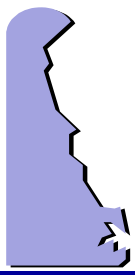

DEFAC Advisory Panel on Fiscal Controls and Budget Smoothing

November 28, 2017



Revenue Volatility

- Three ways to address revenue volatility
 - Address the impact annually through the budget process
 - Broaden the tax base
 - Remove volatility from the budget and put it in reserve funds
- Rainy day funds are an example of the last approach, but they are generally limited in their use and impact



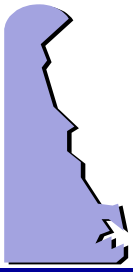
Defining Stabilization

- Spectrum of options
 - Addressing severe recessions or other causes of significant budget shortfalls
 - Providing buffers to alleviate the need for tax policy changes and/or spending reductions to address transient conditions
 - Eliminating or managing all revenue volatility for budgeting purposes
- States have generally elected a combination of the first two options—some exceptions



Budget Reserve Account

- Delaware's Budget Reserve Account, or Rainy Day Fund (RDF) falls in the first category—it is available “to fund any **unanticipated** deficit”
- Unencumbered funds deposited within 45 days of the end of a fiscal year, up to a cap of 5% of estimated general fund revenues
- Has been at the cap since at least FY 1988



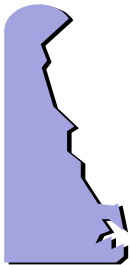
Fiscal Controls

- Fiscal controls are intended to restrain budget expansion during periods of strong economic growth
- Stabilization fund deposit rules can act as fiscal controls, but not all do
- Fiscal controls should be independent of direct measures of revenue

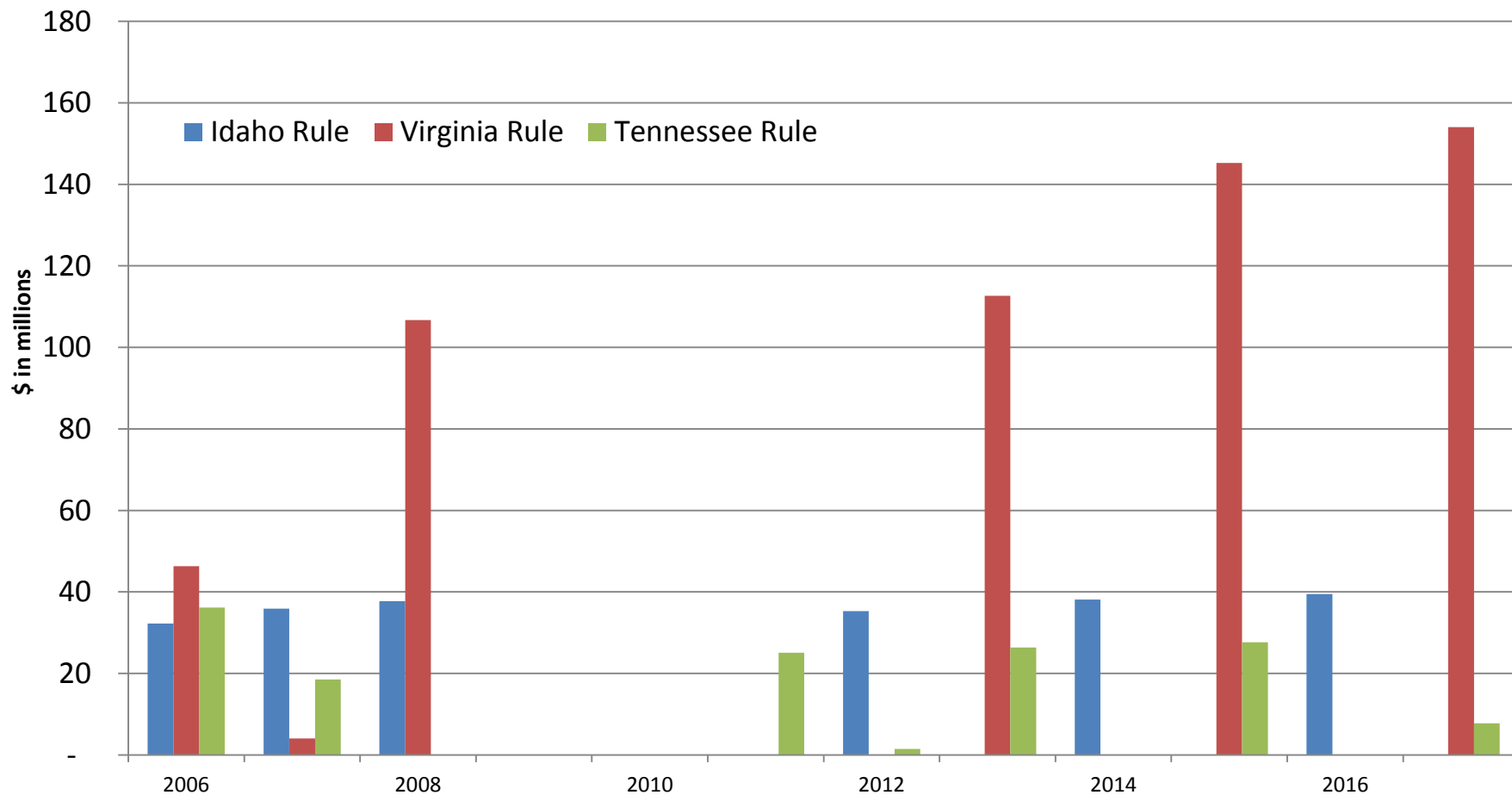


Illustrative Examples of Rainy Day Fund Rules

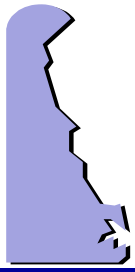
- Applied several states' rules to see what the effect would have been in Delaware
 - Up to 1% of revenues when growth exceeds 4% (Idaho)
 - 10% of revenue growth (Tennessee, modified)
 - Half of growth over the average annual growth of the prior six years (Virginia)
- Available data allows analysis from 2006 forward



Rainy Day Fund Deposits

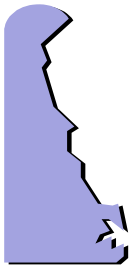


Hypothetical deposits to Delaware's RDF from constant-law revenues using rules of Idaho, Virginia and Tennessee

