Municipal Credit Conditions
and The Efficiency of Tax-Exemption

NUVEEN ASSET MANAGEMENT

from NUVEEN INVESTMENTS

PRESENTATION FOR:

California Debt and Investment Advisory Commission

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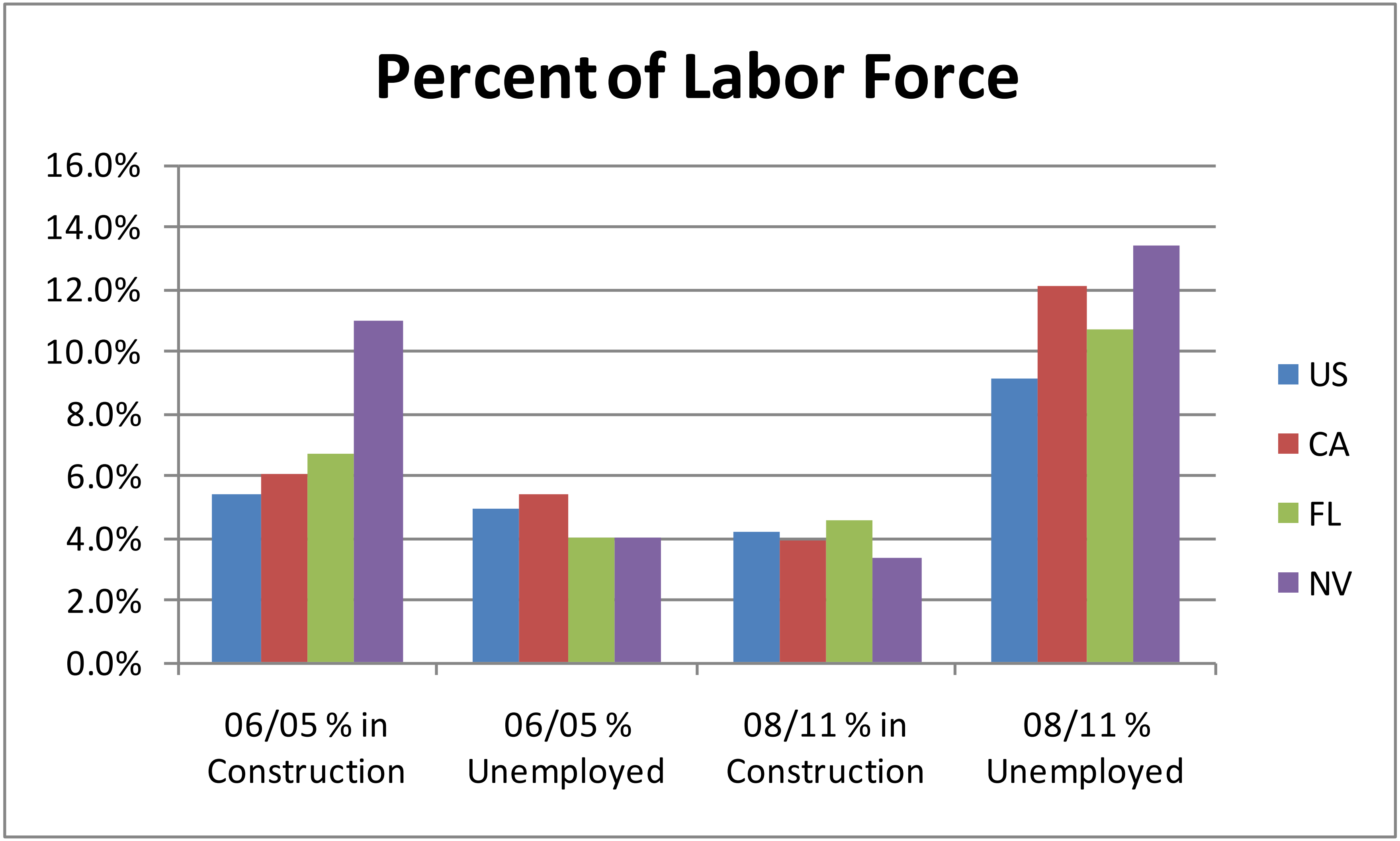
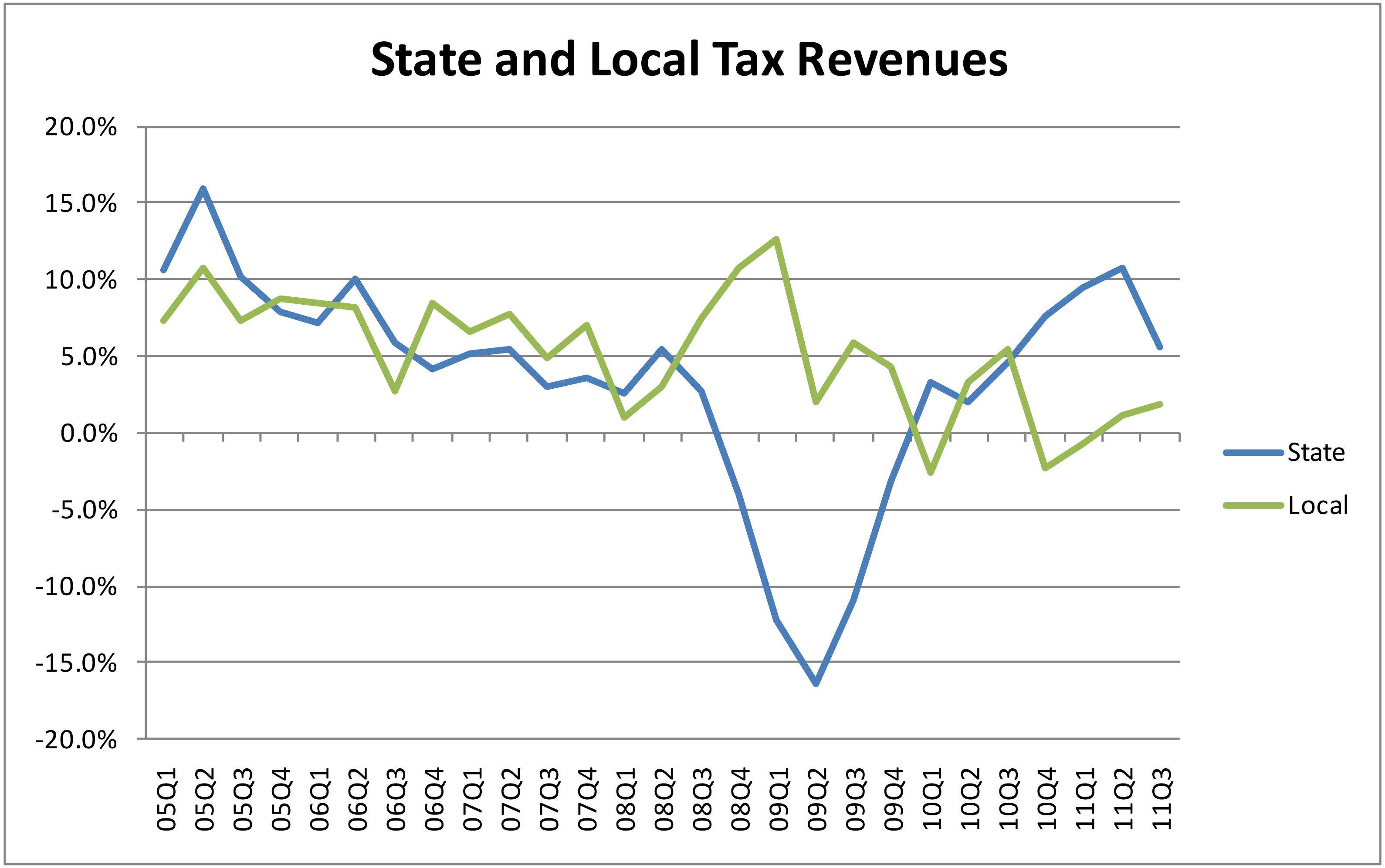
More jobs in construction preceded more unemployment



