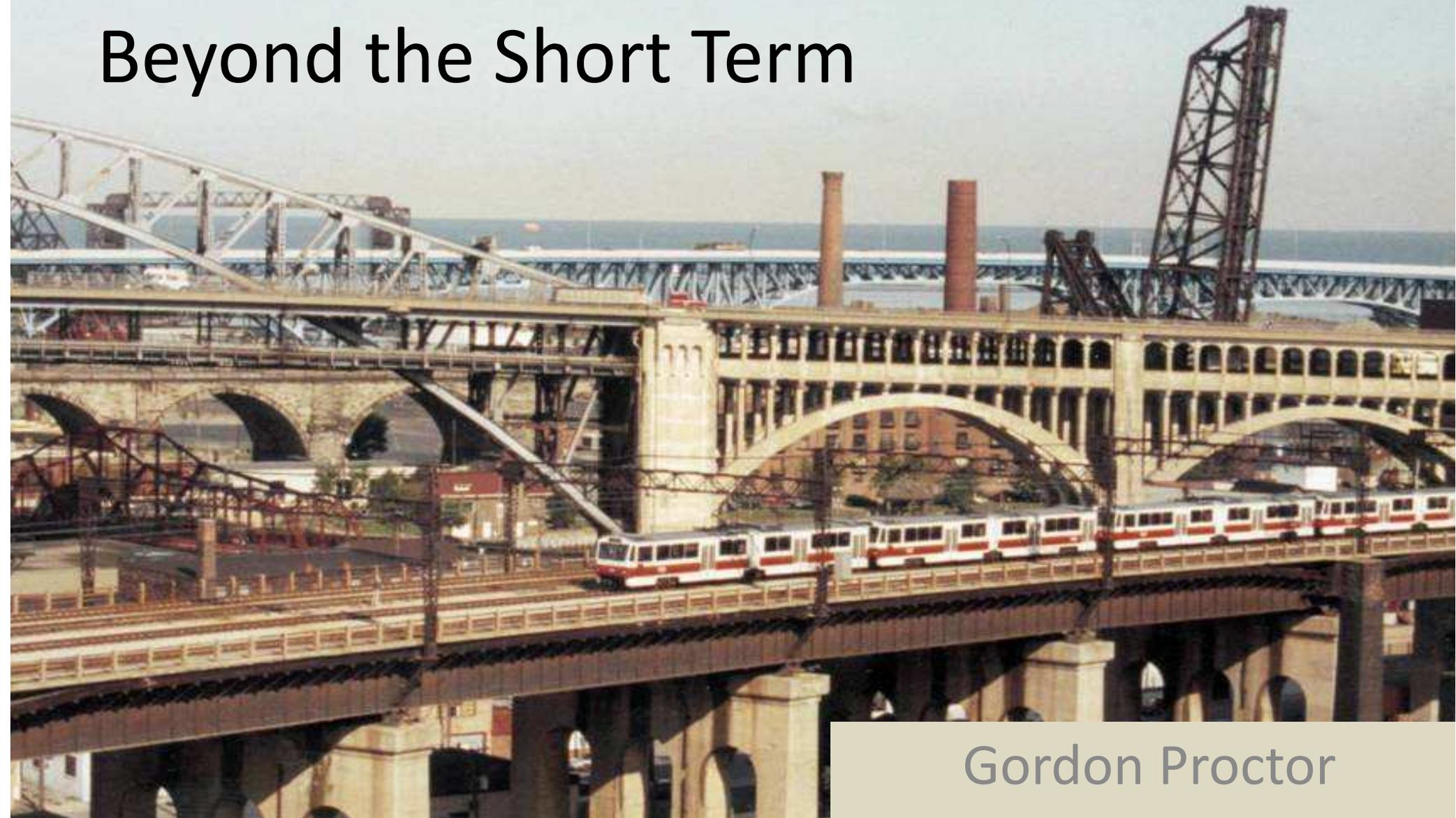


# Managing Bridges Beyond the Short Term



Gordon Proctor



# Embracing Sustainability

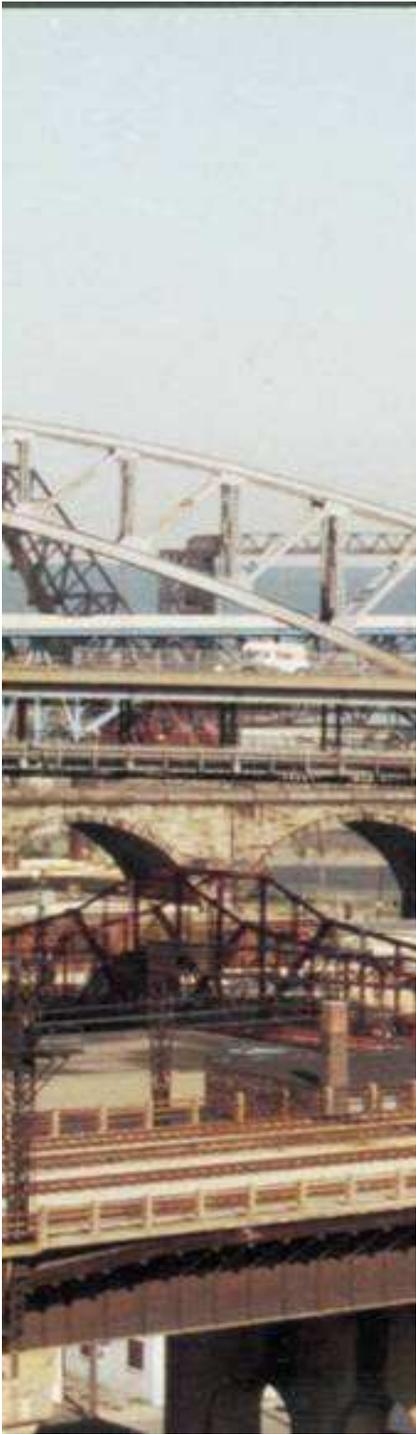
- The concept of sustainability is gaining traction
  - Not just an environmental concept any more
  - Concern over program sustainability such as
    - Medicare
    - Medicaid
    - Social Security
    - National budget

# International Examples



- Australians are adopting “asset sustainability” as a primary framework for managing infrastructure
- Requires long-term plan and budget to sustain conditions





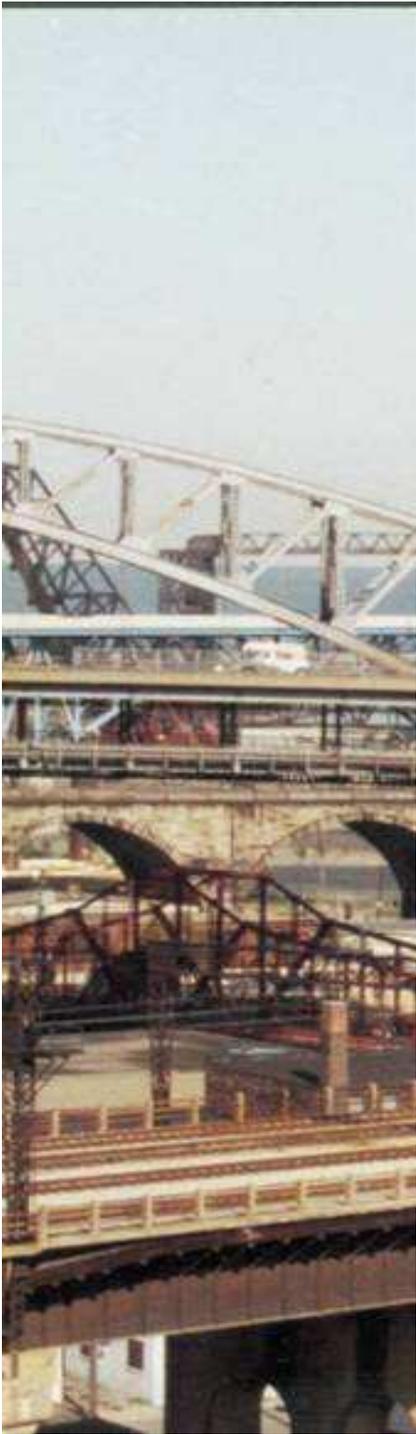
# Financial Sustainability

- Queensland Local Government Act of 2009
  - A local government is ***financially sustainable*** if the local government is able to maintain its financial capital and infrastructure capital over the long term
- Act requires an asset sustainability plan coupled with 10-year financial strategy



# Austroads Sustainability Guidance

- "If the Agency's long-term finances are sustainable, then disruptive tax increases or spending cuts can be avoided, *the taxation burden will be fairly shared between current and future taxpayers* and the stability or predictability of government taxes and charges will not be at risk," the guidelines notes.

