MOODY'S INVESTORS SERVICE

CREDIT OPINION

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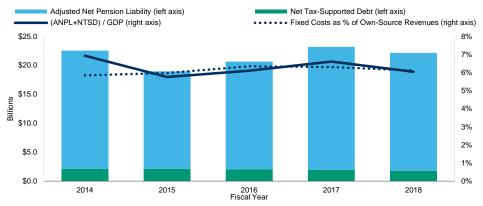
Indiana (State of)

Update to credit analysis

Summary

Indiana (issuer rating Aaa stable) is characterized by a sound economy, responsible fiscal management, strong reserves and low long-term liabilities. Although Indiana's economy is hindered by below-average wealth and high reliance on traditional manufacturing, stable growth will continue and employment will benefit from an expanding service sector. Strong fiscal governance affords the state significant flexibility to successfully weather future economic downturns.

Exhibit 1 Low fixed costs indicate high fiscal flexibility



Sources: Indiana financial statements; Moody's Investors Service

Credit strengths

- » Strong financial reserve levels and conservative fiscal governance
- » Very low debt burden and moderate pension liabilities
- » Historically conservative fiscal practices such as midyear budget cuts to retain structural balance

Credit challenges

» Highest-in-the-nation exposure to manufacturing may be a long-term drag on economic and employment growth

Rating outlook

The stable outlook reflects the sound health of the Indiana economy and our expectation that the state will maintain strong reserves and low debt levels.

Factors that could lead to an upgrade

» Not applicable

Factors that could lead to a downgrade

- » Economic weakening that reduces revenue collections and leads to a deterioration of state's financial reserves
- » Significant increase in state's long-term liabilities

Key indicators

Indiana (state of)	2014	2015	2016	2017	2018	50-State Median (2018)
Operating Fund Revenues (000s)	\$13,983,119	\$14,530,753	\$14,684,898	\$15,055,414	\$15,388,104	\$11,520,082
Available Balances as % of Operating Fund Revenues	12.2%	9.6%	9.4%	5.6%	5.1%	7.8%
Nominal GDP (billions)	\$325.0	\$329.7	\$338.2	\$351.1	\$366.7	\$234.5
Nominal GDP Growth	5.3%	1.4%	2.6%	3.8%	4.5%	4.6%
Total Non-Farm Employment Growth	1.4%	1.9%	1.4%	1.1%	1.0%	1.1%
Fixed Costs as % of Own-Source Revenue	5.8%	6.0%	6.3%	6.3%	6.1%	NA
Adjusted Net Pension Liabilities (000s)	\$20,373,336	\$16,831,561	\$18,578,385	\$21,256,728	\$20,346,062	\$12,209,760
Net Tax-Supported Debt (000s)	\$2,150,995	\$2,139,736	\$2,056,661	\$1,948,981	\$1,804,332	\$4,146,966
(Adjusted Net Pension Liability + Net Tax-Supported Debt) / GDP	6.9%	5.8%	6.1%	6.6%	6.0%	7.8%

Sources: US Bureau of Economic Analysis; State CAFRs; Moody's Investors Service

Profile

Indiana is the 17th largest state in terms of population (6.7 million) and the 18th largest economically, with nominal GDP of \$367 billion in 2018.

Detailed credit considerations

Economy

Indiana's economy has grown by a real compound annual growth rate (CAGR) of 1.8% since bottoming out in 2009, somewhat slower than the 2.2% US rate. The slower growth rate is partially because of the dominance of the manufacturing sector, which constituted 27.8% of the economy in 2018, higher than any other state. However, manufacturing's share of the economy has fallen from 29.6% over the past dozen years, offset by growth of the service sector, which has increased by three percentage points since 2007. Economic growth is likely to slow modestly over the next couple of years, particularly as the service sector grows more slowly in Indiana than throughout the US.

The modest growth has weighed on the state's wealth levels. Per capita personal income is 86.6% of the US average, a decline from 92.1% nearly two decades ago.