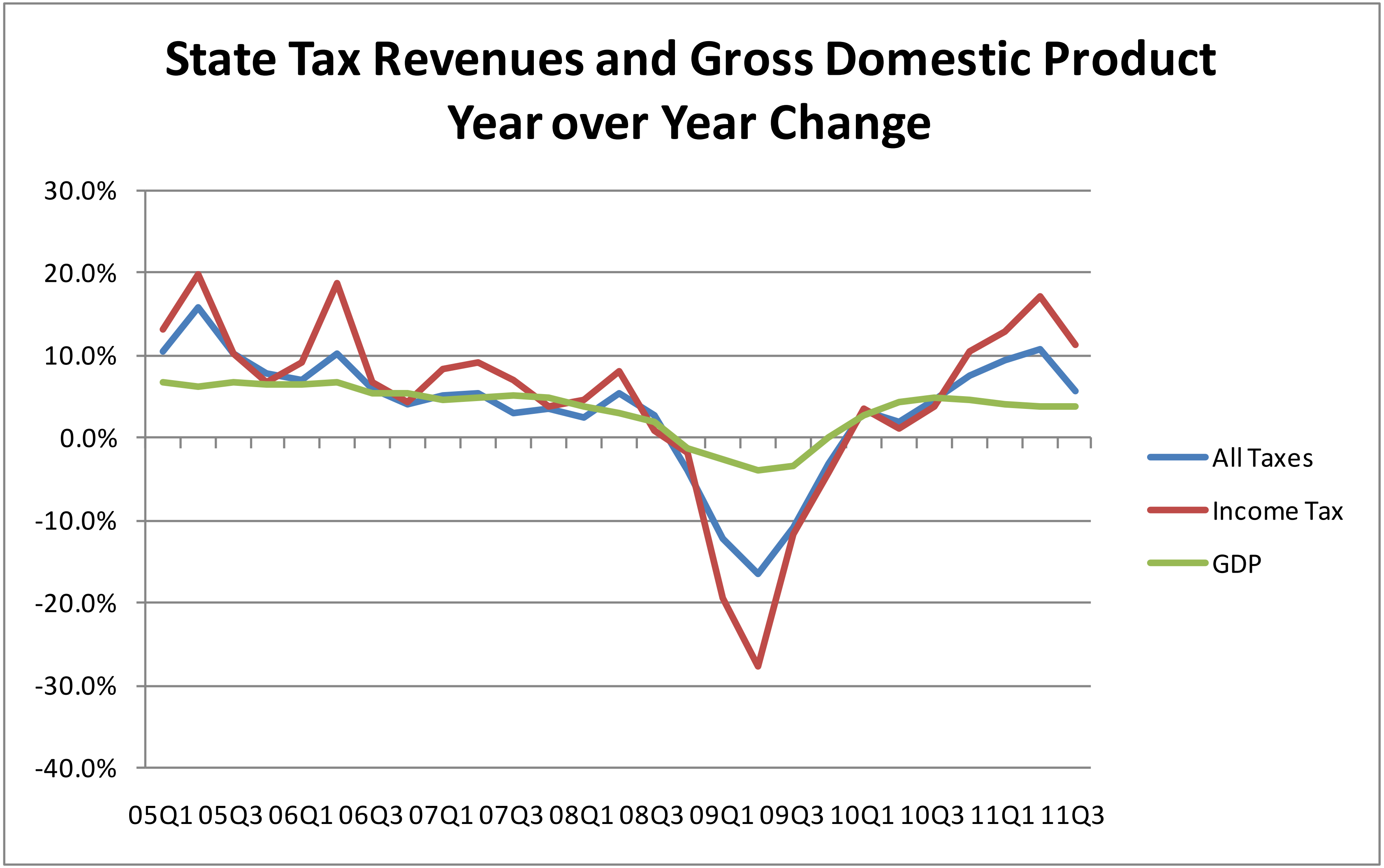
Source: Bureau of Labor Statistics.

