We Must Address Unfunded Retiree Health Costs, Infrastructure to Stay Competitive In the Global Economy

Good Government Management is Key to Improved Bond Ratings and Lower Borrowing Costs

By Treasurer John Chiang

We began a discussion in Intersections months ago about the three factors that rating agencies evaluate when determining ratings, what we can do to help further boost California's ratings and how that can ultimately save taxpayer money.

In July, we first focused on how rating agencies evaluate California's economy -- which if it were a separate nation would rank among the top 10 economies in the world.

In August, we pointed out how the State's important recent financial improvements – such as building its rainy day fund, adopting timely budgets and improved liquidity -- have all helped boost our ratings four times since the summer of 2014.

Now it is time to focus on how we can improve the management of California's fiscal affairs, therefore paving the way for even better ratings in the future. I have several ideas about how to do this, which I will outline in a major report at the end of this year. But for now, I would like to preview a couple of proposals for better managing our long-term liabilities. Unfunded retiree health care costs and aging infrastructure are two off-budget areas that often fly silently under the radar. But if left unaddressed, both will continue to pose a large risk to the Golden State's fiscal health and ability to compete in a global economy.

I believe that focusing on management practices is the very best opportunity we have to improve our ratings, lower our borrowing costs and preserve our valuable borrowing capacity. Standard and Poor's Ratings Services noted in 2012 that "a government entity's management and administrative characteristics, along with other structural issues it faces, can move a rating up or down more significantly and swiftly than any other element of a credit review." Highly-rated public finance issuers show common traits, S&P added, including, "(p)roactive budget and liability planning, strong liquidity management, and the establishment of reserves."1 We've made good progress in all of these areas, but we clearly still have work to do.

First, let's talk about unfunded retiree health care costs, known in state finance circles as other postemployment benefits, or OPEBs.

Last December, when I was still your State Controller, I released a report showing the unfunded liability of providing health and dental benefits for State retirees was $71.8 billion to be paid over the lifetime of current and future retirees. This liability ballooned 50.2 percent from 2007.

The problem centers on the way the State pays for this liability. While State pensions are pre-funded, allowing investment returns to significantly reduce liabilities, California pays for retiree health benefits on a pay-as-you-go basis, only covering the amount needed to fund the costs as they are due each year.

I proposed, and still strongly support, a plan to pre-pay OPEBs. This would allow investment returns on pre-paid monies to cover a good portion of the cost of OPEB payouts, thus significantly reducing the burden on workers and the taxpayers they serve.

Fortunately, we have made important progress in this area in recent weeks. The Governor has reached an important tentative agreement with the Professional Engineers in California Government on how to begin the process of pre-paying these costs through employee contributions. Union members and the Legislature must still ratify the agreement. This is a good start, but it is only a start. I would like to see that practice become more widespread via future collective bargaining between employee unions and the Administration.

Second, let's talk about infrastructure – particularly roads, bridges, canals and schools. This area poses an even bigger liability, and like OPEBs, we need a long-term strategy.

A California Forward report -- drawing upon recent data from the California Transportation Commission, Public Policy Institute of California and elsewhere -- estimates that California needs more than $850 billion worth of infrastructure improvements in the future. A report card issued by the American Society of Civil Engineers in 2012 says that, among such needs, 34 percent of California's roads are in poor condition and more than 2,700 bridges are structurally deficient.

I commend the Legislature for taking up the infrastructure issue during the current special session on transportation. Several thoughtful plans on how to pay for deferred maintenance have been proposed. And I commend Gov. Jerry Brown's 2015 Five-Year Infrastructure Plan, which calls for investing $57 billion in state infrastructure over the next five years.

But to get to the bottom of the problem, we really need a more thorough assessment of how big our infrastructure challenges are. I propose that policy-makers make a commitment to complete a more detailed inventory outlining the condition of all infrastructure, when it will wear out and what it would cost to replace it.

We know the problem is gigantic, but without an analysis that looks at the long term, it is difficult to pay for current needs and responsibly plan for future improvements and replacement. Preparing a funding plan without accurate problem definition is to risk using a precious resource -- our ability to borrow money cheaply -- on things that might be useful, but may not be necessarily important to attain one of our strategic goals: to remain the most highly desirable place to live, work, innovate and prosper.

Look at the challenge as a homeowner would. A homeowner has a limited budget, and if faced with the prospect of replacing an old water heater, that water heater may seem to be the immediate priority. But what if unbeknownst to the homeowner the house has termites that pose an even greater danger to the structure? Wouldn't it benefit the homeowner to have a broad view of all of the home's deficiencies – old water heater, termites and other challenges – before making spending decisions? A thorough view of all of the home's infrastructure shortfalls would allow the homeowner to set priorities and make reasonable, measured plans for repairs and ultimate replacement. Such a thoughtful approach helps the homeowner avoid surprises and make better plans for the future.

Do the 39 million residents of California deserve any less thought and deliberation when it comes to their own infrastructure?

Such a statewide assessment would not be just another study. It would serve as a guide to help us better manage our future, thoughtfully establish a priority list and avoid blind approval of more debt. With a clear understanding of what needs to be fixed, repaired, or upgraded, we can better use our debt capacity and realize important recognition from the people who lend us money that California's management is characterized by a culture that is "in control," not "in reaction," to its growing infrastructure needs.

Conclusions

Starting to prepay our retiree health care costs and completing a detailed infrastructure inventory would go a long way toward setting our priorities first, then developing the most cost-effective ways to fund and finance them.

There is an old parable of three blind men who were led to an elephant to better understand the beast. Each felt a different part of the animal and formed a different conclusion about what they had experienced. They could not fully understand the elephant because they had not examined it in its entirety. Rather than struggle to figure out what we can afford to do piecemeal, we should be dealing with our liability elephants.

If we want to reclaim the California dream of prosperity for all, we need to get a better handle on our long-term liabilities. We owe it to taxpayers to help them understand what retiree health care costs really mean and what it's going to take to fix the infrastructure they own.

Taking these steps should not be viewed as a cost, but rather as an investment in California's future. Such an investment will enable California to compete more effectively in a global economy, just as it has so successfully for the past 50 years.

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[1]"*The Top 10 Management Characteristics of Highly Rated U.S. Public Finance Issuers*," Standard & Poor's Ratings Services, July 23, 2012. (Note: this report is an updated version of an article published by S&P on July 26, 2010.)

Debt: Its Proper Level, Growth and Uses

By Lynn Reaser

The concept of debt can quickly stoke emotions since its misuse has led to personal and company grief, financial crisis and national decline. Yet, it also has been pivotal to allowing individuals, businesses and nations to invest in the future. Many students have invested in education to start successful careers, young families have been able to purchase their own homes, entrepreneurs have been able to launch entire new industries and governments have been enabled to provide infrastructure to support thriving economies. Debt can be abused and it can be wasteful, but it can also be valuable.

This article looks at the trends of different types of debt and then focuses on debt issued by the State of California. By showing the actual trends and numbers, its purpose is to better inform the public and decision makers so that appropriate choices can be made.

Debt Over Six Decades

The last 60 years have witnessed major shifts in demographics along with periods of economic boom, recession and a major financial crisis. The growth of debt held by all parts of the economy -- households, business, and government -- slowed substantially from an average annual rise of 8.6 percent between 1954 and 1984 to an average gain of 6.6 percent in the subsequent 30-year period between 1984 and 2014. All of that deceleration was due to a moderation of annual inflation, which was nearly cut in half from an average of 4.2 percent to 2.3 percent.

Abstracting from the slowing in inflation, the growth of debt in real terms averaged 4.2 percent per year in the first 30 years and an identical 4.2 percent in the second 30 years. This consistent pace in the total masked substantial shifts among the various constituents. (See Figure 1.) Notably, real debt growth moderated in three sectors: business, households and state and local government. In contrast, it accelerated for the federal government. This faster growth rate reflects the rise of entitlement programs at the federal level (especially Social Security and Medicare) and the lack of a major budget constraint at the national level. The federal government is not required to formally balance its budget as are most state and local government entities, and does not face the constraints in capital markets that households, businesses and state and local municipalities encounter.

California’s State Debt

California’s debt stood at $87.0 billion as of July 1, 2015.[2] This amount encompasses long-term bonds backed by the State’s general fund and includes two major types of debt securities: general obligation (GO) bonds are those approved by voters, and stood at $76.0 billion; lease revenue bonds (LRBs), which the Legislature authorizes, stood at $11.0 billion.

GO bonds are used to finance the construction of schools, hospitals, housing, highways, mass transit, parks, water facilities and other projects. Backed by the full faith and credit of the State, principal and interest payments are paid out of the State’s general fund. LRBs are also used for various public improvements, such as State office buildings, public universities, prisons and food and agricultural facilities. The State Public Works Board (SPWB) issues the bonds, constructs the facility, and then collects lease payments from the government agency using the facility. These payments are then used to make interest and principal payments on the bonds.

To view California’s debt in perspective, it is useful to look at it after adjusting for both population and inflation. In today’s (2015) dollars, real debt per capita stood at $352 in 1975 versus today’s level of $2,240. (See Figure 2.) This rise has reflected the State’s growth in school-age children and low-income households, together with the public’s commitment to providing education, health care and social services to Californians.

Personal income is an important benchmark since personal income taxes represent about two-thirds of the State’s general fund revenues. Although the ratio of debt to personal income had been trending higher for many years, during the past five years it has moved lower. (See Figure 3.) Between 2010 and 2015, this ratio has fallen from a peak of 5.0 percent to a current estimated 4.25 percent.

Comparison to Other States

Comparing debt levels between various states can be difficult and often misleading because of differences in demographics and uses of public finance. For example, some states may fund infrastructure or education using bonds issued by local governments versus state entities.

Moody's Investors Service calculates per capita debt by state each year, based on its own definition of net-tax-supported debt. It includes bonds that Moody's characterizes as supported by statewide taxes and other general resources net of obligations that are self-supporting from pledged sources other than taxes or operating resources. Relative to others in the group of the nation's most populous states, California stands roughly in the middle. (See Figure 4.) Its per-capita debt burden is below that of both New York and Illinois. In contrast, its number is substantially higher than that of Florida or Texas, which some might argue are underinvesting in their futures.

Conclusions

How much debt is too much and what is the right level? That answer is neither simple nor straightforward. Two factors are important.

First, creditors must be willing to finance the State's debt level. That is true for California at the present time, with the State benefiting from low interest rates and a solid credit rating (including a recent credit upgrade from Standard & Poor's). However, this may not always be the case or creditors may require much higher interest rates to support the state's financing demands

Second, funds raised from bond issues need to be put to work in productive ways. A careful assessment of the current condition of the State's assets is necessary along with a ranking of priorities. As the Treasurer argues in the first article of this month's *Intersections* report, it is vital that we take an inventory of California's various assets, including its roads, bridges, and water systems, and determine where the largest gaps may exist both in terms of quantity and quality. Alternative means of finance, such as public-private partnerships, should be analyzed as a part of a possible portfolio of solutions.

All debt should not be viewed negatively, but it should be used prudently and wisely. This is true for individuals, companies, and governments.

Lynn Reaser is chief of the Treasurer's Council of Economic Advisors and chief economist at the Fermanian Business and Economic Institute for Point Loma Nazarene University. The opinions in this article are presented in the spirit of spurring discussion and reflect those of the author and not necessarily the Treasurer, his office or the State of California.