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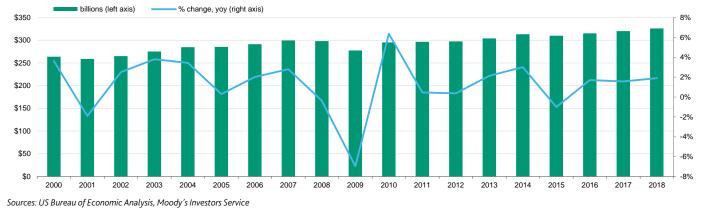
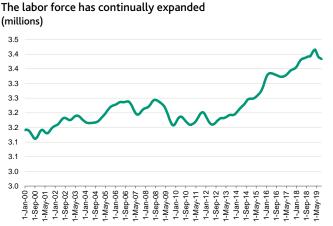


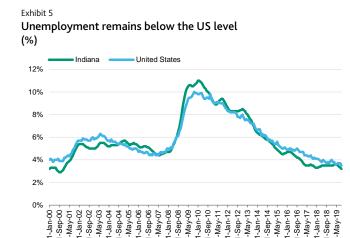
Exhibit 3 The economy continues steady, albeit modest, growth (Real GDP)

The economy is also highly exposed to international trade, which constituted 11.6% of nominal GDP in 2018. Exports are heavily

dominated by the automotive, medical and pharmaceutical sectors. With 52.8% of total exports going to <u>Canada</u> (Aaa stable), <u>Mexico</u> (A3 negative) and <u>China</u> (A1 stable), Indiana remains exposed to ongoing <u>trade tensions</u>, although trade restrictions thus far have had a minimal impact on GDP.

Indiana's labor force is strong. The labor force participation rate is approximately 65%, and has been consistently higher than the US since late 2013. Despite some softness in 2017, the labor force continually expanded from early 2012 through May 2019. Since the summer, however, the trend has reversed, with the labor force in September 2019 falling below the June 2018 level (Exhibit 4).





Sources: Bureau of Labor Statistics; Moody's Investors Service

Sources: Bureau of Labor Statistics; Moody's Investors Service

The labor market is also supported by historically low unemployment, which has been below 4.0% since January 2017 (Exhibit 5). Nonetheless, Indiana has the highest concentration of manufacturing jobs of any state – a potential drag on employment in the long term. Since 2000, the percentage of manufacturing employment as a share of nonfarm employment fell to 17% from 22%.

Indiana's stable economy is offset by weaker demographics relative to the US as a whole. Population growth is below US levels, increasing at an annual average rate of 0.4% over the past decade, compared with 0.7% nationally. Additionally, Indiana's prime working age population (aged 25-54) declined at an average annual rate of 0.4% over the same period, whereas the US had positive average annual growth of 0.1%.

Exhibit 4

Finances and liquidity

Indiana's general fund revenue increased 5.4% in fiscal 2019, driven by broad-based growth. The growth was led by a 43.6% increase (\$287.9 million) in corporate incomes taxes, which constituted 5.8% of total general fund revenue. Sales and use taxes, the state's largest revenue source (48.2% of revenue), grew by 3.3% and individual income taxes (36.9% of revenue) grew by 4.1%. Of all major taxes only gaming taxes (2.6% of revenue) declined in fiscal 2019, by 0.4%. Growth is likely to continue in fiscals 2020 and 2021, albeit at more modest rates, according to state forecasts.

Exhibit 6



The state has historically been conservative with its budget estimates, which combined with revenue outperformance at the end of fiscal 2019, yielded a structural surplus of \$410.5 million. Fiscal 2019 ended with actual revenue exceeding estimates by 2.2% with \$266.8 million more in revenue than projected in April 2019. As of October, fiscal 2020 year-to-date revenue collections have exceeded estimates by 4.0%.

