

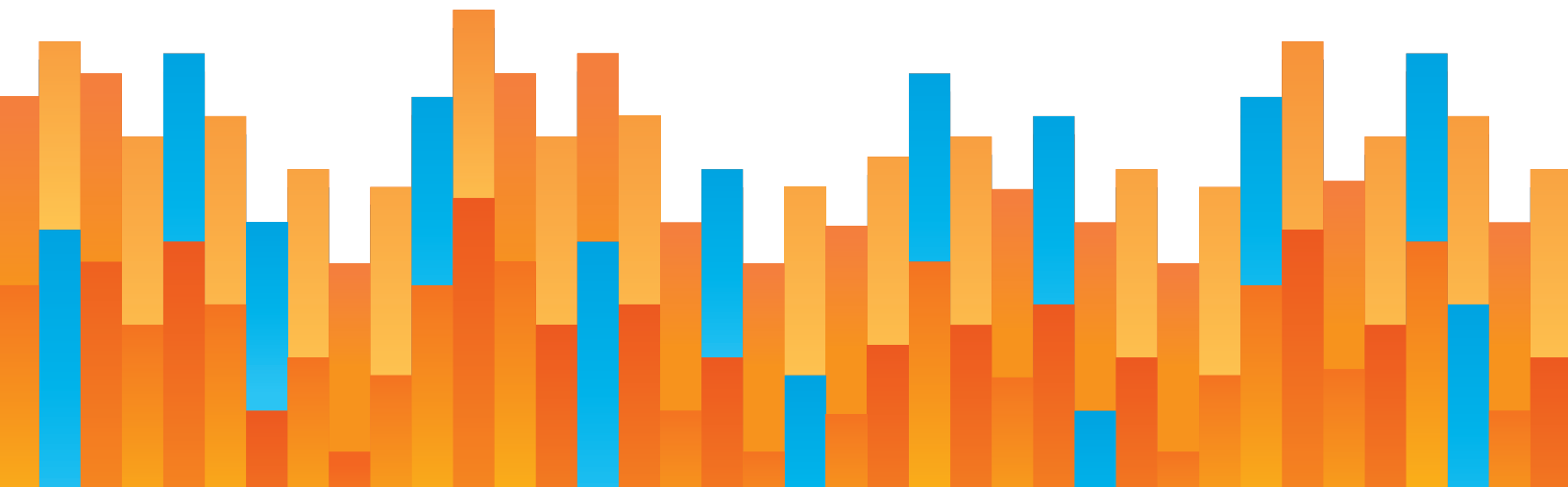


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ANNUAL PRIVATIZATION REPORT: SURFACE TRANSPORTATION

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PART 1

OVERVIEW

Long-term public private partnerships (P3s) for surface transportation projects have been used by governments for the past 60 years. As documented by José A. Gómez-Ibáñez and John Meyer, the phenomenon began in the 1950s and 1960s, as France and Spain emulated the model pioneered by Italy prior to World War II.¹ Italy's national motorway systems were developed largely by investor-owned or state-owned companies operating under long-term franchises (called concessions in Europe). In exchange for the right to build, operate, and maintain the highway for a period ranging from 30 to 70 years, the company could raise the capital needed to build it (typically a mix of debt and equity). The model spread to Australia and parts of Asia in the 1980s and 1990s, and to Latin America in the 1990s and 2000s.

Nearly all the projects in those regions from the 1950s to 1980s were financed based on the projected toll revenues to be generated once the highway was in operation. Some projects went bankrupt as a consequence of reduced traffic and revenues during severe economic downturns (e.g., the oil price shock of 1974), leading to nationalization of some companies. In the late 1990s and early 2000s, however, the governments of France, Italy, Portugal, and Spain all privatized their state-owned toll road companies and formalized the toll concession P3 model. Australia has allowed several concession company entities to go through liquidation, with the assets (in each case major highway tunnels) being acquired by new operators at a large discount from the initial construction cost.

¹ José A Gómez-Ibáñez and John R. Meyer, "Going Private: The International Experience with Transport Privatization," Brookings Institution, 1993. <https://trid.trb.org/view/405691> (6 June 2019).



Other governments in Europe adopted a different form of highway concession. Generally not favoring the use of tolls, they created the concept of availability payments as a means of financing long-term concession projects.



Other governments in Europe adopted a different form of highway concession. Generally not favoring the use of tolls, they created the concept of availability payments as a means of financing long-term concession projects. In this structure, the company or consortium selected via a competitive process negotiates a stream of annual payments from the government sufficient (the company expects) to cover the capital and operating costs of the project, and make a reasonable profit. The capital markets generally find such a concession agreement compatible with financing the project, via a mix of debt and equity. Since no toll revenues are involved, this model applies to a much broader array of transport and facility projects, including rail transit and public buildings. In the highway sector, nearly all long-term concession P3 projects in Canada, Germany, the UK, and a number of Central and Eastern Europe countries have been procured and financed as availability payment (AP) concessions.²

In a small but growing number of cases—major bridges, as well as highway reconstruction that includes the addition of express toll lanes, for example—governments collect the toll revenues and use the money to help meet their availability payment obligations.³ These cases are called “hybrid” concessions in this report.

Seven of the top 10 worldwide P3s that reached financial close in 2020 used availability payments, continuing a growing trend over the last six years. The growing use of AP concessions has enabled P3s for projects that do not generate their own revenues, as well

² “PPPs on German Federal Trunk Roads,” Joint Workshop on Financing Transport Infrastructure, Geneva, 10 September 2013. Lecture. (6 June 2019).

³ “Public-Private Partnership (PPP) Procurement: A Guide for Public Owners,” Build America Bureau, U.S. Department of Transportation, *Transportation.gov*, 2019. https://www.fhwa.dot.gov/ipd/pdfs/PPP/toolkit/PPP_procurement_guide_0319.pdf (27 June 2019).

as hybrid concessions in which toll revenues help the government cover the costs of its AP obligations.