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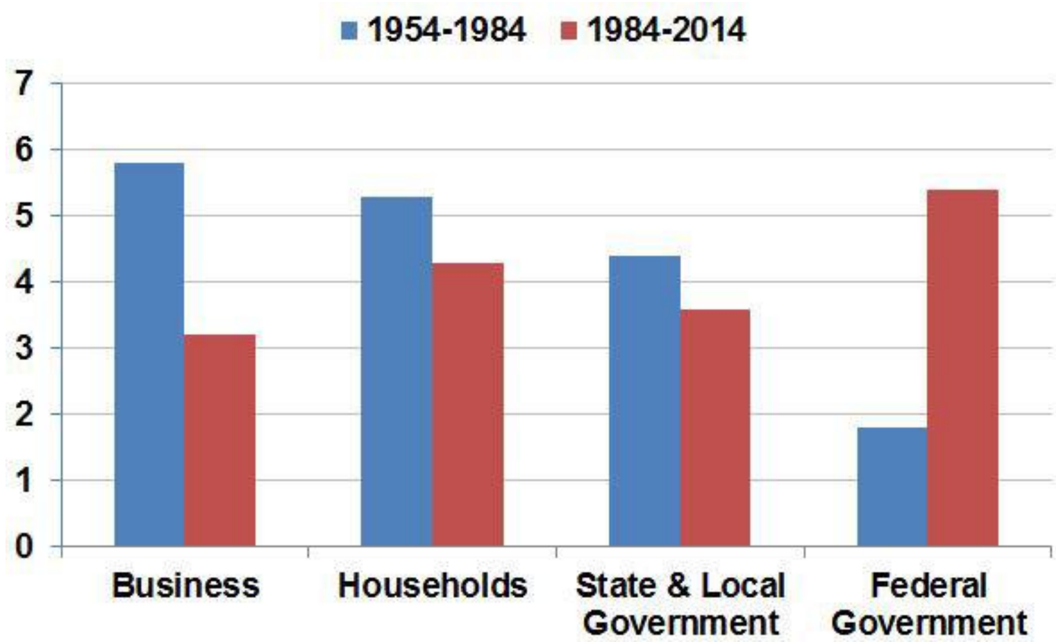
[2]Debt data used here and in Figures 2 and 3 includes only non-self-liquidating general obligation bonds and lease revenue bonds. These are gross figures and do not account for any offsets to debt service. Also not included are other net tax supported debt that some rating agencies include in their calculations, such as general obligation commercial paper, State Grant Anticipation Revenue Vehicle (GARVEE) bonds and tobacco bonds with a General Fund backstop.

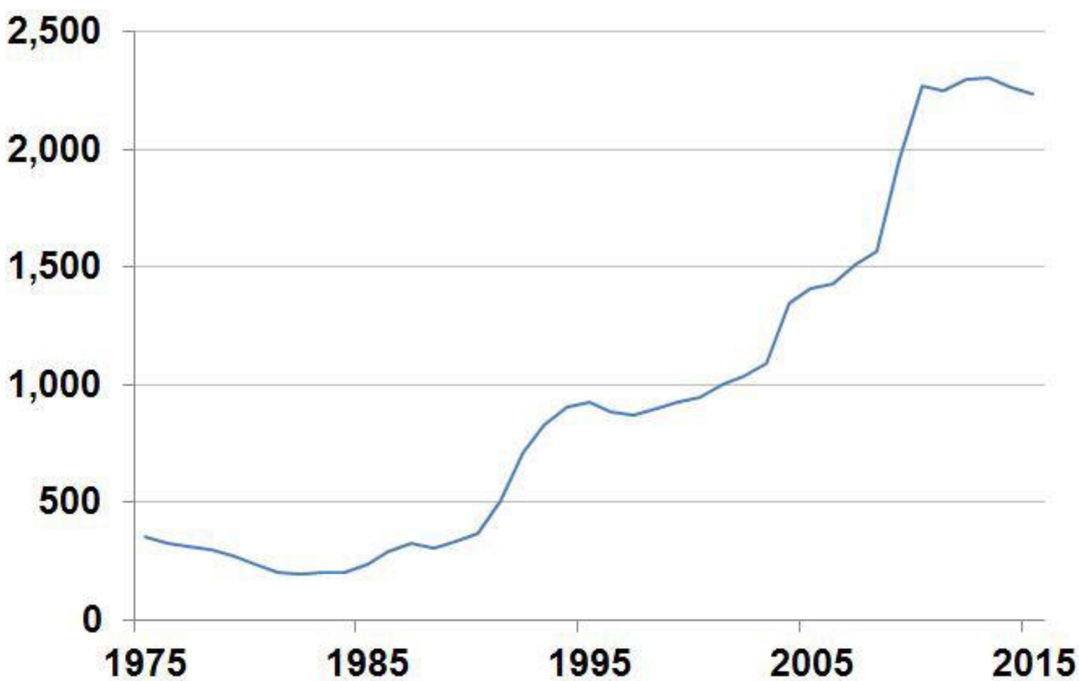
Figure 1: Debt Growth Moderates Outside of Federal Sector

(Average Annual Percent Change)



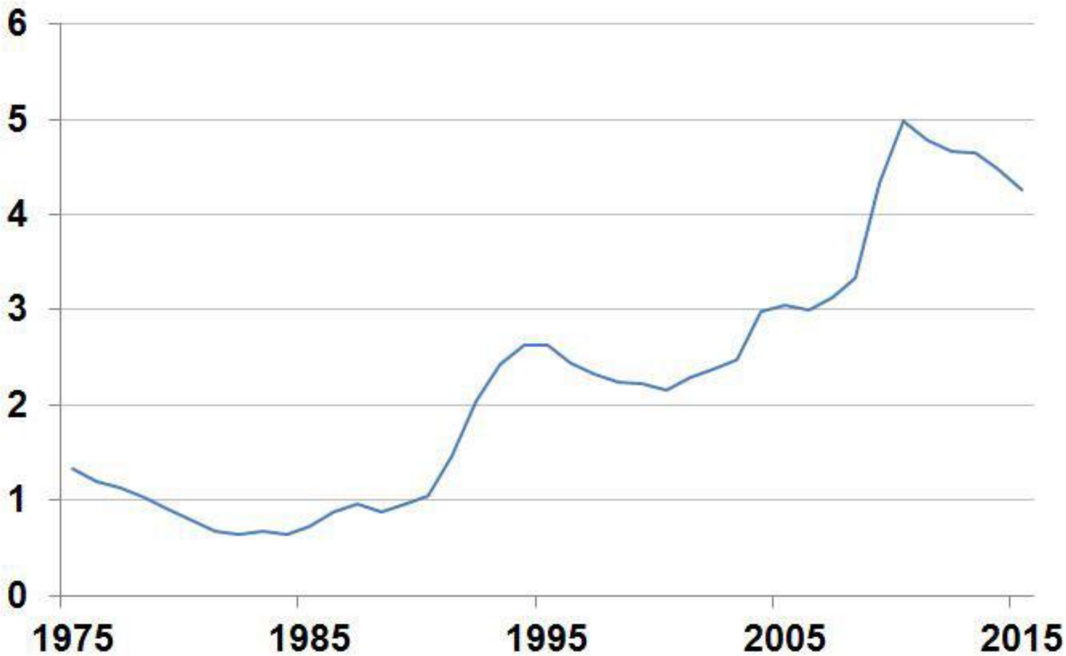
Sources: U.S. Federal Reserve Board, Fermanian Business & Economic Institute

Figure 2: California Real Debt Per Capita Levels Out (2015 Dollars)



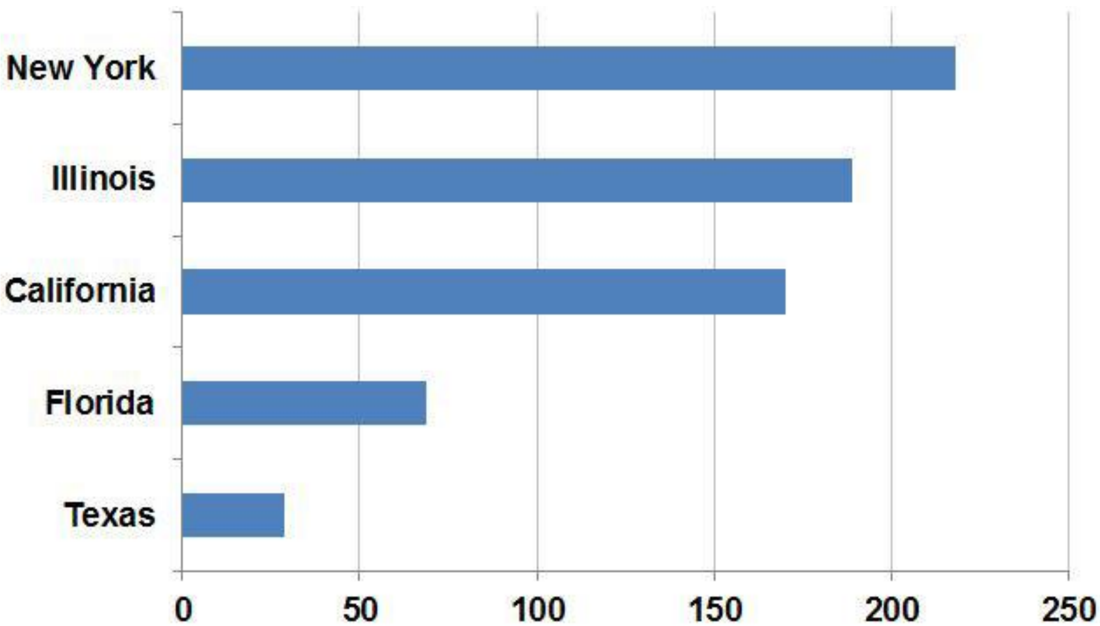
Sources: California State Treasurer's Office; U.S. Bureau of Economic Analysis; California Dept. of Finance Demographic Research Unit; Fermanian Business & Economic Institute

Figure 3: California Debt/Income Ratio Declines (Percent)



Sources: California State Treasurer's Office, California Dept. of Finance and Fermanian Business & Economic Institute.

Figure 4: California Straddles Most Populous States in Per Capita Debt* (U.S. Average=100)



* All state-supported debt

Sources: Moody's Investors Service; Fermanian Business & Economic Institute

Summary of Ratings and Borrowing Costs

Where Does California Fit In?

Event after recent improvements, California's bond ratings still remain lower than all but two rated states: Illinois and New Jersey. (See a detailed comparison.)

However, for California, holding the higher rating levels over time is what matters most. Lower ratings provoke investors to demand higher yields, which translates into higher borrowing costs.

