

Managing Uncertainty in State Revenue

October 15, 2018

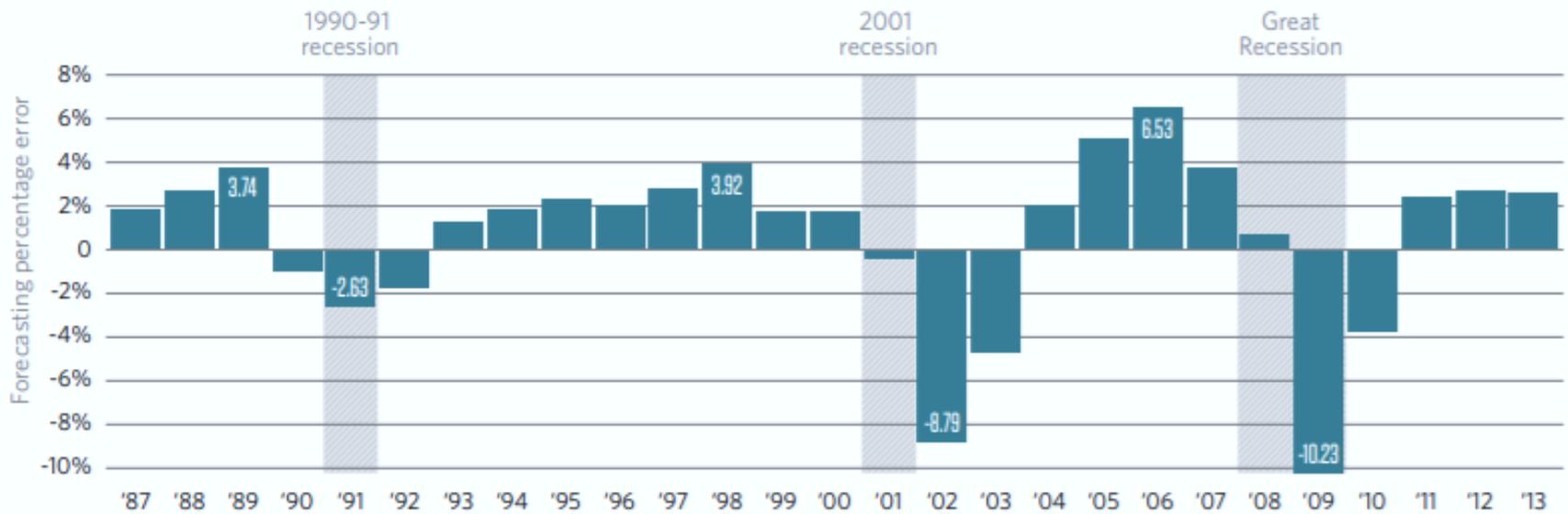
About The Pew Charitable Trusts

The Pew Charitable Trusts is a public charity driven by the power of knowledge to solve today's most challenging problems. Pew conducts fact-based research and rigorous analysis to improve policy, inform the public and invigorate civic life.

We help states apply fact-based solutions to a wide range of policy areas, including the environment, health, consumer safety, and in addressing state policy. and

State Revenue Increasingly Hard to Forecast

U.S. 50-state median error rate in state revenue forecasts -- as percentage of tax collections - fiscal years 1987-2013