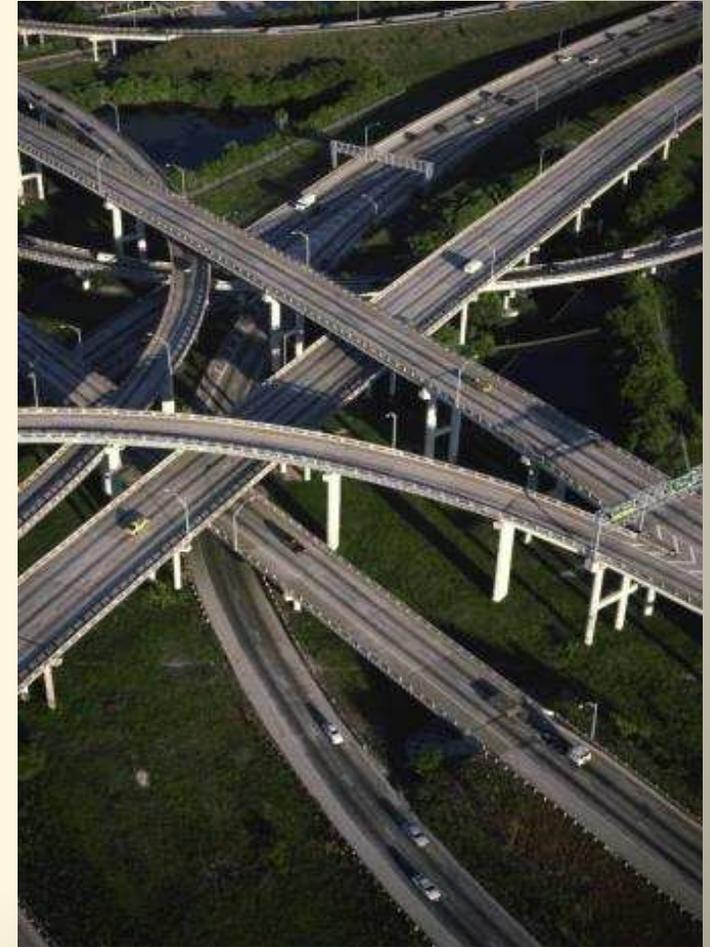


# Sustainability Metrics

- Asset Consumption Ratio - The average proportion of "as new" condition left in the assets.
- Future Renewal Funding Ratio - The ratio of asset replacement funding relative to the capital renewal expenditure identified in the asset management plan.
- Asset Sustainability Ratio - It is the current expenditure on asset renewal relative to the depreciation of the assets over that time.

