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Contacts

Emily Raimes 212-553-7203
VP-Sr Credit Officer
emily.raimes@moodys.com

Nicholas Samuels 212-553-7121
VP-Sr Credit Officer
nicholas.samuels@moodys.com

Marcia Van Wagner 212-553-2952
VP-Sr Credit Officer
marcia.vanwagner@moodys.com

Genevieve Nolan 212-553-3912
VP-Senior Analyst
genevieve.nolan@moodys.com

Timothy Blake 212-553-4524
MD-Public Finance
timothy.blake@moodys.com

Jack Dorer 212-553-1332
MD-Public Finance
jack.dorer@moodys.com

Daniel Ortega 212-553-3967
Associate Analyst
daniel.ortega@moodys.com

State Government - US

Fiscal Stress Test: Ability to Withstand Next Recession Depends on Reserves, Flexibility

Stress-testing the four most populous states to gauge their ability to handle a potential recession scenario in the next two years demonstrates Texas (Aaa stable) is better prepared than Florida (Aa1 stable), New York (Aa1 stable) and California (Aa3 stable). Texas' relative advantage combines lower revenue volatility, healthier reserves relative to a potential revenue decline scenario, and greater revenue and spending flexibility. Measured against these criteria, Texas tops Florida and New York in its readiness to withstand a revenue downturn scenario, while California trails all three states. An appendix looks at recession readiness in the 20 largest states.

» **Revenue volatility is higher in California and more moderate in Texas and New York.** Since 1990, California's largest one-year revenue decline was 17.2%, caused largely by its exposure to the volatile tech industry, suggesting a considerable downside scenario. At 12%, Florida's greatest drop, rooted in the housing slump, also tops the 50-state average of roughly 10%. Texas and New York are below average at 8.5% and 6.5%, respectively, even with risks related to oil prices and Wall Street downturns.

» **Texas' reserve levels provide higher deficit coverage in a potential recession than the other largest states.** Under our stress test (described in the box on page 6), Texas' reserves at the beginning of 2016 would provide more than 3 times coverage of a first-year revenue shortfall scenario. Florida's reserves cover a decline in our scenario by 1.3 times, while California and New York reserve levels provide less than 1 times coverage.

» **Financial flexibility is greatest in Texas and relatively weak in California, with New York and Florida in between.** Texas can react quickly to a revenue drop with a governance structure that allows midyear spending cuts without a broad legislative vote. California and New York aren't as nimble, and California is also limited by legislative supermajorities needed to raise taxes. Fixed costs for debt and pensions also limit states' flexibility to cut costs if needed; Florida has a lower fixed cost burden than the others.

» **States have many tools available to them, which helped during the last recession.** When economic conditions and tax revenues drop unexpectedly, states take advantage of these tools to manage their finances. In addition to tapping reserves, raising revenues and cutting spending, states can defer expenses, shift costs to local governments, access available balances in special purpose funds, and borrow for operations. These tools were used in the wake of the 2008-09 financial crisis and would be called on again if needed.

Exhibit 1
Texas Best Prepared Among Four Largest States for Recession

	Revenue Volatility	Coverage by Reserves in 1st Year Downturn Scenario (times coverage)	Revenue and Spending Flexibility	Fixed Costs as % of Revenues	Recession Preparedness
Texas	Moderate	3.15	Stronger	8.5%	**Stronger**
Florida	Moderate	1.31	Moderate	5.7%	**Moderate**
New York	Moderate	0.36	Moderate	13.2%	**Moderate**
California	Higher	0.48	Weaker	12.5%	**Weaker**

Source: Moody's Investors Service

Revenue volatility is higher in California and comparatively moderate in Texas and New York

Among the four largest states, revenue volatility in a national recession could cause greater revenue shortfalls in California, while Florida, New York and Texas would fare relatively better (see Exhibit 1 above). Historically, California has shown vulnerability as the center of the highly volatile tech industry and is reliant on personal income taxes. Florida was the epicenter of the most recent housing slump. Texas and New York have experienced lesser declines, even while facing respective challenges related to oil price cycles and Wall Street downturns.

