Pensions Driving State Liability Burdens

2017 State Pension Update

Special Report

Long-Term Liabilities Rise: Fitch Ratings' median long-term liability burden of states for fiscal 2016 represents 6.0% of 2016 personal income, up from 5.6% in fiscal 2015. We consider this median state liability burden to be low relative to state resources. Our long-term liability burden metric combines each state's net tax-supported debt plus its aggregate net pension liability (NPL) for all reported pensions, adjusted to reflect a 6% discount rate based on Fitch's "U.S. Public Finance Tax-Supported Rating Criteria".

Burdens Vary Considerably: The long-term liability burden of individual states differs considerably, ranging from 28.5% of personal income in Illinois to 1.4% in Nebraska. Defined benefit (DB) pension obligations account for this wide range; the Fitch-adjusted NPL stands at 22.8% of personal income in Illinois, compared with 1% in Florida. By contrast, states' bonded debt falls within a narrower range; net tax-supported debt measures 10.2% of personal income in Hawaii, compared with less than 1% in Nebraska.

Pension Composition Affects Levels: Several common factors explain the comparatively high burden of pensions carried by some states. Twenty-seven states carry at least a portion of the NPL associated local employees' pensions, frequently teachers. These obligations represent 40% of the Fitch-adjusted NPLs reported by states. For some states, elevated burdens stem from a history of inadequate contributions and the accounting requirement to use a lower, blended discount rate when calculating the total pension liability (TPL) if assets will be depleted.

Pension Liabilities Rise Modestly: The median Fitch-adjusted NPL for states in fiscal 2016 financial statements, at 3.1% of personal income, is higher than the 2.9% figure reported in fiscal 2015. Factors contributing to higher state NPLs include weak asset performance during 2015 (the measurement date for most fiscal 2016 state-reported pension data), ongoing unfavorable demographic and actuarial trends, sponsors lowering discount rate targets and continued, inadequate contributions by many participating governments.

Debt Burden Unchanged: The median net tax-supported debt burden as of this report is almost unchanged since Fitch's 2016 State Pension Update, at 2.3% of personal income. States in general have been reluctant debt issuers, and their use of bonded debt is typically confined to capital needs under well-established debt oversight frameworks. Most, though not all, maintain roughly consistent debt issuance practices over time, resulting in only gradual shifts in their relative debt burdens from year to year.

Related Research

Revised Pension Risk Measures (Enhancing Pension Analysis in U.S. Public Finance Tax-Supported Rating Criteria) (May 2017)

Fitch Focus on Munis: Public Pensions (States Use Financial Engineering to Lower Contributions) (July 2017)

2016 State Pension Update: New Accounting, Old Challenges (November 2016)

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Liabilities Low for Most States

The median long-term liability burden of U.S. states measures just under 6% of personal income as of this report, a level that Fitch views as being low relative to their resources under its "U.S. Public Finance Tax-Supported Rating Criteria". This figure combines states' net tax-supported debt based on their most recent disclosure and their aggregate NPLs reported in fiscal 2016 financial statements, adjusted by Fitch to reflect a 6% discount rate for NPLs calculated using higher discount rates.

The long-term liability situations of individual states vary considerably. Six states have long-term liability burdens that Fitch considers elevated (in excess of 20% of personal income), with Illinois carrying the highest liability burden at 28.5% of personal income. Another six states have moderate long-term liability burdens, at greater than 10% of personal income. The remaining 38 states carry low long-term liability burdens, amounting to less than 10% of personal income, with Nebraska the lowest at 1.4%. (See Appendix.)

This report provides Fitch's annual update of its metric for the direct long-term liabilities of U.S. states relative to their personal income. Under Fitch's "U.S. Public Finance Tax-Supported Rating Criteria", Fitch views both debt and pensions as being effectively equivalent obligations and, thus, combines the two when calculating its metric for each government's long-term liability burden. Fitch adjusts each of a state's reported NPLs to reflect a 6% discount rate, if their reported discount rate is higher than 6%; for those pensions using a discount rate below 6%, Fitch leaves reported NPLs unadjusted. Fitch views 6% as being a reasonable expectation for long-term returns on pension assets and, thus, adjusts to that level in analyzing most public-sector DB pension obligations. Aggregate figures exclude net pension assets. The resulting sum of debt and the Fitch-adjusted NPLs is measured as a percentage of personal income, which Fitch considers the best available proxy for the economic resource base from which repayment will ultimately be derived.