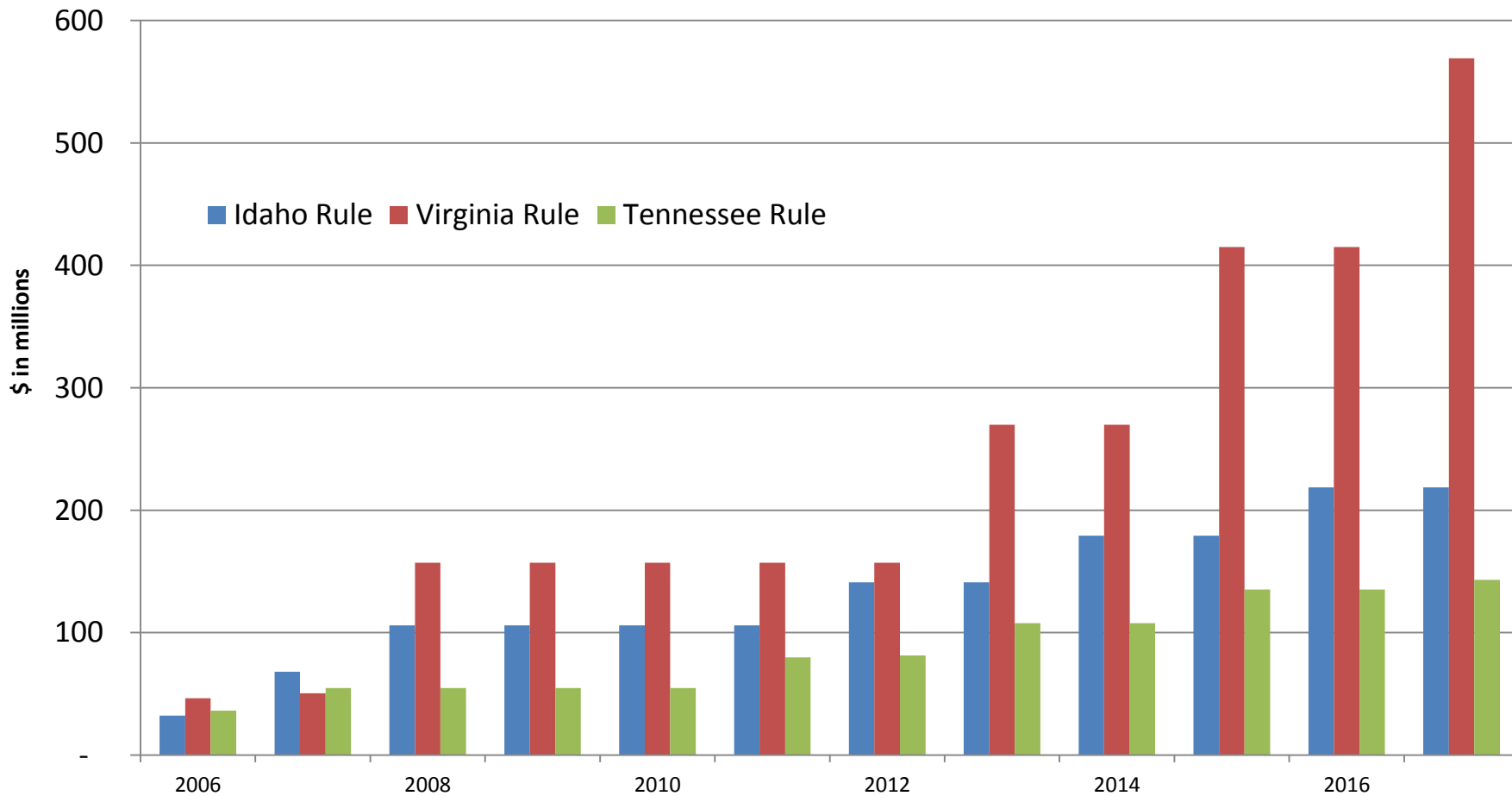


Delaware Deposits

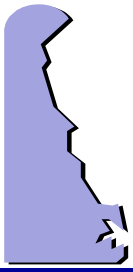
- Tennessee rule has negligible impact with respect to volatility
- Idaho rule smooths volatility by redirecting some revenue when growth is strong
- The Virginia rule is one step closer to a full stabilization fund than a traditional RDF
- All rules provide that some portion of annual growth is available for spending in the current year



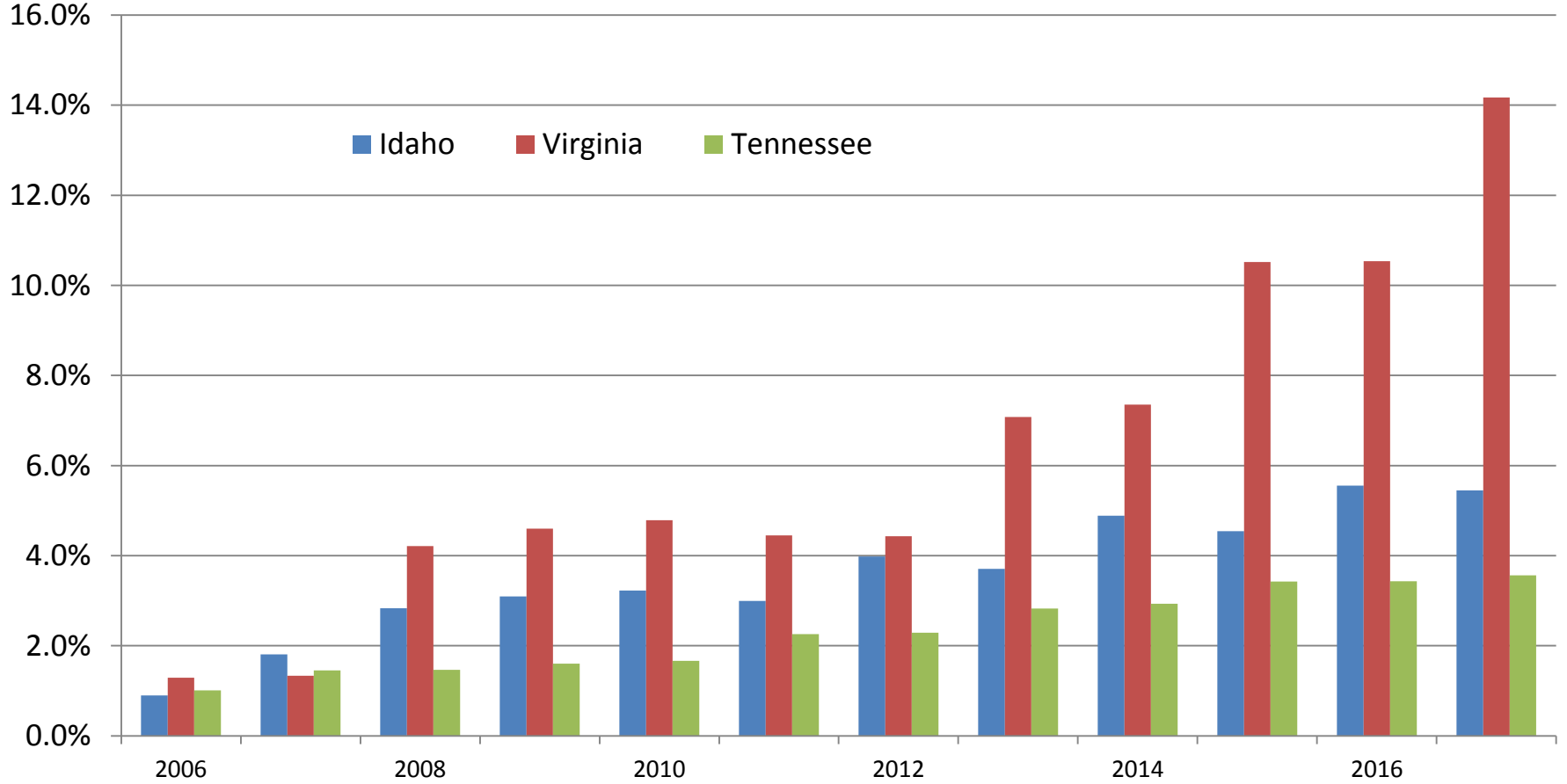
DE Rainy Day Fund Balances

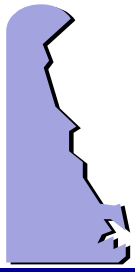


Hypothetical deposits from constant-law revenues beginning in 2006, with no withdrawals



