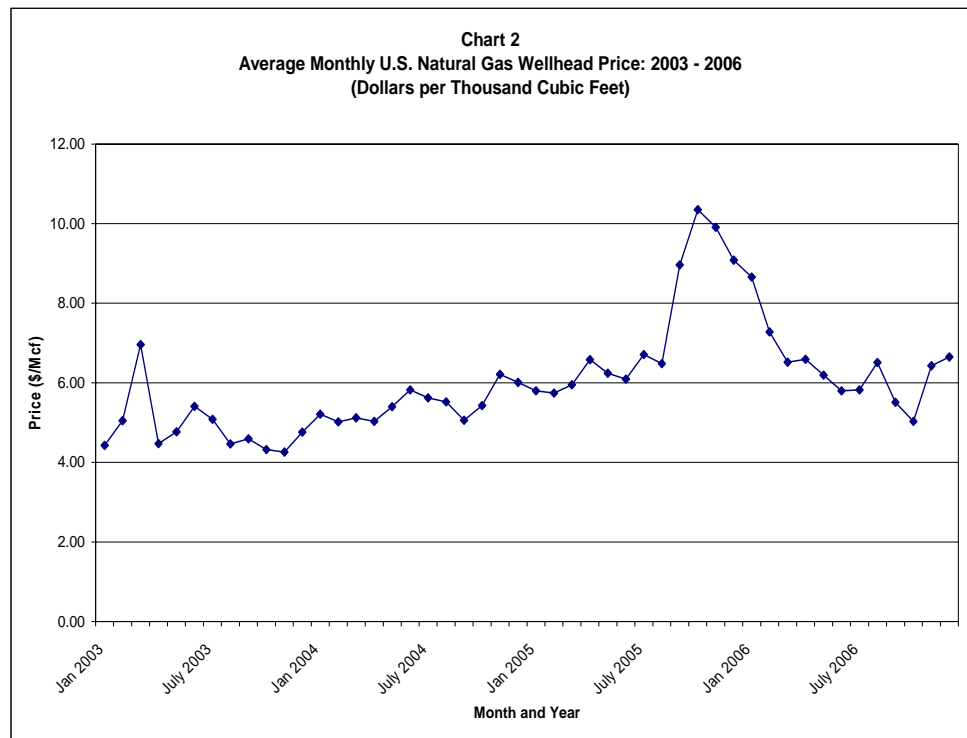
Natural gas prices are a very important component in the valuation of electric generation facilities in California. However, gas and electric distribution utilities are not materially affected because natural gas price

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increases are passed directly to the consumers, and not borne by the utilities. Natural gas prices have risen in recent years, and are currently relatively high by historical standards. From 2000 to 2003, natural gas prices at the wellhead averaged \$3.88 per thousand cubic feet (Mcf). In 2004, natural prices averaged \$5.46 per Mcf, 41 percent above the average for the previous four years. Then in 2005, natural gas prices increased an additional 34 percent over the 2004 average, to \$7.33 per Mcf. Natural gas prices eased in 2006, averaging \$6.42 per Mcf (see Chart 2). The U.S. Energy Information Administration (EIA) predicts that natural gas prices will average less than \$7.00 per Mcf over the next couple of years.² However, compared to historical norms natural gas prices are still relatively high. These relatively high prices will squeeze profit margins for many electricity generators who rely heavily on natural gas as fuel.



Electricity

Regulatory Background and Recent Developments. Traditionally, natural gas and electricity markets were heavily regulated as “natural monopolies” through most of the twentieth century. In the late 1990s, California began using a more market-based regulatory structure. Now the transmission and distribution systems remain regulated, while the generation system is market-based for generating facilities not owned by the utilities.

² “Short-Term Energy Outlook – February 2007,” U.S. Department of Energy, Energy Information Administration, 2007.