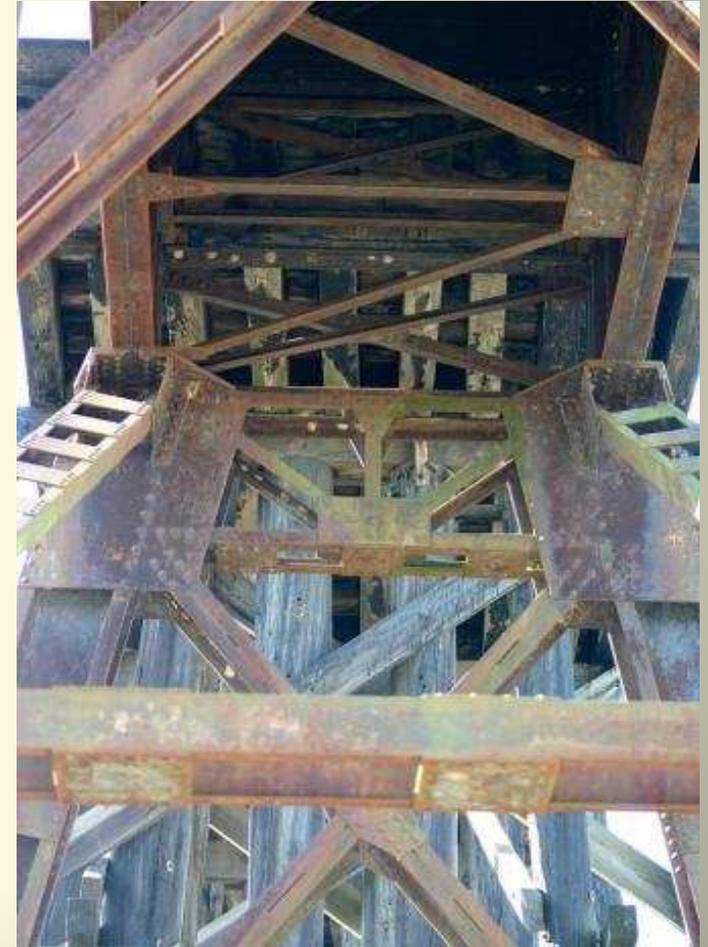
# Infrastructure as Equity

- Pension fund managers are legally required to preserve, if not grow, their assets
- If the same concept applies to infrastructure, government's job becomes preserving infrastructure value, or equity, for future users