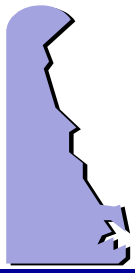
Hypothetical Balances as Percent of GF





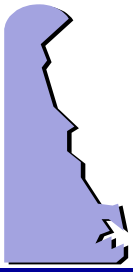
Delaware Withdrawals

- May well have been used in the four years when revenues declined
- May have forestalled tax increases in 2010
- Even Virginia rule for deposits would have fallen short of \$1.1 billion required to have prevented any revenue declines from 2006 to present



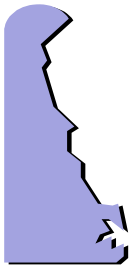
Withdrawal Rules

- Withdrawals can be based on economic or revenue volatility, deficits, or forecast error
- Rules generally allow but do not mandate drawdowns when conditions are met
- Also generally not intended to fully protect against spending reductions or tax increases
- Accordingly, it is difficult to demonstrate how an accessible stabilization fund would have fared in prior periods



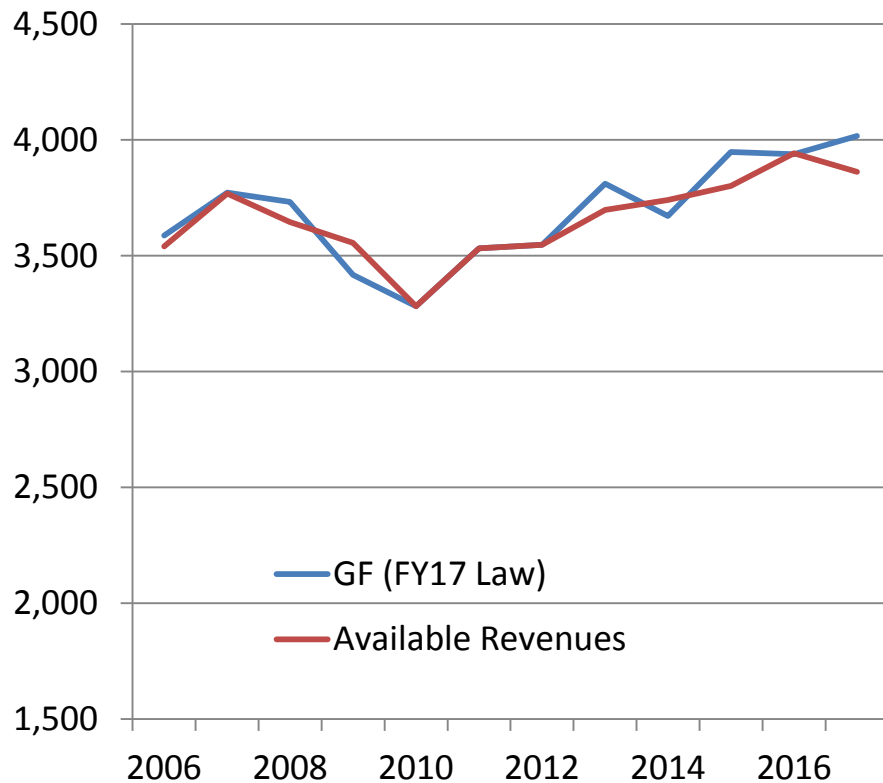
Virginia Rule Simulation

- The following slide shows, applied to Delaware's budget
 - A Delaware RDF with Virginia's deposit rules
 - Withdrawals available any time revenues decline
 - Withdrawals only to offset half of the decline, but no limitation on the fund balance
- Strictly for illustrative purposes, not a recommendation