In our analysis, we identified the greatest one-year revenue declines since 1990 for each of the four largest states to capture several business cycles. Additionally, we examined the greatest one-year revenue decline for the 20 largest states since 1999 (see Appendix).

Since 1990, California's greatest one-year decline of 17.2% occurred in 2002 after the tech bubble burst (see Exhibit 2). Florida's 12% decline took place in 2009, when the recession and housing slump negatively impacted the state's general revenues. Texas and New York had more moderate declines of 8.5% (2009) and 6.5% (2003), respectively, noting that New York avoided sharper declines in both 2003 and 2010 by enacting timely tax rate increases.

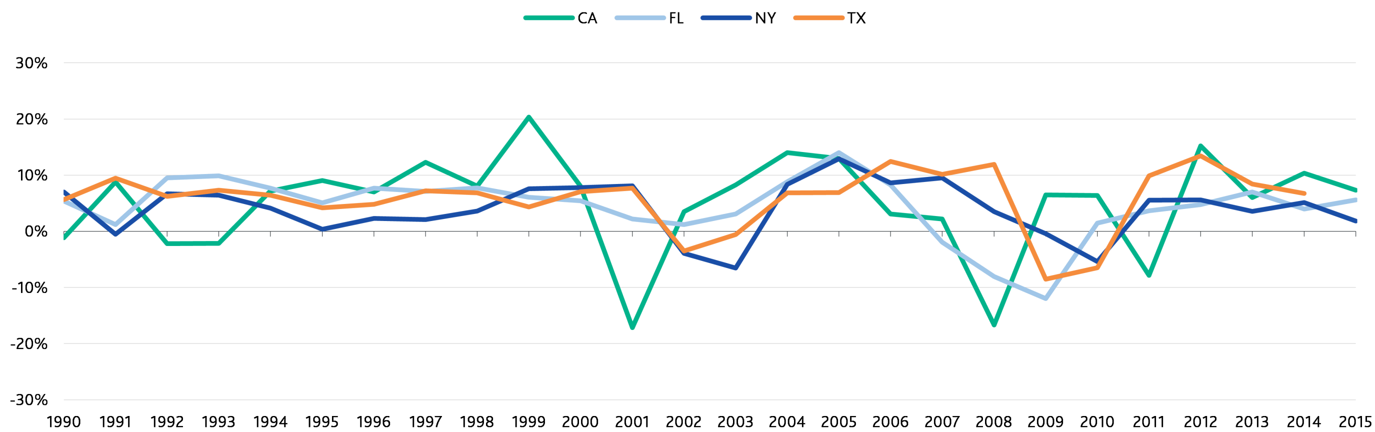
Exhibit 2
With Tech Slump, California Tops Four Largest States in Greatest Single-Year Revenue Decline
1990-2015

	Largest Tax Revenue Source	Greatest One-Year Revenue Increase	Greatest One-Year Revenue Decline	Standard Deviation
Texas	Sales tax	13.4%	-8.5%	5.3%
Florida	Sales tax	14.0%	-12.0%	5.3%
New York	Personal income tax	12.9%	-6.5%	4.6%
California	Personal income tax	20.3%	-17.2%	8.6%

Source: Moody's Investors Service

Exhibit 3 offers a snapshot of how much California's revenues can be impacted by the fortunes of the tech sector. In 2000, with the tech boom in full swing, state revenues grew 20.3%, only to fall 17.2% two years later. Separately, the greatest decline in Texas came not during the 1980s oil downturn, but during the 2009 recession.

Exhibit 3
California's Revenues Show Most Volatility in 1999-2001
Year-over-Year Revenue Growth



Source: Moody's Investors Service

Many states have consecutive-year revenue declines during economic recessions. For the purposes of this exercise, however, we focused on the scale of financial difficulty the state would face in the first year of a downturn, when finances can be the most vulnerable because the declines are typically unexpected, and not built into the budget.