Indiana's conservative budgeting has enabled the state to maintain sizable reserves that provide a large financial buffer against potential future revenue weakness. The state ended fiscal 2019 with \$519.1 million (unaudited) in rainy day funds and \$2.3 billion (unaudited) in total reserves,¹ amounting to 13.6% of fiscal 2019 general fund revenues. The state plans to use approximately \$300 million in reserves to cash fund infrastructure projects, instead of issuing new debt, but still expects to maintain \$2.1 billion in reserves through fiscal 2021. Nonetheless, Indiana's GAAP-basis available fund balance has been declining ever since reaching \$2.4 billion or 19% of revenue, in fiscal 2011.

LIQUIDITY

Indiana has healthy liquidity and does not engage in external or internal cash flow borrowing to fund operations. The state reported having an ample \$6.5 billion in unrestricted cash, cash equivalents and investments in all governmental funds in June 2018.

Debt and pensions

Indiana's low overall debt burden is a credit strength. The state's net tax-supported debt (NTSD, \$1.8 billion) was just 0.6% of personal income and 0.6% of GDP last year, <u>both ranking 45th highest among states</u>. Indiana's debt is also highly affordable, with a debt service ratio of 1.1% of own-source revenue. Low debt levels give Indiana a greater degree of fiscal flexibility than most states.

Indiana also has used private capital via public-private partnerships (PPPs) to address transportation infrastructure needs. We view availability payments as debt-like and count \$385.8 million in PPPs liabilities toward NTSD as of fiscal 2018.²

DEBT STRUCTURE

Indiana does not issue general obligation debt. Lease-appropriation debt for a mixture of more and less essential projects makes up 77.7% of outstanding NTSD.

Exhibit 7 Debt is largely lease appropriation ('000s)

	2016	2017	2018	% of total (2018)
Net Tax-Supported Debt	2,056,661	1,948,981	1,804,332	42.8%
Lease Rental Bonds/Appropriation Debt	1,293,391	1,542,990	1,402,273	33.3%
Capital Leases	26,750	20,143	16,211	0.4%
Other long-term liabilities (P3)	736,520	385,848	385,848	9.2%
Self-Supporting Debt	2,349,563	2,279,569	2,411,855	57.2%
Lease Rental Bonds/Appropriation Debt	2,101,957	2,051,161	2,204,330	52.3%
Moral Obligations	247,606	228,408	207,525	4.9%
Gross Tax-Supported Debt	4,406,224	4,228,550	4,216,187	100.0%

Sources: Indiana financial statements; Moody's Investors Service

As of the end of November 2019, Indiana had \$367.4 million in variable rate debt indexed to SIFMA or about 13% of the state's outstanding debt. The variable rate debt includes privately-placed floating rate notes (54%), puttable demand bonds with liquidity through standby bond purchase agreements (38%) and a small amount of puttable bonds supported by the state's own liquidity (8%).

DEBT-RELATED DERIVATIVES

Most of the state's variable rate debt is hedged. The state has entered into interest rate swaps with <u>JPMorgan Chase Bank, N.A.</u> (Aa1(cr)/P-1(cr), stable) and <u>Bank of New York Mellon</u> (Aa1(cr)/P-1(cr), stable) that had a mark-to-market value of negative \$116.3 million as of October 31, 2019. Indiana has \$2.5 million in unhedged variable rate debt.

PENSIONS AND OPEB

Indiana contributes to a number of pension plans, most notably the Teachers' Retirement Fund (TRF) and the Public Employees' Retirement Fund of Indiana (PERF). <u>Pension obligations are moderate</u>, highlighting the state's robust fiscal management. In fiscal 2018, the state's \$20.3 billion adjusted net pension liability (ANPL) was 99.3% of own-source revenue, which was above the 50-state median of 91.5%.

While pension contributions as a percentage of own-source revenue (5.4%) were higher than the national median of 3.9%, this was in part because of the state's disciplined rate of contributions. In fiscal years 2017 and 2018, Indiana contributed 110.7% and 111.4%, respectively, of the "tread water" amount – the contribution level needed for the ANPL to remain stable from one year to the next, assuming investment returns and actuarial assumptions are met.³ The state's contribution relative to the tread water benchmark implies a funding approach that will likely lead to declining net pension liabilities over time.