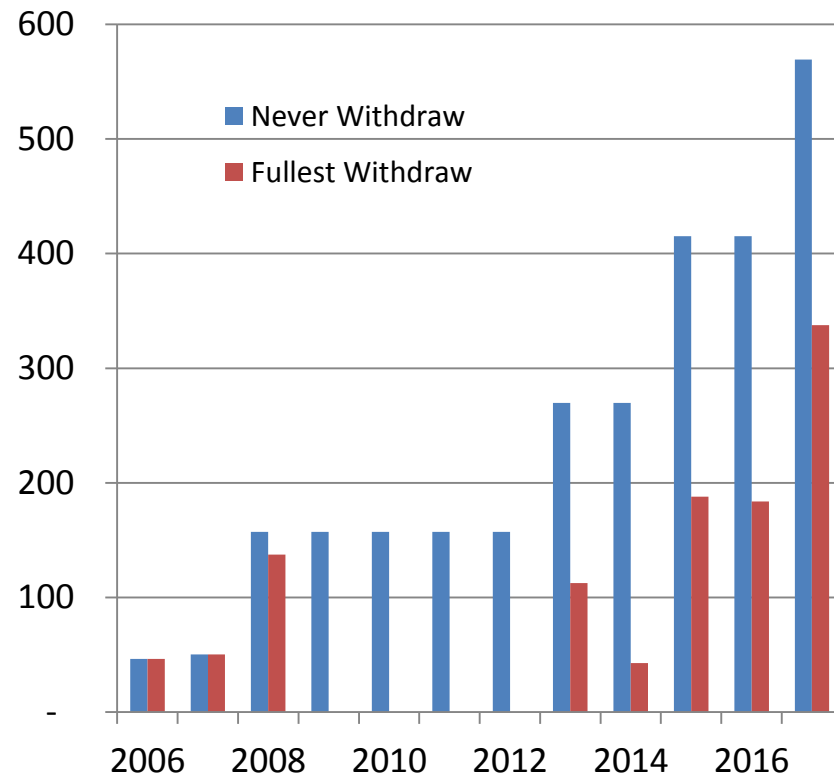


Virginia Rule Simulation

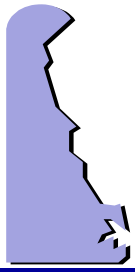
Impact on Available Revenues



Stabilization Fund Balance

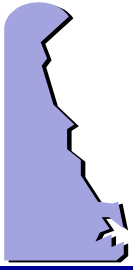


Hypothetical impact on constant-law revenues



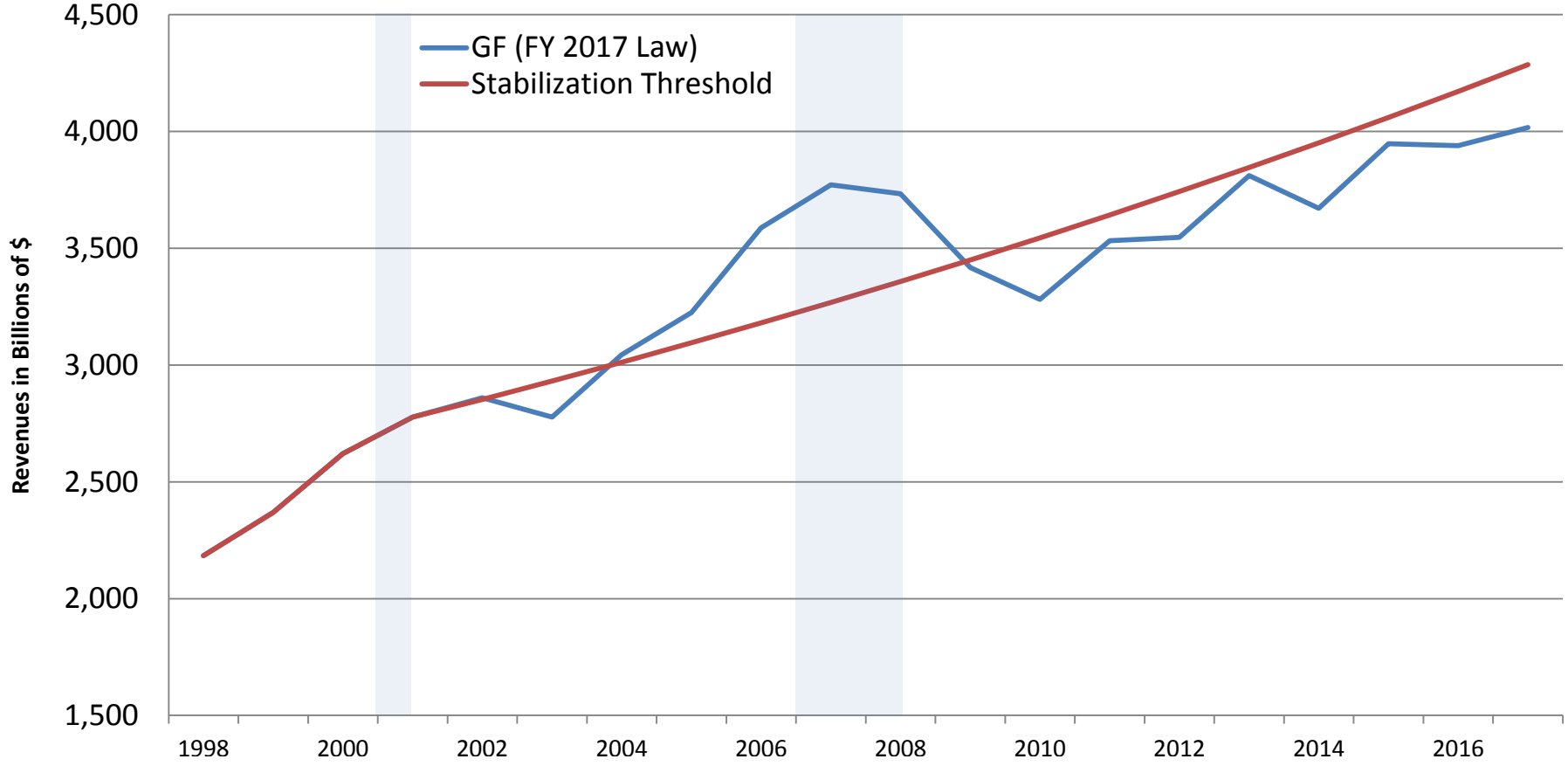
Full Stabilization

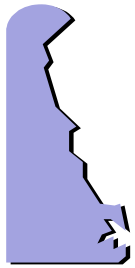
- Can the budget be fully stabilized (expenditure growth set by a rule) on a **sustainable** basis?
- When revenue growth is above the rate set by the rule, funds are set aside in a reserve fund
- When revenue growth is weak, funds from the reserve fund are used to continue expenditure growth at the level called for



Fixed Rate Budget Growth

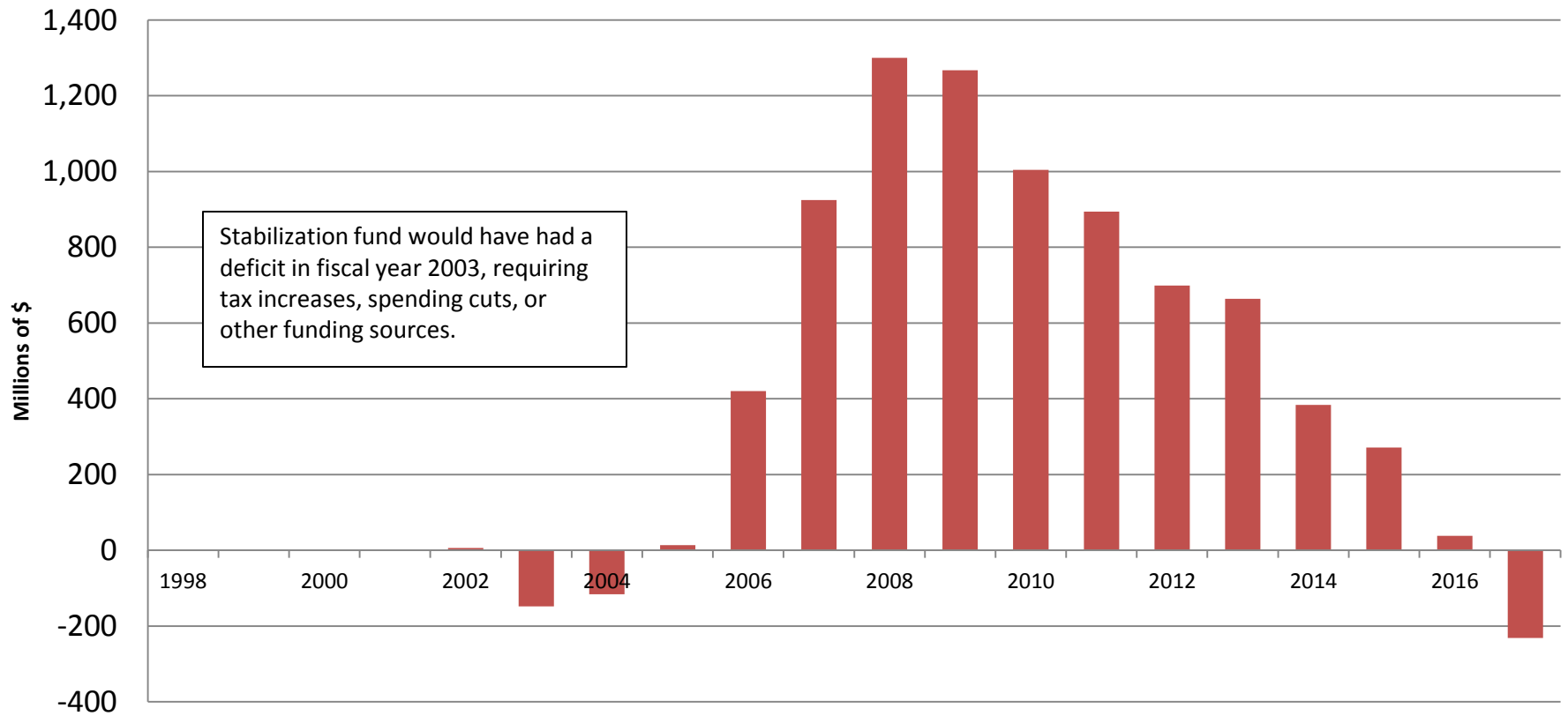
Fiscal Control Based on Fixed 2.75% Rate

