

# Controller *John Chiang*

## California State Controller's Office

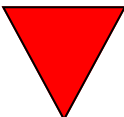

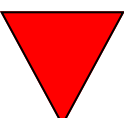



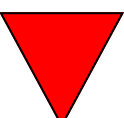
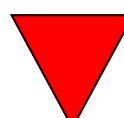


Dec. 7, 2012

Summary Analysis

Volume 6, Issue 12

## State Finances in November 2012

November 2012 compared to monthly estimates in the 2012-13 Budget Act	November 2012 monthly totals compared to November 2011
 <p><b>Total Revenues:</b>  <b>-\$806.8 million</b>  <b>(-10.8%)</b></p>	<p><b>Total Revenues:</b>  <b>\$608.3 million</b>  <b>(10.0%)</b></p> 
 <p><b>Income Tax:</b>  <b>-\$842.5 million</b>  <b>(-19.0%)</b></p>	<p><b>Income Tax:</b>  <b>\$367.0 million</b>  <b>(11.3%)</b></p> 
 <p><b>Sales Tax:</b>  <b>\$99.0 million</b>  <b>(3.8%)</b></p>	<p><b>Sales Tax:</b>  <b>\$386.1 million</b>  <b>(16.9%)</b></p> 
 <p><b>Corporate Tax:</b>  <b>-\$187.8 million</b>  <b>(-213.4%)</b></p>	<p><b>Corporate Tax:</b>  <b>-\$265.6 million</b>  <b>(-160.1%)</b></p> 

## What the Numbers Tell Us

November's tax receipts fell 10.8% short of expectations contained in the 2012-2013 State Budget, although they were above the year-ago level. Total revenues year to date are now 2.6% less than anticipated at this time, with shortfalls among all of the major sources. Expenditures are 4.9% above estimates contained in the Budget, with assistance to local governments driving the overage.

Some of the discrepancy between actual and projected numbers reflected the assumptions made with respect to timing. For example, a significant amount of the revenue linked to Facebook's initial public offering (IPO) took place in October instead of November as had been assumed. Corporate tax refunds were also higher than expected during the month.

Total revenues were \$806.8 million below projections in November, with corporate taxes accounting for a significant amount of this divergence. Compared with a year ago, total revenues year to date were up

### Sorry Ralphie, Your Red Ryder B.B. Gun Just Isn't All That Important This Year

Holiday shopping boosts tax revenues in December and January, right? Sometime between the Thanksgiving pie and the bean dip served during the Tostitos Fiesta Bowl, Californians will binge on garlands and gifts for the winter holidays. Conventional wisdom has it that these transactions swell retailers'

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## What the Numbers Tell Us

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by 2.5%, with an impressive gain in income taxes offsetting shortfalls in the other revenue sources.

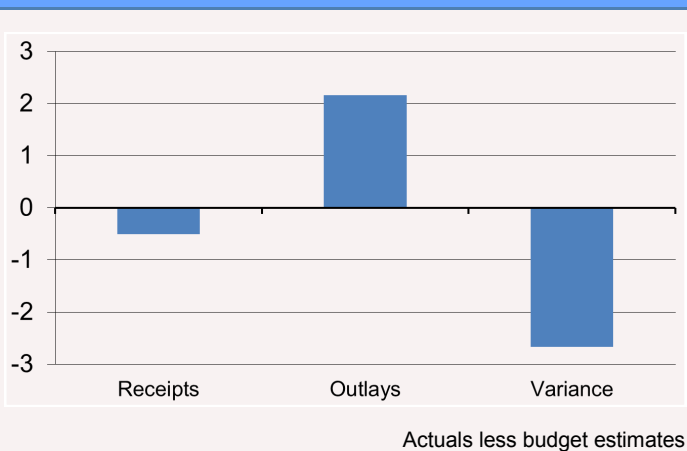
Looking at the fiscal year to date, which began on July 1, total receipts are running \$508 million, or 1.6%, below Budget projections. Corporate taxes represent the largest source of the gap, although income and sales tax receipts are also slightly shy of expectations.

The difference between actual and estimated numbers is larger on the spending side. For the first five months of the fiscal year spanning July through November, actual disbursements exceeded projections by \$2.2 billion, or 4.9%. Education and health care accounted for the majority of the difference. Spending on general state operations was less than expected.

The shortfall of revenues and excess of spending mean that the overall variance from estimates has equaled about \$2.7 billion in Fiscal Year 2012-13. However,

### Figure 1: Spending Exceeds Estimates, While Revenue Falls Short

Fiscal Year-To-Date, July 1-Nov. 30, 2012, \$ Billions



California's cash liquidity remains solid and is actually stronger than had been anticipated at this point in the current fiscal year.

