STANDARD & POOR'S RATINGS SERVICES
McGRAW HILL FINANCIAL

Infrastructure Investment and U.S. State Debt

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Credit Ratings: What They Are and Are Not

Are:

- **Opinions about relative credit risk**
- **Opinion about ability & willingness of an issuer to meet financial obligations <u>in full & on time</u>**
- **Forward looking and regularly evolving**
- **Intended to be comparable across different sectors and regions**

Are not:

- **Investment advice**
- **Indications of market liquidity or price**
- **Guarantees of future credit risk**
- **Absolute measures of default probability**
- **Expected ultimate loss given default**

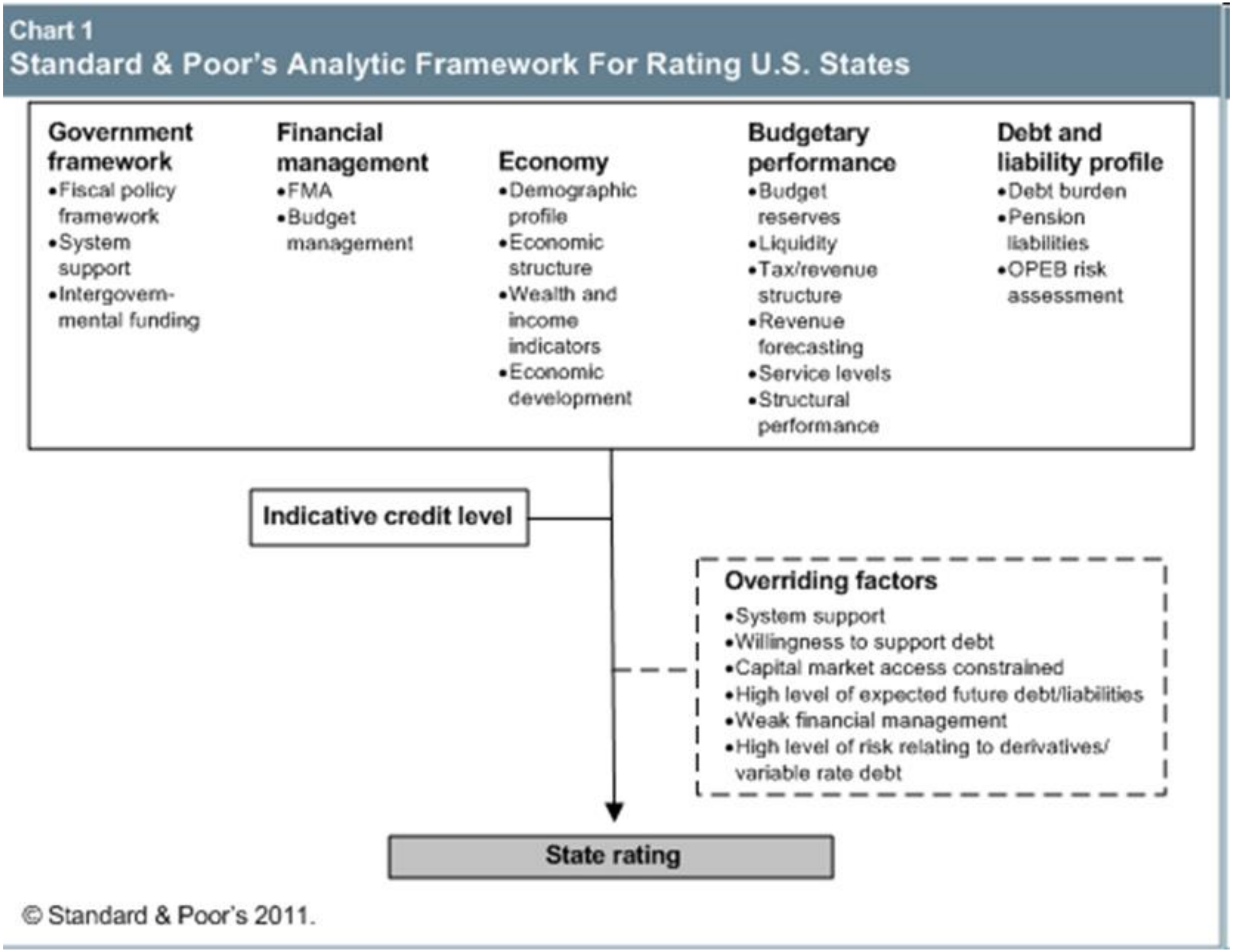
Standard & Poor's Ratings Scale

AAA	Extremely Strong	
AA+		
AA	Very Strong	
AA-		
A+		Investment Grade
A	Strong	
A-		
BBB+		
BBB	Adequate	
BBB-		
BB+		
BB	Vulnerable	
BB-		
B+		Speculative Grade
B	More Vulnerable	
B-		
CCC+		
CCC	Imminent Vulnerability	
CCC-		
CC	Highly Imminent Vulnerability	
D	Default	