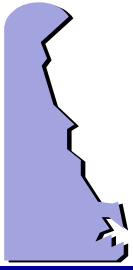




Stabilization Fund with Fixed Rate

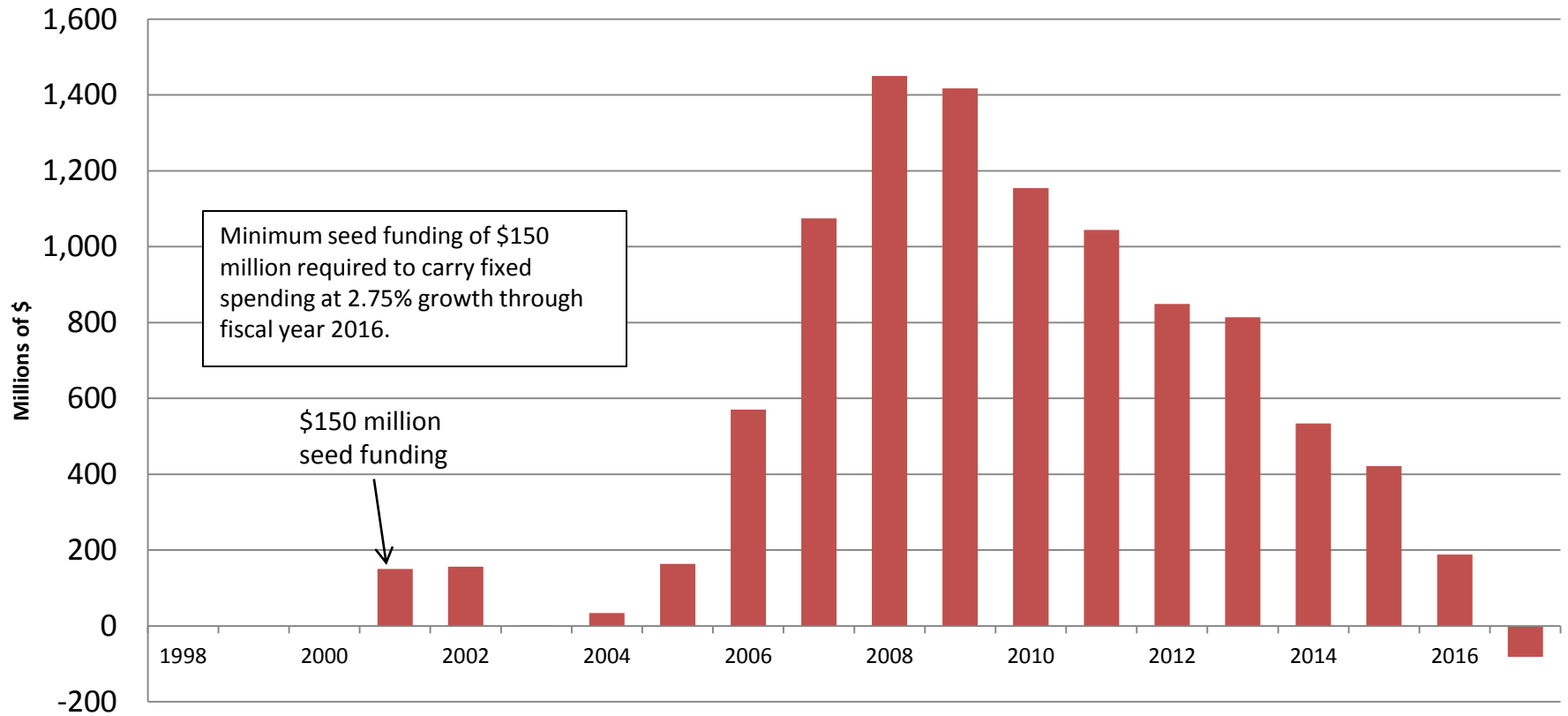
Stabilization Fund Balance—Fixed Growth

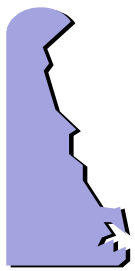




Supplementation Could Be Required

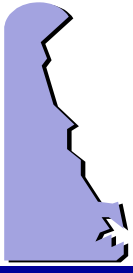
Stabilization Fund Balance—Fixed Growth



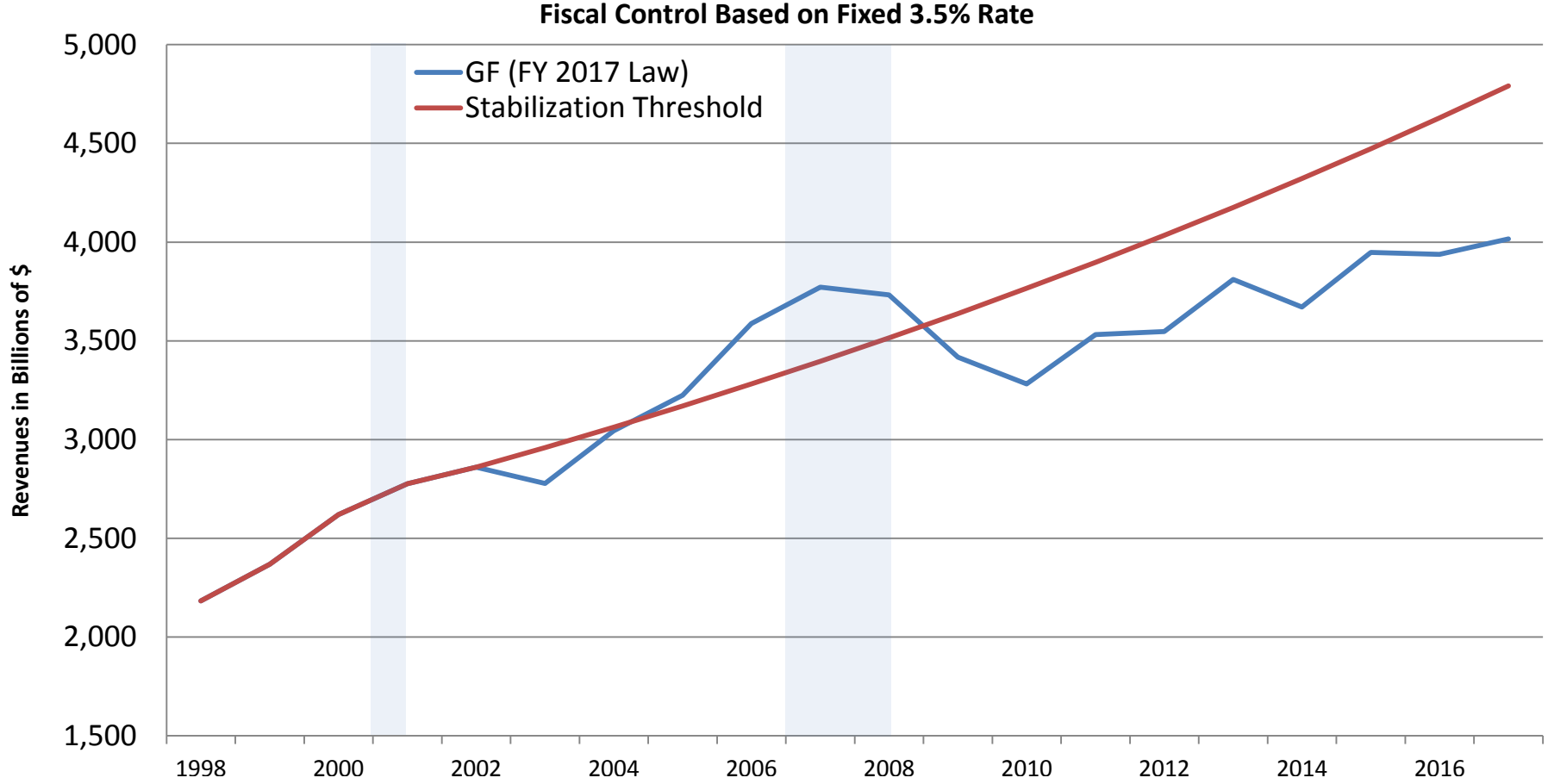


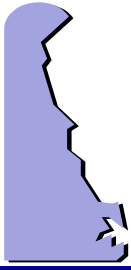
Hindsight is 20/20

- Average annual revenue growth from 1998 through 2002, prior to the dot-com bubble bursting, was 7.0%
- After that recession, might have thought “normal” revenue growth was 3.5% to 5% or higher
- In retrospect, quite possible an unsustainable growth rate would have been selected