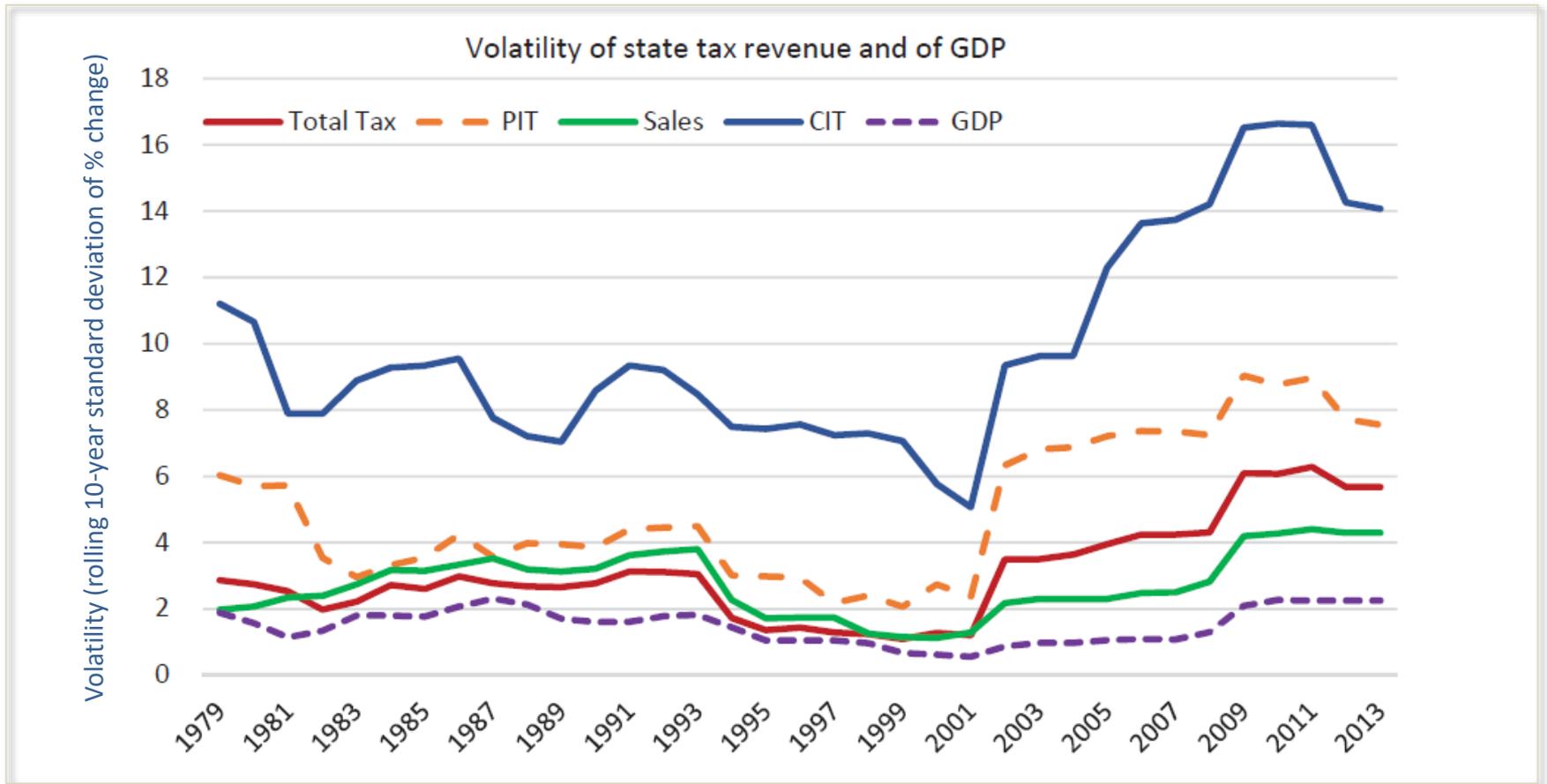


Source: Rockefeller Institute of Government (2013)

Errors Driven by Revenue Volatility

- State tax collections are harder to predict than before
- Revenue volatility increased in 42 states between 2000 and 2013
- Forecasting errors in last two recessions bigger than in 1990 recession