Many P3 project components, steps, or procedures are abbreviated using acronyms. The following abbreviations will be used throughout this paper to refer to the different P3 contracts or P3 procedures:

- AP: Availability Payment
- BOO: Build-Operate-Own
- BOT: Build-Operate-Transfer
- DBF: Design-Build-Finance
- DBFOM: Design-Build-Finance-Operate-Maintain
- DBFM: Design-Build-Finance-Maintain
- DBOM: Design-Build-Operate-Maintain
- P3: Public Private Partnership
- PAB: Private Activity Bond(s)
- RFI: Request for Information
- RFP: Request for Proposals
- RFQ: Request for Qualifications
- RR: Revenue Risk
- TOT: Toll-Operate-Transfer

PART 2

PRIVATE HIGHWAY PROJECTS

In surface transportation policy, P3s are far more common than privatized roads. However, there are several private highways and bridges in the U.S. Table 1 lists these facilities and details about them.

TABLE 1: PRIVATE ROADWAYS AND BRIDGES

Roadway/Bridge Name	State	Project Type	Owner	Cost \$ (M)	Year Constructed
Adams Avenue Parkway	UT	Bypass	Adams Avenue Parkway Inc.	\$8.9	2001
Alabama River Parkway Bridge	AL	Bridge	American Roads, LLC	\$12.0	1998
Ambassador Bridge	MI to Canada	Bridge	Detroit International Bridge Company	\$23.5	1929
Black Warrior Parkway Bridge	AL	Bridge	American Roads, LLC	\$25.0	1998
Cline Avenue Bridge	IL	Bridge	Figg/American Infrastructure	\$150.0	2020
Downbeach Express	NJ	Bridge	Margate Bridge Company	N/A	1929
Emerald Mountain Expressway	AL	Bridge	American Roads, LLC	\$4.0	1994
Foley Beach Express	AL	Highway	American Roads, LLC	\$25.0	2000

Roadway/Bridge Name	State	Project Type	Owner	Cost \$ (M)	Year Constructed
Fort Frances- International Falls International Bridge	MN to Canada	Bridge	Boise Inc./ Resolute Forest Products	N/A	1912
Grosse Ile Toll Bridge	MI	Bridge	Grosse Ile Bridge Company	\$3.9	1913
Orchard Pond Parkway	FL	Highway	Orchard Pond Parkway, LLC	\$17.0	2016
Rio Grande City- Camargo International Bridge	TX to Mexico	Bridge	Starr Camargo Bridge Company	N/A	1966
South Norfolk Jordan Bridge	VA	Bridge	Figg/American Infrastructure	\$142.0	2011

NOTE: Table 1 does not include toll roads or bridges that provide access to private communities, resorts, or tourist destinations only.

Source: "Toll Facilities in the United States," April 2018, FHWA.DOT.gov.

The **Adams Avenue Parkway** is a one-mile private toll road in Washington Terrace, Utah that provides direct access from local communities to I-84.⁴ The route bypasses the original circuitous route to the Interstate avoiding traffic lights, low speed limits, and congestion.

Drivers pay a toll directly after crossing the **Alabama River Parkway Bridge** to access the Montgomery Expressway, also known as the Alabama River Parkway from northeast Montgomery near SR 152.⁵ The 12.5-mile Montgomery Expressway carries SR 143 from Montgomery to the northern residential suburbs of Coosada, Millbrook, and Prattville.

The **Ambassador Bridge** provides a direct connection between Detroit, Michigan and Windsor, Ontario. The bridge connects Highway 3 in Canada with I-96 in Michigan and is the only route between Detroit and Windsor that allows large trucks; the lanes on the Detroit-Windsor Tunnel, the only other road crossing between the cities, are physically too narrow.

The **Black Warrior Parkway Bridge**, also known as the Tuscaloosa Bypass, is a private toll bridge over the Black Warrior River west of downtown Tuscaloosa, Alabama. The bridge,

⁴ "Welcome," Adams Avenue Parkway, Inc. *AdamsAvenueParkway.com*, <http://adamsavenueparkway.com/index.htm> (26 February 2020).

⁵ "About Us," American Roads, LLC, *MontgomeryExpressway.com*, <https://www.montgomeryexpressway.com/About.aspx> (26 February 2020).

located near the Tuscaloosa National Airport, connects downtown with the city's northern and western suburbs.

The **Downbeach Express Toll Bridge** in Margate, New Jersey provides a connection between Margate City on Absecon Island and the New Jersey mainland via Margate Boulevard, which is also maintained by toll revenue.⁶ The bridge allows drivers in Margate to avoid a route north through Atlantic City or south through Longport to access the mainland and the Garden State Parkway.

The 1.75-mile **Emerald Mountain Expressway** consists of a toll bridge over the Tallapoosa River and a road that connects Rifle Range Road and Wares Ferry Road in the northeast suburbs of Montgomery, Alabama.⁷ The expressway bypasses a much lengthier 45- to 60-minute drive via US 231 by providing a direct 15-minute route between the communities of Emerald Mountain and eastern Montgomery.

The **Foley Beach Express** (FBE) is an arterial highway and tolled bridge that connects the Alabama communities of Gulf Shores and Orange Beach to more-northern parts of Baldwin County, extending 14 miles north to Foley. A second, untolled connecting road, the Baldwin Beach Express, originates near the northern terminus of the FBE, and extends another 13 miles to I-10.⁸ Paralleling SR 59, the highway has higher travel speeds and offers better travel time reliability during the peak tourist season.

The **Fort Frances-International Falls International Bridge** is a privately owned toll bridge that connects Fort Francis in Ontario with International Falls, Minnesota.⁹ The bridge carries US 53 and US 71 to Highway 11 and Highway 71 in Canada, both part of the Trans-Canada Highway.

⁶ "Welcome," Margate Bridge Company, *DownBeachExpress.com*, <http://www.downbeachexpress.com> (26 February 2020).

⁷ "The Bridge is Open," American Roads, LLC, *EmeraldMountainExpressway.com*, <https://www.emeraldmountainexpressway.com> (26 February 2020).

⁸ Ibid.

⁹ "Non-Interstate System Toll Bridges and Tunnels in the United States," The Office of Highway Policy Information, *FHWA.DOT.gov*, 5 April 2018. <https://www.fhwa.dot.gov/policyinformation/tollpage/page07.cfm> (26 February 2020).