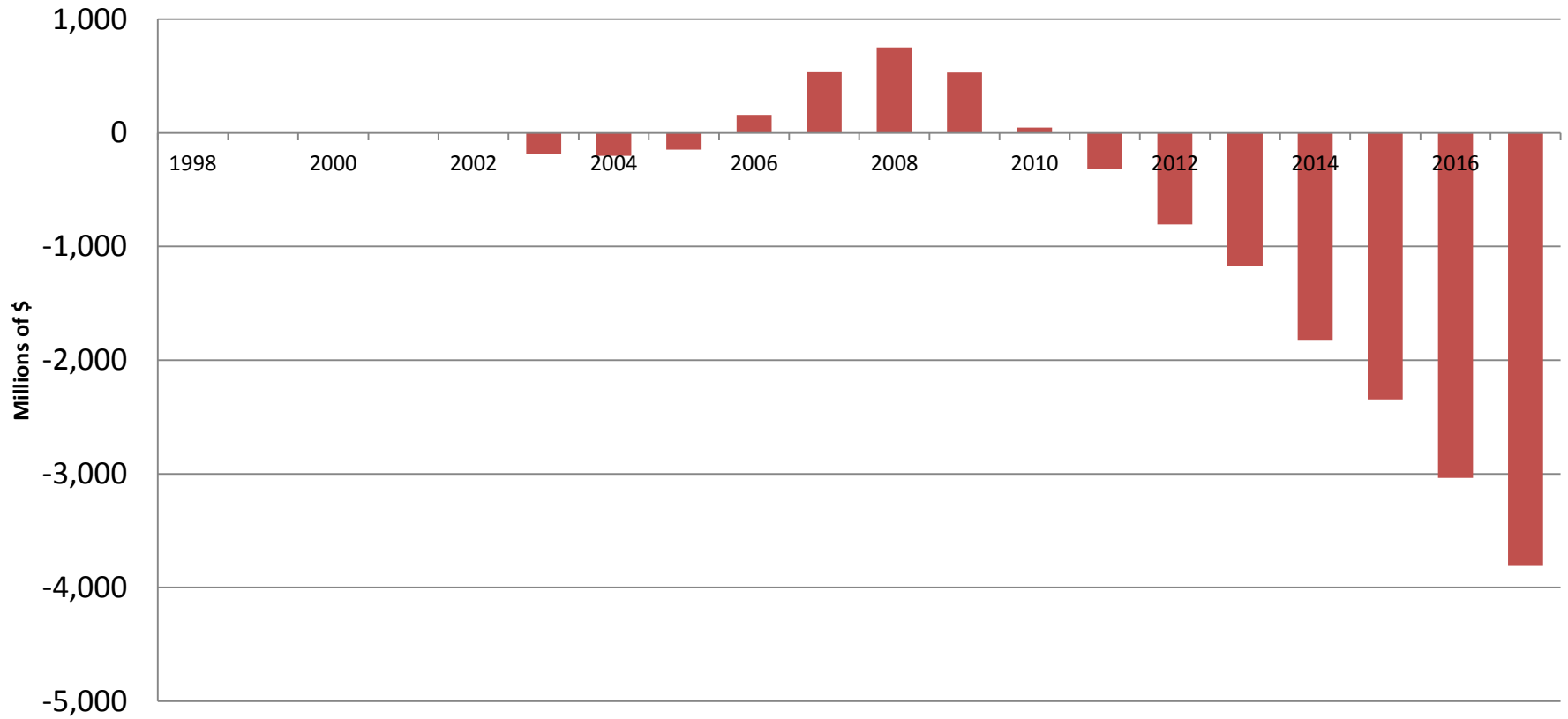
More Realistic Example of Fixed Rate





Stabilization Not Achieved

Stabilization Fund Balance—Fixed Growth





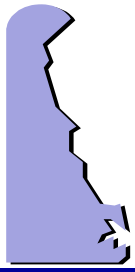
Fixed Rate Budget Growth

- If fixed spending growth is too high, the smoothing mechanism collapses
- Too low, State's resources are underutilized
- Even at "right" rate, reserves may become too large to maintain until downturn
- Structural change in revenues, as apparently occurred in 2006, causes difficulty
- Revisiting rate at regular intervals would be appropriate, but intervals should be lengthy



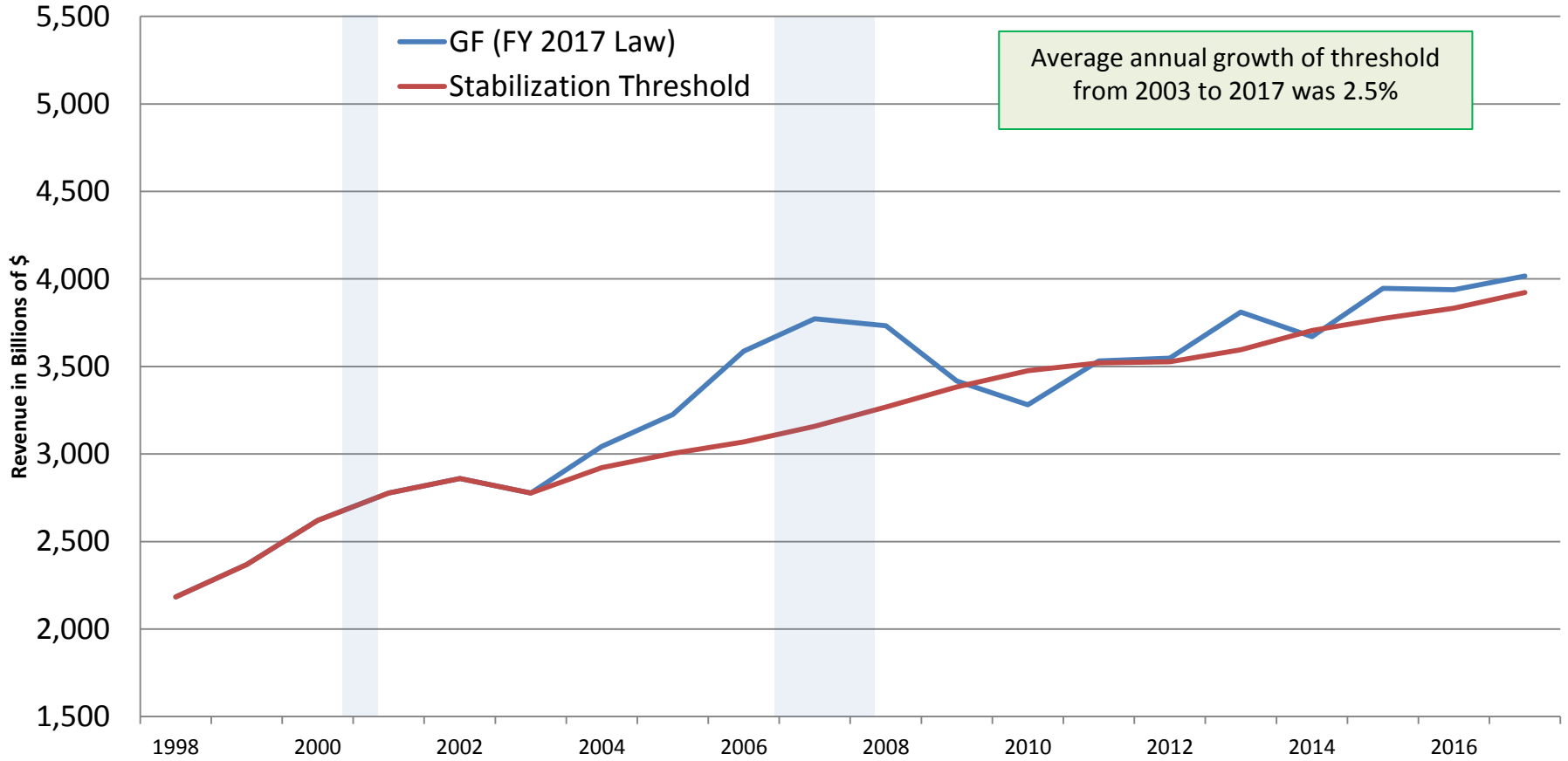
Stabilization Based on Underlying Growth