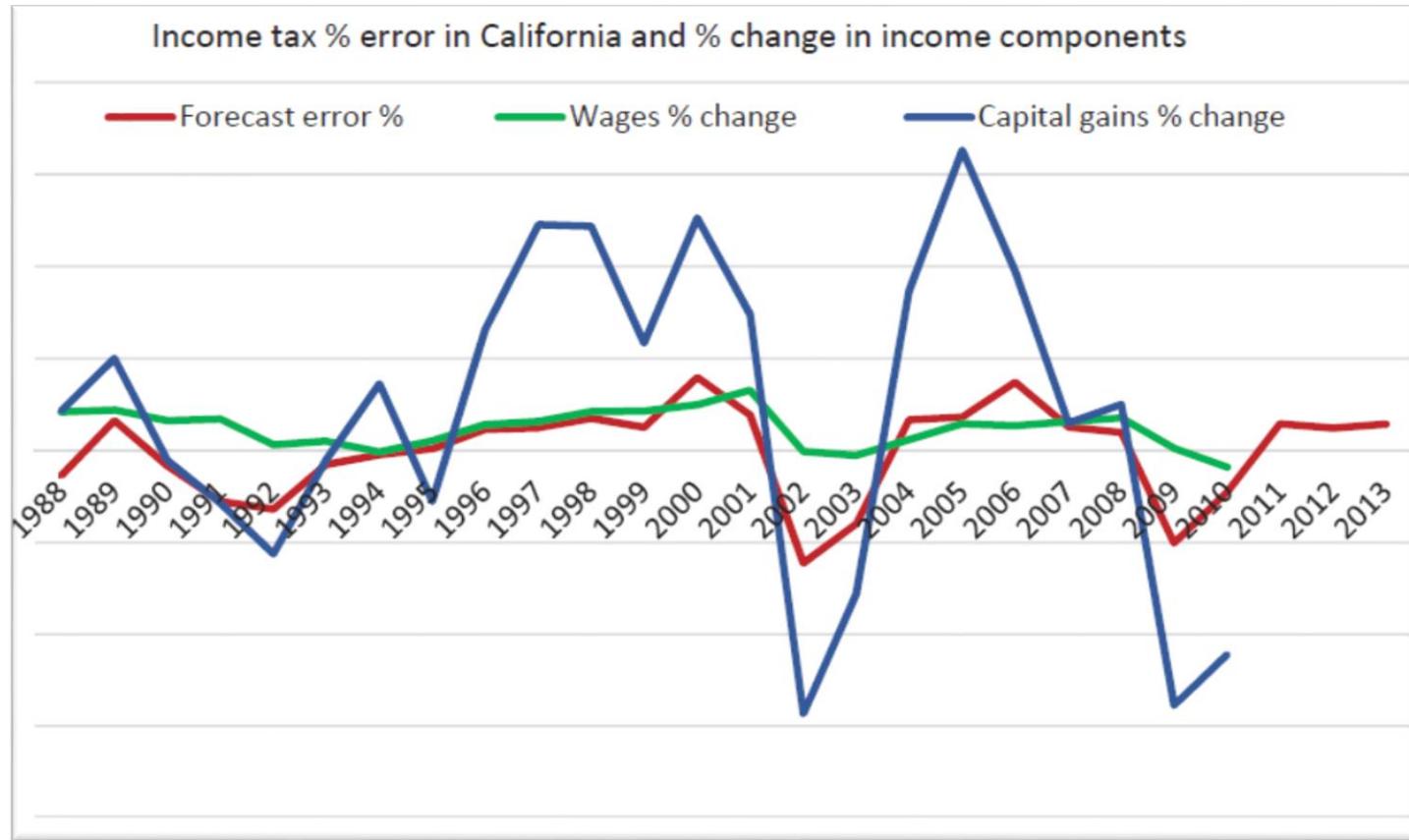
Rising Forecast Error Driven by Personal, Corporate Income Taxes



Source: Rockefeller Institute analysis of data from Census Bureau and Bureau of Economic Analysis (2013)

Capital Gains More Volatile Than Wage Income

Non-Wage Sources More Difficult to Estimate, Prone to Greater Forecast Error

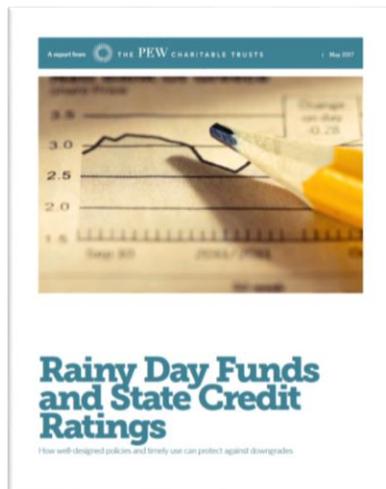
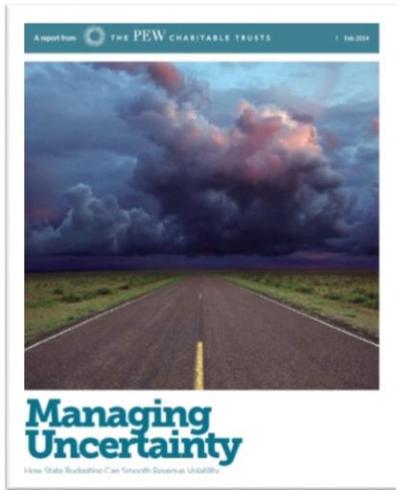