The private **Grosse Ile Toll Bridge** connects Grosse Ile, the largest island on the Detroit River, with mainland Michigan.¹⁰ The island, located south of Detroit and home to over 10,000 residents, is also connected to the mainland by the untolled Wayne County Bridge.

The **Orchard Pond Parkway** in northern Leon County acts as a bypass of Tallahassee, Florida, connecting the communities to the northwest and northeast of the city.¹¹ The eastern end of the parkway is at CR 155, while the western end terminates at CR 157.

The **Rio Grande City–Camargo International Bridge** is a privately owned and operated bridge that spans the Rio Grande and connects Rio Grande City, Texas to Camargo in Mexico.¹² On the United States side, the bridge provides access via local streets to US 83.

The **South Norfolk Jordan Bridge** carries State Route 337 between the Virginia cities of Portsmouth and Chesapeake over the Southern Branch Elizabeth River.¹³ The cities are also connected by the Midtown and Downtown tunnels north of the bridge and a vehicular bridge farther south.

¹⁰ “History,” Grosse Ile Bridge Company, *GrosseIleBridge.com*, 2021, <http://grosseilebridge.com/history/> (26 February 2020).

¹¹ “About,” Orchard Pond Parkway, LLC, *OrchardPondParkway.com*, 2021, <https://www.orchardpondparkway.com> (26 February 2020).

¹² “Non-Interstate System Toll Bridges and Tunnels,” *FHWA.DOT.gov*.

¹³ “South Norfolk Jordan Bridge,” United Bridge Partners, *SNJB.net*, 2021, <https://snjb.net> (26 February 2020).

PART 3

INTERNATIONAL SURFACE TRANSPORTATION INFRASTRUCTURE, 2020

3.1

LARGEST INTERNATIONAL SURFACE TRANSPORTATION P3S

Part 3 provides an overview of worldwide surface transportation P3 activity in 2020.¹⁴ It was a slower year for global P3 activity with only four project closings worth more than \$1 billion each, all occurring outside of the United States. This is a decrease from nine project closings of more than \$1 billion each in 2019.¹⁵ Table 2 displays the 10 largest agreements, which were compiled using information from *Inframation* and *Inspiratia*, two news publications that provide P3 data resources.

¹⁴ “Global Surface Transportation PPP Deals, January 1, 2019–December 31, 2019,” *Inframation News*, *InframationNews.com*, 2019.. <https://www.inframationnews.com/deals/> (25 June 2020).

¹⁵ “Global Service Transportation PPP Deals, January 1, 2020–December 31, 2020,” *Inframation News*, *InframationNews.com*, 2020. <https://www.inframationnews.com/deals/> (25 February 2021).

TABLE 2: LARGEST GLOBAL SURFACE TRANSPORTATION DEALS OF 2020

Project	Location	Country	Cost \$ (B)	Type	Duration (in Years)	Concessionaire
S-Bahn Hannover Rolling Stock P3	Hannover	Germany	\$1.67	DBFOM AP	12.5	Transdev/ NordWestBahn
A3 (Bundesautobahn) P3	Bavaria, Fürth-Erlangen	Germany	\$1.63	DBFOM AP	30	Eiffage/ Bunte
Dhaka Elevated Expressway	Dhaka	Bangladesh	\$1.13	DBFOM AP	25	First Dhaka Elevated Expressway Co. Ltd.
Mumbai-Pune Expressway P3	Mumbai	India	\$1.09	DBFOM RR	10.5	IRB Infrastructure Developers
Jerusalem Light Rail Green Line P3	Jerusalem	Israel	\$0.95	DBFOM AP	25	CAF/Shapir/ Superbus
A465 Sections 5 & 6 P3	Wales	United Kingdom	\$0.84	DBFM AP	33	Meridiam/FCC
French Guiana Bus Rapid Transit Network	Cayenne	French Guiana	\$0.83	DBFOM AP	33	Fonds d'Investissement et de Développement des Partenariats Public-Privé (FIDEPPP2)
Almaty Ring Road	Almaty	Kazakhstan	\$0.74	DBFOM RR	20	Alsim Alarco/ Makyol/ SK Engineering/ Korea Expressway consortium
Netz Elbe Spree Rolling Stock P3	Berlin, Brandenburg	Germany	\$0.63	DBFOM AP	12	ODEG/BeNEX
Solapur-Bijapur NH-13 (New NH-52) Highway Section P3	Karnataka, Maharashtra	India	\$0.36	DBFOM RR	20	IJM Corporation Berhad

Source: 2020 Transaction list from Inframation Infrastructure News

The following are brief explanations of each project.

The **S-Bahn Hannover Rolling Stock P3** reached financial close in May 2020. The 12.5-year DBFOM AP replacement project constructs 64 new electric trains for the 385-km S-Bahn Hannover, a regional rail network in Hannover, Lower Saxony.¹⁶ These trains replace older trains on the system.

The **A3 P3**, an expansion project of this major thoroughfare in Bavaria between Biebelried and Fürth-Erlangen was granted by the German Federal Ministry of Transportation and

¹⁶ "S-Bahn Hannover Rolling Stock PPP," Inframation Infrastructure, *InframationNews.com*, 2020. <https://www.inframationnews.com/deals/3640976/sbahn-hannover-rolling-stock-ppp.html> (2 March 2021).

Digital Infrastructure.¹⁷ It reached financial close in February 2020. The DBFOM AP model for this 79-km stretch of highway expands the highway from three to six lanes.

The **Dhaka Elevated Expressway P3** is a 20-km, four-lane limited access highway connecting Hazrat Shahjalal International Airport with Kutubkhali.¹⁸ The 25-year DBFOM AP, granted by the Bangladesh government, provides a bypass highway to relieve traffic congestion within Dhaka city. The project is Bangladesh's first full P3 project.