Pensions a Larger Burden

For states in general, DB pension obligations are a larger liability burden than bonded debt. As of this report, about 63% of long-term liabilities reported by states are for DB pensions; three-fourths of states carry higher pension burdens than debt burdens. Among individual states, pension burdens relative to personal income are distributed over a wide range, from 22.8% in Illinois, the state with the highest pension burden, to 1% in Florida, the state with the lowest pension burden.

States' debt burdens are distributed over a narrower range relative to personal income, from 10.2% in Hawaii to almost none in Nebraska. These low debt burdens reflect their well-established, conservative debt management practices, which include centralized issuance and affordability guidelines that constrain borrowing. Differences among states reflect their willingness to use borrowing for capital needs and the extent to which they borrow for local needs, especially schools.

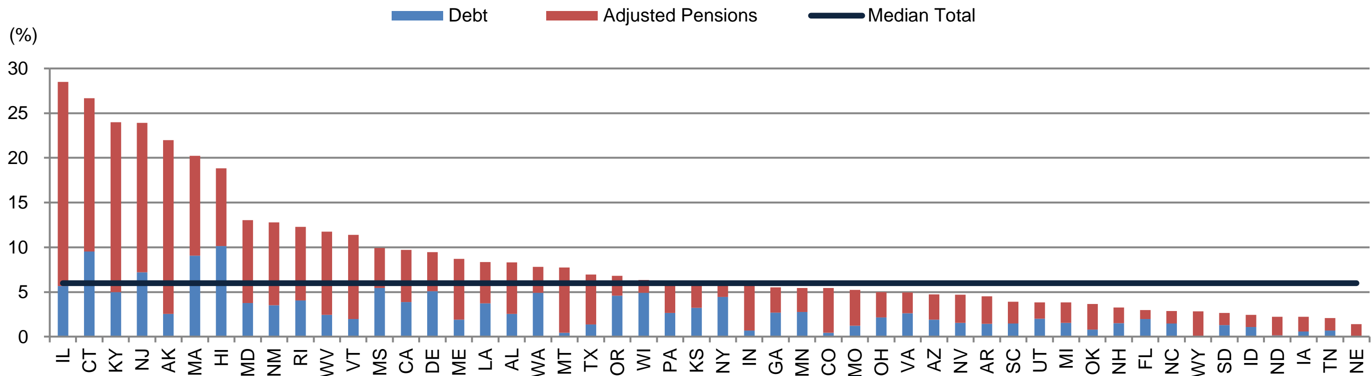
Local Pensions Push State Burdens Up

Several factors underlie the higher DB pension liability burdens reported by states. Among these is whether a state reports obligations associated with local government employees, in addition to carrying the direct pension liabilities associated with its own employees. Under what GASB calls a special funding situation, the nature and extent of state support for local government pensions trigger a shift of local governments' NPL to the states' own financial statements.

Related Criteria

U.S. Public Finance Tax-Supported Rating Criteria (May 2017)

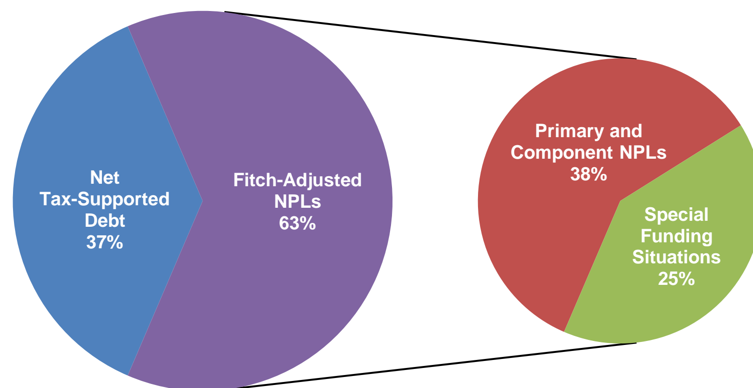
State Net Tax-Supported Debt and Adjusted Net Pension Liabilities as % of Personal Income



Source: Fitch.

The NPLs associated with such special funding situations are often substantial. On a Fitch-adjusted basis, the NPLs for special funding situations represent a quarter of overall state long-term liabilities and 40% of the total NPLs reported by states in fiscal 2016. Twenty-seven states carry such shares; in 11 of these 27 states, the NPL carried on behalf of local employees is higher than the NPL carried by the state for its own employees. Among the 12 states that Fitch views as having liability burdens in the elevated or moderate ranges, 11 carry sizable NPLs associated with local pensions. (The most common local pensions reported by states are for K-12 teachers. In the twelfth state, Hawaii, K-12 teachers are direct state employees.)