- Tying spending to economic growth of underlying tax base should be sustainable, at least for economically-sensitive revenues
- Frequently discussed measures include population growth, CPI or other price indicator, personal income, *etc.*
- With proper specification, might be able to adapt to a change in underlying revenue trends

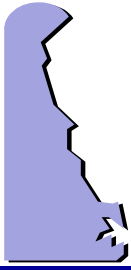


Economic Stabilization

Fiscal Control Based on Economic Factors

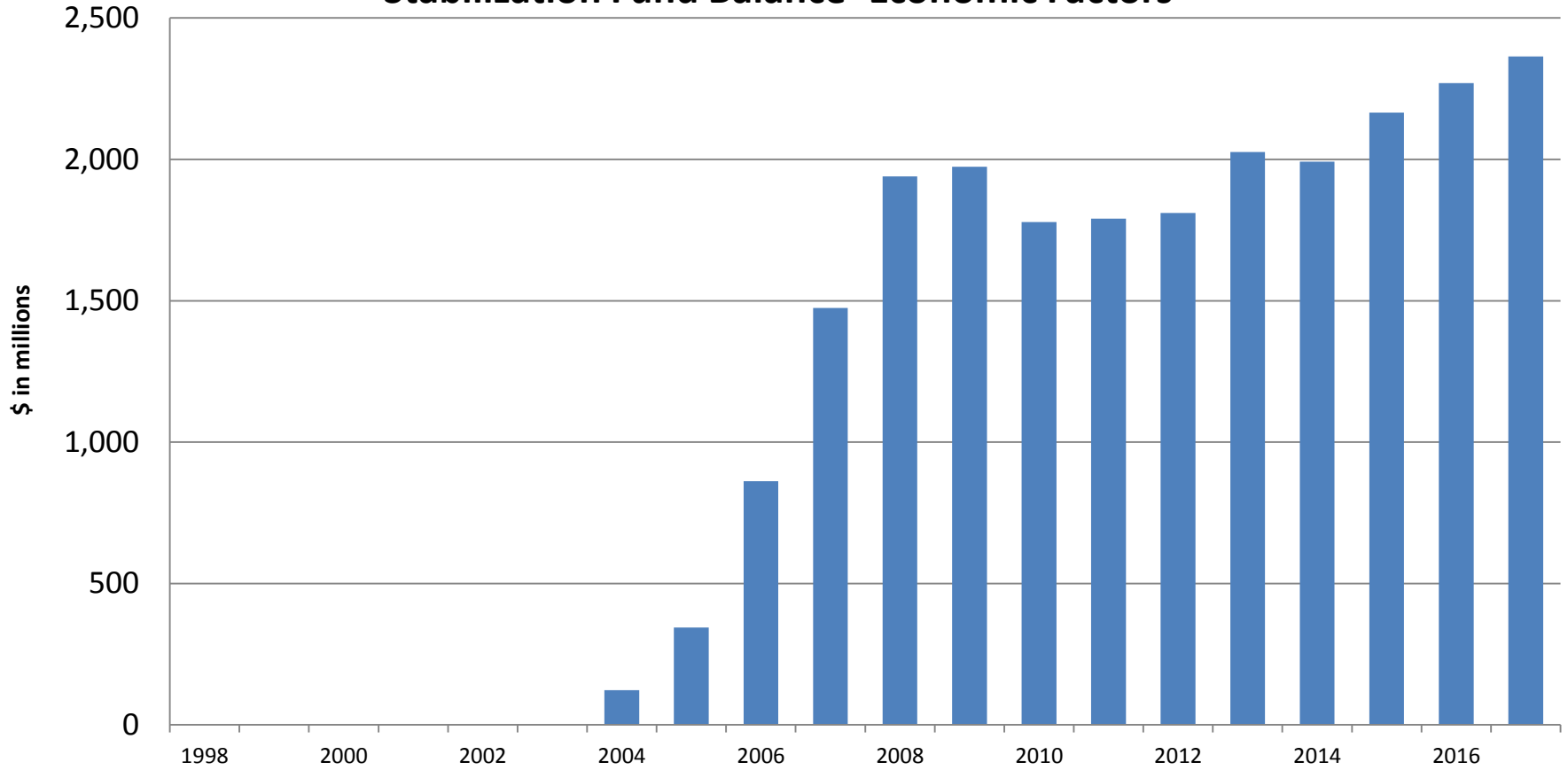


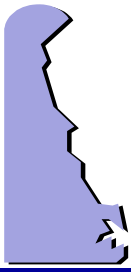
Stabilization threshold is the growth rates of personal income (50%) and population plus CPI (50%)



May Lead to Large Reserves

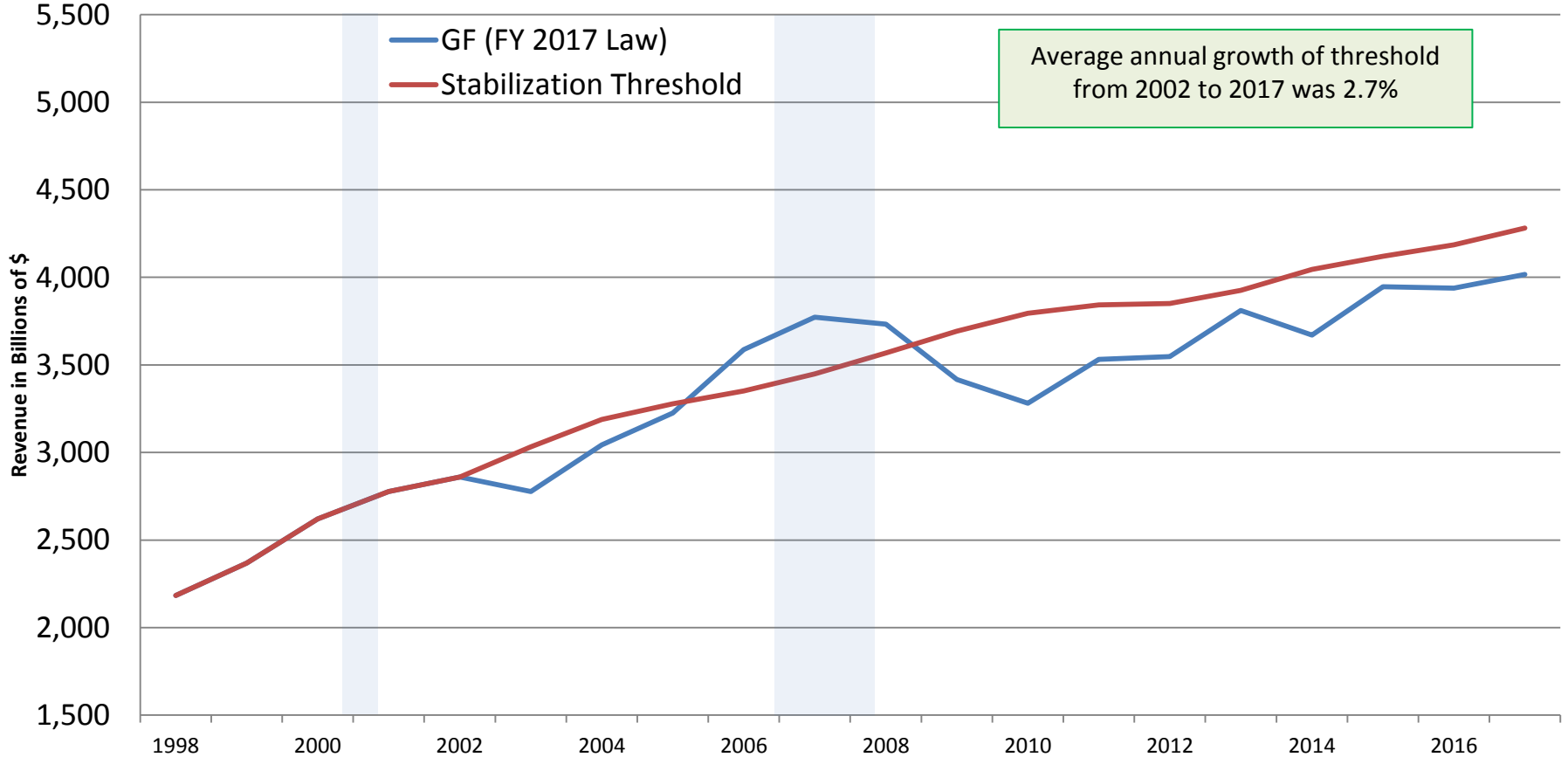
Stabilization Fund Balance—Economic Factors

