Assessing the Affordability of State Debt



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Views expressed are the author's and are not necessarily those of the Federal Reserve Bank of Boston or the Federal Reserve System.

Motivation

- State governments issue debt in the form of notes and bonds primarily to fund capital projects like roads and schools
- In the wake of the Great Recession, conflicting views on state debt emerged:
 - On the one hand, low interest rates and federal subsidies (e.g. BABs) argue for more debt issuance
 - On the other, fiscal crisis generating questions about states' ability to meet financial obligations
- How can states gauge what is an affordable level of debt?

What is debt affordability and why does it matter?

- Refers to a state's ability to meet debt service requirements without:
 - Raising tax rates to uncompetitive levels
 - Negatively impacting provision of ongoing public services
- Has implications for:
 - Fiscal sustainability
 - Economic competitiveness
 - Credit ratings

Assessing affordability: Debt burden

Can be described as a simple ratio:

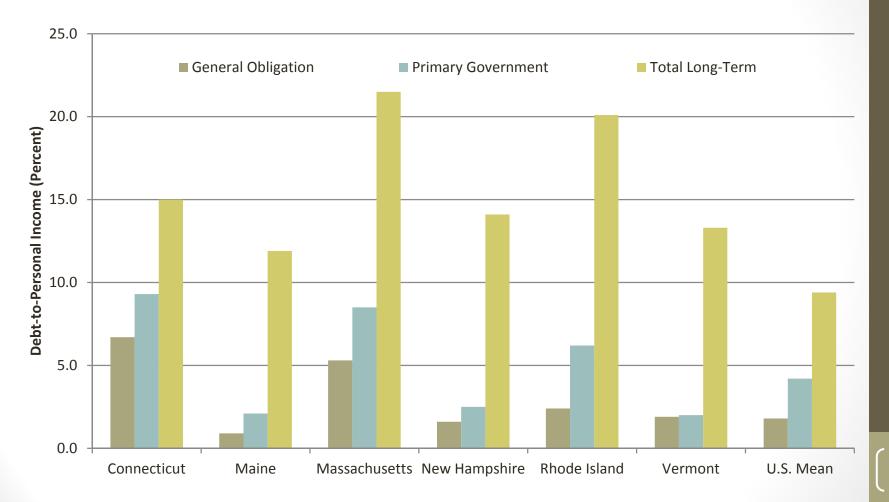
$$Debt\ burden = \frac{Debt}{Resources}$$

- Issues to resolve:
 - What should be included as state debt?
 - Should it be measured as a stock (outstanding debt) or flow (debt service)?
 - What should be included as resources?

Defining state debt: Classifying obligations

- Several ways to classify bonded debt, including, but not limited to:
 - By issuer: primary state government, state agency, public authority
 - By security/pledge: general obligation, revenue, hybrid
 - By revenues: general taxes, dedicated taxes, user fees
 - By purpose: public, private (conduit debt)

Illustrative comparison of debt definitions



Source: Author's calculations using state CAFR, U.S. Census Bureau and U.S. BEA data.

Note: General obligation and primary government debt for FY 2012 year-end; Census data for FY 2011 year-end.

Does not include local government debt.

Defining state debt: Which debt should be counted?

- Common focus on debt directly supported by state taxes
 - Excludes self-supporting and contingent debt
 - Competes most directly for scarce tax dollars
- Arguments for also considering a broader definition
 - A default on other types of state debt may still have negative implications for state's credit rating
 - All draw on same pool of resources for repayment

Debt outstanding versus debt service?

- Level of debt outstanding
 - Stock variable
 - Influenced by economic, political, institutional, and service demand factors
- Annual debt service
 - Flow variable
 - Influenced by: level of debt, speed of amortization, and interest rates

Measuring resources

- Resources available under current policy
 - Revenues
 - Expenditures
- Underlying resource base
 - Population
 - Personal income
 - State GDP
 - Value of property
 - Revenue capacity

Commonly-used debt burden ratios

Metric	States Employing Metric as Limit or Guideline
Debt Service-to-Revenues	AK, DE, FL, GA, HI, LA, ME, MD, MA, NH, NY, NC, OH, OR, RI, SC, TN, TX, VT, VA, WA, WV
Debt Service-to-Expenditures	IL, MA (pre-2013)
Debt-to-Revenues	CT, DE, FL, MS, PA, VA
Debt-per-Capita	GA, VT, WV
Debt-to-Personal Income	GA, MD, MN, NY, NC, RI, VT, WV
Debt-to-Value of Property	NV, NM, UT, WI, WV, WY