## Table 1: General Fund Receipts

July 1, 2012 – Nov. 30, 2012 (in Millions)

Revenue Source	Actual Revenues	2012-13 Budget Act		2011-12 Year-To-Date	
		Estimate	Actual Over (Under)	Actual	Actual Over (Under)
Corporation Tax	\$1,128	\$1,567	(\$439)	\$1,794.9	(\$666.8)
Personal Income Tax	\$18,905.9	\$19,023	(\$117.1)	\$17,083.2	\$1,822.7
Retail Sales and Use Tax	\$7,921.5	\$7,989	(\$67.4)	\$8,184.8	(\$263.2)
Other Revenues	\$1,710.4	\$1,889.2	(\$178.8)	\$1,884.7	(\$174.3)
<b>Total General Fund Revenue</b>	<b>\$29,665.8</b>	<b>\$30,468.2</b>	<b>(\$802.4)</b>	<b>\$28,947.5</b>	<b>\$718.3</b>
Non-Revenue	\$1,667.6	\$1,373.3	294.3	\$2,208.9	(\$541.2)
<b>Total General Fund Receipts</b>	<b>\$31,333.4</b>	<b>\$31,841.5</b>	<b>(508)</b>	<b>\$31,156.4</b>	<b>\$177</b>

## Sorry Ralphie, Your Red Ryder B.B. Gun Just Isn't All That Important This Year

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January sales tax payments, but the vision of a sales tax surge may be more spectral than real.

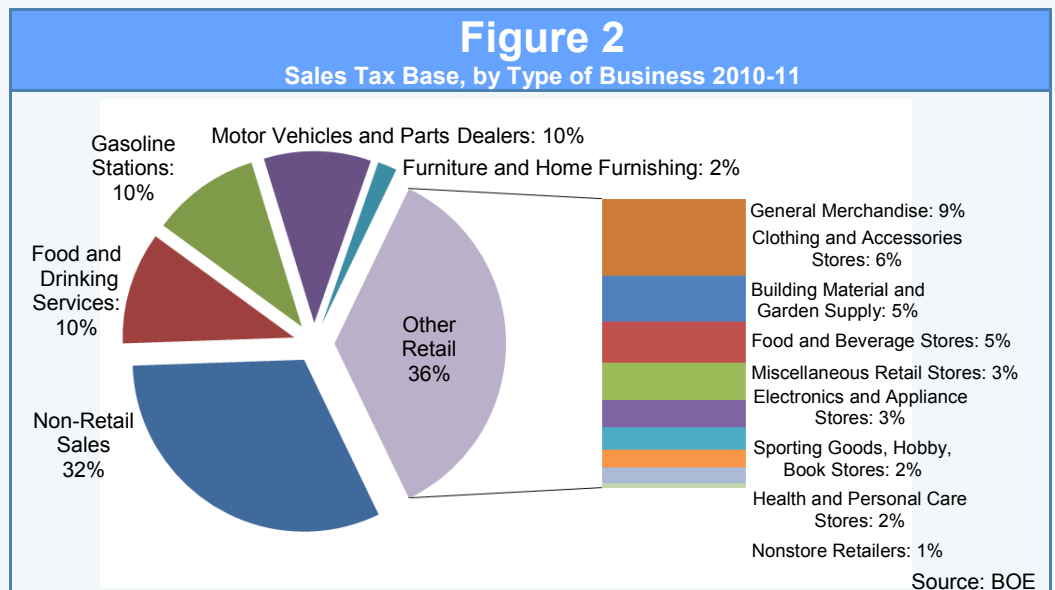
While January sales tax receipts are better than average, the holiday returns are a less impressive specter than Marley's ghost. Blame it on the state's reliance on the personal income tax or changes to a service economy, but revenues derived from retail sales in 2012 are not as important as they were in the 1940s. For example:

⇒ The sales tax accounts for about one-fifth of the General Fund. (Contrast this with the situation for Christmas Past: Two generations ago, the sales tax was the dominant revenue source.) So, even if there were a pronounced spike in the sales tax returns in January, its effect is swamped by what is happening with other taxes, especially the personal income tax.

⇒ Within the sales tax base, the types of businesses benefiting from holiday shopping account for a little more than one third of the sales tax base. As seen in Figure 2, about 32 percent of the sales tax is paid on non-retail transactions, like purchases for manufacturing equipment. Gas sta-

tions and car dealerships each account for 10 percent. Food and furniture sales contribute 10 percent and 2 percent respectively. After subtracting all these transactions from the likely tax base, about 36 percent of the sales-tax base is likely to be affected by holiday purchases.

All the Ralphies in California may get their wished-for Red Ryder B.B. guns. And their fathers might get their much-beloved lamps. But all that buying will have a small effect on January receipts. Unlike 1940s California when holiday retail sales could make or break a budget, this year's transactions are unlikely to have a major impact on third-quarter revenues in 2013.