U.S. State Ratings Criteria

- Government framework
- Financial management
- Economy
- Budgetary performance
- Debt and liability profile

U.S. State Ratings Criteria



State Debt

S&P's View on State Debt

- **We believe that state debt levels are moderate overall and that states are not laboring under unbearable debt burdens**
- **Debt ratios are not significantly higher now than before the Great Recession**
  - **Aggregate tax-supported debt in the 50 states in fiscal 2012 increased by 2.8% from fiscal 2011 to $488 billion**
- **Median ratio of debt service to general governmental spending was 3.7% in fiscal 2012**
- **Unlike many sovereign governments, U.S. state debt is almost entirely issued for capital projects, not operations**
  - **U.S. state debt is also nearly all amortizing debt**

S&P's View on State Debt (cont.)

- Significant demands to reinstate services, reduce taxes, and fund pension and healthcare costs should leave limited appetite for additional debt.
- Finding an appropriate balance of funding infrastructure and other priorities will remain a challenge in a environment of tepid revenue growth and potential reduced federal funding.
- Many states have recently had large proposed infrastructure programs, particularly for transportation, but many were downsized or not enacted.

State Debt and Liability Factors

- Tax-supported debt (TSD) per capita
- TSD as percentage of personal income
- TSD as percentage of gross state product
- Debt service as percentage of general gov. spending
- Debt amortization
- Pension funded ratio
- Pension annual funding levels
- Unfunded pension liability per capita
- Unfunded pension liability to personal income
- OPEB risk assessment

U.S. Infrastructure

U.S. Infrastructure

- **The American Society of Civil Engineers' (ASCE) latest assessment of U.S. infrastructure: D+ grade overall, D grade for highways**
  - **ASCE reports that 1 in 9 bridges is structurally deficient**
- **The Federal Highway Administration indicates that all levels of government would need to invest $170 billion/year to significantly improve highway conditions**
  - **Only $91 billion per year is being spent now**

U.S. Infrastructure (cont.)

- **The latest EPA surveys report $384.2 billion of infrastructure needs for drinking water, and $298 billion of needs for sanitary sewer**
- **The EPA surveys are used to determine the allocation of state revolving fund money the EPA appropriates to each state**
- **Other professional organizations estimate even greater needs**

Infrastructure Financing Options

Overview of Infrastructure Financing

- **In many cases, revenues to repay infrastructure investments will be paid by users through user fees, tolls, etc.**
- **In other cases, investments are funded more generally through taxes on a wider base**
- **Local governments and states may attempt to shift project risks through P3 structures**

Typical Transportation Project Funding Options

- **Federal Grant-Secured Obligations (GANs/GARVEEs)**
- **General Obligation Bonds (GOs)**
  - Appropriation debt (Certificates of Participation - COPs)
- **Sales Tax Revenue Bonds**
- **Gas Tax Revenue Bonds**
- **Motor Vehicle Registration Fee Bonds**
- **Enterprise Revenue Bonds**
  - Airports, Ports, Parking, Toll Roads, Transit Systems
- **Public Private Partnerships (P3)**
  - With or without TIFIA in the capital structure

S&P's View on Tax-supported Debt

- **Debt analysis is a primary focus on S&P's credit analysis**
- **S&P's tax-supported debt calculations include GOs, appropriation debt, and special-tax bonds such as sales, personal income and gas tax bonds**
- **In general, the calculations will not include:**
  - **Debt for true enterprise or self-sustaining purposes, such as toll revenue bonds**
  - **GARVEES, if payable solely from dedicated federal revenues**
  - **Tobacco settlement bonds, if they conform to stress scenarios and are payable exclusively from settlement revenues**
  - **Contingent debt obligations that historically have not needed state support**