Multiple metrics can offer different perspectives

	Pros	Cons
<u>Debt service-to -</u> <u>revenues</u> : Captures near- term affordability	 Includes principal and interest costs Most relevant to budget discussions Policymakers control numerator and denominator 	 Annual debt service affected by term of bonds and structure of payments Revenue dependent on current policy choices and poses measurement issues
<u>Debt-to-personal</u> <u>income</u> : Captures longer- term affordability	 Not dependent on bond term or payment structure Denominator better reflects long-term ability to pay Personal income consistently measured across states 	 Only captures principal component of debt Less relevant to budget discussions Personal income does not include all types of income that may generate state revenues

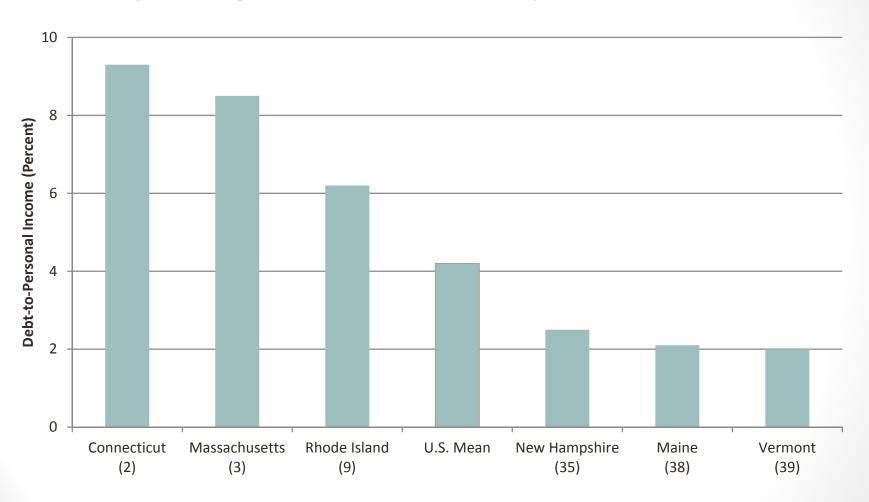
Approaches to assessing affordability using debt burden metrics

	Pros	Cons
Debt ceiling: Compare state's debt burden with specified numeric threshold	• Less data intensive	 Choice of threshold may be arbitrary
Benchmarking: Compare state's debt burden with those of other states	 Less arbitrary Aligns with "competitiveness" view of affordability 	 Requires standardized data Does not always account for key differences across states

Debt ceilings in New England

Metric	State	Ceiling	Source
Debt-per-Capita	Vermont	Mean/median of AAA-rated states	Guideline
Debt-to-Personal Income	Rhode Island	5.0 to 6.0%	Guideline
	Vermont	Mean/median of AAA-rated states	Guideline
Debt-to-Revenues	Connecticut	160.0%	Statute
Debt Service-to-Revenues	Maine	5.0%	Guideline
	Massachusetts	8.0%	Guideline
	New Hampshire	10.0%	Statute
	Rhode Island	7.5%	Guideline
	Vermont	6.0%	Guideline
Debt Service-to-Expenditures	Massachusetts	10.0% (pre-2013)	Statute

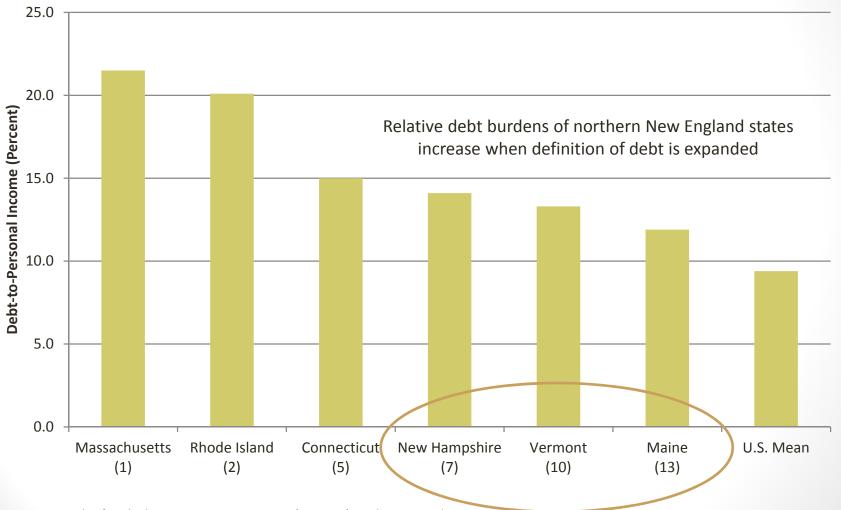
How New England states rank: Primary state government debt-to-personal income



Source: Author's calculations using state CAFR (FY 2012) and U.S. BEA data.