Source: Rockefeller Institute analysis of data from NASBO and the Internal Revenue Service (2013)

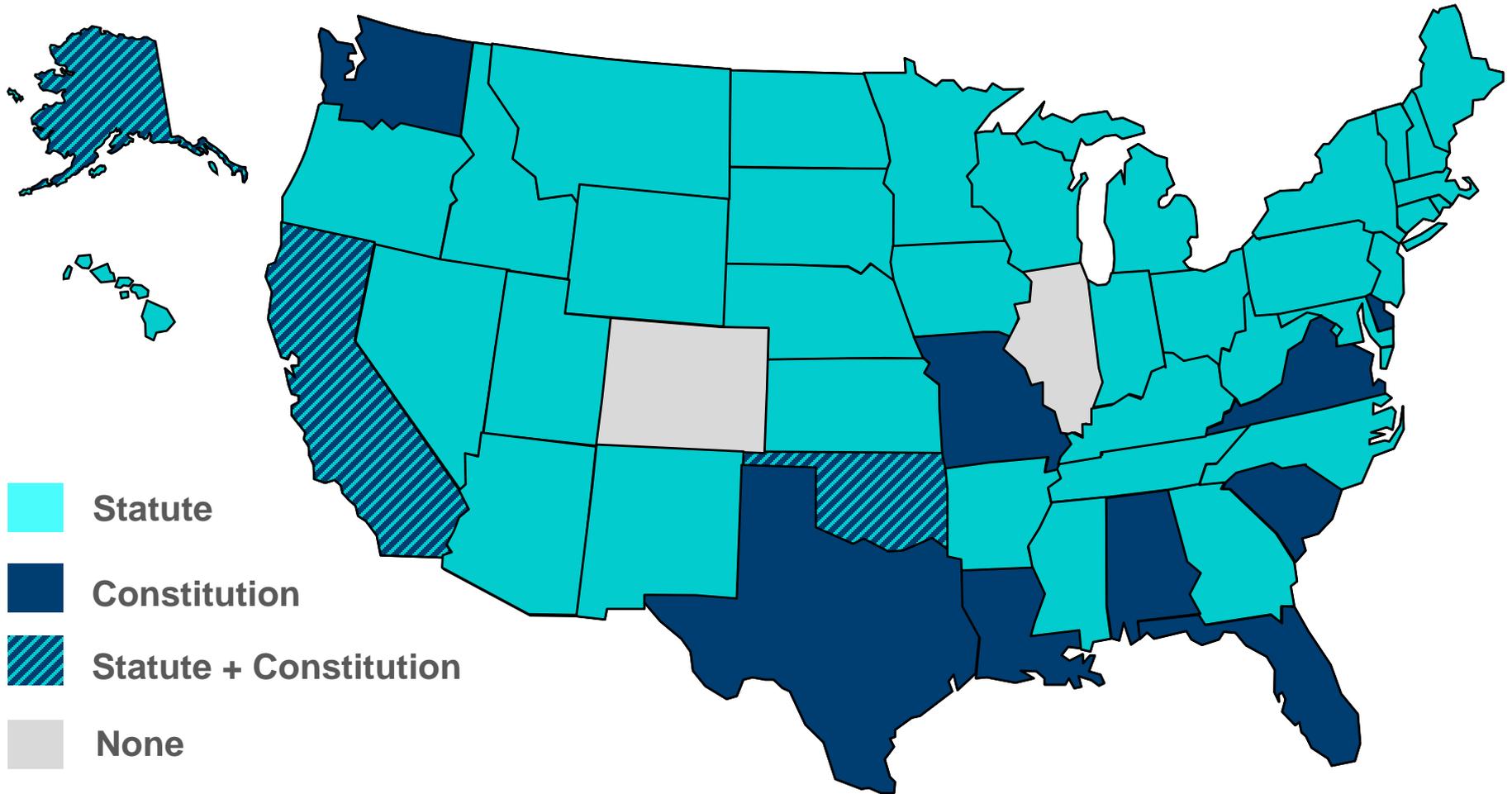
States Can Reduce the Impact of Forecast Error on the Budget

- During growth periods, reducing the estimate of especially hard-to-predict revenue sources to a historical average.
- Depositing above-normal collections of revenue into a budget stabilization fund.
- Stress testing reserve sizes to ensure they can mitigate both forecast error and a recession.