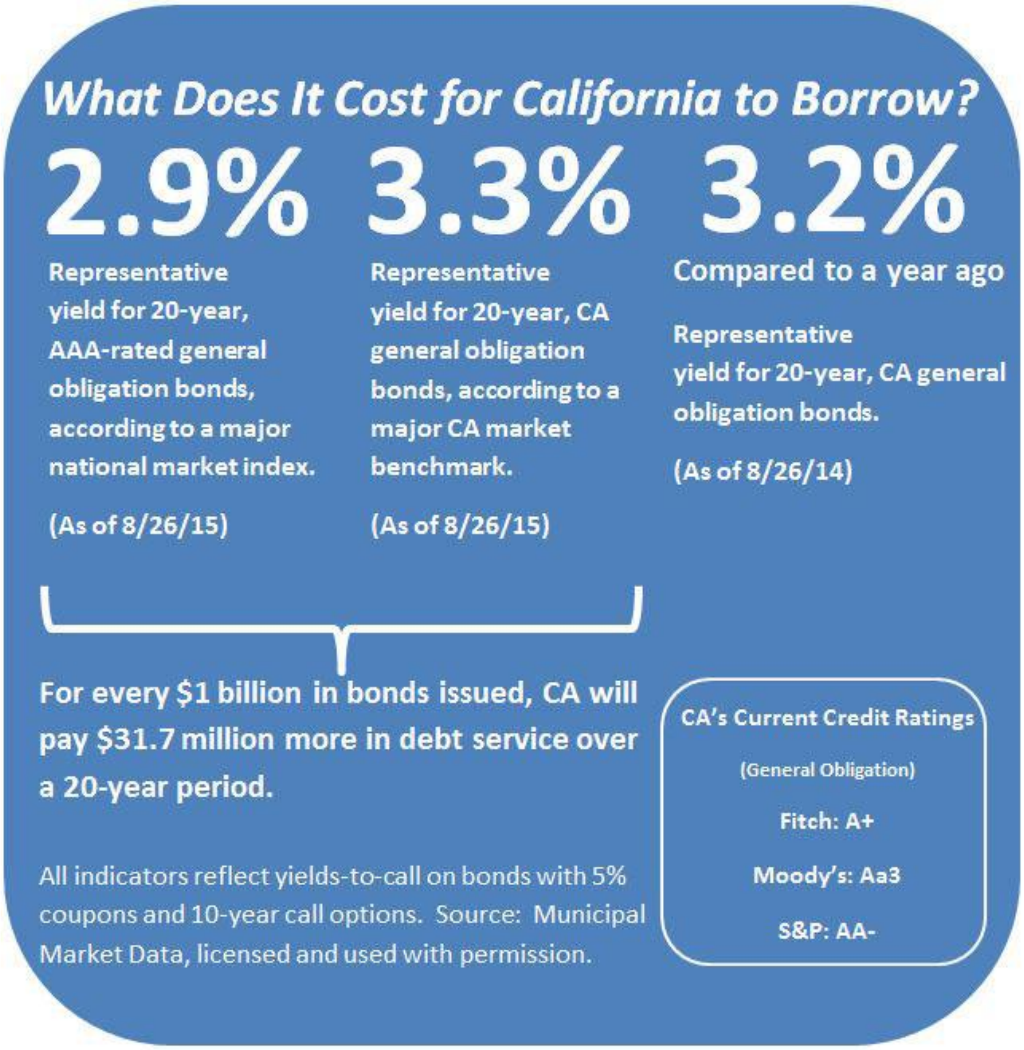
The State's recent 20-year yield sat at 3.26 percent, higher than the 2.88 percent yield on a national benchmark of AAA-rated bonds, a difference of 0.38 percent. (See Figure 5.)

Compared to the prior month, the nominal yield on the California benchmark rose by 0.07 percent, while the nominal yield on the national benchmark dipped by 0.06 percent.

The difference between the two benchmarks one year earlier was slightly narrower: California's yield was 3.17 percent, while that same national benchmark was at 2.86 percent, a difference of 0.31 percent.

How should the diverging benchmarks be explained? California engages in two basic borrowing cycles each year, the first in late winter and the second in later summer and early fall. This pattern is dictated by the budget cycle, which requires that the Governor propose a budget each January and update it in early summer for the Legislature's deliberation and adoption. During the period of time when policy-level decisions may change the dynamics of the budget, the State refrains from entering the market in order to assure investors that the financial information being provided is as current as possible. As a result, when the State does enter the market, there are occasions when California dominates the market to a degree that the benchmarks diverge because of the simple law of supply and demand. When there are abundant California bonds available, the benchmarks tend to temporarily widen.

Figure 5: Borrowing Costs

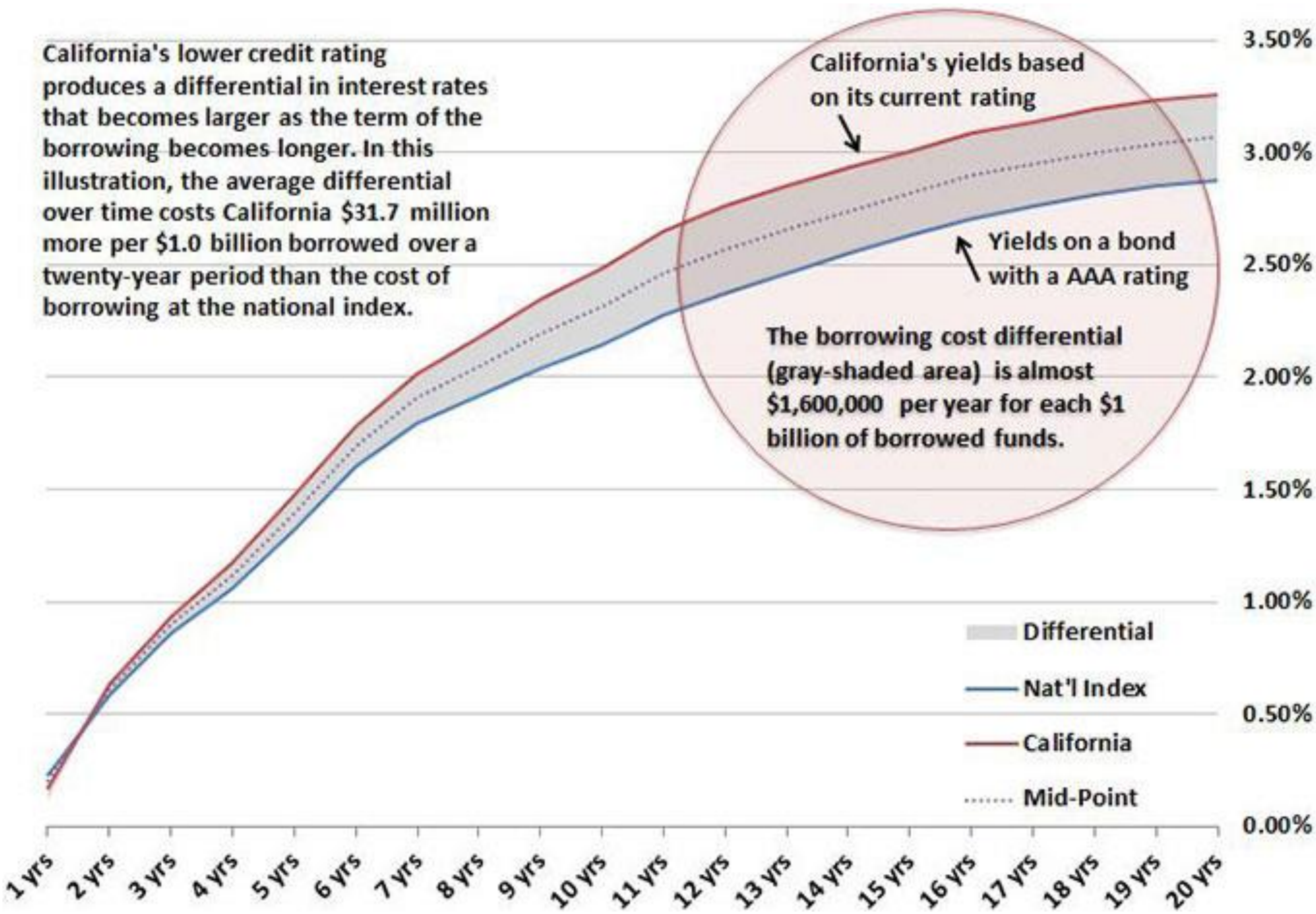


What does this mean for California taxpayers?

In general, for every $1.0 billion in bonds issued, the State will incur higher borrowing costs as a result of investors demanding investment yields. The result in such a scenario would be about $31.7 million in higher debt service over a 20-year period compared to the national benchmark of AAA-rated, tax-exempt bonds. (See Figure 6.). This compares to lower debt service of $20.5 million illustrated in last month's edition.

After dipping last month from $24 million to $20.5 million over a 20-year period for each $1.0 billion borrowed, this measure has expanded. This is probably a result of a supply-demand imbalance that results from the timing of the sale.

Figure 6: Comparing California's Borrowing Costs to a National Benchmark



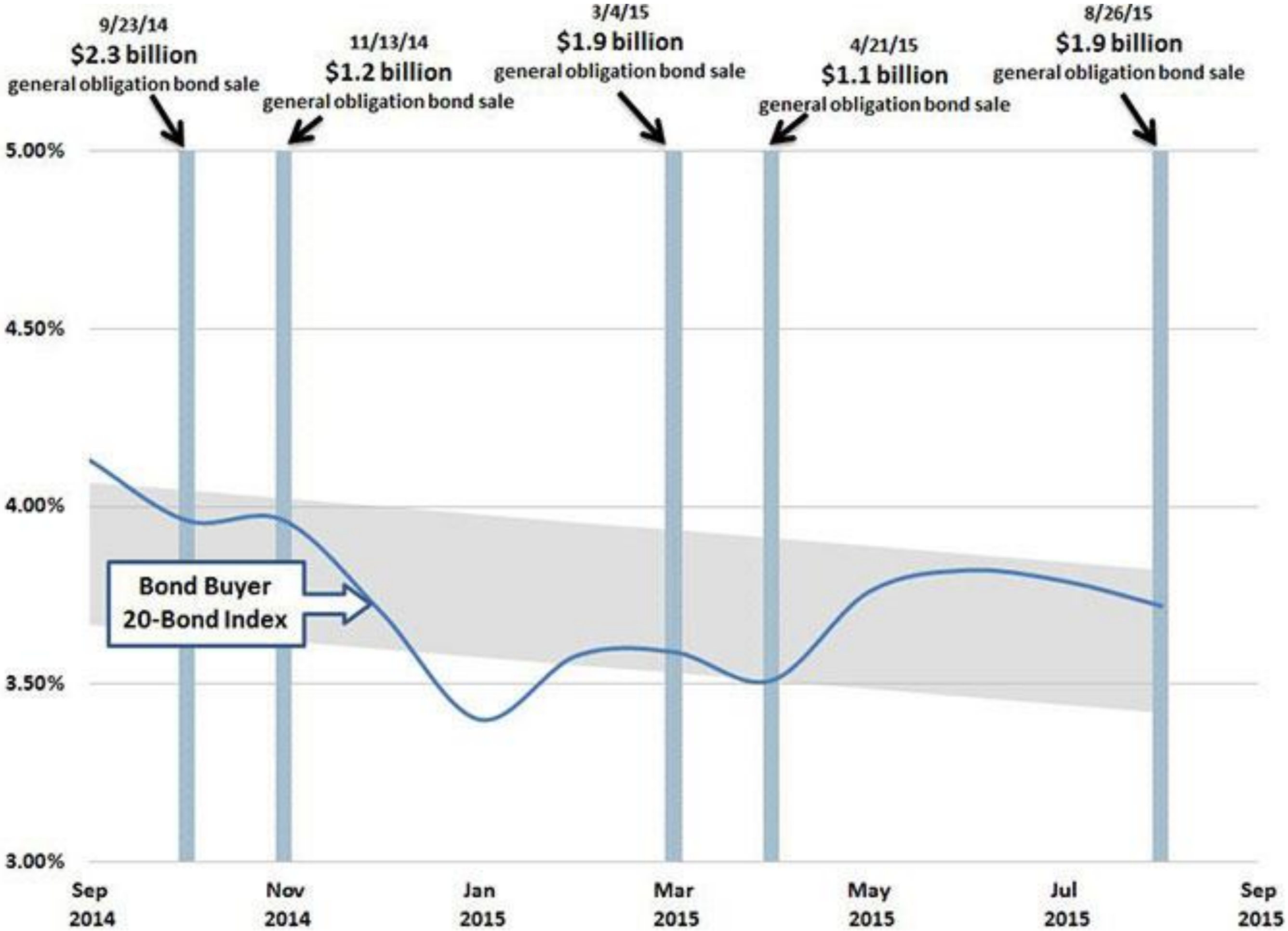
Source: Municipal Market Data as of 8/26/15

When it comes to understanding why investment yields and borrowing costs behave this way, it helps to look at long-term trends.