The **Mumbai-Pune Expressway P3**, India's first six-lane, high-speed, access-controlled tolled expressway, will be delivered as a 10.5-year deal as a DBFOM RR. The project will upgrade a tolled expressway 94 km in length, as well as improve other roadway sections for a total of 205 km.¹⁹

The **Jerusalem Light Rail Green Line P3**, a 25-year DBFOM AP project granted by the Israeli Ministry of Finance, reached financial close in November 2020. It is the third phase of the Jerusalem Mass Transportation Plan.²⁰ The Green Line will run from Mount Scopus to Gilo with an additional branch line to Malha. The project will require constructing 27km of new railway track, 50 new stations and a new central depot, and adding 100 railway carriages to the rolling stock.

The **A465 Dualling P3**, granted by the Government of Wales, is a 33-year DBFM AP that reached financial close in October 2020. The project will widen the highway from three lanes to a dual carriageway between Dowlais Top and Hirwaun in south Wales.²¹

French Guiana's Bus Rapid Transit Network, granted by the Communauté d'Agglomération du Centre Littoral de Guyane, is a 33-year DBFM AP that reached financial close in January

¹⁷ "A3 (Biebelried-Furth/Erlangen) PPP," Inframation Infrastructure, *InframationNews.com*, 2020. <https://www.inframationnews.com/deals/1531966/a3-biebelried-furtherlangen-ppp.html> (2 March 2021).

¹⁸ Mott MacDonald, "Saving Dhaka from Economic Gridlock," *mottmac.com*, 2021, <https://www.mottmac.com/article/53887/dhaka-elevated-expressway> (15 April 2021).

¹⁹ "Mumbai-Pune Expressway PPP (Formerly Yashwantrao Chavan Expressway) New Concession 2020," Inframation Infrastructure, *InframationNews.com*, 2020. <https://www.inframationnews.com/deals/3625816/mumbaipune-expressway-ppp-formerly-yashwantrao-chavan-expressway-new-concession-2020.html> (2 March 2021).

²⁰ "Jerusalem Light Rail Green Line PPP," Inframation Infrastructure, *InframationNews.com*, 2020, <https://www.inframationnews.com/deals/1863831/jerusalem-light-rail-green-line-ppp.html> (2 March 2021).

²¹ "A465 Dualling – Section 5 and 6 PPP," Inframation Infrastructure, *InframationNews.com*, 2020. <https://www.inframationnews.com/deals/1484677/a465-dualling-section-5-and-6-ppp.html> (2 March 2021).

2020.²² The project builds two bus rapid transit lines that are each 5.6 km. The project is the first phase of a wider network that will be built over the next 10 years.

The **Almaty Ring Road P3**, granted by the Ministry of Investments and Development of the Republic of Kazakhstan, is a 20-year DBFOM RR that reached financial close in August 2020.²³ The project will consist of a partial ring road around the northern part of Almaty city consisting of four to six tolled lanes.

The **Netz Elbe Spree (NES) Rolling Stock** DBFOM AP, which reached financial close in April 2020, is a 12-year contract granted by the Verkehrsverbund Berlin-Brandenburg that will provide 21 electric multiple units (EMUs) and seven trains for regional routes.²⁴ The NES rail network serves Berlin and the three surrounding states.

The **Solapur-Bijapur NH-13 Highway Section P3**, a 20-year DBFOM project granted by the National Highways Authority of India, reached financial close in September 2020.²⁵ The project will rehabilitate, upgrade, and widen the existing two-lane highway to four lanes on the 109-km Solapur-Bijapur section of NH-13. The project spans the two Indian states of Maharashtra and Karnataka.

3.2

COUNTRIES REACHING FINANCIAL CLOSE ON FIRST P3

In 2020, three countries reached financial close on their first surface transportation P3: Bangladesh, French Guiana, and Kazakhstan. Bangladesh's 25-year DBFOM concession for the Dhaka Elevated Expressway with First Dhaka Elevated Expressway Company was valued at \$1.13 billion. Kazakhstan's 20-year DBFOM concession with the Korea Expressway Consortium for the Almaty Ring Road was valued at \$740 million. French Guiana's 33-year DBFM AP bus rapid transit network concession with Fonds d'Investissement et de

²² "French Guiana's Bus Rapid Transit Network," 2020, *InframationNews.com*. <https://www.inframationnews.com/deals/3781756/french-guiana-bus-network-ppp.shtml> (26 April 2021).

²³ "Almaty Ring Road PPP," Inframation Infrastructure, *InframationNews.com*, 2020. <https://www.inframationnews.com/deals/1449682/almaty-ring-road-ppp.shtml> (2 March 2021).

²⁴ "Netz Elbe Spree Rolling Stock PPP (Lots 1 and 4)," Inframation Infrastructure, *InframationNews.com*, 2020. <https://www.inframationnews.com/deals/2893616/netz-elbe-spre-rolling-stock-ppp-lots-1-and-4.shtml> (2 March 2021).

²⁵ "Solapur-Bijapur NH-13 (New NH-52) Highway Section PPP," Inframation Infrastructure, *InframationNews.com*, 2020. <https://www.inframationnews.com/deals/2543601/solapurbijapur-nh13-new-nh52-highway-section-ppp.shtml> (2 March 2021).

Développement des Partenariats Public-Privé was valued at \$830 million. Table 3 details these three projects.

TABLE 3: COUNTRIES THAT REACHED FINANCIAL CLOSE ON FIRST P3 IN 2020

Country	Location	Project	Cost \$ (B)	Type	Duration	Concessionaire
Bangladesh	Dhaka	Dhaka Elevated Expressway	\$1.13	DBFOM AP	25 years	First Dhaka Elevated Expressway Co. Ltd.
French Guiana	Cayenne	French Guiana Bus Rapid Transit Network	\$0.83	DBFOM AP	33 Years	Fonds d'Investissement et de Développement des Partenariats Public-Privé (FIDEPPP2)
Kazakhstan	Almaty	Almaty Ring Road	\$0.74	DBFOM RR	20 Years	Alsim Alarco/ Makyol/ SK Engineering/ Korea Expressway Consortium

Source: 2020 Transaction list from Inframation Infrastructure News

Table 4 summarizes the surface transportation P3s that reached financial close by region, and provides a value of all P3s within a region. For context, Latin America saw the largest number of P3 closures with 44, followed by Europe with 42 and Asia with 31. Europe's P3 projects had the highest total value of \$22.53 billion.