Additionally, we note that the revenue data do not adjust for legislated tax rate and policy changes that may have occurred. If a state instituted a tax increase at the start of a recession, resulting revenue collections may not reflect the underlying volatility of the tax base and impact of the tax law adjustments. For example, New York State increased taxes during the most recent recession to mitigate revenue declines. Generally, however, states that have volatile revenue structures, such as highly progressive income taxes or a reliance on tax revenues from a volatile source such as oil production, report larger revenue swings through the economic cycles even if they use tax policy changes to somewhat mitigate the sharp swings in revenues.

Texas' reserve levels provide substantially higher deficit coverage in a potential recession

Our stress test shows Texas has more than ample reserves to cover a major single-year revenue decline, absent any other budget adjustments. Florida also has an adequate level to cover a deficit, while California and New York fall short. We define reserves as Rainy Day Funds or Budget Stabilization Funds specifically in place for revenue shortfalls, as well as any other money set aside as a budgetary reserve and available for the General Fund.

Our deficit stress test takes the greatest one-year revenue decline since 1990 in percentage terms and applies the figure to estimated fiscal 2017 operating revenue, which determines the magnitude of the potential decline. We then evaluate how much of the decline a state's projected levels of available reserves would cover.

Results show Texas' reserves (its Economic Stabilization Fund plus the portion of its biennial revenue forecast left unappropriated as an additional budget cushion) would cover a severe decline as applied by our stress test by 3.15 times (using only the $9.6 billion balance in the Economic Stabilization Fund, coverage is 2.37 times). Florida's reserves would cover the shortfall by 1.31 times. California and New York have reserves that wouldn't cover a year's decline, at 0.48 and 0.36 times, respectively (see Exhibit 4).

Without the ability to cover a sudden, first-year decline with reserves alone, California and New York would need to resort to other measures. Generally, reserves have the advantage of allowing a state to plug gaps without difficult political decisions involving spending cuts or raising taxes.

Exhibit 4

California and New York Are Unable to Cover Extreme Single-Year Revenue Drops With Reserves

	Greatest 1-year Revenue Decline (1990-2015)	FY2017 Revenues ($Mill)	Revenue Decline in Recession Scenario ($Mill)	Reserves available to cover revenue decline ($Mill)	Coverage by Reserves in 1st Year Downturn Scenario (times coverage)
Texas	-8.5%	$47,723	$4,056	$12,758	3.15
Florida	-12.0%	$29,507	$3,541	$4,636	1.31
New York	-6.5%	$76,340	$4,962	$1,800	0.36
California	-17.2%	$124,189	$21,361	$10,200	0.48

Source: Moody's Investors Service

Financial flexibility is greatest in Texas and relatively weak in California, with New York and Florida in between

Texas can take quick steps to limit the negative fiscal impact of a recession with a governance structure that allows it to address revenue shortfalls midyear without a broad legislative vote. The other three states need legislative approval. California is further hampered in its ability to address recessionary conditions by needing a two-thirds legislative majority to raise taxes, where the other three states need only a simple majority. California and New Yorrk have higher fixed-cost ratios than the other two states, giving them less discretionary spending to cut in an economic downturn.

» **Texas:** The governor with the Legislative Budget Board can make midyear spending cuts. Texas has no constitutional caps on raising revenues. The state requires a simple majority to pass a budget or raise taxes.

» **New York:** The governor cannot implement midyear spending cuts without a vote of the legislature. The legislature needs a simple majority to pass a budget or raise taxes.

» **Florida:** The governor cannot unilaterally implement unlimited midyear spending cuts. He may reduce expenditures by up to 1.5% with just the approval of a legislative committee. Otherwise, the legislature needs a simple majority to pass a budget, reduce expenditures beyond 1.5% or raise taxes.

» **California:** The governor does not have the ability to make midyear spending cuts without legislative action, and while only a simple majority is needed to pass a budget, the legislature can only raise taxes with a two-thirds majority.

