



Chesapeake Bay Restoration: Addressing the Financing Needs

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National Context:

U.S. Infrastructure Finance: A Critical Problem



ESTIMATED INVESTMENT
NEEDED BY 2020:

\$3.6
TRILLION

Source: American Society of Civil Engineers, 2013

... And It's Getting More Expensive

Year	ASCE U.S. Report Card Grade	Estimated Investment Needed
2001	D+	\$1.3 Trillion
2005	D	\$1.6 Trillion
2009	D	\$2.2 Trillion
2013	D+	\$3.6 Trillion

Source: American Society of Civil Engineers, 2013



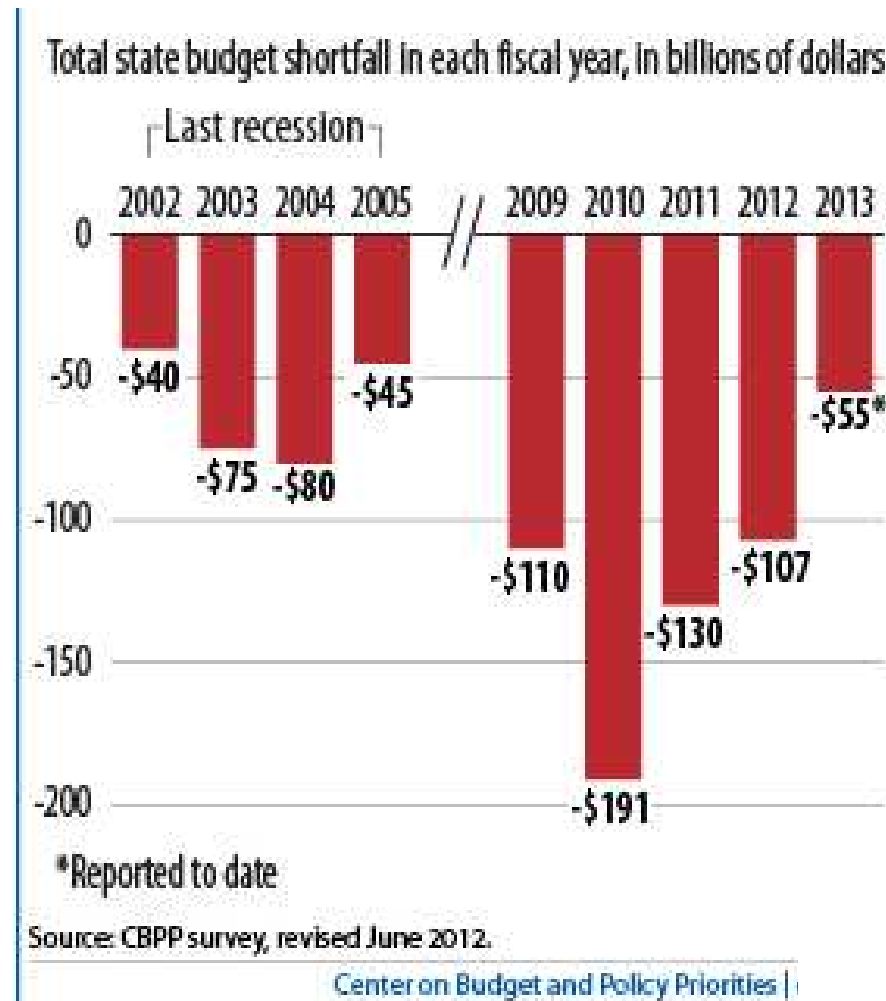
Current Financing Gap: \$ BB to Get from D+ to B by 2020

INFRASTRUCTURE SYSTEMS	TOTAL NEEDS	ESTIMATED FUNDING	FUNDING GAP
SURFACE TRANSPORTATION ¹	\$1,723	\$877	\$846
WATER/WASTEWATER INFRASTRUCTURE ¹	\$126	\$42	\$84
ELECTRICITY ¹	\$736	\$629	\$107
AIRPORTS ^{1,2}	\$134	\$95	\$39
INLAND WATERWAYS & MARINE PORTS ¹	\$30	\$14	\$16
DAMS ³	\$21	\$6	\$15
HAZARDOUS & SOLID WASTE ⁴	\$56	\$10	\$46
LEVEES ⁵	\$80	\$8	\$72
PUBLIC PARKS & RECREATION ⁶	\$238	\$134	\$104
RAIL ⁷	\$100	\$89	\$11
SCHOOLS ⁸	\$391	\$120	\$271
TOTALS	\$3,635	\$2,024	\$1,611
YEARLY INVESTMENT NEEDED	\$454	\$253	\$201