Pew's Research on Budget Stabilization Funds



48 States Have a Budget Stabilization Fund Legislated by Statute or in their Constitution

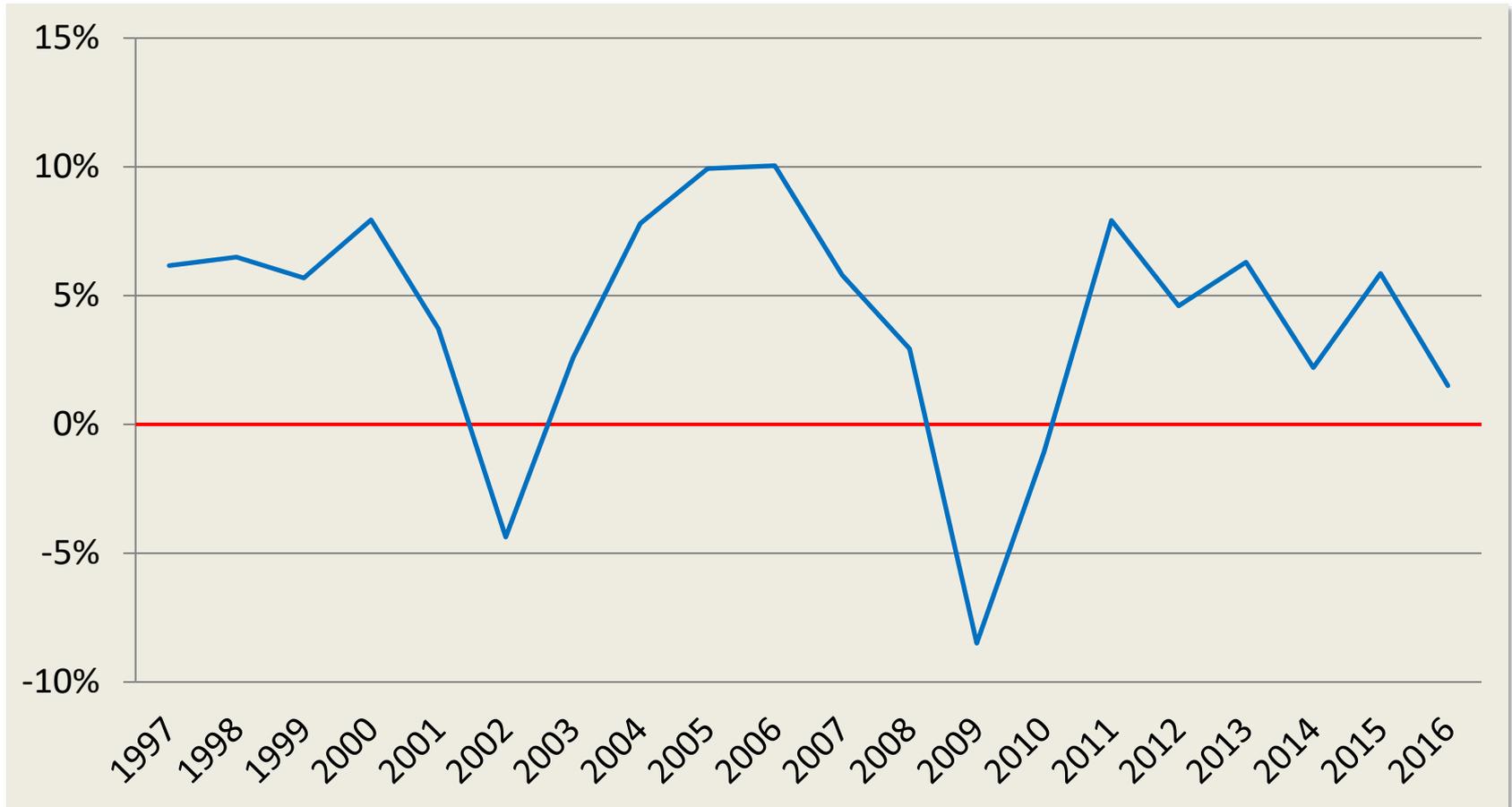


Best Practices for Budget Stabilization Funds

1. Identify periods of above-average revenue growth
 - General Fund revenue collections
 - Volatile tax sources
2. Set aside a portion of above-average collections