State tax revenue fell before local tax revenue



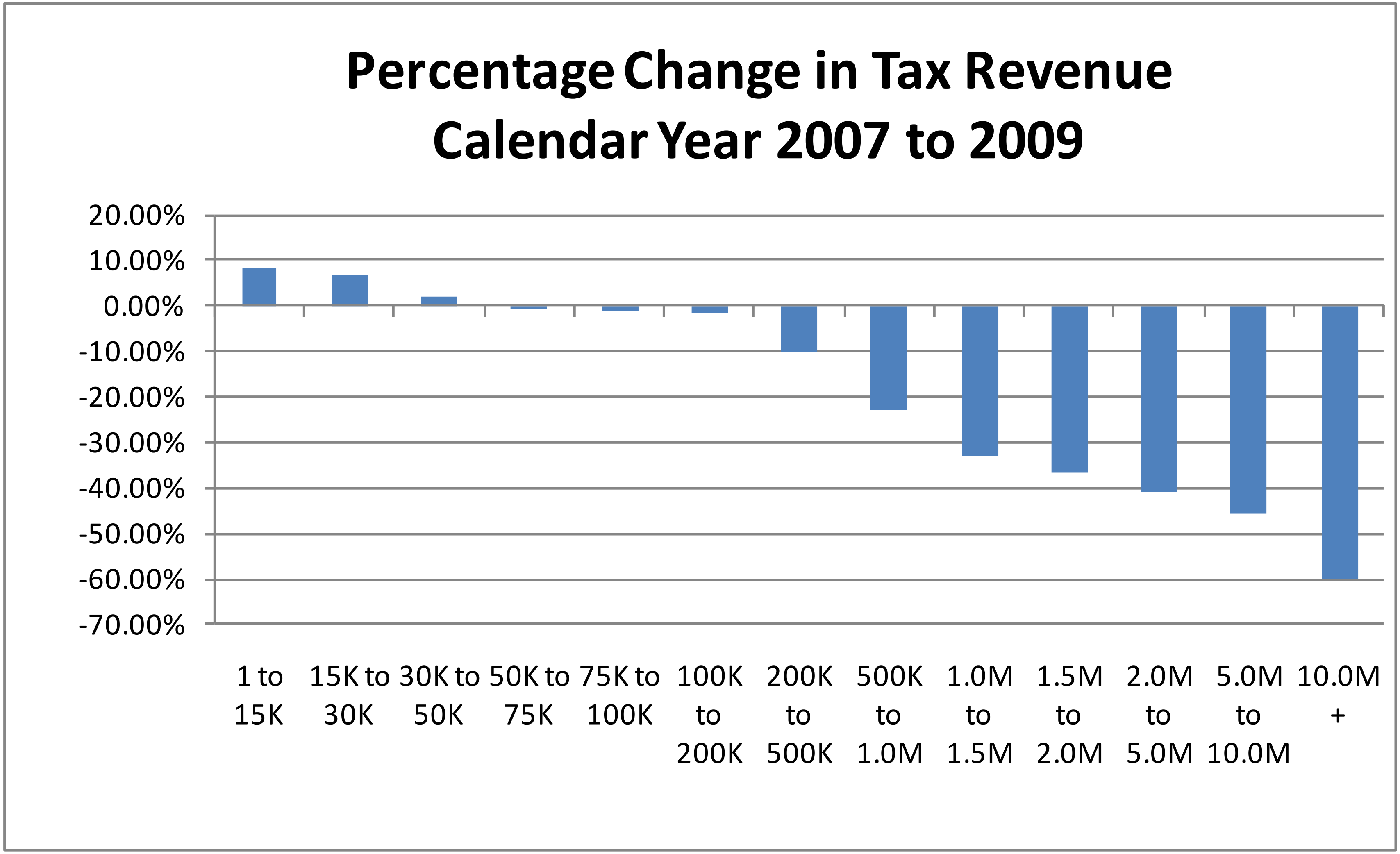
Source: U.S. Census Bureau.