Components of State Long-Term Liabilities
(As of Fiscal 2016)



Special funding situations are triggered under a range of different situations. Most often, states carry the entire teacher system liability, but other examples include states covering a share of payroll for teacher systems (California and Texas), a state cap of local pension exposure (Alaska), or one or more state revenue streams being dedicated to pensions (Oklahoma).

States often play a central role in local pension oversight and funding, regardless of whether a special funding situation exists for financial reporting purposes. Local governments, by contrast, often have less discretion over their pensions, particularly if they participate in statewide cost-sharing multi-employer systems.

Fitch relies on GASB's allocation of NPLs as its starting point for assessing whether a pension burden falls on the state or on local governments, but Fitch recognizes that these allocations are subject to change, often in a manner favorable to states and detrimental to local governments. In the recent context of strained pension funding and rising contributions, numerous states have lowered their own burdens by shifting more responsibility to local governments, a trend that Fitch expects to continue.

Forecast Depletion Affects Some

Another factor contributing to the higher DB pension burden carried by some states — particularly New Jersey, Kentucky and Illinois — is the GASB requirement to use a much lower single equivalent discount rate to calculate the TPL.

Under GASB statement 68, if an actuarial projection forecasts that system assets will be insufficient over time to cover all projected benefits, the benefits paid beyond this depletion date must be discounted at a much lower rate, typically corresponding to a 'AA' rated muni index rate. Consequently, the reported TPL for these systems is often much higher, reflecting the impact of discounting at the higher investment return assumption for benefits to be paid up to the depletion date, followed by the lower index rate for benefits to be paid after the depletion date. (If a system's single equivalent discount rate falls below 6%, Fitch uses the reported NPL, rather than adjusting the NPL to a 6% discount rate, under its "U.S. Public Finance Tax-Supported Rating Criteria".)

As of their fiscal 2016 CAFRs, 16 states report approximately 35 pension systems (out of about 250 systems reported by states) using very low discount rates in their calculations of the TPL. The majority of these are small, often closed plans that states intend to fund as pay-go plans, and which have little or no material impact on overall state liability burdens. However, several states report higher NPLs for major statewide systems linked to forecast depletion dates, including all of New Jersey and Illinois' state-reported pensions, and the Kentucky Teachers Retirement System.

Excluding the impact of depletion dates, higher DB pension burdens among these and other states are also a legacy of historical budget-making practices. In the past, many states, such as Illinois, Kentucky, Connecticut and New Jersey, made insufficient annual pension contributions relative to actuarial requirements over years, if not decades. Connecticut corrected this situation a decade ago, and the remaining states have elevated their contributions but have yet to reach the full actuarial level. For these states, the accumulated effect of past insufficient contributions and the resulting foregone asset portfolio growth are now felt in the form of severely stressed pensions.

Rising Liabilities since 2016

The median long-term liability burden as of 2016, at 6% of personal income, is up modestly from 5.6% in 2015. The increase is driven entirely by the pension component, rather than by the bonded debt component. The median Fitch-adjusted NPL was at 3.1% of personal income in 2016, compared with just over 2.9% in the prior year. For the 49 states that reported NPLs in both years, the Fitch-adjusted NPL has risen in 46 states as of fiscal 2016, while the ratio of Fitch-adjusted NPLs to personal income has increased in 38 states.

In contrast to pensions, the level of bonded debt issued by states has barely changed over the last year, with net tax-supported debt measuring 2.3% of personal income in both years. Compared to one year prior, only 19 states saw an increase in their amount of outstanding net tax-supported debt, and only 16 saw an increase in their ratio of net tax-supported debt to personal income.

Asset Variability Now the Norm

The NPL as defined by accounting standards is still a relatively new measure for governments' pension burdens; fiscal 2016 is the first year in which the financial statements of all 50 states contain pension data under the GASB 68 accounting framework. As trends begin to emerge, Fitch expects several factors to drive year-to-year changes in reported NPLs.

One is short-term asset volatility, tied to GASB's requirement to report the fiduciary net position (FNP) at fair market value. As Fitch reported in its "2016 State Pension Update", median invested assets rose only 0.3% for major systems as of their fiscal 2015 financial statements (the measurement date for pension data used by states in fiscal 2016 audited financials). Reported asset performance has been much stronger for most pension systems since that time, which will affect state-reported NPLs in their fiscal 2017 and 2018 audited financial statements.