Note: Does not include local government debt.

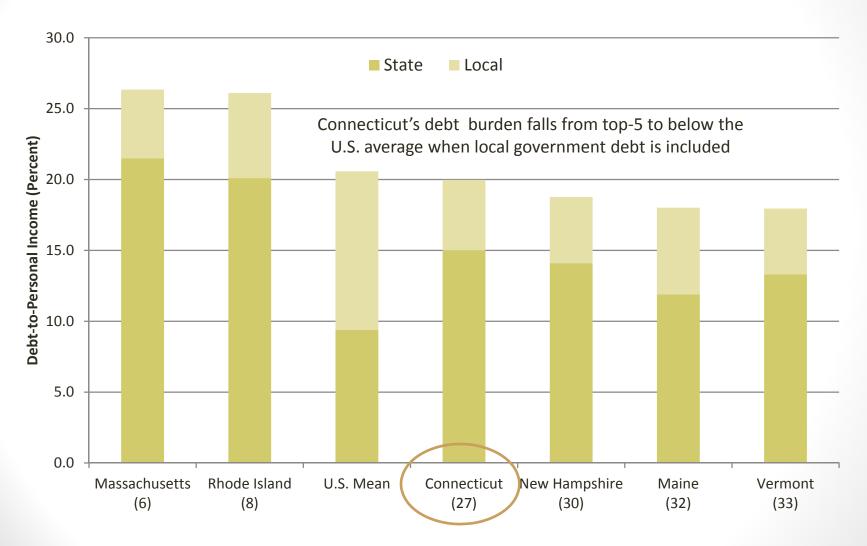
How New England states rank: Total state long-term debt-to-personal income



Source: Author's calculations using U.S. Census (FY 2011) and U.S. BEA data.

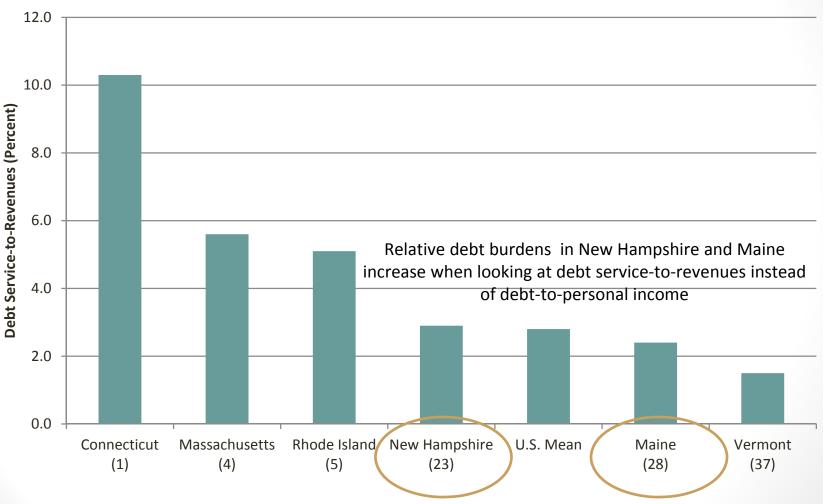
Note: Does not include local government debt.

How New England states rank: Total state & local long-term debt-to-personal income



Source: Author's calculations using U.S. Census (FY 2011) and U.S. BEA data.

How New England states rank: Primary state government debt service-to-revenues



Source: Calculations by author using state CAFR (FY 2012) data.

Note: Includes revenue from all primary government funds. Does not include local government debt.

Main take-aways

- No single way to define state debt
 - Choice of which obligations to include depends on perspective (and can lead to different conclusions)
- No single way to assess affordability
 - Commonly-used metrics and approaches each have strengths and weaknesses

What can states do?

- Report recommends that states:
 - Improve transparency surrounding state debt
 - Consider both narrow and broad definitions of debt and multiple debt burden metrics
 - Re-examine existing debt limits
 - Exercise care with benchmarking
 - View debt affordability as complement to capital planning
- An annual formal debt affordability analysis provides a venue for addressing these recommendations

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