State tax revenue has been more volatile than GDP



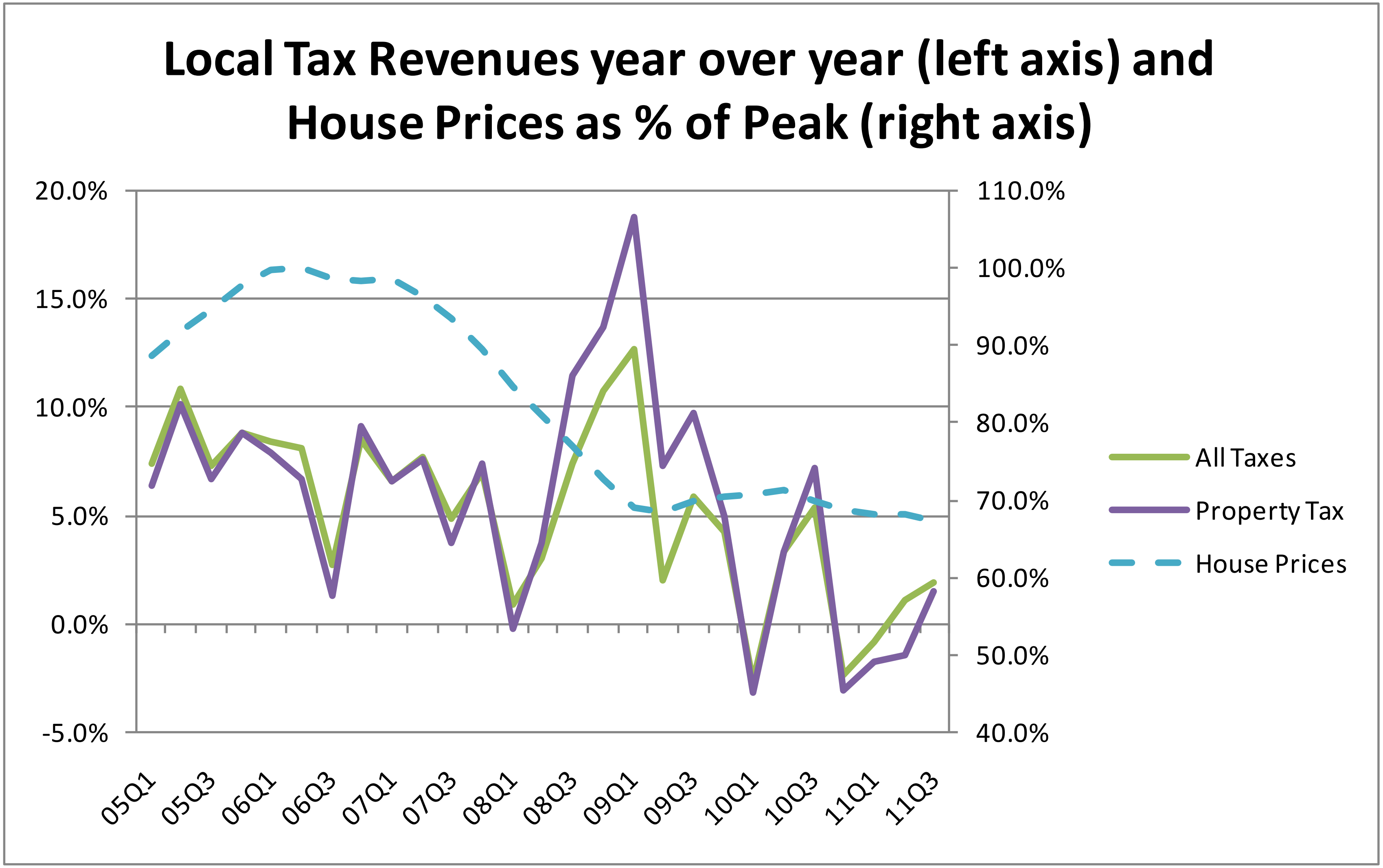
Source: U.S. Census Bureau, Bureau of Economic Analysis.

Higher income brought greater volatility of income



Source: Internal Revenue Service.

Local tax revenue was slow to react to housing prices



Source: U.S. Census Bureau, Standard & Poor's Case-Shiller Home Price Index, which peaked in April 2006.

Changes in tax revenue

Tax Revenue: 4 quarters ended 9/30/11				
	Change from 4 quarters through 9/30/10			
	Total	Personal Income	Sales	Property
State	8.5%	13.2%	5.0%	
Local	-0.3%		4.4%	-1.3%
	Change from 4 quarters ended 9/30/08			
	Total	Personal Income	Sales	Property
State	-2.2%	-5.0%	-2.5%	
Local	9.3%		-7.2%	13.7%

Source: U.S. Census Bureau.