TABLE 4: GLOBAL SURFACE TRANSPORTATION P3S IN 2020

Region	Number of Financial Closes	Value \$(B)
Africa	1	\$0.30
Asia	31	\$8.91
Europe	42	\$22.53
Latin America	44	\$10.82
Oceania	4	\$3.79
Canada	7	\$5.28
United States	9	\$9.24

Source: 2020 Transaction list from Inframation Infrastructure News

PART 4

U.S. SURFACE TRANSPORTATION CONCESSIONS, 2020

4.1

LARGEST U.S. SURFACE TRANSPORTATION P3S

Over the past 35 years, 35 U.S. highway P3s and 2 U.S. transit P3s have reached financial close. While not impressive by international standards, the pace of P3 projects has accelerated over the past 10 years. Table 5 provides an overview of the FY 2020 U.S. surface transportation concession market, listed in order of the investment value of each project. The length of each lease is provided for existing toll roads now leased to private concessionaires.

In most new construction projects, the concession conforms to a DBFOM contract with terms ranging from 30 to 70 years. Since 2012, the major trend in highway concessions has reportedly migrated away from toll-revenue-based financing toward AP-based financing. (Transit projects need to use AP-based financing as there is no tolling). However, of the 35 highway projects in Table 5, 24 are financed based on toll revenues alone. Of the others, only six are financed on a pure AP basis, with five larger AP concessions all involving new toll revenues that will supplement the state's revenue sources. The total dollar value of the 37 concessions is \$51 billion, of which 61.9% is generated based on toll revenue financing,

with the other 38.1% financed based on the states' (and in the case of Goethals Bridge, the Port Authority of New York and New Jersey's) AP commitments.

TABLE 5: LARGEST U.S. LONG-TERM SURFACE TRANSPORTATION CONCESSIONS AS OF 12/31/20

Project	Location	Cost (\$ B)	Type	Most Recent Closing	Concessionaire
Indiana Toll Road	Indiana	\$5.73	66-year lease, toll	05/15	IFM Global Infrastructure Fund/California Public Employees' Retirement System/Allstate
I-4 Ultimate Managed Lanes	Orlando, FL	\$2.88	DBFOM, AP/toll	09/14	Skanska/Granite/Lane
Purple Line Transit	Montgomery/Prince Georges County, MD	\$2.65	DBFOM AP	06/16	Meridiam/Star America
I-635 LBJ Managed Lanes	Dallas, TX	\$2.57	DBFOM, toll	06/10	Cintra/Meridiam
Transform 66 P3 (Outside the Beltway I-66)	Fairfax County/Prince William County, VA	\$2.41	DBFOM, toll	11/17	APG/Cintra/Ferrovial/John Laing/Meridiam Infrastructure North America II
Midtown Tunnel	Norfolk, VA	\$2.40	DBFOM, toll	11/20	Abertis, Manulife Investment Management
North Tarrant Express (Phase I and 2W)	Fort Worth, TX	\$2.12	DBFOM, toll	12/09	Cintra/APG/Meridiam
I-495 HOT Lanes	Fairfax County, VA	\$2.07	DBFOM, toll	05/07	Transurban/Fluor
Denver Eagle P3 Rail	Denver, CO	\$2.04	DBFOM AP	08/10	Fluor/Lang/Uberior
I-595 Managed Lanes	Fort Lauderdale, FL	\$1.83	DBFOM, AP/toll	10/09	ACS Infrastructure
Chicago Skyway	Chicago, IL	\$1.83	89-year lease, toll	02/16	The Canadian Pension Plan Investment Board/ Ontario Municipal Employees Retirement System/ Ontario Teachers' Pension Plan
Goethals Bridge	New York City, NY	\$1.44	DBFM, AP/toll	11/13	Macquarie/Kiewit
PR-22/PR-5	Puerto Rico	\$1.44	DBFOM, toll	05/13	Abertis/Goldman Sachs
SH 183 Managed Lanes	Dallas – Fort Worth, TX	\$1.42	DBF + OM, AP/toll (pass through)	11/14	Kiewit
North Tarrant Express Phase 3A	Fort Worth, TX	\$1.41	DBFOM, toll	06/16	Cintra/Meridiam/APG
I-75 Modernization Segment 3 P3	Michigan	\$1.40	DBFM, AP	11/18	AECOM/Ajax/Dan's Excavating Inc/Jay Dee/John Laing

Project	Location	Cost (\$ B)	Type	Most Recent Closing	Concessionaire
SH 130 Segments 5-6	Texas	\$1.33	DBFOM, toll	03/08	SH 130 Concession Co.
ORB East End Crossing	Louisville, KY	\$1.32	DBFOM, AP/toll	03/13	Walsh/Vinci/Bilfinger Berger
Colorado I-70 East P3	Denver, CO	\$1.27	DBFOM, AP/toll	12/17	Kiewit/Meridiam/Jacobs Engineering Group/WSP
Rapid Bridge Replacement	Pennsylvania	\$1.12	DBFM, AP	03/15	Plenary Walsh
Port of Miami Tunnel	Miami, FL	\$1.11	DBFOM, AP	10/09	Meridiam/Bouygues Travaux Publics
SH 288 Toll Lanes	Harris County, TX	\$1.06	DBFOM, toll	05/16	ACS/Infrared/Shikin & Binui/Northleaf/Clal Insurance/Star America
I-95 Express Lanes	Virginia	\$0.92	DBFOM, toll	07/12	Transurban/Fluor
Presidio Parkway	San Francisco, CA	\$0.85	DBFOM, AP	06/12	Meridiam/ HOCHTIEF PPP Solutions
I-95 Express Lanes Fredericksburg Extension	Virginia	\$0.83	DBFOM, toll	07/19	Transurban Group
SR 125, South Bay Expressway	San Diego, CA	\$0.66	DBFOM, toll	07/11	SANDAG
Portsmouth Bypass	Portsmouth, OH	\$0.65	DBFOM, AP	03/15	ACS, Infrared, Star
I-77 Managed Lanes	Charlotte, NC	\$0.64	DBFOM, toll	05/15	Cintra/Aberdeen/John Laing
Northwest Parkway	Denver, CO	\$0.60	DBFOM, toll	11/07	Brisa/Companhia de Concessões Rodoviárias (CCR)
Pocahontas Parkway	Richmond, VA	\$0.60	99-year lease, toll	06/06	DBi Services, Macquarie
I-69 Upgrade	Indiana	\$0.56	DBFOM, AP	05/17	INDOT
I-395 P3	Virginia	\$0.55	DBFOM, toll	06/17	Transurban/Fluor
Dulles Greenway Tollroad	Loudoun County, VA	\$0.35	BOO, toll	02/17	Macquarie
Southern Connector, SC	Greenville, SC	\$0.24	DBFOM (63-20)*, toll	08/12	SCDOT
91 Express Lanes	Orange County, CA	\$0.21	DBFOM, toll	11/03	OCTA
US 36 HOT Lanes, Phase 2	Colorado	\$0.21	DBFOM, toll	02/14	Plenary/Ames/Granite
Camino Columbia Bypass	Laredo, TX	\$0.09	DBFOM, toll	06/99	TXDOT