Other post-employment benefit (OPEB) costs are well-contained. In fiscal 2018, Indiana's OPEB contributions were 0.2% of ownsource revenue, well below the 50-state median of 0.6%. The state had a reported net OPEB liability of \$503.3 million and a Moody'sadjusted net OPEB liability (ANOL) of \$467.6 million or 2.3% of own-source revenue. Combined fixed costs for debt service, pensions (using the tread water metric) and OPEB were 6.1% of own-source governmental revenue in fiscal 2018, well below the 50-state median of 8.2%.

ESG considerations

ENVIRONMENTAL

The US states sector overall has low exposure to environmental risks because of states' large and diverse economies, revenue-raising abilities and federal government support for disaster recovery costs via FEMA. Indiana is exposed to minimal risk from environmental considerations. Agriculture (including forestry, fishing and hunting) makes up a modest 1.4% of state GDP and only 5.9% of dwelling units are in 100/500 year floodplains. The low risk environment is bolstered by the state's strong fiscal position and management, which provide the state with the necessary resilience to respond to weather events.

SOCIAL

Social issues, such as demographics, labor force, income and education, are key influencers of all state economies, governance stability and financial and leverage trends. See the economy section above for a detailed discussion.

GOVERNANCE

Indiana's credit profile benefits from strong governance. The governor has strong executive powers to make midyear budget adjustments and has used these powers to trim spending when revenue has underperformed. The lack of a supermajority requirement to raise taxes enhances financial flexibility. In November 2018, voters passed a constitutional balanced budget amendment. While the amendment will have little impact on routine budgetary procedures – the state already passes balanced budgets – it highlights the state's commitment to budget responsibility.

Rating methodology and scorecard factors

The <u>US States and Territories Rating Methodology</u> includes a scorecard, which summarizes the 10 rating factors generally most important to state and territory credit profiles. Because the scorecard is a summary, and may not include every consideration in the credit analysis for a specific issuer, a scorecard-indicated outcome may or may not map closely to the actual rating assigned.

States rating methodology scorecard

Indiana (state of)

Rating Factors	Measure	Score
Factor 1: Economy (25%)		
a) Per Capita Income Relative to US Average [1]	86.6%	Aa
b) Nominal Gross Domestic Product (\$ billions) [1]	\$366.7	Aaa
Factor 2: Finances (30%)		
a) Structural Balance	Aaa	Aaa
b) Fixed Costs / State Own-Source Revenue [2]	6.1%	Aa
c) Liquidity and Fund Balance	Aa	Aa
Factor 3: Governance (20%)		
a) Governance / Constitutional Framework	Aaa	Aaa
Factor 4: Debt and Pensions (25%)		
a) (Moody's ANPL + Net Tax-Supported Debt) / State GDP [2] [3]	6.0%	Aaa
Factors 5 - 10: Notching Factors [4]		
Adjustments Up: None	0	
Adjustments Down: None	0	
Rating:		
a) Scorecard-Indicated Outcome		Aaa
b) Actual Rating Assigned		Aaa

Note:

[2] Fixed costs and debt and pensions measures are based on data from the most recent debt and pensions medians report published by Moody's.

[3] ANPL stands for adjusted net pension liability.

[4] Notching factors 5-10 are specifically defined in the US States and Territories Rating Methodology.

Sources: US Bureau of Economic Analysis, State CAFRs, Moody's Investors Service

Endnotes

1 Total reserves include the rainy day fund, Medicaid reserve, tuition reserve and general fund balance.

2 Moody's includes 80% of PPPs liabilities as NTSD. Indiana currently has \$482.3 million of PPPs-related liabilities outstanding.

3 The tread water amount is determined by the actuarial cost of the year's benefit accruals ("service cost") plus interest on the net pension liability at the beginning of the year.

^[1] Economy measures are based on data from the most recent year available.

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