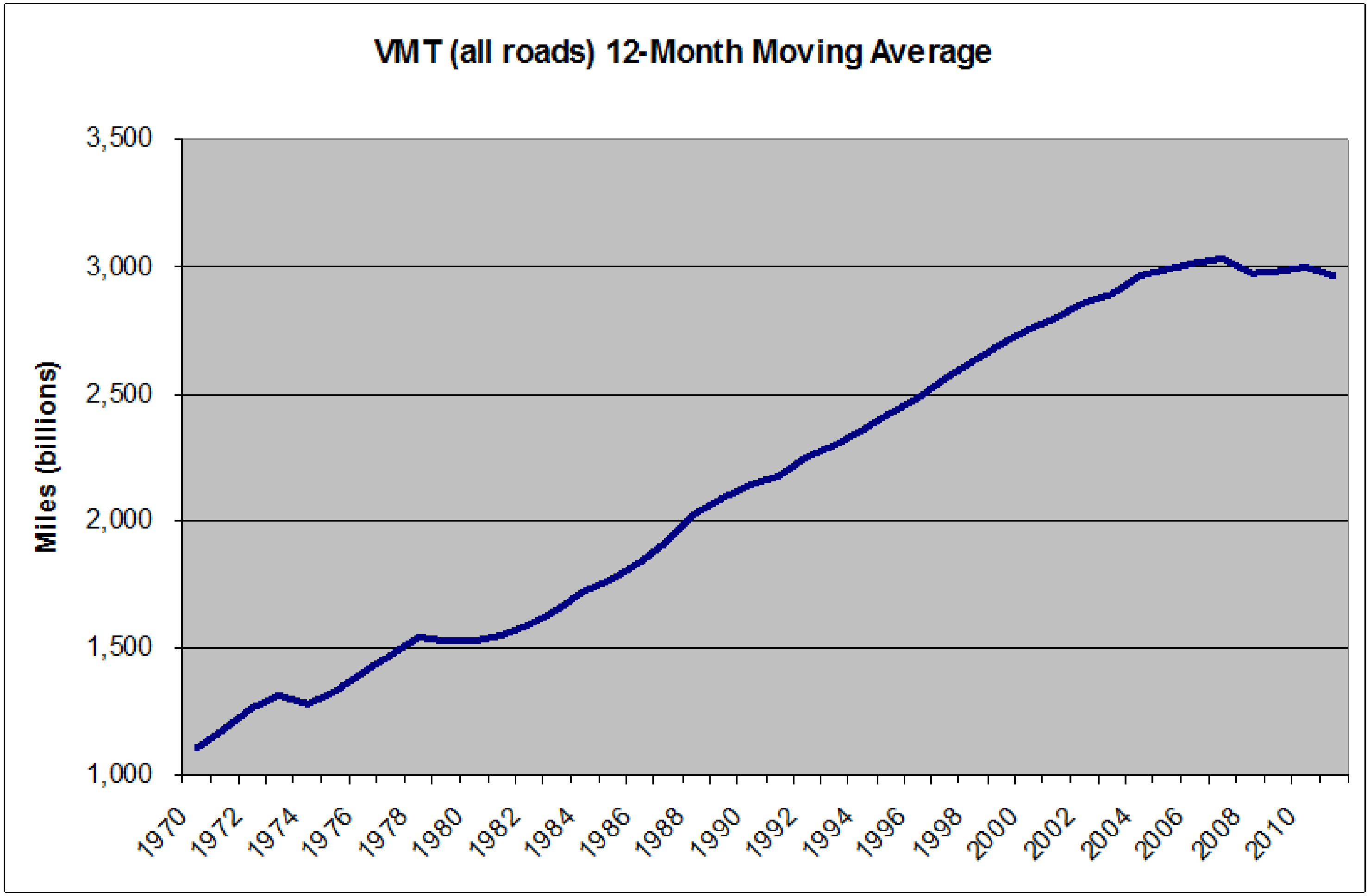
Public Private Partnerships (P3s)

- Risk-sharing method used globally and becoming more popular in the U.S.
- Includes some private investment and typically a transfer of construction and operating risk to a private party
- Done as either availability or volume-based projects
  - Availability projects: state would make milestone payments and recurring availability payments, often backed by tolls, gas taxes, or appropriations
  - Volume-based projects: government receives upfront payment and allows private entity to collect project revenues
- Political Acceptance of P3s
  - Less political appetite for private concessions of existing assets
  - More appetite for new capacity construction projects, due to increased risk for start-up projects.

U.S. Transportation Infrastructure Finance and Innovation Act

- **TIFIA loans are federal loans sometimes used as part of P3 financing**
- **The loans are repaid after senior debt in the cash waterfall**
- **Designed to make the financing more attractive**
  Upon a “bankruptcy related event” (BRE), TIFIA loan becomes on a parity with senior lien
- **A BRE occurs if two consecutive mandatory payments missed or a bankruptcy filing**

Vehicle Miles Traveled



Relevant Recent S&P Publications

- **2013 U.S. Debt Review, July 10, 2013**
- **Top 10 Investor Questions For 2013: Global Public Private Partnership Infrastructure Investment, December 5, 2012**
- **U.S. State Ratings Methodology, January 3, 2011**

Thank You

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