Figure 7, below, shows the one-year trend in another widely used index, the Bond Buyer 20-Bond Index, over the past year. California's most recent offerings are shown as vertical bars.

The grey band in Figure 7 represents the normal variance around a long-term trend, which can be thought of as the center of the grey band. The blue line represents the changes in the trend over time. In the spring, California enjoyed a market environment where the blue line showed a strong tendency to reside in the lower part of the grey band, which represented an opportunity to borrow money less expensively. But like all financial markets, circumstances change and by late summer, the trend line was residing in the top part of the variance boundaries. The result was marginally higher borrowing costs. This is a normal occurrence. It is not appropriate in public finance to engage in "market timing" because very few folks are able to predict short-term movements in interest rates with a high degree of precision. Accordingly, the objective is to stay within the grey band.

Figure 7: One-Year Trend of Interest Rates, Selected California Borrowings Shown as Vertical Bars

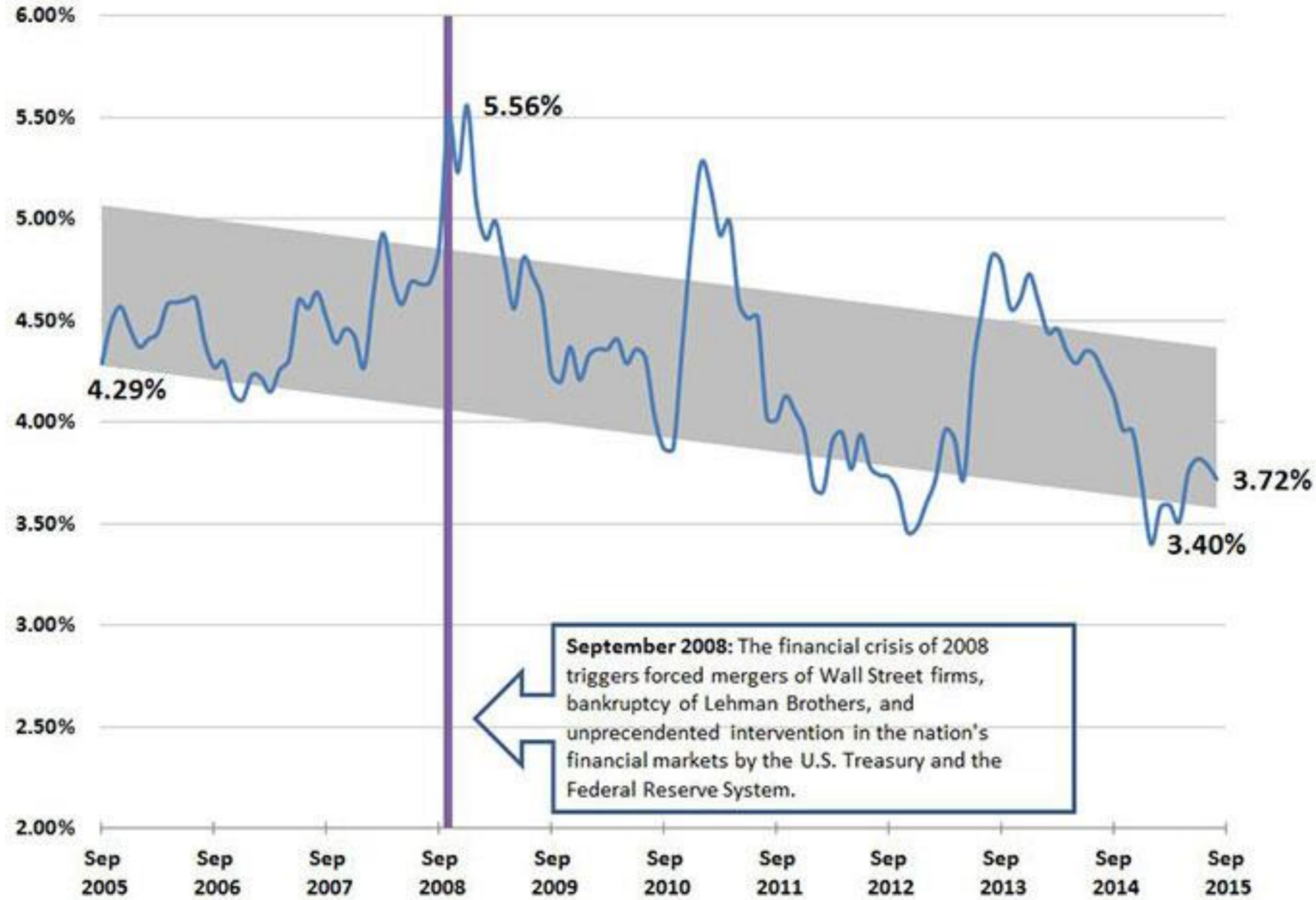


Interest rates on State and local government bonds are lower than they were a decade ago. Figure 8 also uses the Bond Buyer 20-Bond Index, but over a longer 10-year period.

Despite the fluctuation of rates over this longer period, it's important to remember that this index is still more than one-half percent lower than it was 10 years ago. Borrowing at today's rates is, by comparison, a bargain versus borrowing 10 years ago.

After breaking out below the long-term trend earlier this year, this widely followed index is now moving back toward the trend line. This means that much of the recent movement is a reversion to that trend line rather than an unexplained spike in rates.

Figure 8: 10-Year Trend of Interest Rates on State and Local Government Bonds



Debt Issuance, Investments and Treasury Activities

Debt Issuance

California State and local governments issued a total of $42.7 billion in debt during the first seven months of 2015, a 25 percent increase from the same period in 2014, when $34.2 billion in debt was issued, according to data received by the California Debt and Investment Advisory Commission (CDIAC) as of August 24.[3] (See Figure 9.)

Debt Issuance

$42.7 Billion

During January-July 2015; All State and local issuances reported as of August 24

The Federal Reserve has been signaling the markets for months that as employment and the U.S. economy improve, it will be willing to raise interest rates. The increase in debt issuance so far in 2015 is undoubtedly being driven, at least in part, by that awareness. Moreover, as the economy improves and people go back to work, governmental revenues tend to rise and make public-sector managers more confident to take on long-term repayment obligations.

A total of $3.8 billion in State and local debt issuance was reported for July 2015, a 58.7 percent decrease from July 2014 ($6.5 billion). (See Figure 10.)

Of the $3.8 billion issued, $ 2.3 billion was issued by local entities, while $1.5 billion was issued by the State and its agencies or related entities. (See Figure 11.)

More Than

$1.0 Billion

In Taxpayer Money Saved

From seven refinancings orchestrated by Treasurer Chiang during February-August

So far in 2015, the Treasurer has carried out seven different refinancings. In the August refinancing that was just completed, taxpayers will see more than $270 million in savings over time. The State will continue to refinance its long-term debts as long as interest rates remain favorable.

For the period from July 16 through August 15, a total of $ 5.8 billion in debt final sale reports were received by CDIAC. (See Figure 12.) These are the top five areas of volume within the reported final debt sales:

- College, University Facility: $1.6 billion
- K-12 School Facility: $1.3 billion
- Multiple Capital Improvements, Public Works: $769 million
- Redevelopment, Multiple Purposes: $483 million
- Cash Flow, Interim Financing: $437 million

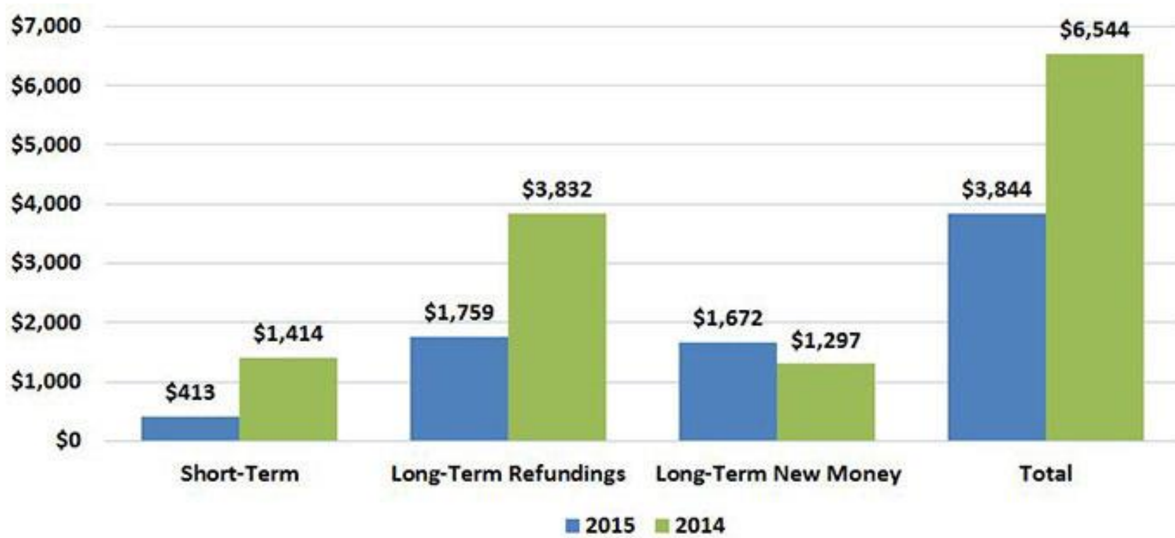
K-12 school facilities often dominate this data. However, in August the California State University System refinanced a large portion of its outstanding debt in order to reduce its interest costs. College and university facilities lead this ranking due to that transaction.

[3] Issuers have 21 days from sale of the debt to report issuances. Since some data is reported late, the Treasurer's Office regularly updates monthly totals as more information becomes available.

Figure 9: Cumulative California Public Debt Issuance (In Billions)

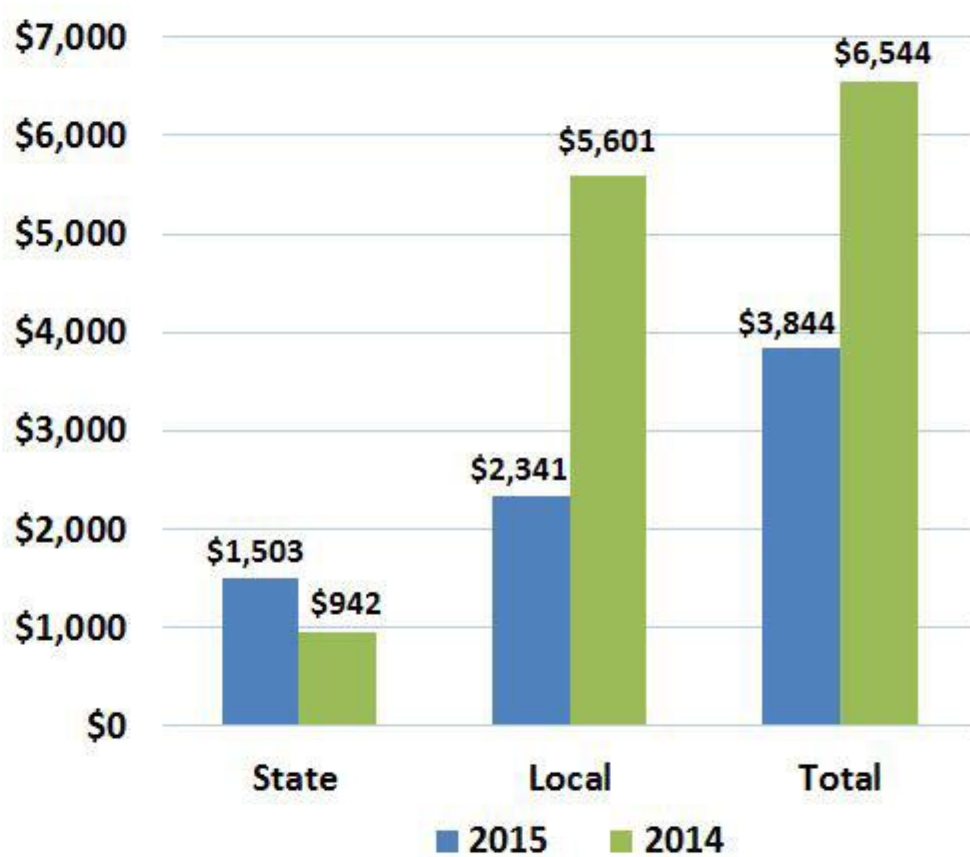
Source: California Debt and Investment Advisory Commission