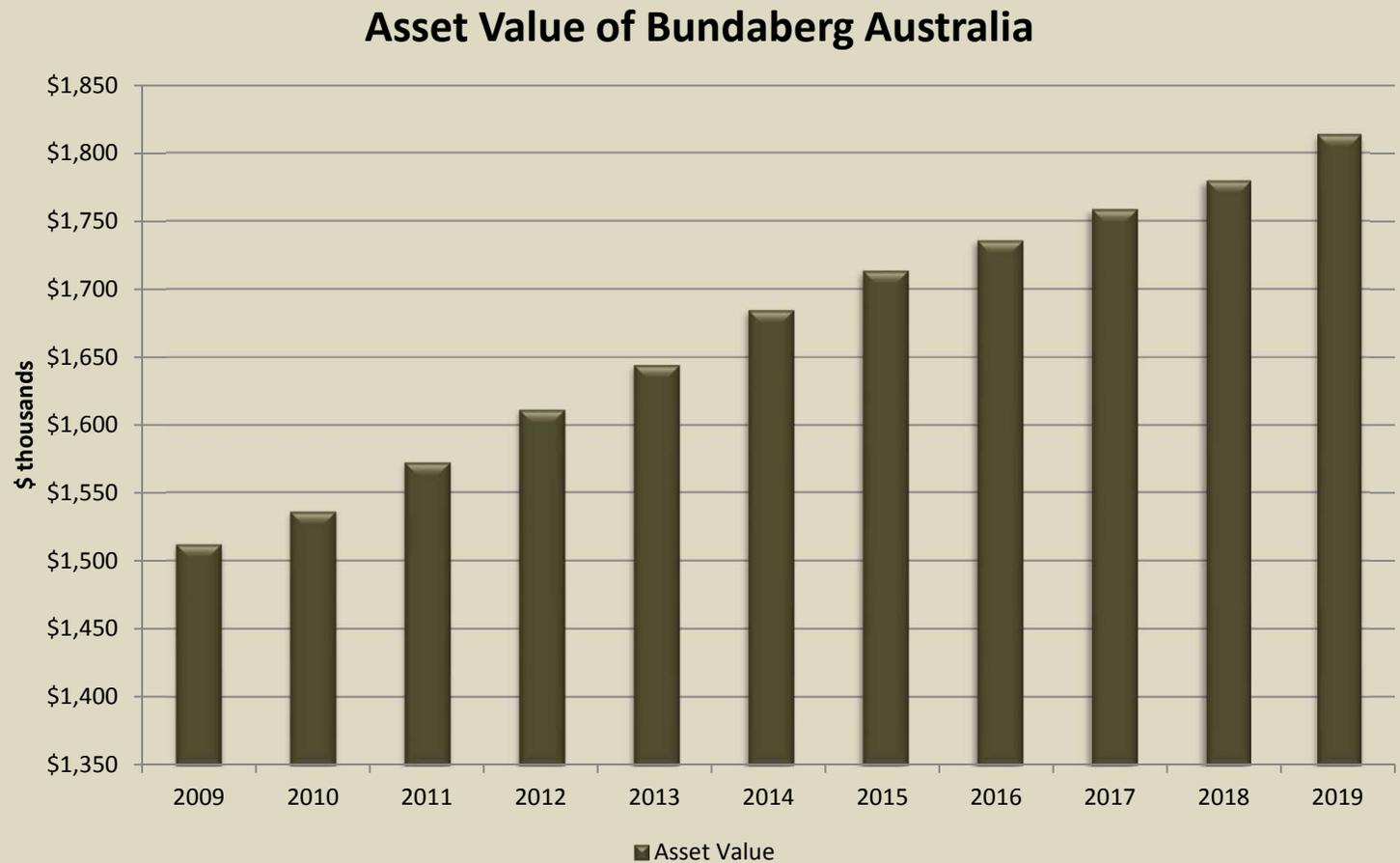


# Growing Community Equity

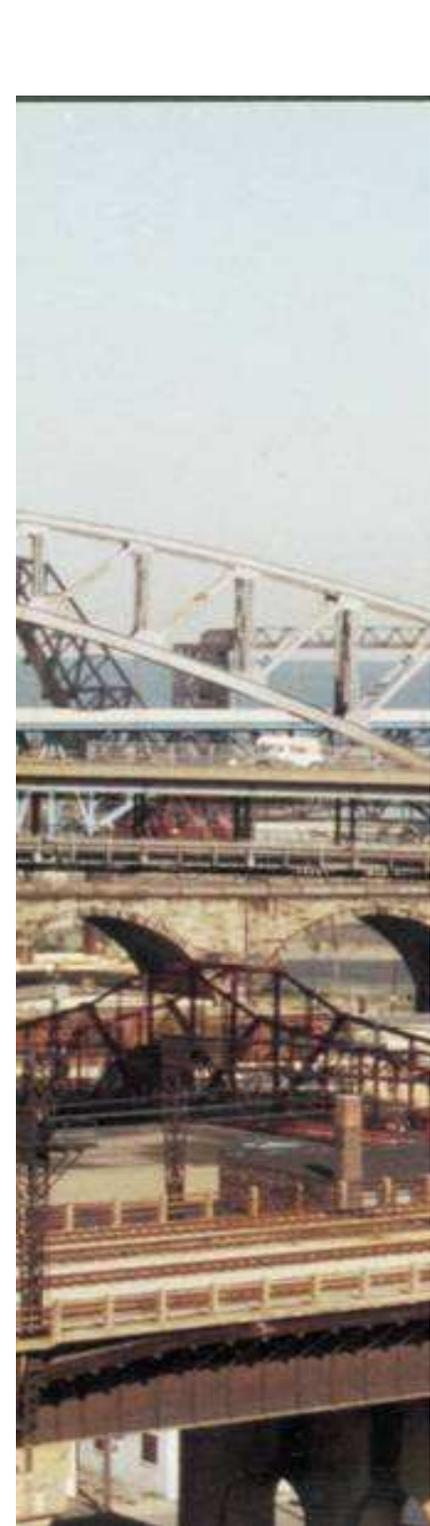
- The (British) guidance notes that the mere assigning of monetary value to highway assets casts them as an important public asset worthy of preservation. Preserving value equates to stewardship.



# Bundaberg, Australia, Example



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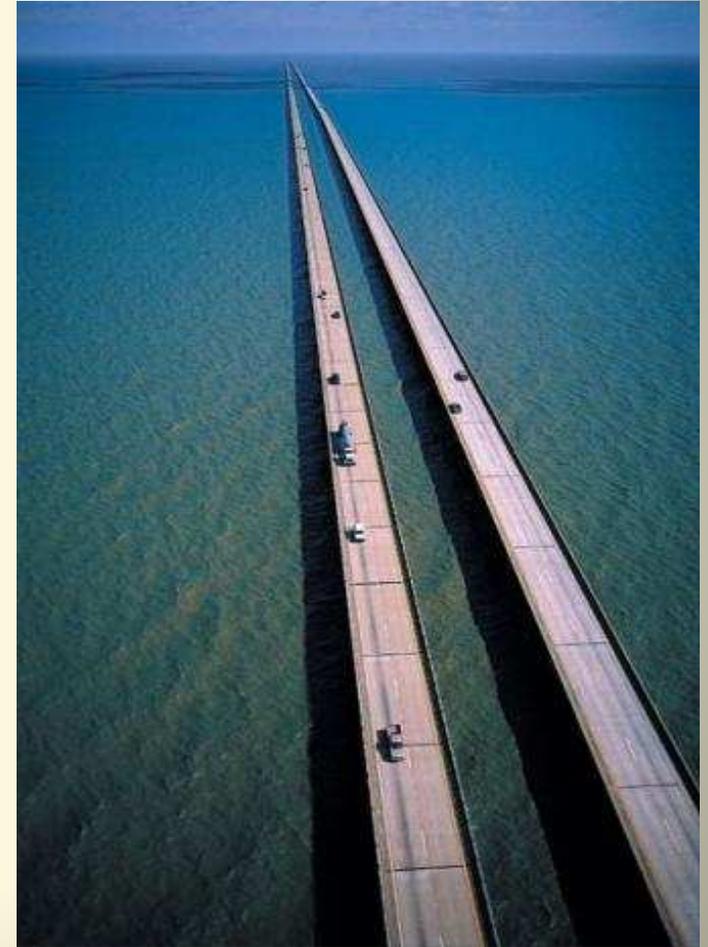