Much of the current mixed regulatory system resulted from the consequences of a severe energy crisis that developed in California in 2000 and 2001. This crisis resulted in Pacific Gas & Electric's (PG&E), a major California electric utility, becoming financially insolvent in early 2001 because the company was unable to pass on dramatic increases in wholesale electricity prices charged by generators. In April 2004, PG&E emerged from bankruptcy and once again appears to be healthy financially.

Short Run Electricity Outlook. While the California public utilities, which are regulated, are currently healthy, the outlook for the deregulated electric generating facilities is mixed. There appears to be a small short-run capacity surplus in California.³ More new generating facilities are under construction and are scheduled to come on-line in the next few years. As a result, many old generating facilities which are not as efficient as the new ones are expected to be retired. Before demand can catch up with the new supply, newly constructed generating facilities may experience lower the expected returns on their investment in the short-run.

Because of the new construction, the California electricity supply currently appears to be adequate, or even in surplus. The demand for California electricity peaks in the summer months, with increased usage of air conditioning equipment. While electricity supplies are likely to be adequate, they could become tight and prices could spike upward in certain locations if the summer is abnormally hot. However, with typical weather patterns, the outlook for electricity supply should be a positive one for electricity consumers.

Long Run Electricity Outlook. In 2006, an important piece of legislation was passed regulating the emission of greenhouse gases emitted by power plants. AB 32, the California Global Warming Solutions Act of 2006, will "...require the state [Air Resources] board to adopt regulations to require the reporting and verification of statewide greenhouse gas emissions and to monitor and enforce compliance with this program as specified. The bill would require the state board to adopt a statewide greenhouse gas emissions limit equivalent to the statewide greenhouse gas emissions levels in 1990, to be achieved by 2020, as specified." The bill also authorizes the Air Resources Board to adopt market-based compliance mechanisms to achieve the greenhouse gases limits. AB 32 also states that it does not affect "...the obligation of an electrical corporation to provide customers with safe and reliable electric service."⁴

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³ "What's That Power Plant Really Worth?," Devrim Albuz and Gary L. Hunt, *Public Utilities Fortnightly*, January 2007.

⁴ Assembly Bill 32 (Nunez), Statutes of 2005-06.

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How AB 32 will affect electricity generators is not yet clear. If market-based compliance solutions are adopted, the ownership, quantities and market values of emissions trading rights would need to be determined and evaluated. In addition, the costs of various technological solutions to reduce power plant emissions would need to be analyzed, along with the values of electricity usage conservation by customers. AB 32 likely would result in the state attaining its goals of generating more electricity from renewable resources.⁵ However, specific incentives to generate more electricity from renewable resources still need to be formulated and implemented.

Telecommunications Industries

Recap of 2006 Assessments. Telephone and telegraph companies accounted for 33 percent of all Board-assessed values in fiscal year 2006-07. Local exchange companies had the highest valuation, followed by wireless and interexchange companies. Local exchange carriers accounted for 47 percent Board-assessed values in the telephone and telegraph industries in fiscal year 2006-07. Wireless companies accounted for 35 percent of Board telecommunications assessments and interexchange companies 18 percent.

Recent Developments. In 2006, an important piece of legislation was passed that changes the regulatory framework for cable television service providers. Among other measures, AB 2987 (the Digital Infrastructure and Video Competition Act of 2006) established a procedure for the issuance of state franchises for the provision of video service.⁶ As a result of the bill, both cable service providers and telephone companies could obtain statewide video franchises through a streamlined process that does not require separate franchises in each individual city or county in which they operate. Such “one-stop shopping” is intended to promote competition for broadband and video service.