50-State Total Tax Revenue Collections

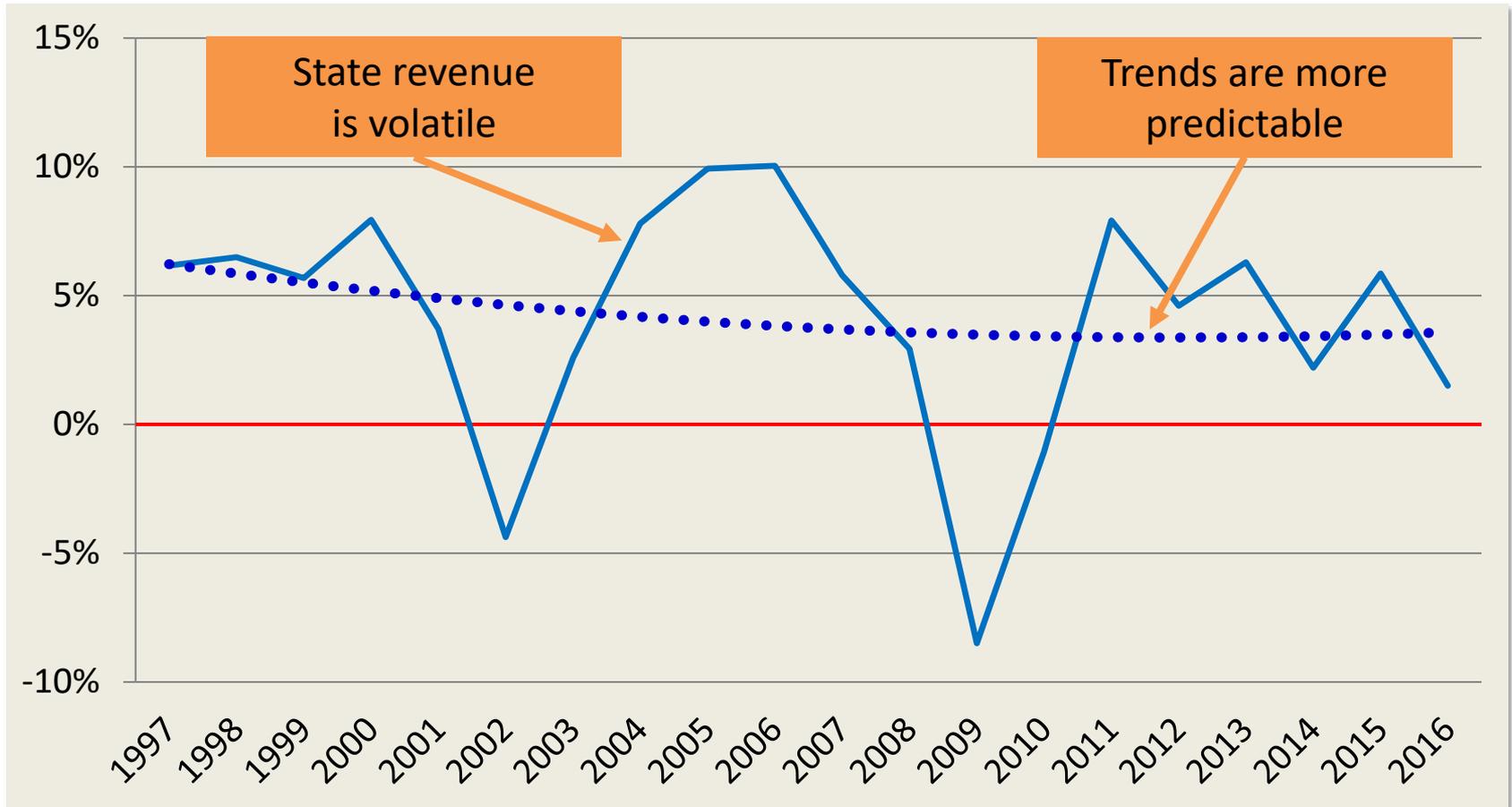
Annual percent change, 1997-2016



Source: Pew analysis of State Annual Tax Collections Data, U.S. Census Bureau