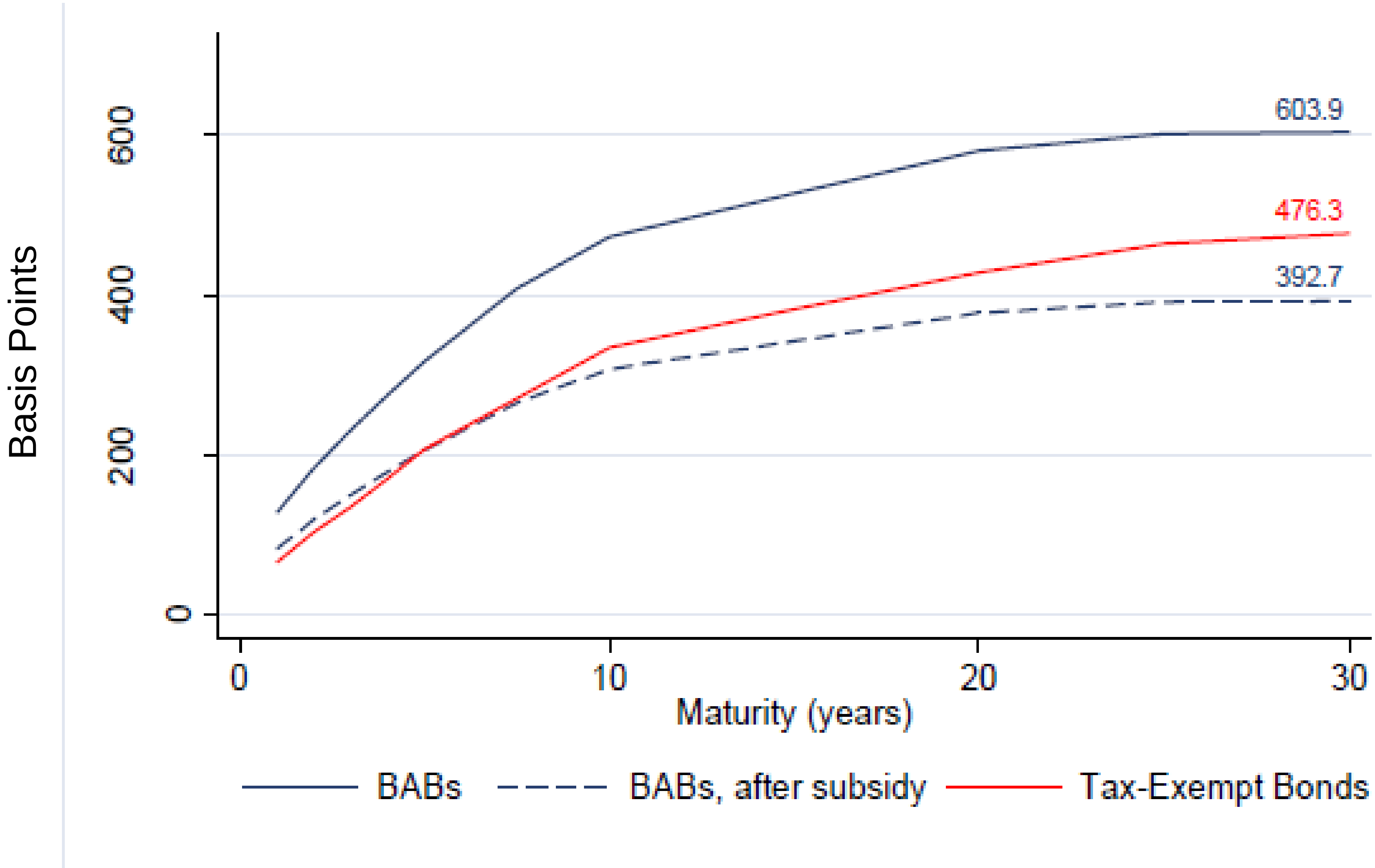
Treasury Analysis of Build America Bonds

- Covered BABs issued from April 2009 to December 2010
- $181 billion of BABs sold in 2,275 issues.
- Average maturity of BABs = 14.3 years
- Average maturity of tax-exempt bonds issued together with BABs = 8.2 years.
- "BABs issuers saved, on average, 84 basis points on interest costs for 30-year bonds."
- Avg. tax-exempt yield on 30-year bonds = 4.77%
- Avg. BAB 30-year bonds yield = 6.04%,

65% of 6.04% =	3.93%
Savings by BAB issuer	0.84%

Source: U.S. Treasury Department, reported dated May 16, 2011. Hereafter called "Treasury BAB report."
A basis point is 1/100th of a percent.
65% = 1- assumed tax rate of 35%.