# Sustainability and Accountability

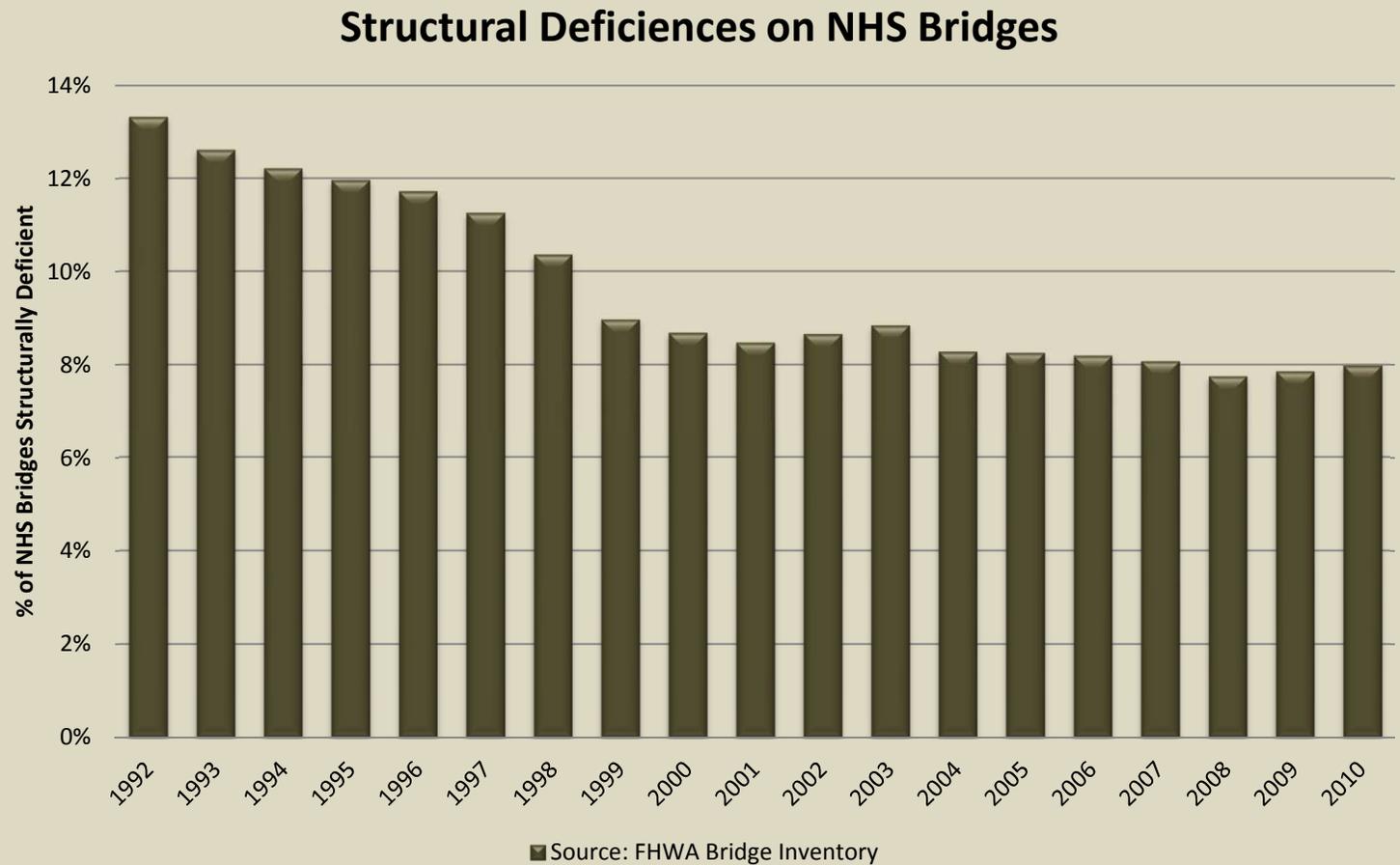
- National transportation community is grappling with appropriate performance measures
  - Don't want measures that encourage only 'worst first'
  - Don't want to 'reward poor performance'
  - Don't want to encourage 'pencil whipping' of data to meet targets