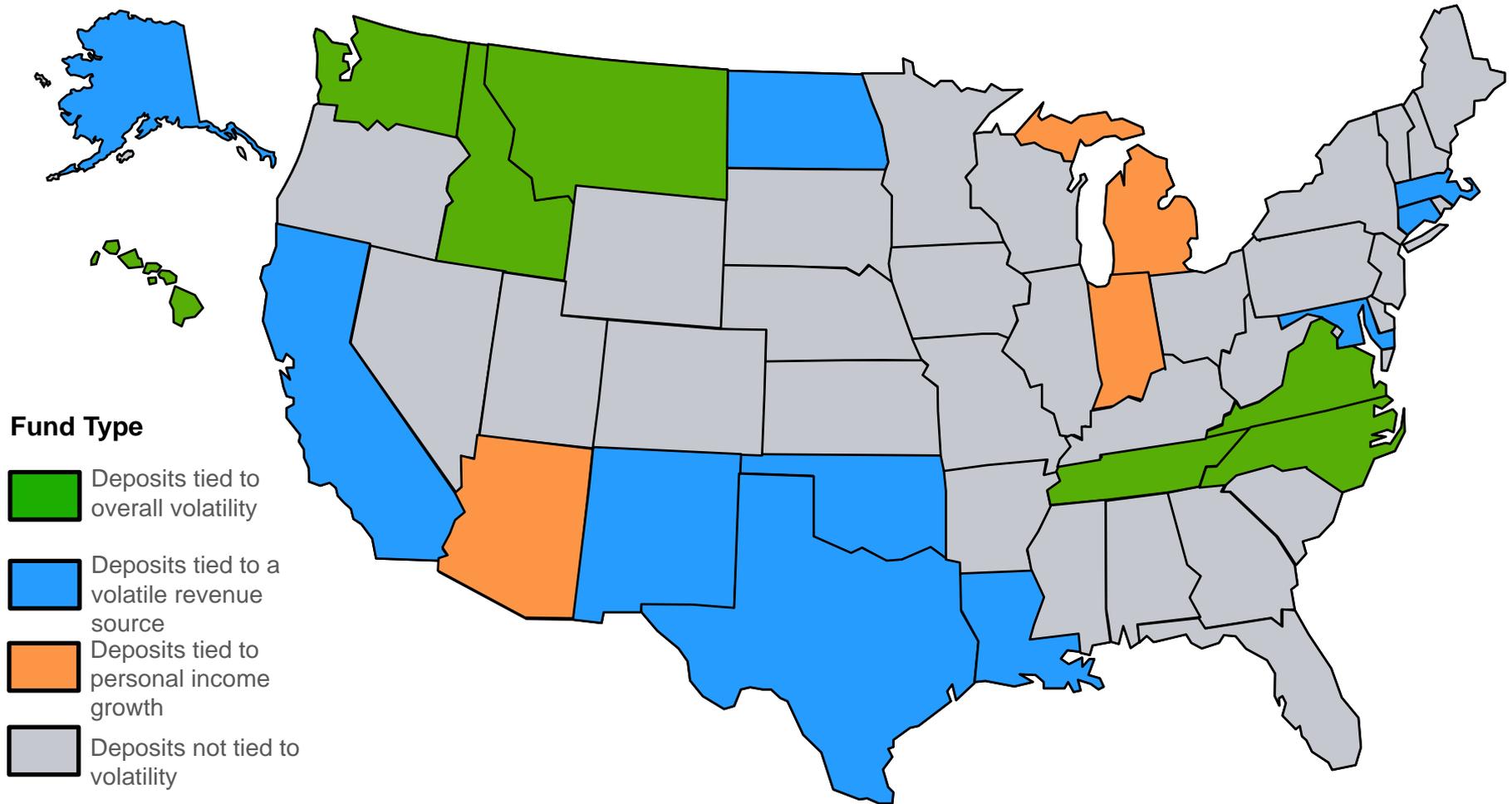
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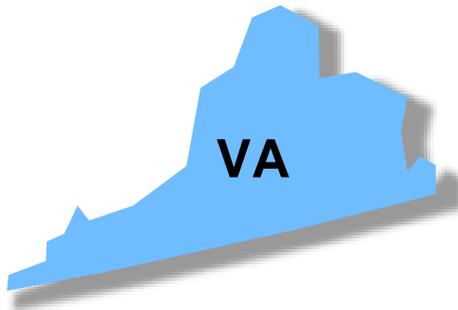
Source: Pew analysis of State Annual Tax Collections Data, U.S. Census Bureau