The amount of a state's budget that must be spent on fixed costs also affects flexibility. A state with very high fixed costs as a percent of the budget has less discretionary spending available to cut if needed. Most of a state's spending outside fixed costs is for education, health care, human services and corrections, all areas that can be cut if needed. For example, California cut more than $2 billion of education funding from its fiscal 2009 budget, a year of fiscal stress for the state.

Our fixed-cost ratio is measured here by the sum of a state's tax-supported debt service, pension actuarial contribution, and retiree health benefit payments (OPEB) divided by total governmental fund revenue excluding federal revenues. New York's fixed-cost ratio is about 13%, followed by California at 12.5%, Texas at 8.5% and Florida at less than 6%. This gives Texas and Florida wider discretion to cut their budgets if necessary.

States have many tools available, which they actively use during recessions

When economic conditions and tax revenues drop unexpectedly, states have a number of tools to manage budgets and maintain liquidity. Some of the tools reflect states' sovereignty and an ability to create their own fiscal frameworks, which distinguishes them from local governments or corporations. In addition to tapping "rainy day" reserves, cutting spending, and raising taxes or other revenues, a state's toolkit includes:

» Accessing special purpose state funds and transferring them into the main operating funds

» Shifting costs to lower levels of government

» Selling assets, such as state buildings or other property

» Short or long-term borrowing for operations

While policy decisions may be difficult, these powers are strong and widely used to maintain fiscal balance and liquidity through economic down-cycles.

During the last recession, California used many of the tools available. For example, in fiscal 2009 the state cut General Fund spending by $11 billion, or 11.2%; the following year, it cut an additional 5.6%. The state also raised income taxes and sales taxes on a temporary basis, deferred payments to school districts for multiple fiscal years, and borrowed for operations.

New York raised personal income taxes and cut spending during the recession. The state also relied on non-recurring actions such as tapping funds from entities such as the New York State Power Authority (Aa1 stable), suspending certain sales tax exemptions and borrowing from its pension fund (through amortizing its pension contributions). In the future, proceeds from numerous recent legal settlements with financial institutions could be tapped in an economic downturn (these funds are not included in our calculation of the state's reserves used for this stress test because they are reserved for other purposes).

Texas cut $11 billion (6%) from its fiscal 2012-2013 biennial budget, including $4 billion from elementary and secondary school funding and $1 billion from higher education. It also used $3.2 billion of its Economic Stabilization Fund to help balance the revenue shortfall caused by the national recession.

Florida entered the recession with a comparatively high reserve position, peaking at 26% of operating revenues in fiscal 2006, compared to a median 10% for states during the same time period. The state used a portion of its reserves to balance budgets during the recession, which culminated with an 11.8% operating revenue decline in fiscal 2009. Maintaining a sound reserve position despite the significant revenue deterioration highlights the state's track record of prudent financial planning and successful navigation of the last recession within its existing governance framework.

Stress test results for 20 largest states

The measures we assessed—revenue volatility, deficit coverage by reserves in a recession scenario, and revenue and spending flexibility—provide an indication of the size of the problem a state may have to deal with in a recession in the next two years. We also evaluated the ease with which a state can be nimble and solve a surprising mid-year revenue decline by patching a budget gap with reserves. Having reserves sufficient to cover a deficit is only one way to solve a gap, but it is a prudent and measurable way to prepare for a downturn, as it generally does not require difficult political decisions around programmatic spending cuts or raising taxes. The stress test focuses on reserves as a measure of recession preparedness, as well as an assessment of financial flexibility to adjust revenues and expenditures on a timely basis.

Using these measures, of the 20 largest states, Missouri, Texas, and Washington are better positioned to handle a recession scenario, with stronger coverage of deficits by reserves and stronger revenue and spending flexibility. Florida and New York have a more moderate ability to withstand a recession, and California and Illinois have low coverage by reserves and inflexible aspects of their governance, resulting in a weaker ability to manage a revenue downturn.