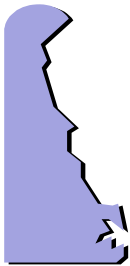




Start One Year Earlier

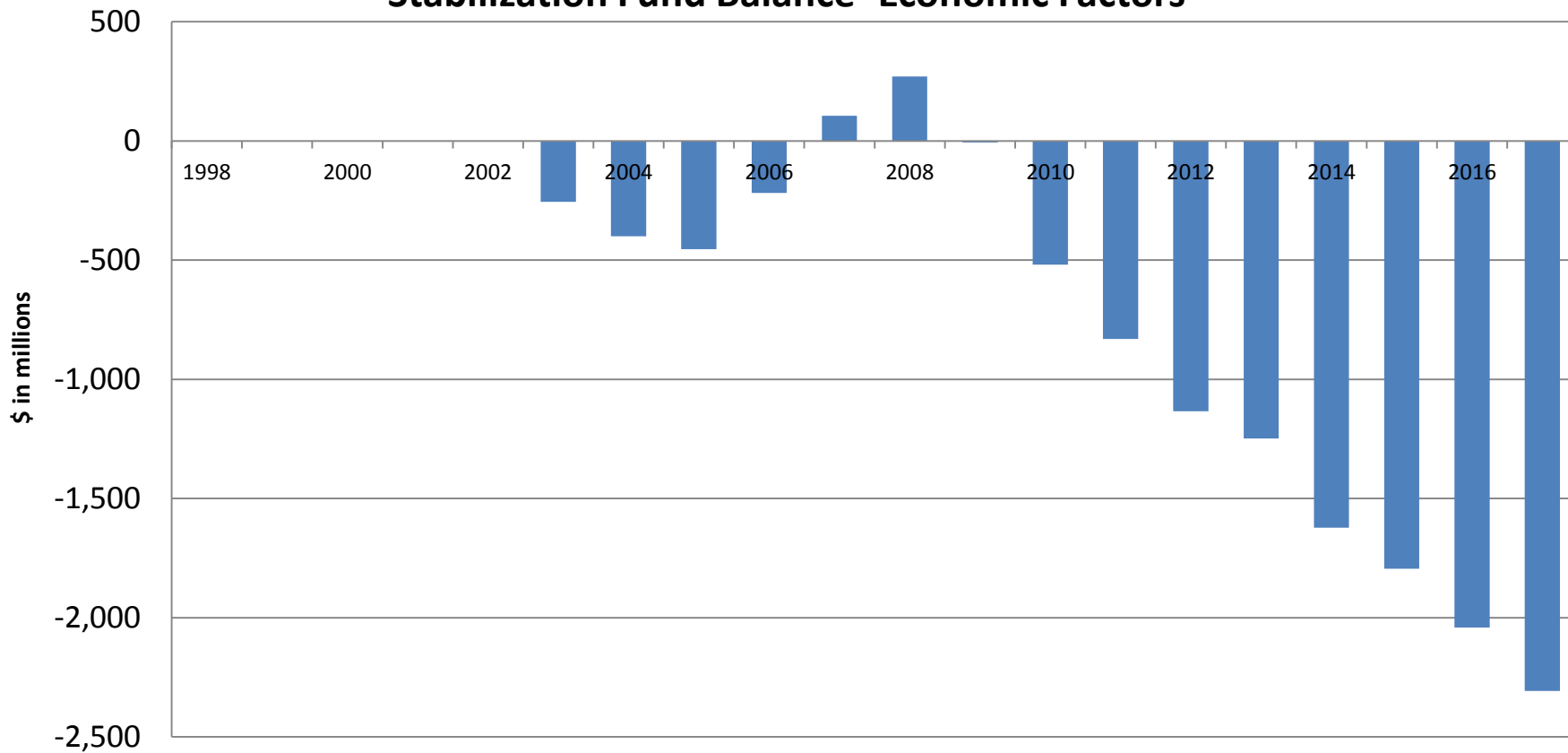
Fiscal Control Based on Economic Factors

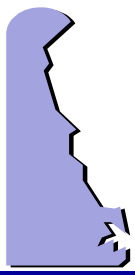




Base Year Matters

Stabilization Fund Balance—Economic Factors





Economic Stabilization

- This approach may be sustainable (base year matters)
- Rule applied to general fund revenues, but many revenue sources are not driven by Delaware population or any measure of price
 - Capital gains
 - Franchise Tax
 - Unclaimed property
 - Lottery



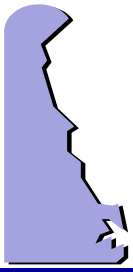
Addressing Balances

- To the extent balances are attributable to non-economic revenues, they can be withdrawn
- Should not be built into operating budget
- Regular evaluation of reserve fund and periodic evaluation of stabilization criteria seem appropriate



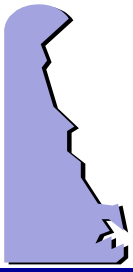
Reserve Fund Caps

- Optimal fund size should be determined through analysis
- Analysis should include whether any portion of the existing RDF should remain untapped
- When optimal cap has been reached, funds otherwise available for deposit in the RDF should be used for one-time expenditures (capital improvements, OPEB, deferred maintenance)



Options

- *Status quo*
 - AAA bond rating has been maintained
 - Revenue volatility can increase budget conflict
- Enhance *status quo*—increase RDF size and/or lower 98% rule
 - Would increase reserves, well understood
 - May continue untouchable RDF and only addresses volatility at the extremes



Options

- Adopt something similar to Virginia model
 - Would have a smoothing impact on the budget
 - Deposit could be required when revenues decline
- Fixed Stabilization
 - Acts as a fiscal control and eliminates volatility
 - May not be sustainable
- Economically-tied Stabilization
 - Acts as fiscal control and reduces volatility
 - Annual monitoring would be beneficial