States with Savings Rules Tied to Volatility

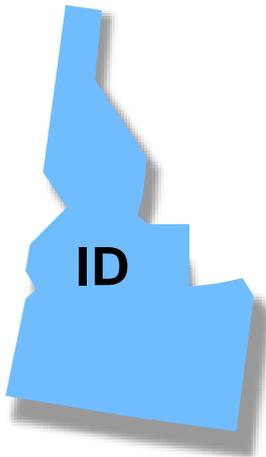


Depositing Based on Revenue Volatility

Some states link deposits to overall revenue volatility



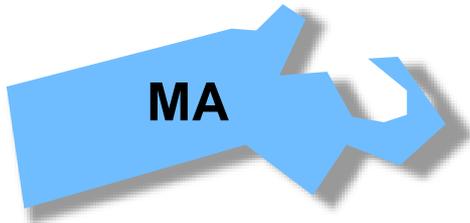
Virginia deposits 50 percent of general fund revenue growth that exceeds the previous 6-year average growth rate.



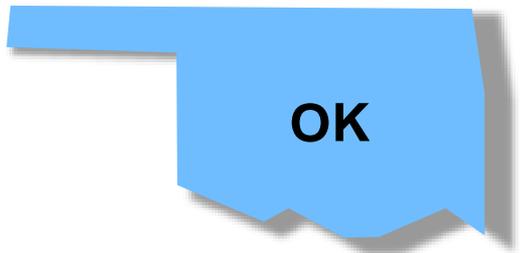
Idaho sets aside general fund revenue growth that exceeds 4 percent, with an annual deposit limit equal to 1 percent of general fund revenues.

Depositing Based on Revenue Volatility

Some states link deposits to single, volatile revenue stream



Massachusetts deposits revenue from excess capital gains taxes. This threshold grows based on U.S. gross domestic product from the previous five years.



Oklahoma deposits **corporate income tax** collections that exceed the previous 5-year average contribution to the general fund.

Designing Reserves to Ensure They Can Address Revenue Shortfalls

- States can conduct **optimal size analyses** to ensure their reserves are sufficient to safeguard against revenue downturns and forecast errors.
- States can also create separate funds to specifically address forecast shortfalls.

Using Reserves to Address Forecast Error

States need to ensure they have sufficient funds to cover shortfalls



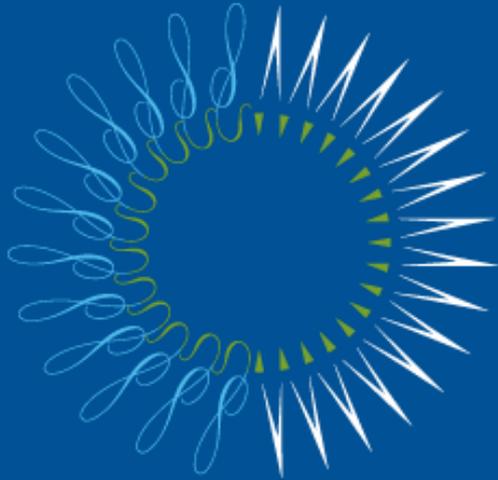
Utah increased their savings caps for the General Fund Budget Reserve Account and Education Budget Reserve based on an 18 month downside risk forecast.



Minnesota determines the cap on their Budget Reserve Account each year through an evidence-based evaluation of the state's economic volatility.



Vermont's Rainy Day Reserve has the specific purpose of providing support when revenue forecasts decline by more than 2 percent.



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