Figure 10: California Public Debt Issuance, July (In Millions)



Source: California Debt and Investment Advisory Commission

Figure 11: State* Vs. Local Debt Issuance, July (In Millions)

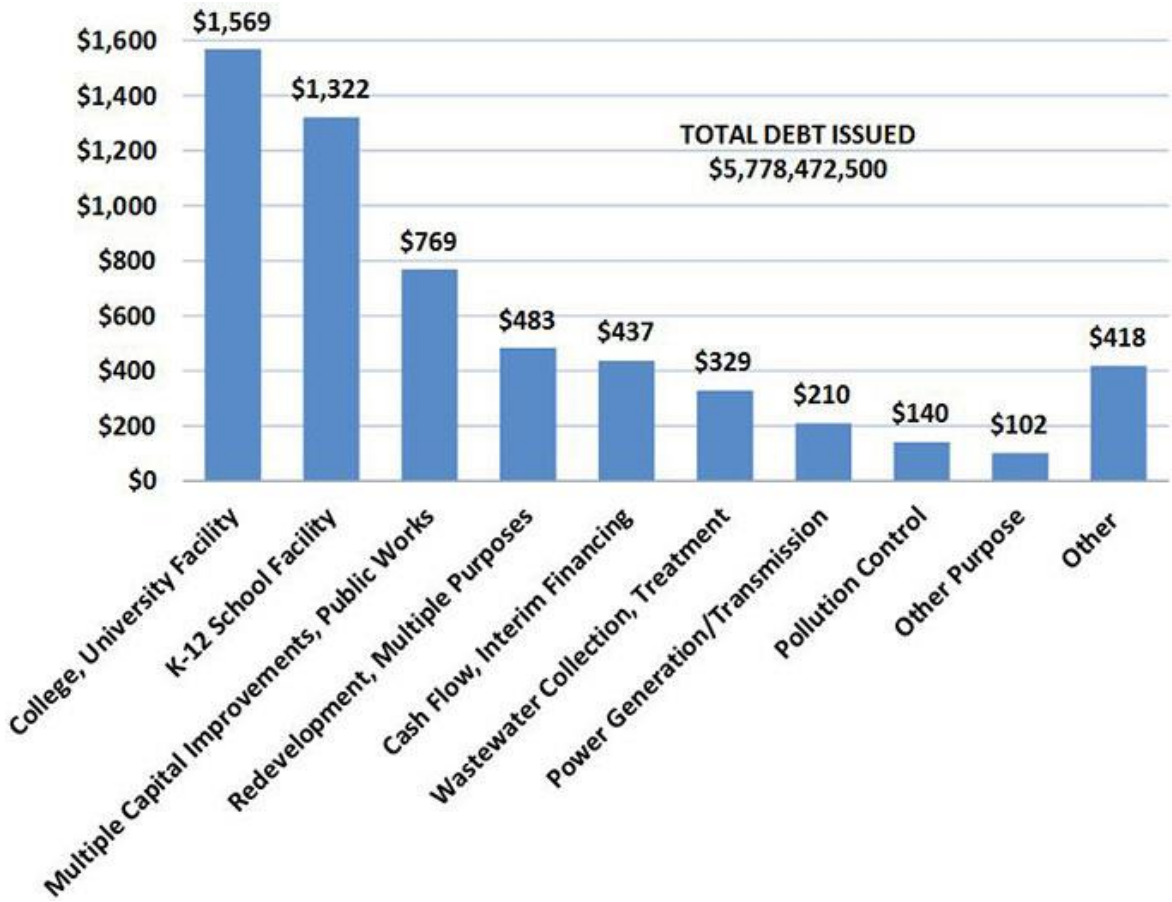


* State issuers include the State of California, its agencies, commissions, authorities, departments and The Student Loan Corporation.

Source: California Debt and Investment Advisory Commission

Figure 12: Total Reports of Final Sale Received

7/16/2015 Through 8/15/2015, By Purpose (In Millions)



Source: California Debt and Investment Advisory Commission

Read more about debt issued so far this year. See the calendar.

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Investments

The Treasurer's Investments Division manages the State's excess or idle cash.

The Treasurer invests taxpayer money through the Pooled Money Investment Account (PMIA). This is a commingled pool with three primary sources of funds: the State's general fund, special funds held by State agencies, and money deposited by cities, counties and special districts in the Local Agency Investment Fund (LAIF).

As of July 31, the PMIA balance was $65.3 billion, with an average effective yield of 0.320 percent and an average life of 240 days. (See Figure 13.) In addition, the year-to-date average PMIA balance was $67.1 billion.

The Treasurer's Office anticipates that the investment returns for the PMIA will continue to follow the market as shown in Figure 14.

Because these funds may be required on very short notice, the investment objectives for the Pooled Money Investment Account are safety, liquidity and yield, in that order of importance.

The year-to-date earnings rate for the PMIA is 0.320 percent, which reflects the prudent investing of a short-term portfolio in this unprecedented low interest rate environment of the last seven years. As the Federal Reserve begins to raise interest rates, the PMIA is positioned to follow those moves.

Figure 13: Pooled Money Investment Account Stats as of July 31, 2015

Ending Portfolio

$65.3 billion (See Figure 15 for details.)

Average Workday Investment Activity

$1.198 billion

Average Effective Yield

0.320 percent

Average Investment Life

240 days

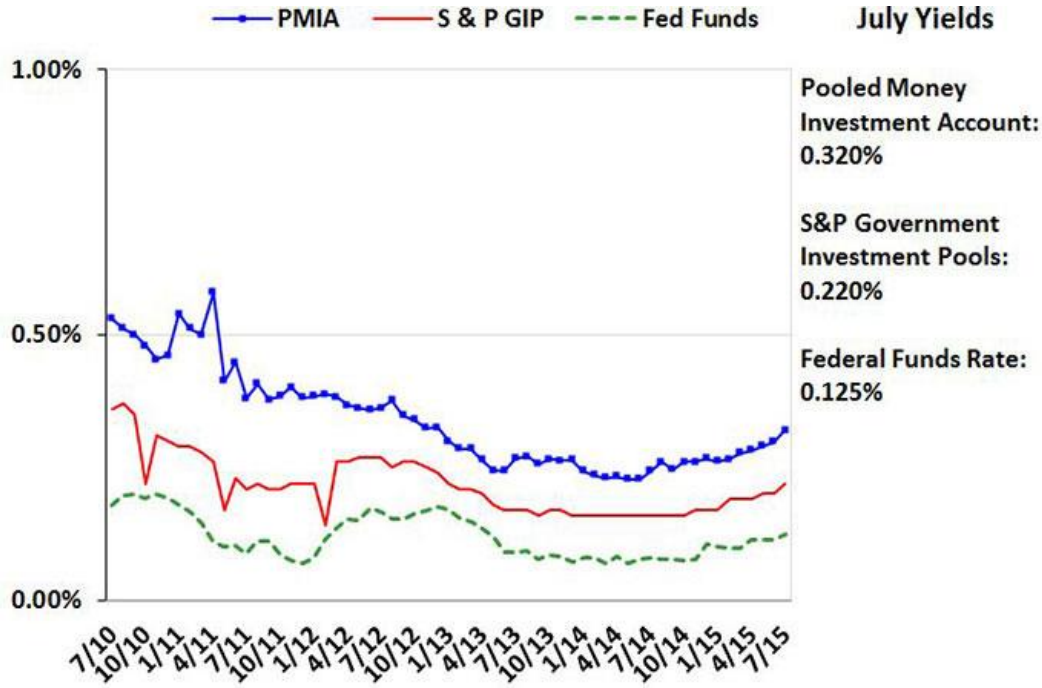
Local Agency Investment Fund Ending Portfolio

$20.3 billion (2,477 participating agencies) (See Figure 16 for details.)

Read more about the Pooled Money Investment Account

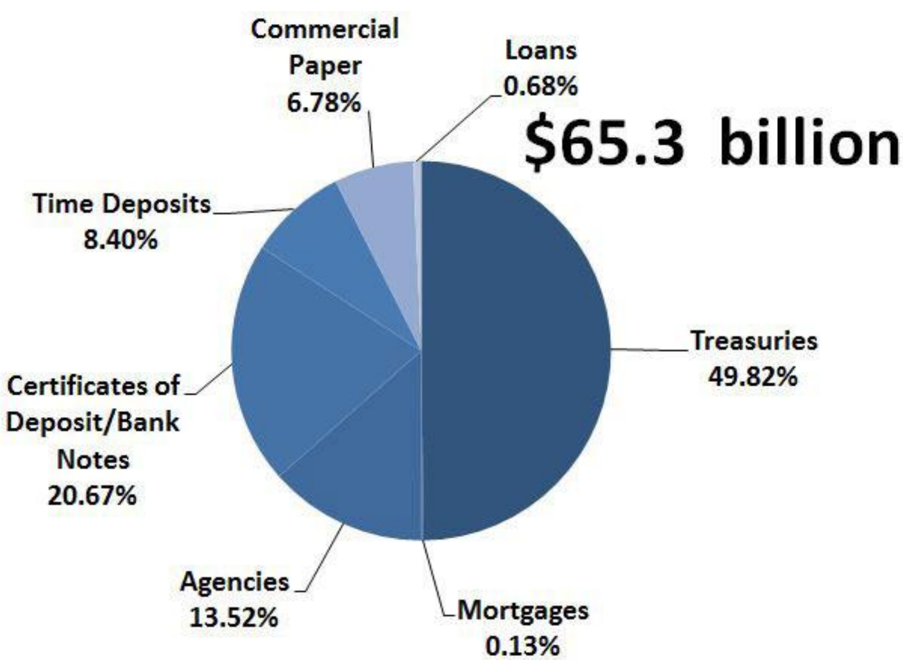
Figure 14: Average Monthly Yield Comparison

July 2010 Through July 2015



Source: State Treasurer's Office

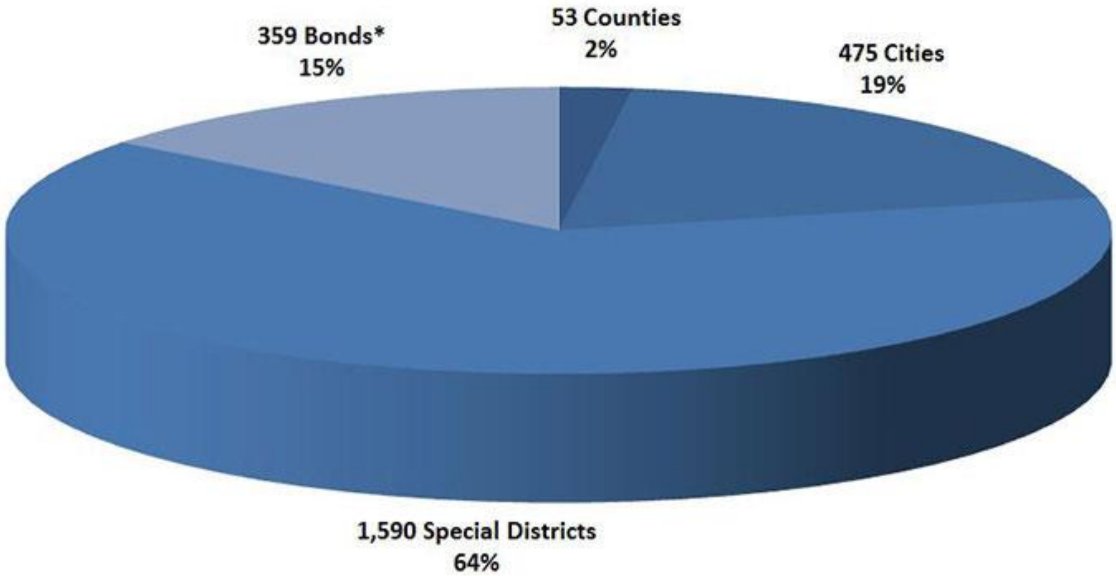
Figure 15: PMIA Portfolio Composition – 7/31/15



Source: State Treasurer's Office

Figure 16: Local Agency Investment Fund

Participation as of 7/31/15: 2,477 Agencies



Source: State Treasurer's Office

*Includes regular and trustee bond accounts.