How we stress-tested the states

Revenue volatility: We calculated the average and standard deviation of the greatest one-year revenue declines of the 50 states, from 1999 to 2014. If a state's largest one-year decline was at least one standard deviation better than the mean, we report revenue volatility as Lower. If it was between one standard deviation below and one standard deviation above the mean, we report it as Moderate. If it was more than one standard deviation worse than the mean, we report revenue volatility as Higher.

Coverage by reserves: If reserves cover a one-year deficit in a recession scenario by greater than 1 times, we report coverage by reserves as Stronger. If they cover the deficit by greater than 0.5 times but less than 1 times, we report it as Moderate. If they cover the deficit by less than 0.5 times, we report it as Weaker.

Revenue and spending flexibility: We consider governance flexibility when determining state ratings. The sub-factor considers whether there are constitutional restrictions on a state's ability to raise revenues, pass a budget, or change spending levels. For this exercise, we determined a state's flexibility to deal with a recession as Stronger if the state scores Aaa or Aa1 on this sub-factor in our ratings scorecard; Moderate if it scores Aa2 or Aa3; and Lower if it scores A or lower. We adjusted these up or down if the state's governor does or does not have the ability to cut spending midyear without legislative approval (which is captured in a different governance sub-factor of our scorecard). We also adjusted the governance flexibility score down if the state's fixed-cost ratio was above 20%, which is just above one standard deviation above the mean.

Recession preparedness: We weighted the three factors above equally, and scored each state to come up with Stronger, Moderate or Weaker in terms of recession preparedness. Each individual factor was given a numeric value: Stronger = 1; Moderate = 2; Weaker = 3. Summing the numerical values resulted in a final score for each state, which indicates its recession preparedness: Stronger (3-4), Moderate (5-7), and Weaker (8-9).

Appendix

Exhibit 5

Of the 20 Most Populous States, Missouri, Texas and Washington Are Best Prepared for a Recession

State	Rating	Revenue Volatility	Coverage by Reserves in 1st Year Downturn Scenario (times coverage)	Revenue and Spending Flexibility	Fixed Costs as % of Revenues	Recession Preparedness
Missouri	Aaa	Moderate	1.13	Stronger	7.6%	**Stronger**
Texas	Aaa	Moderate	3.15	Stronger	8.5%	**Stronger**
Washington	Aa1	Lower	1.65	Moderate	9.4%	**Stronger**
Arizona	Aa2	Higher	0.66	Moderate	6.8%	**Moderate**
Florida	Aa1	Moderate	1.31	Moderate	5.7%	**Moderate**
Georgia	Aaa	Moderate	0.60	Stronger	10.7%	**Moderate**
Indiana	Aaa	Higher	0.68	Stronger	7.3%	**Moderate**
Maryland	Aaa	Moderate	0.95	Moderate	18.8%	**Moderate**
Massachusetts	Aa1	Moderate	0.44	Moderate	20.5%*	**Moderate**
Michigan	Aa1	Moderate	0.54	Moderate	8.5%	**Moderate**
New Jersey	A2	Moderate	0.22	Moderate	22.6%*	**Moderate**
New York	Aa1	Moderate	0.36	Moderate	13.2%	**Moderate**
North Carolina	Aaa	Moderate	0.48	Stronger	10.2%	**Moderate**
Ohio	Aa1	Moderate	0.95	Stronger	7.0%	**Moderate**
Pennsylvania	Aa3	Moderate	0.00	Stronger	13.9%	**Moderate**
Tennessee	Aaa	Moderate	0.94	Moderate	4.8%	**Moderate**
Virginia	Aaa	Moderate	0.26	Stronger	8.3%	**Moderate**
Wisconsin	Aa2	Lower	0.77	Moderate	9.7%	**Moderate**
California	Aa3	Higher	0.48	Weaker	12.5%	**Weaker**
Illinois	Baa1	Moderate	0.00	Weaker	28.0%*	**Weaker**

*The governance flexibility score is adjusted down if the state's fixed-cost ratio is above 20%

Source: Moody's Investors Service

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