Competition in Telecommunications. AB 2987 is hastening convergence among telephone and cable service providers that has been made possible by recent technological advances. Convergence is occurring on many different levels, both for business and household end users. Intensifying competition and convergence among telephone, cable, Internet, wireless and satellite service providers has caused these various services to become more similar to one another. Competition and interrelationships among these services are providing more choices for consumers and businesses. Bundled services of wireless and wireline phone service, high speed Internet service, and cable television service all provided by a single

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⁵ 2006 Integrated Energy Policy Report Update, California Energy Commission, January 2007,

⁶ Assembly Bill 2987 (Nunez), Statutes of 2005-06.

company are seen by many telecommunications industry analysts as a way to increase profits. However, to provide these services efficiently requires huge investments and the ability to spread fixed costs over large numbers of customers.

A 2005 article in *Business Economics*, the journal of the National Association for Business Economists, concludes that there is significant competition in the telecommunications industry:

The research presented here provides some evidence in the deregulation debate. The finding that intermodal competition is significant in the communications market and that local competition is enhanced by it suggests regulatory policies ought to account for these effects – perhaps without regard to CLEC [*competitive local exchange carrier*] line share.⁷

Wireless Services Growing, Wired Services Declining. Not only are local exchange carriers facing competition from cable, they continue to face increased competition from wireless providers. The wireless industry has grown rapidly over the past decade, mostly at the expense of wired phone services. In 1997, wired services accounted for 86 percent of total U.S. telecommunications revenues and wireless services accounted for 14 percent of that total.⁸ By 2005, the wired market share had dropped to 63 percent of total U.S. telecommunications revenues and the wireless share had risen to 37 percent. After peaking at \$301.8 billion in 2001, total telecommunications revenues stood at \$292.7 billion in 2005, a decline of about 3 percent over a four-year period.

More Wireless Subscriptions, Fewer Wired Access Lines. The number of wired access lines has decreased in recent years. The number of U.S. wireline telephone lines peaked at 192.4 million in 2000 then declined by about 9 percent to 175.2 million lines by 2005. In June 2006 there were 219.4 million U.S. wireless subscribers, 13 percent more than wireline connections in June 2005.⁹

Many consumers are using wireless phones in lieu of having wired telephone line. Younger households, in particular are making this substitution. According to a May 2006 FCC report, 13.9 percent of U.S. households headed by a person under the age of 25 had no wireline phone, compared to an average of 7.1 percent for all households. Most

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⁷ “Competition in Local Telecommunications,” Christopher Swann and David G. Loomis, *Business Economics*, National Association for Business Economists, April 2005.

⁸ *Trends in Telephone Service*, Federal Communications Commission, February 2007.

⁹ *Trends in Telephone Service*, Federal Communications Commission, February 2007.

regional Bell operating companies (RBOCs) have seen their numbers of access lines decrease about 5 percent in 2006.¹⁰

DSL broadband prices have dropped from \$38.00 to \$32.00 per month over the last couple of years.

Broadband Adoption Widespread. U.S. broadband subscriptions for homes and businesses increased 52 percent in 2006, to 64.6 million lines. Close to half of the 2006 broadband growth was on mobile wireless platforms. Broadband adoption was widespread among many socio-demographic groups. Furthermore, average U.S. household digital subscriber line (DSL) broadband prices have dropped from \$38.00 to \$32.00 per month over the last couple of years. Cable modem users reported unchanged average prices of \$41.00 per month over the same period.¹¹ In 2005 about 64 percent of U.S. households had either broadband or narrow band Internet access.¹²

VOIP allows a seamless integration of wireline, wireless and Internet services

VOIP Technology Gaining Rapid Adoption. In recent years the Internet has become the key component of the telecommunications industry. A relatively new technology, Voice Over Internet Protocol (VOIP), converts a voice telephone call into “packets,” sends them over the Internet, and reconstructs the packets at the destination of the call. Compared to conventional telephone transmission technology, VOIP is relatively inexpensive. Many telecommunications companies, including wireless companies, are already using the technology. It is also possible for consumers to use VOIP directly and bypass the need for local telephone service.