**Table 2: General Fund Disbursements**

July 1, 2012 – Nov. 30, 2012 (in Millions)

Recipient	Actual Disbursements	2012-13 Budget Act		2011-12 Year-To-Date	
		Estimates	Actual Over (Under)	Actual	Actual Over (Under)
Local Assistance	\$36,249.3	\$33,701.7	\$2,547.6	\$33,308.6	\$2,940.7
State Operations	\$10,146.7	\$10,638.3	(\$491.6)	\$11,265.5	(\$1,118.8)
Other	\$225.3	\$117.2	\$108.1	(\$129.7)	\$355
<b>Total Disbursements</b>	<b>\$46,621.3</b>	<b>\$44,457.1</b>	<b>\$2,164.2</b>	<b>\$44,444.4</b>	<b>\$2,176.9</b>

# On Designing and Analyzing Policies for Renewable Fuels

C.-Y. Cynthia Lin  
University of California at Davis

Federal and state policies to reduce greenhouse gas emissions from the transportation sector have been focused on making use of many alternatives to increase the use of cleaner, more renewable inputs in production in recent years while avoiding the politically infeasible option of taxation. Many of the policies currently implemented and being proposed on a national level involve some variant of a mandate with the option for flexibility by allowing firms to generate and purchase credits for over- or under-consumption of clean inputs.

The two most prominent policy options currently implemented in the U.S. are the renewable fuels standard (RFS) and the California Low Carbon Fuels Standard (LCFS). The RFS was established by the Energy Policy Act of 2005 and expanded by the Energy Independence and Security Act of 2007, and establishes fixed amounts of ethanol to be blended into the U.S. gasoline supply. For 2012, the Environmental Protection Agency (EPA), the agency which administers the program, has required that 15.2 billion gallons of

renewable fuel be blended into the U.S. gasoline supply. This represents just under 10% of projected fuel supply for the U.S. transportation sector. This amount is set to increase significantly, reaching a goal of 36 billion gallons by 2022.

The LCFS, in contrast, is a mandate on the carbon emissions of output per unit of input. Thus, the fuel refining and blending industry in California is required to

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*The opinions in this article are presented in the spirit of spurring discussion and reflect those of the authors and not necessarily the Controller or his office.*



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reduce the weighted average of their carbon emissions rate by an increasing amount, set to reach a 10% reduction in California's carbon intensity by 2020. Currently, several proponents of the LCFS are proposing a national standard to either replace or complement the RFS. The key debate between the two policies is the favoritism of the RFS to ethanol. Proponents of the LCFS favor the program due to the fact that it does not specify which fuels must be used in meeting the standard.

The debate, however, does not focus on the relative efficiency of the standards, or of other possible standards. A policy is economically efficient if it maximizes the welfare, or total net benefits (which are total benefits net of total costs), to firms and consumers. Comparing the relative efficiencies of different policies, which requires comparing relative benefits and costs of different policies, becomes important to any analysis, and should be a part of the national debate.

A common feature among input mandate programs is the inclusion of credit trading programs in which firms which use more of the clean input in a given year receive credits for their overproduction which they can then sell to firms which cannot meet the mandate as easily. The inclusion of credit trading programs is motivated by the literature on permit and credit trading for pollution markets. Under a credit trading scheme, firms receive credits for any pollution reduction beyond the mandated amount, which they can trade with other firms.

In ongoing research with my Ph.D. student Gabriel Lade, we are developing and simulating a model to analyze the efficiency and cost-effectiveness of various policy instruments that mandate clean input use by firms, including those that allow for firms to trade credits, in order to design as efficient and cost-effective a renewable input mandate policy as possible. We are applying the model to the RFS and LCFS.

A key 'take-away' from our research thus far is to recognize that how a mandate is phrased has an important effect on the efficiency, or total net benefits, of the policy. Currently, several proponents of the LCFS are proposing a national standard to either replace or complement the RFS. A key argument in favor of the LCFS is that the RFS supports only ethanol as the qualifying renewable fuel. Proponents of the LCFS argue that it does not specify the fuel required to meet standard and aligns the incentives for refiners and

blenders to meet their carbon reduction requirements through a menu of alternative fuel options. It is important in the policy debate to make use of standard economic model in evaluating the efficiency (and therefore the benefits and costs) of these policies as the discussion moves forward.

Our research is significant because many policies currently implemented or being proposed at national and state levels to reduce greenhouse gas emissions from the transportation sector involve some form of a renewable input mandate since such policies have the potential for increasing the use of cleaner, more renewable inputs in production while avoiding the politically infeasible option of taxation. It is therefore important to develop theoretical and empirical models to analyze the efficiency and cost-effectiveness of renewable input mandate policies and to design as efficient and cost-effective a renewable input mandate policy as possible.

<b>California Economic Snapshot</b>		
<b>New Auto Registrations</b> (3rd Quarter)	<b>311,542</b> 2011	<b>418,086</b> 2012
<b>Median Home Price</b> (for Single-Family Homes)	<b>\$240,000</b> In October 2011	<b>\$285,000</b> In October 2012
<b>Single-Family Home Sales</b>	<b>34,087</b> In October 2011	<b>39,254</b> In October 2012
<b>Foreclosures Initiated</b> (Notices of Default)	<b>16,935</b> In October 2011	<b>13,585</b> In October 2012
<b>Total State Employment</b> (Seasonally Adjusted)	<b>16,399,000</b> In October 2011	<b>16,641,000</b> In October 2012
<b>Newly Permitted Residential (Single and Multifamily) Units</b> (Annualized)	<b>33,120</b> In July 2011	<b>60,533</b> In July 2012
Data Sources: New Car Dealers Association, DataQuick, California Employment Development Department, Census Bureau, State Department of Finance, Foreclosure Radar		