Treasury BAB Report



Source: U.S. Treasury Department, graph from Treasury BAB Report. Basis point = 1/100th of a percent. See slide 11 for definition of subsidy.

Treasury BAB Report

- Issuers "saved $20 billion in borrowing costs, on a present value basis, as compared to tax-exempt bonds."
- The savings "is considerably greater than the net cost to the federal government of the BABs program."

Source: U.S. Treasury Department, Treasury BAB Report, page 2. Full text: "BABs issuers saved an estimated $20 billion in borrowing costs. Due to the large savings in interest costs, state and local governments that issued BABs saved an estimated $20 billion in borrowing costs, on a present value basis, as compared to tax-exempt bonds. This is considerably greater than the net cost to the federal government of the BABs program."

Treasury BAB Report

Gross Cost of subsidy on bonds due in 30 years yielding 6.04% = 0.35 * 6.04% = 2.11%

Gross Cost	2.11%
Maximum Net Cost	-0.84%
Minimum Tax Revenue	1.27%

Required tax rate for Treasury's net cost to equal cost net of benefit received by issuer =

1.27% / 6.04% = 21.2%

Source: U.S. Treasury Department, Nuveen Asset Management calculations.
Maximum Net Cost is estimate savings to issuer from issuing BABs rather than tax-exempt bonds. Assume the subsidy to BAB issuers equals 35% of interest expense then the Minimum Tax Revenue is what Treasury must collect in taxes in order for the cost of the subsidy paid to BAB issuers not to exceed the savings enjoyed by issuers. Required tax rate is the rate that will keep net cost to Treasury from exceeding savings by issuers.

Changing the Subsidy Rate

Savings and Costs on 30-year BABs yielding:				6.04%
Subsidy Rate	Savings in net yield	Cost to Treasury	Cost - Savings	Needed Tax Rate
35%	0.83%	2.11%	1.28%	21.2%
28%	0.41%	1.69%	1.28%	21.2%
25%	0.23%	1.51%	1.28%	21.2%
15%	-0.37%	0.91%	1.28%	21.2%

Source: U.S. Treasury Department, calculations by Nuveen Asset Management.
6.04% was average interest rate on BABs due in 30 years according to Treasury BAB Report. The BAB subsidy equal to 35% of interest expense is paid directly to issuers of BABs. Various proposals have recommended renewing the BAB program, but with lower subsidy rates.

This hypothetical example is for illustrative purposes only and should not be relied upon for investment advice. This data is based on a hypothetical example, which does not currently exist. Certain information was obtained from third party sources, which we believe reliable but not guaranteed.

Poterba and Verdugo Study

Authors explain why tax expenditures do not equal potential tax revenues.

Assumptions in estimating tax expenditures:

- Tax-exemption revoked retroactively.
- Interest rates raised to taxable rates.
- Current holders retain bonds.

Source: James Poterba and Arturo Verdugo, “Portfolio Substitution and the Revenue Cost of the Federal Income Tax Exemption for State and Local Government Bonds,” *National Tax Journal*, June 2011.
“Tax expenditures” is a term used by the Joint Committee on Taxation of the U.S. Congress, the U.S. Treasury Department, and other bodies to quantify the amount of potential tax revenue that the U.S. Treasury would have received if tax laws had been different.

Poterba and Verdugo Study

Asset Allocation of Investors in Tax-Exempt Bonds

29% Direct equity

15% Equity via mutual funds

18% Tax-exempt bonds

13% Tax-deferred investments

- 8.5% bonds
- 4.5% equity

9% Interest bearing accounts

6% Taxable bonds

10% Other

Source: James Poterba and Arturo Verdugo, “Portfolio Substitution and the Revenue Cost of the Federal Income Tax Exemption for State and Local Government Bonds,” *National Tax Journal*, June 2011.

Poterba and Verdugo Study

Increase in Federal Tax Revenue if investors replace tax-exempt bonds with:

Taxable bonds: $14.0 billion

Equities: $ 8.9 billion

Existing asset allocation: $ 8.2 billion

Joint Committee on Taxation, on 12/15/2010, estimated tax expenditures due to tax-exempt bonds in 2010-14 would be: $199 billion, or $39.8 billion / year.