Cost is only one of the many factors favoring VOIP. Growth of mobile phones, the Internet, and the rapid integration of wireless and wireline service (the so-called Fixed Mobile Convergence) are additional reasons for its growth. VOIP allows a seamless integration of wireline, wireless and Internet services.¹³ The telecommunications industry would like to provide traditional and VOIP phone service, broadband service and video service to consumers in direct competition with cable providers of these services. The California Public Utilities Commission staff projects that by 2008 VOIP may account for 25 to 40 percent of total intrastate telecommunications revenues in California.¹⁴

Benefits to Consumers. Adoption of many of the technological changes discussed above and increased competition in telecommunications have

¹⁰ *Industry Trends*, “Telecommunications: Wireline” Standard and Poors, January 2007.

¹¹ Written Statement of Kevin J. Martin, Chairman, Federal Communications Commission, before the Committee on Commerce, Science and Transportation, U.S. Senate, February 1, 2007 and *High-Speed Services for Internet Access: Status as of June 30, 2006*, Federal Communications Commission, January 2007.

¹² “U.S. Households’ Internet growth will be flat in 2006,” *Internet Retailer*, March 7, 2006.

¹³ “VOIP is the New POTS,” *VON Magazine*, January 15, 2006.

¹⁴ “PUC to Determine Extent of Regulation on VOIP Carriers,” California Public Utilities Commission press release, February 11, 2004.

benefited consumers. Prices have declined for both wireline and wireless phone service over the past several years. According to the FCC, “In 2005, the price for long distance service was two-thirds of what it was in 2000, wireless phone service was half of its 2000 level, and the price for placing an international call was a quarter of what it was in 2000.”¹⁵ Other data show that the consumer benefits for wireless subscribers continued into 2006. The most recent U.S. data available show that the numbers of wireless subscribers and minutes of usage rose while the average price per minute declined. In 2006, wireless subscriptions increased 13 percent, the average minutes of usage rose 16 percent, and the average price decreased 14 percent.¹⁶

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IV. Railroad Transportation

Recap of 2006 Assessments. Railroad companies accounted for about 2 percent of all Board-assessed values in fiscal year 2005-06.

Rail Industry. After a series of mergers that took place over many years, the number of U.S. Class I railroad companies has declined to just seven.¹⁷ Four of these companies haul 95 percent of all U.S. freight traffic. Despite this market concentration, many analysts believe that the mergers have been successful in lowering costs, achieving economies of scale, and improving efficiency.¹⁸

In late 2006 Value Line estimated that railroad industry revenues rose 9.7 percent in 2006

Rail to Follow Economy. Revenue and profit growth in the rail industry tend to be highly correlated with the overall economy. Therefore, revenues should continue to grow along with the economy at least through this year and the next. In late 2006 *Value Line* estimated that railroad industry revenues rose 9.7 percent in 2006, and their staff predicted a 6 percent increase for 2007.¹⁹

¹⁵ Written Statement of Kevin J. Martin, Chairman, Federal Communications Commission, before the Committee on Commerce, Science and Transportation, U.S. Senate, February 1, 2007.

¹⁶ “U.S. Telecommunications Regulation and Market Developments,” a presentation by Chairman Kevin J. Martin, Federal Communications Commission, February 2007.

¹⁷ The source of the following discussion is “Railroads; Asleep at the Switch,” *Businessweek*, April 2, 2001. Class I rail companies are defined as those with revenues over \$250 million and which generally operate across state lines. The number of Class I railroad companies was updated to reflect 2003 data using the *2007 Statistical Abstract of the U.S.*, U.S. Census Bureau, January 2006.

¹⁸ A study of operating efficiencies of the 1996 merger of the Union Pacific Railway Company and the Southern Pacific Transportation Company is found in “The Union Pacific/Southern Pacific Rail Merger: A Retrospective on the Merger Benefits,” Dennis A. Breen, Federal Trade Commission, March 11, 2004. The study also includes discussion of the results of other studies made.

¹⁹ “Railroad Industry,” Value Line Publishing, Inc., December 8, 2006.