Read more about the Local Agency Investment Fund.

Centralized State Treasury System Activities

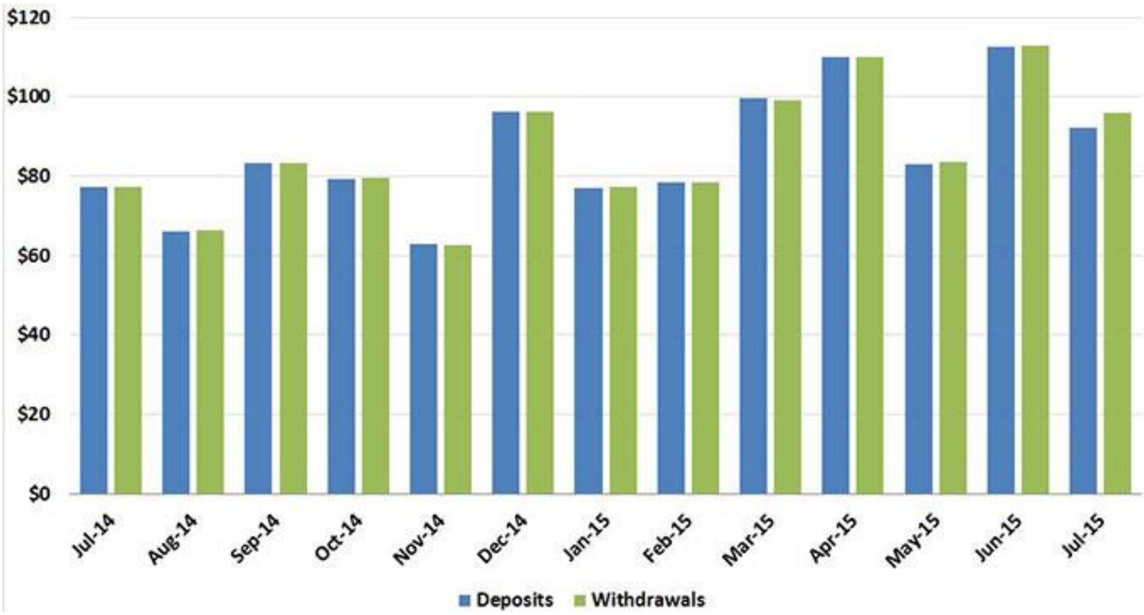
The Treasurer's Centralized State Treasury System provides banking services for the overwhelming majority of State departments and agencies.

The system handles the flow of more than $2 trillion per year in cash funds.

During July, deposits totaled $92.3 billion, while disbursements totaled $96.0 billion. (See Figure 17.)

These amounts include all federal, State and local funds flowing through the Centralized Treasury System.

Figure 17: Deposits and Withdrawals By Month, July 2014-July 2015 (In Billions)

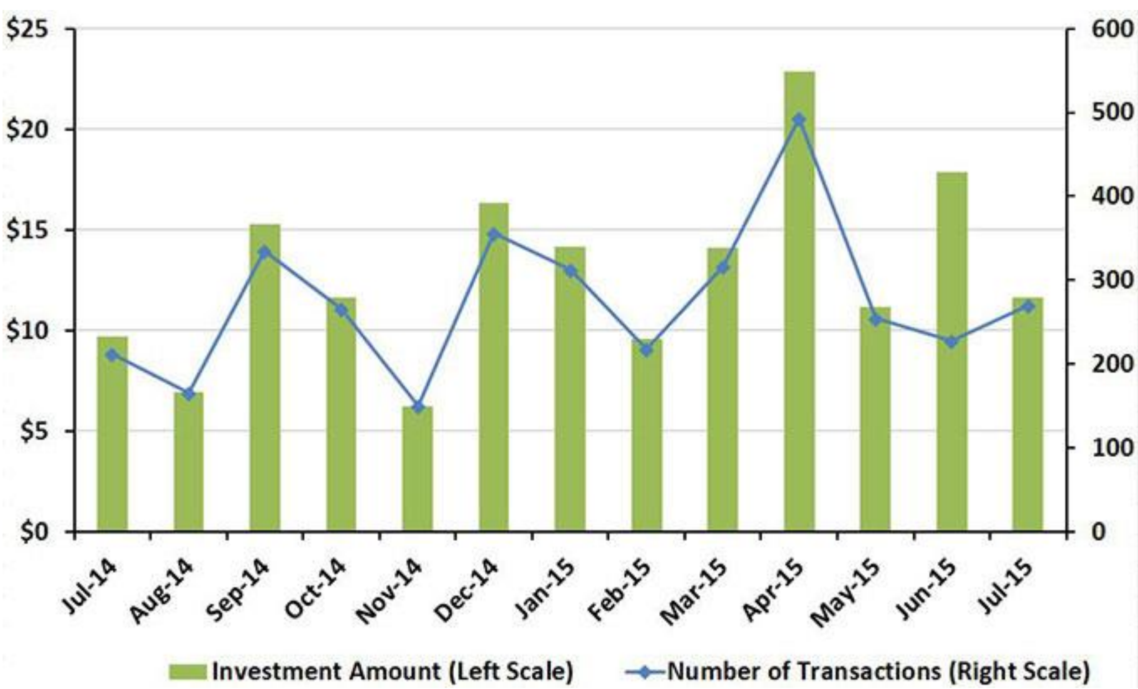


Source: State Treasurer's Office

The system also determines the amount of idle State funds available in the Pooled Money Investment Account for investment by the Treasurer's Investment Division. (These investments were discussed in the Investments section and are reflected in Figure 15.)

During July, total new and rollover investments reached $11.6 billion. (See Figure 18.)

Figure 18: Total Investments By Month, July 2014-July 2015 (In Billions)



Source: State Treasurer's Office

Each day, the system also processes hundreds of thousands of State transactions -- including department checks, State Controller's Office warrants, Women Infant Children (WIC) food instruments, Employment Development Department unemployment and disability checks - submitted by banks and other entities for payment.

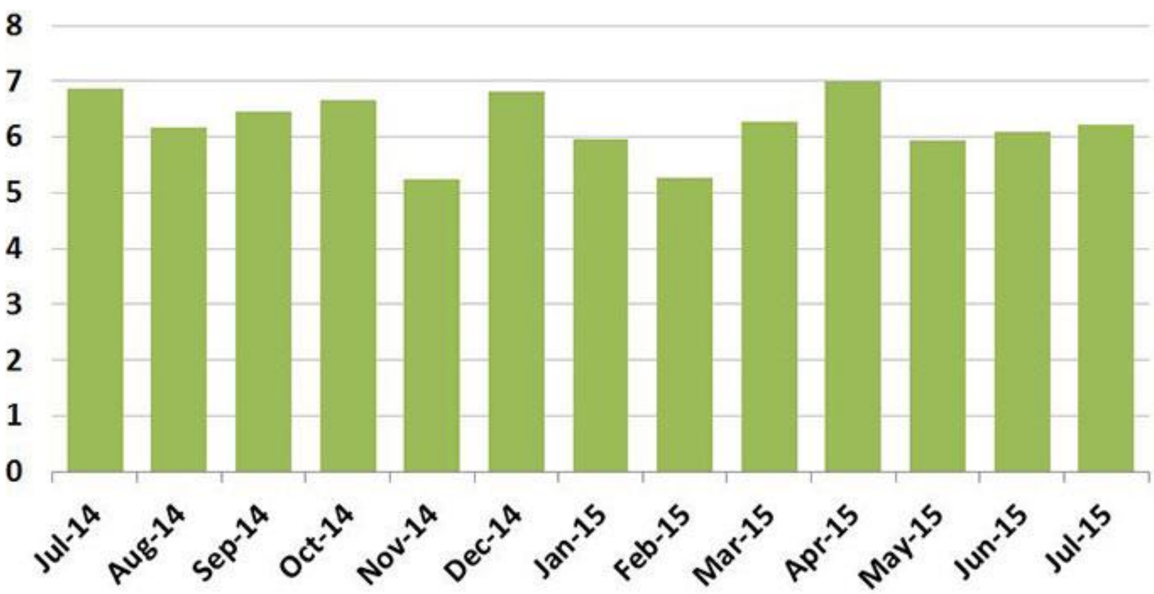
During July, total items processed reached 6.2 million. (See Figure 19.)

Transactions Processed

6.2 Million

Checks and other items presented by banks in July

Figure 19: Number of Items Processed, July 2014-July 2015 (In Millions)



Source: State Treasurer's Office

California Job Tracker: Stockton-Lodi Region Regains Jobs Lost During Recession

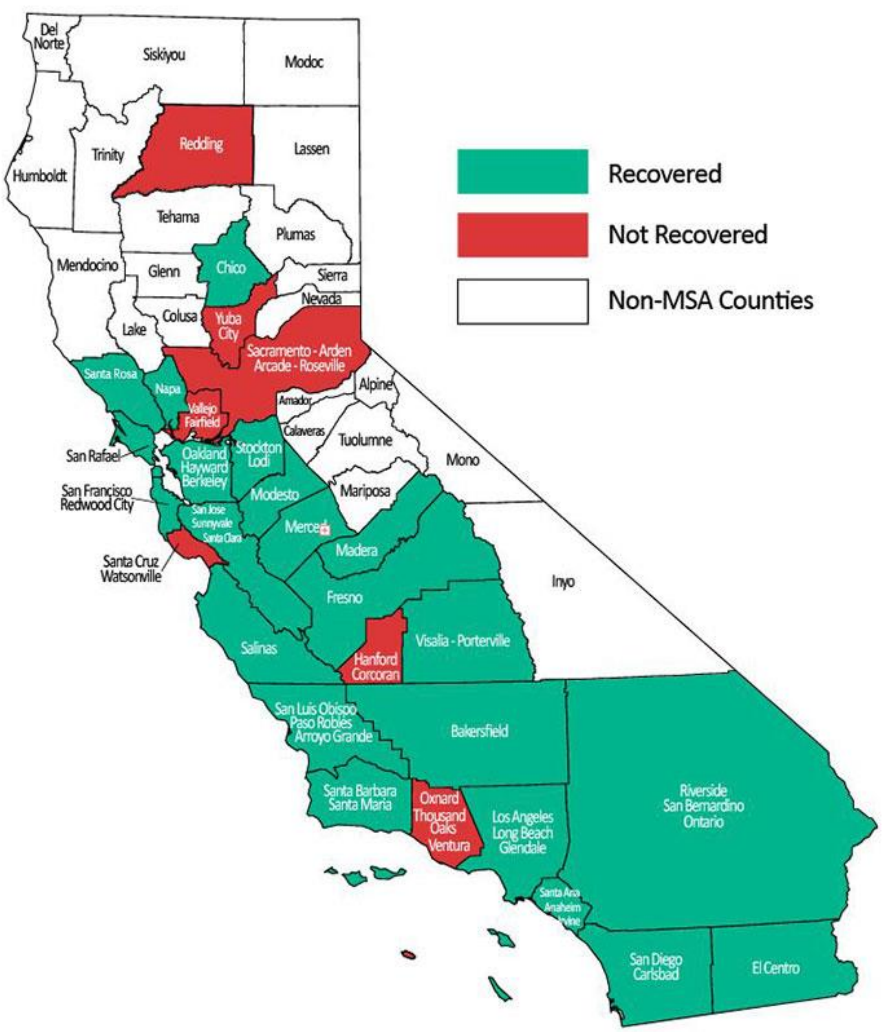
By Lynn Reaser

California has greeted another member into its recovery club: Stockton-Lodi.