# Sound Performance Metrics

- Sustainability metrics and asset valuation may give us additional metrics
  - They are based on sound engineering analysis
  - Unique to each agency



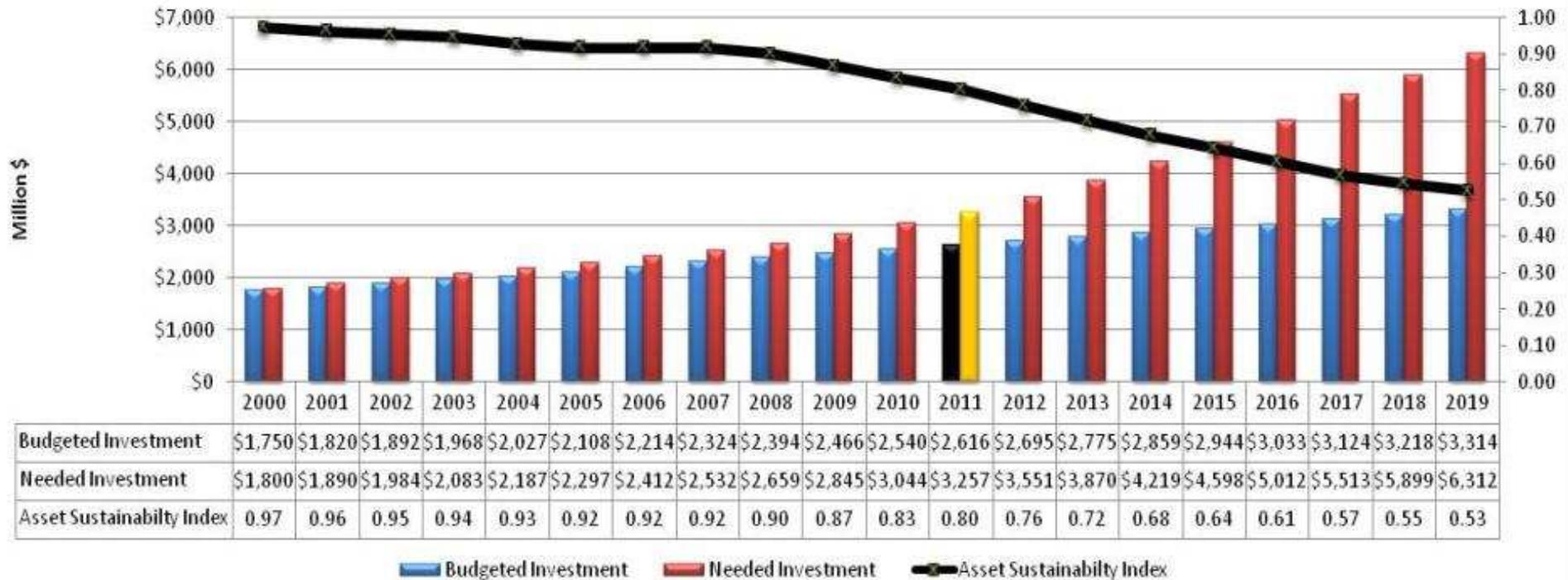
# Leading, Vs. Lagging



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# A US Sustainability Metric

Simplified Asset Sustainability Index



# Warren Buffet on Infrastructure

- "All of this adds up to a huge responsibility," he wrote in his shareholders letter." We are a major and essential part of the American economy's circulatory system, obliged to constantly maintain and improve our 23,000 miles of track along with its ancillary bridges, tunnels, engines and cars. In carrying out this job, we must anticipate society's needs, not merely react to them. Fulfilling our societal obligation, we will regularly spend far more than our depreciation, with this excess amounting to \$2 billion in 2011. I'm confident we will earn appropriate returns on our huge incremental investments. Wise regulation and wise investment are two sides of the same coin."



# Conclusion

- International examples have helped promote asset management before
- We should continue to study the newest innovations internationally to help use craft meaningful metrics
- By incorporating sustainability into our metrics, we can help society understand the likely outcomes of today's decisions