* Before Private Activity Bonds (PABs) were authorized, non-profit corporations labeled 63-20s allowed a project to be financed with tax-exempt bonds. Since PABs are preferable, 63-20s are no longer used.

Source: "US Highway PPP Deals," Infraction Infrastructure News, Acuris.

The continued expansion and redevelopment of U.S. highways with P3s provides cause for optimism in three different ways. First, it suggests that the more-aggressive developers of new toll projects have an exit option after the project is operational and demonstrating traffic and revenue results. These purveyors may want to shift their capital to new projects.

Second, it shows that P3s can be successful in attracting much-needed investment in replacing the U.S.' first-generation, largely untolled Interstate highways (which are nearing the end of their useful life). Such projects should be particularly attractive to pension fund investments, since they are lower-risk than greenfield projects. Pension funds may also be seen as more politically acceptable to legislators and the public than global investment firms seeking higher rates of return.

Third, it reveals P3 actors' sustained commitment to roadway quality due to the long-term nature of P3 contracts and their handback provisions calling for infrastructure assets to be returned to agencies in good condition.

4.2

2019 SURFACE TRANSPORTATION P3S

Between October 2019 and December 2020 (overlap of FY 2020 and CY 2020), five U.S. surface transportation P3 deals reached financial close as reflected in Table 6. Each project is detailed after the table.

TABLE 6: U.S. SURFACE TRANSPORTATION CONCESSIONS, 2020

Project	Location	Cost \$ (B)	Type	Duration	Date	Concessionaire
Belle Chasse Bridge and Tunnel Replacement P3	New Orleans, LA	\$0.16	DBFOM RR	30 years	December 2019	Plenary Infrastructure Belle Chasse
North Tarrant Express Toll Lanes Refinancing	Dallas, TX	\$0.40	Refinancing	30 years	December 2019	Cintra/Meridiam Infrastructure
Highway Package (PR-22, PR-5)	San Juan, Puerto Rico	\$0.18	Private-to-Private	41 years	July 2020	Abertis/Ullico Infrastructure Master Fund
I-635 LBJ Highway Refinancing	Dallas, TX	\$0.54	Refinancing	41 years	September 2020	LBJ Infrastructure Group
Midtown Tunnel (Elizabeth River Tunnels Project)	Portsmouth/Norfolk, VA	\$0.63	DBFOM RR	50 years	December 2020	Abertis/Manulife Investment Management

Source: "US Highway PPP Deals," *Inframation Infrastructure News*, Acuris.

The **Belle Chasse Bridge and Tunnel Replacement P3**, which reached financial close in December 2019, builds a new, fixed-span bridge to replace an aging tunnel and movable bridge in the New Orleans suburb.²⁶ The 30-year \$162 million DBFOM RR project, granted by the Louisiana Department of Transportation and Development, aims to eliminate delays associated with maintenance of the existing infrastructure, while improving hurricane evacuation capacity

The refinancing of the **North Tarrant Express Toll Lanes** reached financial close in December 2019. The deal refinances \$400 million of Private Activity Bonds for the original project's 23.4 miles of tolled express lanes, branded "TEXpress" lanes, in eastern Fort Worth, Texas, a \$1.2 billion deal reached financial close in December 2019.²⁷

PR-22 and PR-5 compose a 55-mile toll road system that runs along the northern coast of Puerto Rico, connecting the capital of San Juan to outlying cities.²⁸ Goldman Sachs Infrastructure Partners sold its 49% stake in Puerto Rican toll road concessionaire Autopistas Metropolitanas de Puerto Rico to Ullico Infrastructure Master Fund. The remaining 51% is controlled by Abertis. This \$181 million deal reached financial close in July 2020.

The **LBJ Express**, whose managed lanes help relieve congestion north of Dallas on 13 miles of I-35 and I-635, were refinanced in a \$544 million deal that reached financial close in September 2020. Texas Private Activity Bond Surface Transportation Corporation issued the deal, which will be used to help repay \$615 million of senior private activity bonds.²⁹

Skanska USA Inc. and Macquarie Infrastructure Partners II have sold their 50% equity stakes in the **Elizabeth River Crossings Project** (which includes the Downtown and Midtown tunnels) to Abertis and Manulife Investment Management.³⁰ This deal reached financial close in December 2020.

²⁶ "Belle Chasse Bridge and Tunnel Replacement P3," Inframation News, *InframationNews.com*, 2021. <https://www.inframationnews.com/deals/2615506/belle-chasse-bridge-and-tunnel-replacement-p3.shtml> (10 March 2021).

²⁷ "North Tarrant Express Toll Road Refinancing (2019)," Inframation News, *InframationNews.com*, 2021 <https://www.inframationnews.com/deals/3017301/north-tarrant-express-toll-road-refinancing-2019.shtml> (10 March 2021).

²⁸ "Highway Package Phase One (PR-22, PR-5) 49% Stake Sale (2020)," Inframation News, *InframationNews.com*, 2021. <https://www.inframationnews.com/deals/3893866/highway-package-phase-one-pr-22-pr-5-49--stake-sale-2020.shtml> (10 March 2021).