A total of 22 out of 29 California's metropolitan areas have now totally recovered all of the jobs lost during the Recession and exceeded their prior employment peaks reached before the Recession, according to the latest data for July 2015. (See Figure 20.) These 22 metropolitan statistical areas (MSAs), or their metropolitan district (MD) counterparts, represent 90 percent of California's non-rural base. (See Figure 21.)

Nonfarm employment in California as a whole is now nearly 700,000 jobs above the prior peak reached eight years ago in July 2007. Of the seven MSAs still waiting to fully recover, Sacramento is the largest. However, if that area's job growth continues at the pace achieved during the past 12 months, it too will be a member of the recovery group before the end of the year.

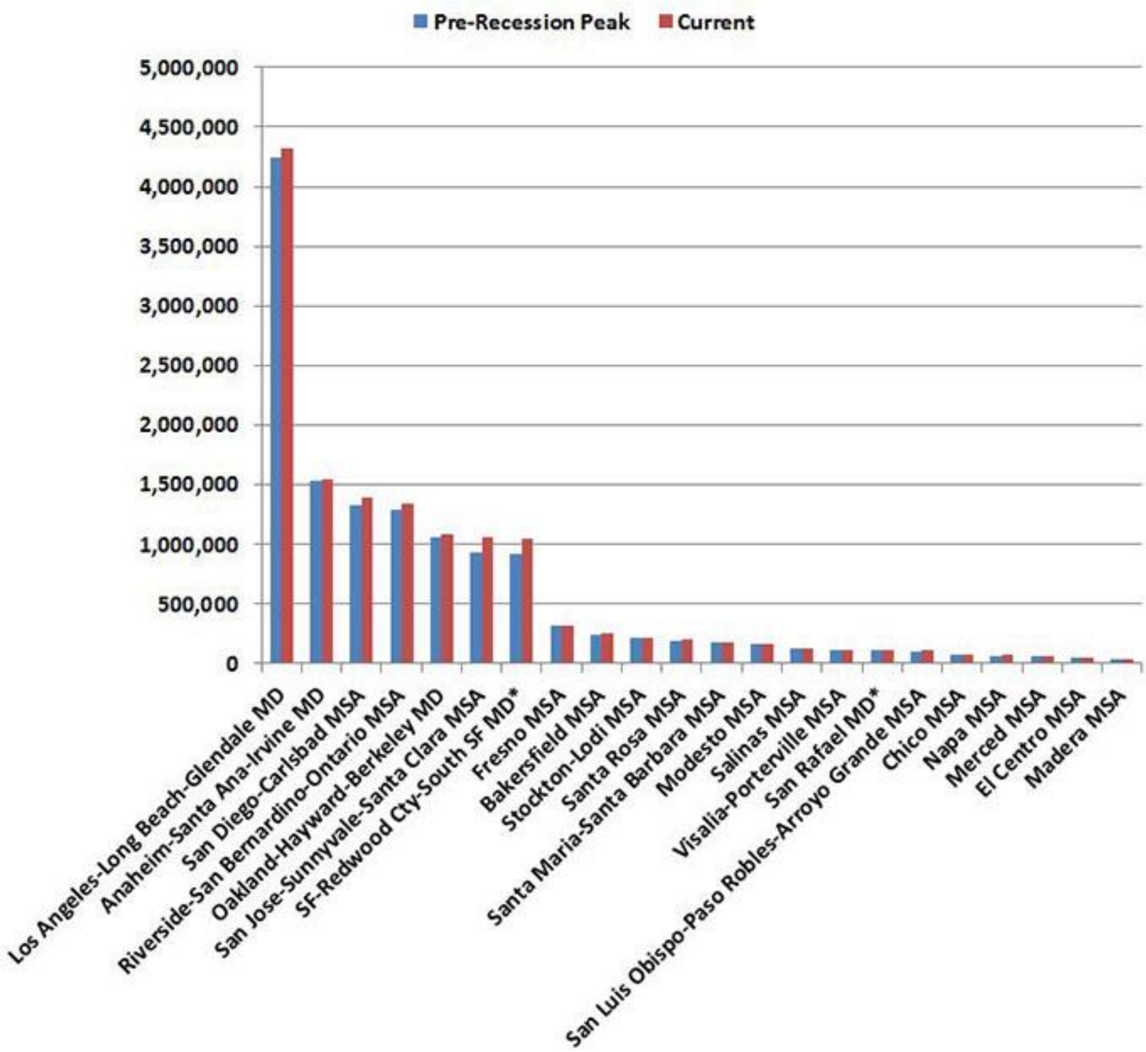
Figure 20: 22 of California's 29 Metro Areas Have Recovered Recession Job Losses (As of July 2015)



Sources: California Employment Development Department, Labor Market Information; Fermanian Business and Economic Institute

Figure 21: Job Recovery by the Numbers (As of July 2015)

(Nonfarm Employment, Seasonally Adjusted)



*Numbers for the San Francisco-Redwood City-South San Francisco Metropolitan District and San Rafael Metropolitan District are not seasonally adjusted.

Sources: U.S. Bureau of Labor Statistics, California Employment Development Department, Fermanian Business and Economic Institute

See raw data: Employment numbers by region.

Lynn Reaser is chief of the Treasurer's Council of Economic Advisors and chief economist at the Fermanian Business and Economic Institute for Point Loma Nazarene University. The opinions in this article are presented in the spirit of spurring discussion and reflect those of the author and not necessarily the Treasurer, his office or the State of California.

Guest Column

Are High Housing Prices California’s Achilles Heel?

By Gerd-Ulf Krueger

It is a foregone conclusion that California has some of the highest housing costs in the nation. According to the California Association of Realtors, which publishes an income distribution based affordability index, just 30 percent of California households could afford the state’s median priced home in the second quarter of 2015. That represents a dismal 27 percentage point gap compared to the nation’s affordability rate of 57 percent.

There has been some discussion in the media lately about whether high home prices could become the Achilles heel of California’s economy. This is unlikely to be the case -- at least not in a cyclical sense. However, it could heighten other risks of an economic and socio-economic nature.

Figure 22, which plots California’s housing affordability versus job and home price growth since 1987, does not show that low affordability and high home prices cause a recession. Sure, low housing affordability roughly precedes economic downturns, but in the 1991 to 1993 downturn the state’s recession was caused by the aerospace and military spending slump. In the 2008 to 2010 time period, the impacts of massive financial crisis resulted in the Great Recession.

If anything, rather than high home prices being the Achilles heel of the California economy, it tends to be the other way around. The economy is the Achilles Heel of home prices, which declined in the 1990 to 1996 period and cratered sharply during the Great Recession. As prices dropped during those times in California, affordability sharply improved -- assisted by downward trends in mortgage rates. Ironically, the events that improve housing affordability the most in California are the recessions.

That puts a little bit of a damper on housing policy initiatives, which in the recent most 20 years have focused on the demand side such as subsidies for low-income households, housing finance programs, and inclusionary zoning. It is hard to determine whether these programs actually influenced the overall affordability rate as whole.

The real problem is the ecosystem in the California housing supply complex. For years, economists have argued that California housing is chronically undersupplied. Its regulatory climate and development and permitting processes are largely responsible for curbing new home supply, which in good economic times drives up the cost of housing in California relative to the nation.

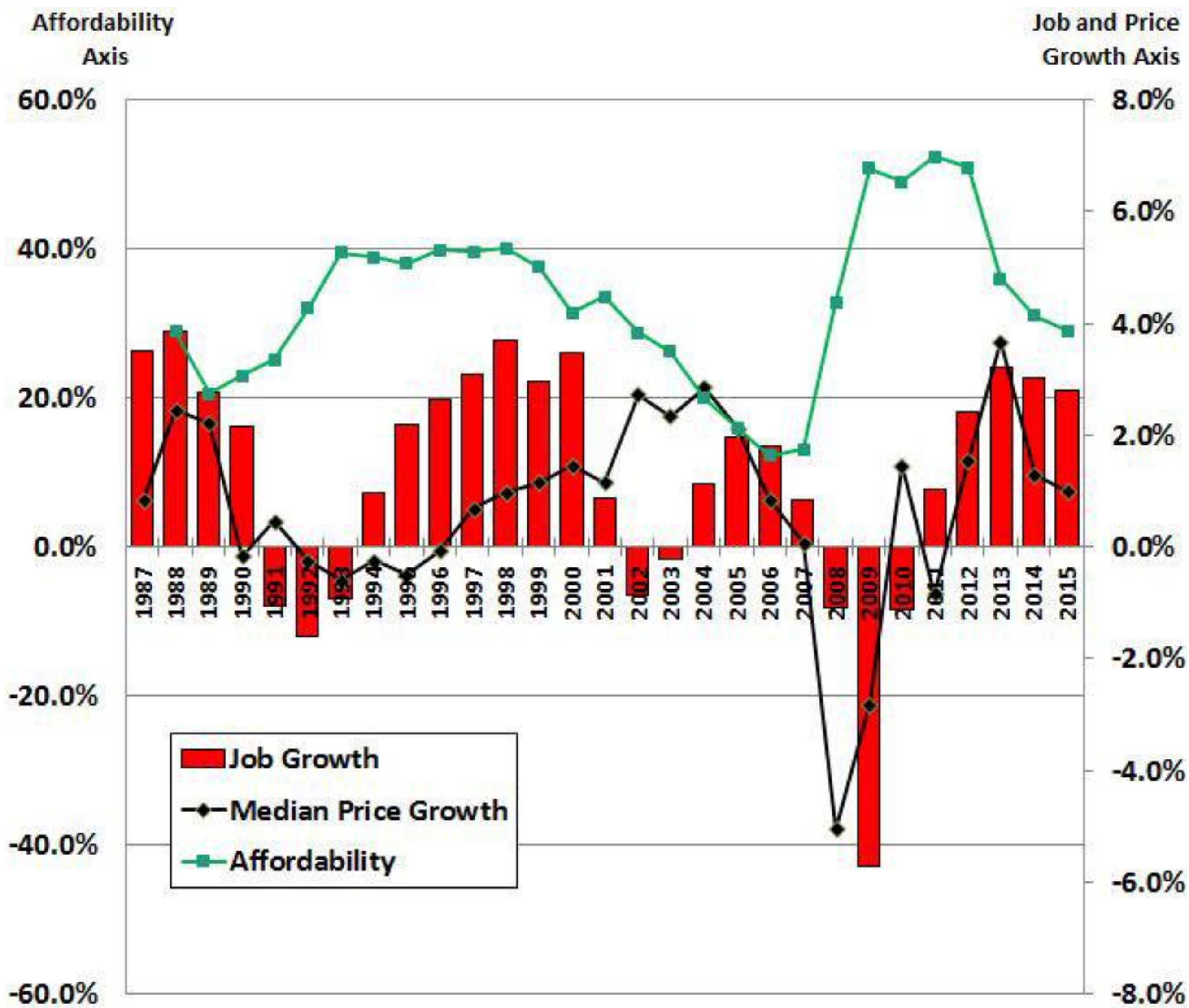
If nothing gets done structurally to improve the supply of housing, the following list describes the dangers of low housing affordability, which increase economic and housing risks even when the economy is improving.