State policy changes also influence reported DB pensions, often considerably. In Alaska, for example, a $3 billion one-time contribution in 2015 to its pension systems for teachers and general employees materially lowered the NPL reported by the state. Alaska's long-term liability burden fell to 22% of personal income as of its fiscal 2016 financial statement, from 27.1% one year earlier. Oregon, by contrast, suffered a partial legal reversal in 2015, when the state's Supreme Court rejected a portion of the extensive pension reforms adopted by its Legislature in 2013. As a result, Oregon's burden of DB pensions on a Fitch-adjusted basis increased to 2.2% of personal income in 2016 from 1.2% a year earlier.

Total Pension Liability Trend Upward

Other trends that have pushed funding liabilities (the measure of pensions available before GASB 68) higher over the last decade will likely remain in place, affecting TPLs in the same manner. Over the past decade or longer, funding liabilities have risen not only due to newly earned benefits, but also by the impact of demographic trends, such as more (and longer-lived) retirees and fewer contributing workers.

Moreover, historically weak investment returns over much of the current economic expansion have prompted the majority of systems to lower their discount rates, sometimes repeatedly, raising their funding liabilities — and now their TPLs — in the process. As Fitch reported in its "2016 State Pension Update", the average discount rate for major, statewide pension systems is 7.7% as of their fiscal 2015 financial statements, the measurement date for most pension data provided in states' own fiscal 2016 financial statements. Preliminary data for fiscal 2016 system financial statements suggest this has fallen to 7.6%, and numerous states have announced additional downward adjustments to discount rates in the past year.

Appendix: 2017 Debt and Fitch-Adjusted Pensions[a]