²⁹ "IH-635-LBJ Freeway Refinancing (2020)." InframationNews.com, *Inframation News*. 2021. <https://www.inframationnews.com/deals/3938581/ih-635---lbj-freeway-refinancing-2020.shtml> (10 March 2021).

³⁰ "Midtown Tunnel (Elizabeth River Tunnels Project) P3 Sale (2020)," Inframation News, 2021. *InframationNews.com*. <https://www.inframationnews.com/deals/3960761/midtown-tunnel-elizabeth-river-tunnels-project-p3-sale-2020.shtml> (10 March 2021).

PART 5

FEDERAL POLICY ON P3 CONCESSIONS

5.1

OVERVIEW OF FINANCING TOOLS

Federal support for surface transportation P3s comes largely from several entities within the Federal Highway Administration (FHWA) in the U.S. Department of Transportation (USDOT). The Center for Innovative Finance Support (CIFS) (previously the Office of Innovative Program Delivery), which provides vital support for P3s, is housed within the larger Office of Innovative Program Delivery; both entities are units of FHWA. The center was created during the George W. Bush administration and expanded under both the Obama and Trump administrations, developing a large array of educational and analytical materials to assist state DOTs and others in getting up to speed on innovative finance and P3s in transportation infrastructure. Table 7 details the P3 toolkit provided by the center.

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PABs are especially useful to P3 projects because they are tax-exempt bonds that would not normally be available to projects that expect to earn a return on equity investments.

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TABLE 7: CENTER FOR INNOVATIVE FINANCIAL SUPPORT TOOLS

Program Category	Tool	Purpose
Publications	Fact Sheets	Provides overview of key P3 elements
	Primers	Details in-depth explanations of specific elements of P3 projects
	Model Contract Guides	Provides overview of P3 contracting process and best practices
	Other Guides	Covers miscellaneous topics from the federal review process and financing
	Reports, Discussion Papers	Provides in-depth analysis of policies, case studies and other policy assessments
Analytical Tools	P-3 Value	Provides spreadsheet-based calculation tools for conducting feasibility assessments of potential P3 projects including risk assessment, value for money, benefit/cost analysis and financial analysis
	P-3 Screen	Provides a checklist of key factors and analyses involved in making decisions about possible P3 procurements
Webinars	Recordings	Documents and recordings that enhance toolkit materials
Programs	SEP-15	Explains experimental new process for the FHWA to evaluate P3 project delivery with four major components: contracting, compliance with environmental requirements, right-of-way acquisition and project finance
	Build America Bureau	The Bureau provides access to and credit and grants
	BATIC Institute	The BATIC Institute facilitates coordination and information-sharing of public projects
	TIFIA	Transportation Infrastructure Finance and Innovation Act provides credit assistance to select projects of regional importance
	PABs	Provides tax-exempt debt instruments authorized by USDOT on behalf of private entities for highway and freight projects
	GARVEEs	Allows a state DOT to issue debt that will be repaid with future federal-aid highway funding

Source: The Center for Innovative Financial Support's website: <https://www.fhwa.dot.gov/ipd/p3/>

CIFS provides detailed information on two federal financing programs that have been used by many P3 surface transportation projects: Transportation Infrastructure Finance and Innovation Act (TIFIA) loans and Private Activity Bonds (PABs). Neither program is available *only* for P3 projects, but any project seeking to use them must have dedicated revenue sources able to provide debt service payments for the loans and bonds.

PABs are especially useful to P3 projects because they are tax-exempt bonds that would not normally be available to projects that expect to earn a return on equity investments.³¹ Congress authorized them for P3 transportation projects on the grounds that, since these projects serve the public, there should be a level playing field on bond interest rates between projects developed by public sector and private sector entities. Thus, revenue bonds issued for P3 projects as PABs will carry interest rates similar to those available for the revenue bonds of state toll agencies.

Congress created the TIFIA program to provide low-interest credit support for projects with dedicated revenue sources that can qualify for investment-grade ratings. Although the law currently allows a TIFIA loan to cover up to 49% of a project's total cost, the TIFIA office within DOT has not awarded any loans exceeding 33%. (USDOT officials note that a project would have to be "truly exceptional" to receive a loan exceeding 33%).³² This is consistent with the law's original intent that TIFIA provide gap financing rather than being a project's primary source of debt finance. It also enables a given TIFIA budget allocation to support a larger total number of projects. Accordingly, TIFIA loans often are subordinated debt, which means senior loans or bonds are the first to receive project revenue. Only in the event of bankruptcy does the TIFIA loan shift to having equal status with other creditors.

Several legislators have grown frustrated with the TIFIA office, which is treating the loan acceptance process as a discretionary grant process in which only the best projects receive funding.³³ Congress intended TIFIA to be a check-the-box process in which all projects that met basic criteria received funding. Several states have expressed the need for Congress to create clarifying legislation to force the TIFIA office to provide funding as intended. However, thus far Congress has not passed such legislation.

Table 8 lists all current PABs and TIFIA loans for P3 surface transportation projects through the end of calendar year 2020.

³¹ Aidan Vining, Anthony Boardman and Finn Poschmann, "Public Private Partnerships in the U.S. and Canada: Case Studies and Lessons," *International Public Procurement Conference Proceedings*, 2004. https://www.researchgate.net/publication/237477965_PUBLIC-PRIVATE_PARTNERSHIPS_IN_THE_US_AND_CANADA_CASE_STUDIES_AND_LESSONS1 (1 July 2019).

³² "TIFIA Loans FAQs," Build America Bureau, U.S. Department of Transportation, *transportation.gov*. 2017. <https://www.transportation.gov/buildamerica/programs-services/tifia/faqs> (1 July 2019).

³³ U.S. Senate Finance Committee Staff, in-person interview. 17 June 2017.