- For example, a study of United Way has recently shown that one in three California households (31 percent) do not have sufficient income to meet their basic cost of living. This is nearly three times the number officially considered to be poor according to the federal poverty level. Struggling households spend more than half of their income on housing. Furthermore, housing conditions in many California neighborhoods are getting increasingly “cramped” by having more than one person per room. California’s lower-income households are disproportionally impacted by low housing affordability.
- The economic risks are that high housing costs could put a limit on growth, impairing what it could have been otherwise. It would be interesting to see an economic impact study in this regard.
- Furthermore, the housing supply constraints aggravate the volatility of California home prices and make it bubble prone. In good times, they rise fast, only to crash in bad times, which could have ripple effects on households, causing residents to lose equity and possibly even their homes, as was the case during the Great Recession.
- Finally, low housing affordability can trigger an intensification of net domestic out-migration and, depending on the composition of those who move out versus those who move in, the state could lose talented people to other states with equally tech-oriented concentrations. For example, in Austin, Texas, a talented software engineer can easily buy a nice new home for around $400,000 in north Austin, where its high-tech jobs are concentrated. This price point is not available in California’s high-tech cities.

In conclusion, while high housing costs are not necessarily the Achilles heel of the California economy, it can have some aggravating economic and socio-economic impacts even during good times. It would be advantageous to contemplate supply-side policies in this context, such as reforming the California Environmental Quality Act (CEQA), and lowering impact fees, which often drive up new home prices by as much as one-third depending on location. Finally, since housing supply shortages are acute in urban areas, it might be useful to create a network of smart-growth-minded cities in order to share information about how to increase housing supply and therefore promote affordability. We clearly must change the structure of the California housing supply system to have a real impact on its housing affordability problem and the economic and socio-economic risks associated with it.

Gerd-Ulf Krueger, a member of Treasurer John Chiang's Council of Economic Advisors, is principal economist and founder of KruegerEconomics, a housing and economic advisory firm for institutional investors, developers, builders, and state and local governments. The opinions in this article are presented in the spirit of spurring discussion and reflect those of the author and not necessarily the Treasurer, his office or the State of California.

Figure 22: California Housing Affordability Vs. Job and Median Home Price Growth



Top 10 Upcoming Bond Sales

(Ranked by Size)

Proposed Sale Date*	Issuer	Debt Type	Purpose	Principal*
9/29/2015	State Public Works Board of the State of California	Lease revenue refunding bonds 2015 Series FG	Refunding	$555,000,000.00
9/16/2015	Los Angeles Department of Water and Power	Public enterprise revenue bond	Power Generation/Transmission	300,000,000.00
9/10/2015	State of California	General obligation bond	Single-Family Housing	280,905,000.00
9/28/2015	California Health Facilities Financing Authority	Conduit revenue bond	Hospital	230,000,000.00
9/10/2015	State of California	General obligation bond	Single-Family Housing	164,795,000.00
9/30/2015	Foothill-De Anza Community College District	General obligation bond	College, University Facility	110,000,000.00
9/30/2015	Salinas Union High School District	General obligation bond	K-12 School Facility	45,000,000.00
9/30/2015	Salinas Union High School District	Bond anticipation note	Cash Flow, Interim Financing	45,000,000.00
9/11/2015	Banning Public Financing Authority	Public enterprise revenue bond	Power Generation/Transmission	45,000,000.00
11/19/2015	Successor Agency to the Culver City Redevelopment Agency	Tax allocation bond	Redevelopment, Multiple Purposes	36,400,000.00

* Subject to change; the ultimate amounts and sale dates can be affected by legal, market and other factors.

More info:

- California Debt and Investment Advisory Commission Calendar
- Public Finance Division Upcoming Bond Sales Calendar

Significant Financings

Treasurer John Chiang oversees several boards, commissions and authorities that award financing, tax credits, grants, loans, and other benefits aimed at promoting school projects, health care facilities, sustainable economic development and housing. Below is a summary of significant projects approved in August 2015.

Education

Approval Date	Recipient Name	Type	Amount	City	Authority*
8/12/2015	Delta Properties, Inc.	Revenue Bonds	$29,334,838	Los Angeles	CSFA
8/12/2015	Helix High School	2010 Lottery Funding Round	$32,436,184	La Mesa	CSFA
8/4/2015	University of the Pacific	Standard Bond Financing	$69,000,000	Stockton	CEFA
8/12/2015	Rocketship Education	Rocketship Education	$135,000	San Jose	CSFA
8/27/2015	Santa Clara University	Standard Bond Financing	$125,000,000	Santa Clara	CEFA

Health

Approval Date	Recipient Name	Type	Amount	City	Authority*
8/27/2015	California-Nevada Methodist Homes	Revenue Bond	$35,000,000	Oakland	CHFFA

Sustainability and Economic Development

Approval Date	Recipient Name	Type	Amount	City	Authority*
8/18/2015	CE Obsidian Energy LLC and its Affiliates	Sales and Use Tax Exclusion	$14,689,025	Calipatria	CAEATFA
8/18/2015	Orbital ATK, Inc.	Sales and Use Tax Exclusion	$1,370,368	Northridge	CAEATFA
8/18/2015	Verdure Technologies, Inc., Biorem Energy, LLC and/or its Affiliates	Bond Financing	$12,830,000	Chowchilla	CPCFA

Sustainability and Economic Development					
Approval Date	**Recipient Name**	**Type**	**Amount**	**City**	**Authority***
8/18/2015	GKN Aerospace Chem-tronics, Inc.	Sales and Use Tax Exclusion	$9,993,490	Santa Ana	CAEATFA

Housing					
Approval Date	**Recipient Name**	**Type**	**Amount**	**City**	**Authority***
8/19/2015	Sylmar Court	Tax-Exempt Bond	$1,378,122	Sylmar	CTCAC
8/19/2015	Coalinga Senior Apartments	Tax-Exempt Bond	$229,563	Coalinga	CTCAC
8/19/2015	The Lodge at Eureka	Tax-Exempt Bond	$279,656	Eureka	CTCAC
8/19/2015	Arroyo Del Camino	Tax-Exempt Bond	$397,065	Avenal	CTCAC
8/19/2015	Beverly Park Senior Apartments	Tax-Exempt Bond	$627,745	Los Angeles	CTCAC
8/19/2015	Springdale West Apartments	Tax-Exempt Bond	$4,103,680	Long Beach	CTCAC
8/19/2015	Cottonwood Place	Tax-Exempt Bond	$492,704	Moreno Valley	CTCAC
8/19/2015	Woodglen Vista	Tax-Exempt Bond	$1,096,300	Santee	CTCAC
8/19/2015	25 Sanchez	Tax-Exempt Bond	$1,611,081	San Francisco	CTCAC
8/19/2015	462 Duboce	Tax-Exempt Bond	$1,157,564	San Francisco	CTCAC
8/19/2015	255 Woodside	Tax-Exempt Bond	$1,892,088	San Francisco	CTCAC
8/19/2015	Holly Courts	Tax-Exempt Bond	$2,363,380	San Francisco	CTCAC

Housing					
Approval Date	**Recipient Name**	**Type**	**Amount**	**City**	**Authority***
8/19/2015	666 Ellis Street	Tax-Exempt Bond	$1,405,836	San Francisco	CTCAC
8/19/2015	227 Bay Street	Tax-Exempt Bond	$880,006	San Francisco	CTCAC
8/19/2015	990 Pacific Avenue	Tax-Exempt Bond	$2,473,883	San Francisco	CTCAC
8/19/2015	345 Arguello	Tax-Exempt Bond	$1,106,615	San Francisco	CTCAC
8/19/2015	1880 Pine	Tax-Exempt Bond	$1,221,536	San Francisco	CTCAC
8/19/2015	Hunters Point East West	Tax-Exempt Bond	$4,295,186	San Francisco	CTCAC
8/19/2015	491 31st Avenue	Tax-Exempt Bond	$987,850	San Francisco	CTCAC
8/19/2015	939 & 952 Eddy Street	Tax-Exempt Bond	$811,373	San Francisco	CTCAC
8/19/2015	430 Turk Street	Tax-Exempt Bond	$1,329,931	San Francisco	CTCAC
8/19/2015	Robert Pitts Housing	Tax-Exempt Bond	$2,833,870	San Francisco	CTCAC

*Authorities which the State Treasurer chairs: California Alternative Energy and Advanced Transportation Financing Authority (CAEATFA), California Educational Facilities Authority (CEFA), California Health Facilities Finance Authority (CHFFA), California Pollution Control Financing Authority (CPCFA), California Schools Finance Authority (CSFA), and California Tax Credit Allocation Committee (CTCAC).

See raw data: Financing numbers broken out by state legislative district

In Case You Missed It

Just in case you missed it, here's a summary of recent news from the Treasurer's Office:

Treasurer John Chiang visited Google headquarters in Mountain View on Aug. 18. Pictured with the Treasurer are, from left, Mufaddal Ezzy of Google, Board of Equalization Member Fiona Ma and Rebecca Prozan of Google.

September 3: Treasurer Chiang Praises Plan to Pre-Fund Retiree Health Care Costs

Treasurer John Chiang praised provisions that will help pre-fund retiree health care costs reached as part of the collective bargaining agreement between the State of California and the Professional Engineers in California Government (PECG). Read the news release in English and Spanish.

September 1: ScholarShare Launches College Savings Pledge to Raise Awareness About State's 529 Plan

ScholarShare, California's 529 college savings plan, is celebrating National College Savings Month in September with a College Savings Pledge. Read the news release in English and Spanish.

August 27: Treasurer Chiang Completes $1.93 Billion Bond Sale Producing $270 Million in Taxpayer Savings

Treasurer John Chiang announced the completion of a sale of $1.93 billion in State general obligation bonds. The sale included the issuance of $1.38 billion in refunding bonds to refinance about $1.54 billion of existing debt. This resulted in taxpayer savings of more than $270 million. Read the news release.

August 24: Treasurer Chiang Names New California Health Facilities Financing Authority (CHFFA) Executive Director

State Treasurer John Chiang has announced that Diane Stanton will serve as Executive Director of the California Health Facilities Financing Authority (CHFFA). Read the news release.

Top News Clips:

- Editorial: Finally, progress on unfunded retiree health costs
  The San Diego Union Tribune
  September 2, 2015
- Deal requires state workers to pay ahead for retiree health care
  The Sacramento Bee
  September 1, 2015
- California Rainy Day Fund Yields Results in Bond-Market Recovery
  Bloomberg
  August 24, 2015
- Stanton Named Head of CHFFA
  The Bond Buyer
  August 24, 2015
- California GOs Trading Well Ahead of $1.9B Sale
  The Bond Buyer
  August 21, 2015

- Treasury releases money to boost small business loans
  Central Valley Business Journal
  August 20, 2015
- Restitution advocates criticize Polish policies as overly onerous
  The Jerusalem Post
  August 19, 2015
- Time For Poland To Pay Restitution
  The Jewish Week
  August 12, 2015
- The Riggs Report: A budget ghost is retired
  KCRA
  August 7, 2015
- Dan Walters: Misleading bond issue fades away
  The Sacramento Bee
  August 6, 2015