State	IDR	Total NTSD ($000)	Debt as % of PI	Rank (Low to High)	Reported Total NPL ($000)	Fitch-Adj. Total NPL ($000) [b]	Fitch-Adj. Total NPL as % of PI	Rank (Low to High)	NTSD and Fitch-Adj. NPL ($000)	NTSD and Fitch-Adj. NPL as % of PI	Rank (Low to High)
Alabama[c]	AA+	4,817,672	2.5	27	6,698,376	10,901,281	5.8	35	15,718,953	8.3	33
Alaska	AA	1,052,985	2.6	28	4,502,964	8,027,307	19.4	49	9,080,292	22.0	46
Arizona	NR	5,295,919	1.9	20	5,000,460	7,997,355	2.9	21	13,293,274	4.7	17
Arkansas	NR	1,717,955	1.4	14	1,745,359	3,652,446	3.1	25	5,370,401	4.5	15
California	AA–	85,926,010	3.9	37	73,432,210	128,926,110	5.8	36	214,852,120	9.7	37
Colorado	NR	1,310,762	0.5	5	10,252,077	14,385,740	5.0	32	15,696,502	5.4	21
Connecticut	A+	23,662,820	9.5	49	27,671,159	42,480,595	17.1	47	66,143,145	26.7	49
Delaware	AAA	2,325,000	5.1	44	1,033,282	1,987,471	4.4	29	4,312,471	9.5	36
Florida	AAA	18,916,300	2.0	23	2,984,541	9,393,524	1.0	1	28,309,824	3.0	9
Georgia	AAA	11,651,326	2.7	31	6,705,043	12,414,771	2.9	22	24,066,097	5.5	23
Hawaii	AA	7,303,890	10.2	50	4,314,247	6,241,889	8.7	40	13,545,779	18.8	44
Idaho	AA+	718,191	1.1	10	363,328	915,350	1.4	4	1,633,541	2.5	5
Illinois	BBB	37,550,279	5.7	46	116,765,969	151,494,887	22.8	50	189,045,166	28.5	50
Indiana	AAA	1,952,253	0.7	7	13,109,566	14,744,575	5.2	33	16,696,828	5.8	24
Iowa	AAA	849,490	0.6	6	1,058,837	2,363,117	1.6	9	3,212,607	2.2	3
Kansas	NR	4,449,495	3.2	33	2,352,631	3,855,756	2.8	19	8,305,251	6.0	26
Kentucky	AA–	8,606,739	5.0	43	31,142,396	32,809,030	19.0	48	41,415,769	24.0	48
Louisiana	AA–	7,402,477	3.7	35	6,143,742	9,125,296	4.6	31	16,527,773	8.3	34
Maine	AA	1,121,150	1.9	21	2,303,286	3,994,417	6.8	37	5,115,567	8.7	35
Maryland	AAA	13,110,333	3.8	36	20,650,918	32,477,846	9.3	43	45,588,179	13.1	43
Massachusetts	AA+	39,648,832	9.1	48	34,218,628	48,901,750	11.2	45	88,550,582	20.2	45
Michigan	AA	6,858,026	1.6	19	6,305,180	10,033,682	2.3	14	16,891,708	3.8	12
Minnesota	AAA	7,964,601	2.8	32	3,574,597	7,702,986	2.7	17	15,667,587	5.5	22
Mississippi	AA	5,772,430	5.4	45	2,971,185	4,751,302	4.5	30	10,523,732	9.9	38
Missouri	AAA	3,198,631	1.2	11	5,916,078	10,494,423	4.0	28	13,693,054	5.2	20
Montana	AA+	192,944	0.4	4	1,749,051	3,275,928	7.3	38	3,468,872	7.7	31
Nebraska	NR	34,780	0.0	1	337,412	1,292,461	1.4	2	1,327,241	1.4	1
Nevada	AA+	1,979,541	1.5	18	1,901,146	4,051,514	3.2	26	6,031,055	4.7	16
New Hampshire	AA+	1,137,843	1.5	17	834,066	1,304,177	1.7	10	2,442,020	3.3	10
New Jersey	A	39,574,942	7.2	47	91,844,490	91,844,490	16.7	46	131,419,432	23.9	47
New Mexico	NR	2,826,055	3.5	34	4,212,808	7,419,021	9.3	41	10,245,076	12.8	42
New York	AA+	52,466,500	4.5	39	2,336,700	16,905,242	1.4	8	69,371,742	5.9	25
North Carolina	AAA	6,409,800	1.5	16	1,705,068	5,909,992	1.4	5	12,319,792	2.9	8
North Dakota	NR	67,940	0.2	3	388,254	856,150	2.1	12	924,090	2.2	4
Ohio	AA+	11,234,630	2.2	25	6,870,456	14,644,349	2.8	20	25,878,979	5.0	19
Oklahoma	AA	1,339,074	0.8	9	2,015,415	4,786,726	2.9	23	6,125,800	3.7	11
Oregon	AA+	8,525,836	4.6	40	1,133,315	4,099,522	2.2	13	12,625,358	6.8	29
Pennsylvania	AA–	17,249,064	2.7	30	17,081,318	23,518,728	3.6	27	40,767,792	6.3	27
Rhode Island	AA	2,165,935	4.1	38	3,230,501	4,369,085	8.2	39	6,535,020	12.3	41
South Carolina	AAA	2,922,195	1.5	15	3,303,603	4,730,100	2.4	16	7,652,295	3.9	14
South Dakota	AAA	535,277	1.3	12	0	568,279	1.4	3	1,103,556	2.7	6
Tennessee	AAA	2,014,958	0.7	8	1,289,287	3,987,993	1.4	6	6,002,951	2.1	2
Texas	AAA	17,763,256	1.4	13	38,587,718	71,883,011	5.6	34	89,646,267	7.0	30
Utah	AAA	2,513,135	2.0	24	1,017,258	2,299,651	1.8	11	4,812,786	3.9	13
Vermont	AAA	615,245	2.0	22	1,731,553	2,944,914	9.4	44	3,560,159	11.4	39
Virginia	AAA	11,628,788	2.6	29	7,340,474	10,461,276	2.3	15	22,090,064	5.0	18
Washington	AA+	19,522,677	4.9	41	4,088,214	11,538,626	2.9	24	31,061,303	7.8	32
West Virginia	AA	1,642,639	2.4	26	3,768,889	6,231,978	9.3	42	7,874,617	11.7	40
Wisconsin	AA+	13,298,515	4.9	42	455,475	3,820,932	1.4	7	17,119,447	6.3	28
Wyoming	NR	24,259	0.1	2	480,341	888,881	2.8	18	913,140	2.8	7
Median			2.3				3.1			6.0	
Low			0.0				1.0			1.4	
High			10.2				22.8			28.5	

[a]Aggregate pension data by state are calculated by Fitch for all state pension systems whose NPL is reported in the notes and required supplementary information sections of states' comprehensive annual financial reports. [b]Fitch-adjusted figures adjust the discount rate downward to 6% and the TPL upward based on a calculation of the individual plan's sensitivity to discount rate changes, derived from sensitivity data in financial statement notes. [c]Alabama data preliminary, unaudited. NR – Not rated. NTSD – Net tax-supported debt. NPL – Net pension liability. TPL – Total pension liability.
Source: Personal income (PI) from U.S. Bureau of Economic Analysis as of Sept. 27, 2017. Net tax-supported debt based on most recent state bond disclosure documents.

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