Source: American Society of Civil Engineers, 2013



State budget shortfalls still occurring

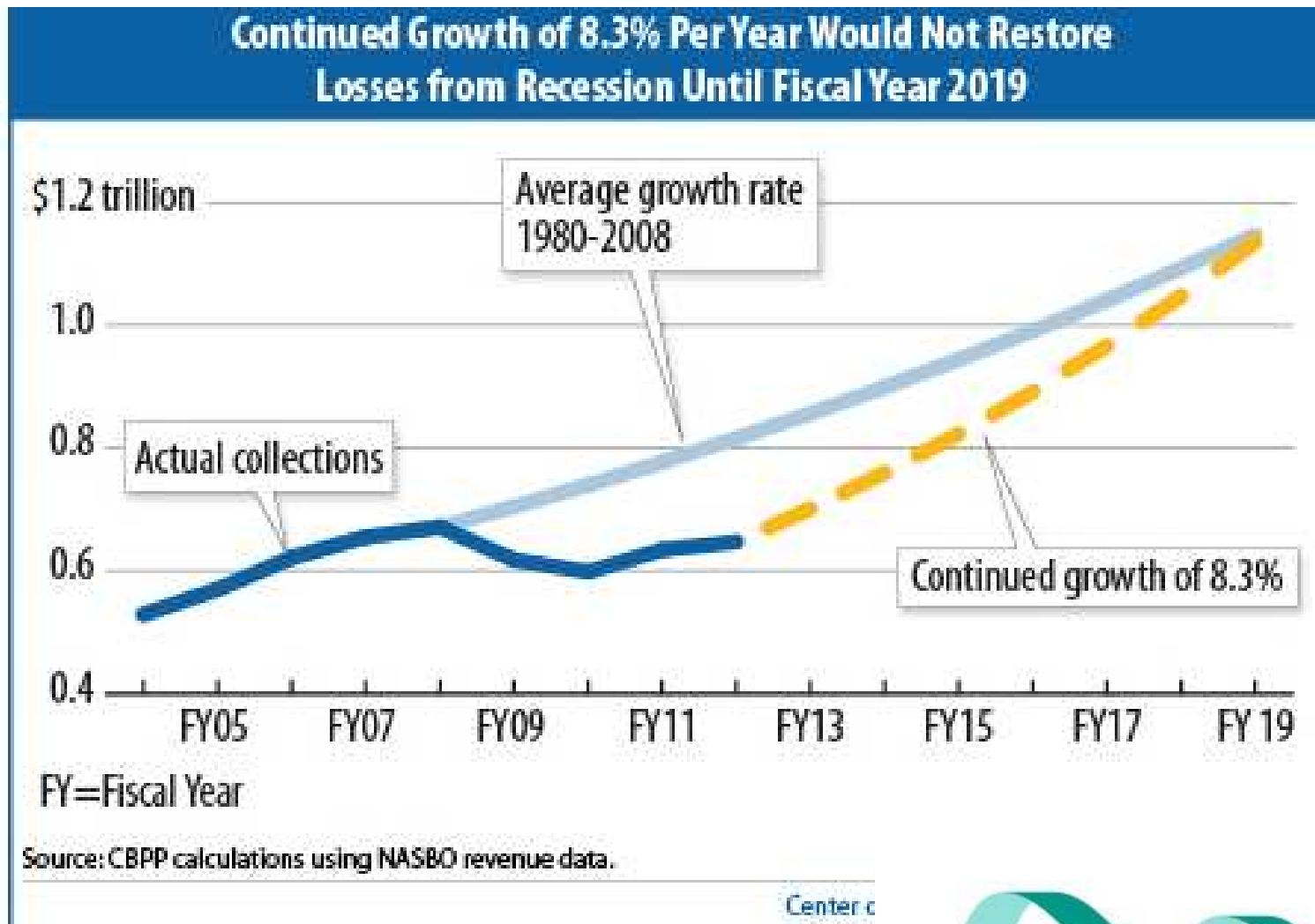


Source: Center on Budget & Policy Priorities, June 2012

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Difficult for States to Recoup Recession Losses



Source: Center on Budget & Policy Priorities, June 2012

P3 & Pension Finance: A Way Forward?



- **Potential**

Substantial expansion of available capital (up to ~ half of near term financing gap)

- **Who**

Public and Taft Hartley funds (assets ~\$5.35 trillion, 2012)

- **What**

Increase infrastructure investment from ~1% to 5% of assets (Australian paradigm)

- **Why**

Long asset duration (matches pension liabilities)

Safe markets: quasi-monopolistic

Low volatility , inflation-protected cash flows

Low correlation with market cycles

Calculation of potential impact

- **\$5.35 trillion**, public fund/Taft Hartley assets, est'd, 2012
- 5% infrastructure share ~ **\$267 BB**
- Leverage at 40% equity ~ **\$669 BB**
- Over 7 years~ **\$95.5 BB/year**
- **\$95.5 BB ~ 47%** of \$201 BB ASCE annual infrastructure financing gap



Accelerating P3: What's Needed?



- P3 enabling expansion/capacity building
- Flexible procurement
 - Adoption and standardization of best practices (Australia, Canada)
- New transaction structures
 - More effective private risk transfer (design, build, finance operate, maintain)
 - Pooled investment vehicles?
- More creative public asset use
 - Federal role: Extend TIFIA model to other sectors
 - Fuller use of SRF authority
- Tax policy changes
 - Federal subsidy or tax exemptions for P3
- Labor protections
 - Responsible contracting policies



P3 Models for Chesapeake Bay: Adapting Best Practices

- **Virginia**
Office of Transportation, Public-Private Partnerships
- **Pennsylvania**
New P3 law enacted July 2012
Transportation facilities: roads, bridges, ferries, airports, ports
- **Maryland**
New P3 law effective July 1, 2013
Heightened P3 reliance
Board of Public Works-led approval process



Chesapeake Bay Infrastructure & Financing Needs

Infrastructure Needs

- Wastewater treatment
- Stormwater management
- Green infrastructure
 - Bioswales
 - Permeable pavements
 - Green roofs
 - Green streets
 - Rainwater harvesting
 - Reforestation

Financing Concerns

- Restoration fee adequacy
- Restoration Revenue Mix
 - Public/Private
 - Federal/State/Local
- Identify effective approaches
- Evaluate/implement best financing practices



CBEFAC: Potential Membership

- Geographic diversity: represent all member jurisdictions
- Diversity of financial expertise
 - Public finance (federal/state/local)
 - Financial services (banking, investment banking, private equity, pension funds)
 - Private industry (environmental finance, urban development)
 - Finance NGOs



Chesapeake Bay: New Finance Directions



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