Source: James Poterba and Arturo Verdugo, "Portfolio Substitution and the Revenue Cost of the Federal Income Tax Exemption for State and Local Government Bonds," *National Tax Journal,* June 2011; Joint Committee on Taxation.

Corporate Bonds in Tax-Deferred Accounts

Percentage of U.S. corporate and U.S.-owned foreign bonds held by:

Life Insurance Companies:	18.1%
Rest of the World:	21.6%
Mutual Funds:	11.7%
Pension Plans:	7.2%

As of 12/31/10 48% of all mutual fund assets were held in tax-deferred accounts.
Congressional Budget Office estimates that tax expenditures from life insurance and annuities will total $117 billion 2012 to 2016.

Source: Federal Reserve, Flow of Funds report; Investment Company Institute, 2011 Investment Company Fact Book; Congressional Budget Office.
"Rest of the World" indicates foreign holdings of U.S. corporate bonds and does not include foreign bonds.

No Tax-Exempt Bonds, Just BABs

BABs helped lower borrowing costs of tax-exempt bonds by reducing supply of tax-exempt bonds.

If, in the future, issuers could only sell BABs, there would be no such collateral benefit.

Jobs Bill Proposed by President Obama

Tax liability increases when Adjusted Gross Income exceeds:

$250,000 for married couples filing jointly,

$225,000 for heads of households

$125,000 for married individuals filing separately, or

$200,000 for all others filing personal income tax returns

Then add deductions and exclusions (e.g. tax-exempt income) to taxable income for Adjustable Taxable Income

Source: Joint Committee on Taxation analysis of bill proposed in September 2011.

Jobs Bill Proposed by President Obama

Tax on Adjusted Taxable Income (ATI)

-Tax on Regular Taxable Income (RTI)

-28% of deductions and exclusions

Increase in tax liability

Assume:

$400,000 RTI

$100,000 Deductions and Exclusions

$500,000 ATI

Source: Joint Committee on Taxation, Nuveen Asset Management.
Regular Taxable Income is income as calculated under tax laws before adjustment. Under the proposal, reduction in tax liability for deductions and exclusions would be limited to 28% of the amount of deductions and exclusions.

Jobs Bill Proposed by President Obama

Tax on RTI = \$101,086 + (0.35 x (\$400,000 - \$373,650))

Tax on ATI = \$101,086 + (0.35 x (\$500,000 - \$373,650))

\$145,308	Tax on ATI of \$500,000
-101,308	Tax on RTI of \$400,000
- 28,000	0.28 x (\$500,000 - \$400,000)
\$ 7,000	

Effective tax rate on "tax-exempt" income is 7% (35% - 28% = \$7,000 / \$100,000)

Source: Joint Committee on Taxation, Nuveen Asset Management.
On joint returns, 35% tax rate applies to taxable income in excess of \$373,650. Tax on \$373,650 = \$101,086.

Jobs Bill Proposed by President Obama

Taxable equivalent yield (TEY):

0.93 x tax-exempt yield = 0.65 x taxable yield

tax-exempt yield = (0.65 x taxable yield)/ 0.93

tax-exempt yield = 0.6989 x taxable yield.

Tax-exempt yield / 0.6989 = taxable equivalent yield.

TEY assuming a tax-exempt bond yield of 3.25%:

3.25% / 0.6989 = 4.65% (with limit on deductions).

3.25% / 0.6500 = 5.00% (under current law).

Jobs Bill Proposed by President Obama

Of 4,179,050 U.S. returns with tax-exempt income in 2009

1,177,019 (28%) had AGI > $200,000,

Which accounted for

$35.9 billion (58%) of

$61.6 billion of tax-exempt income.

Source: Internal Revenue Service, Statistics of Income.

South Carolina v. Baker, 1988

"In sum then, under current intergovernmental tax immunity doctrine, the States can never tax the United States directly, but can tax any private parties with whom it does business, even though the financial burden falls on the United States, as long as the tax does not discriminate against the United States or those with whom it deals."

Source: U.S. Supreme Court, South Carolina v. Baker.

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