TABLE 8: HIGHWAY AND TRANSIT PROJECTS FINANCED BY TIFIA AND PABS

Project	Year Financed	TIFIA (\$M)	PABs (\$M)	Total Project (\$M)
Pocahontas Parkway (VA)	2007	\$150	\$0	\$597
SH 130, 5 & 6 (TX)	2007	\$430	\$0	\$1,328
I-495 HOT Lanes (VA)	2008	\$589	\$589	\$2,068
I-595 Express (FL)	2009	\$603	\$0	\$1,834
Port of Miami Tunnel (FL)	2009	\$341	\$0	\$1,073
NTE Phases 1 and 2W (TX)	2010	\$650	\$398	\$2,122
LBJ Express (TX)	2010	\$850	\$606	\$2,645
Denver Eagle P3 Rail (CO)	2010	\$280	\$396	\$2,043
South Bay Expressway (CA)	2011	\$140	\$0	\$658
Midtown Tunnel (VA)	2012	\$422	\$675	\$2,089
Presidio Parkway II (CA)	2012	\$150	\$0	\$365
I-95 Express (VA)	2013	\$300	\$253	\$923
NTE Phase 3A, 3B and 3C (TX)	2013	\$531	\$274	\$2,327
Goethals Bridge (NY/NJ)	2013	\$474	\$453	\$1,436
US 36, Colorado Phase 2 (CO)	2014	\$60	\$21	\$208
I-69 Indiana (IN)	2014	\$0	\$244	\$560
I-4 Ultimate (FL)	2014	\$950	\$0	\$2,877
East End Bridge (IN)	2015	\$162	\$508	\$1,319
PA Rapid Bridge Replacement (PA)	2015	\$0	\$722	\$1,118
I-77 Express Lanes (NC)	2015	\$189	\$100	\$636
Portsmouth Bypass (OH)	2015	\$209	\$227	\$634
SH 288 Toll Lanes (TX)	2016	\$357	\$299	\$1,064
MD Purple Line (MD)	2016	\$875	\$367	\$2,650
I-395 Express Lanes (VA)	2017	\$0	\$0	\$554
Transform 66 (VA)	2017	\$1,229	\$737	\$3,724
Central 70 (CO)	2018	\$416	\$121	\$1,271
I-75 Modernization Segment 3 (MI)	2018	\$0	\$610	\$725
I-95 Fredericksburg Express Lanes (VA)	2019	\$0	\$277	\$830
TOTAL		\$10,357	\$7,887	\$39,678

Source: Projects financed by TIFIA and Private Activity Bonds on [Transportation.gov](https://www.transportation.gov).

As the table shows, \$10.4 billion in TIFIA loans led to approximately \$40 billion in project activity over the past 15 years. PABs had a similar effect: \$7.9 billion in PABs helped make that \$40 billion in project activity a reality. Compare TIFIA and PABs to federal grants that provide 50%–90% of a project’s cost: If a grant covers 70% of the project costs, to receive the same benefit of \$10.4 billion of TIFIA loans, grants will need to total more than \$27.8 billion to achieve an equivalent amount of investment. Clearly, TIFIA loans and PABs are more than useful financing tools; they also allow lower taxpayer expenditures compared with direct grant funding and stretch those taxpayer dollars further.

Stressing the importance of increasing infrastructure investment, former Secretary of Transportation Anthony Foxx created the Build America Transportation Investment Center (BATIC), which aims to speed up the time it takes for transportation P3s to reach financial close.³⁴ The American Association of State Highway & Transportation Officials (AASHTO) launched the BATIC Investment Center as a new center of excellence to assist state DOTs in capacity-building in the area of project finance and P3s. The Center hosts multiple events throughout the country educating policymakers on transportation financing.

To understand the challenges faced by the current Administration and Congress, it helps to examine surface transportation policy over the last few years.

5.2

A RECENT HISTORY OF FEDERAL TRANSPORTATION POLICY

The three most important mechanisms stemming from federal P3 legislation are TIFIA, PABs and federal tolling provisions. Weighing new policy options benefits by examining the recent history of each funding source.

5.2.1 THE FAST ACT AND TIFIA

In 2012, Congress passed the Moving Ahead for Progress in the 21st Century (MAP-21) Act.³⁵ At the request of DOTs and transit agencies that had pressed for additional TIFIA funding, the bill increased the annual amount of TIFIA funding to \$1 billion per year, an 820% increase over the \$122 million in annual funding the program received from 2003 to 2012.³⁶ In MAP-21's first year that funding was well utilized. During FY 2014 the TIFIA office awarded \$8.5 billion in loans to a record 12 projects (many of them not P3s). But in FY 2015 only seven projects received loans (valued at \$2.4 billion).

³⁴ Anthony Foxx, "Removing the Roadblocks to Smarter Investment in American Transportation," McKinsey & Company, www.mckinsey.com, 2015. <https://www.mckinsey.com/industries/capital-projects-and-infrastructure/our-insights/removing-the-roadblocks-to-smarter-investment-in-american-transportation> (1 July 2019).

³⁵ "Moving Ahead for Progress in the 21st Century Act," National Academies of Science, Engineering and Medicine, [NationalAcademies.org](http://www.nationalacademies.org), 2015, http://www.nationalacademies.org/OCGA/112Session2/public-laws/OCGA_147109, (1 July 2019).

³⁶ Jeff Davis, "Was the Fast Act's 70 Percent Cut in TIFIA Funding Justified?" Eno Foundation, enotrans.org, 16 December 2015. <https://www.enotrans.org/article/22938/> (24 July 2019).

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During FY 2014 the TIFIA office awarded \$8.5 billion in loans to a record 12 projects (many of them not P3s). But in FY 2015 only seven projects received loans (valued at \$2.4 billion).

Since both the Office of Management and Budget (OMB) and the Congressional Budget Office (CBO) score TIFIA loans as direct funding, they count against the total revenue Congress authorized in the bill, even though they are loans, not grants. As a result, when the 114th Congress reauthorized the surface transportation program in late 2015, enacting the Fixing America’s Surface Transportation (FAST) Act, Congress redirected significant funding from TIFIA to other programs. (The FAST Act guides federal surface transportation policy through September 30, 2021.)

OMB’s and CBO’s interpretation incentivizes Congress to spend more money on grants, not loans, even though this practice is contrary to U.S. federal transportation policy. OMB and CBO could fix this problem by changing how they score TIFIA.

Congress authorized just \$1.4 billion for TIFIA through the five years covered by the FAST Act, an average of \$287 million per year. But that should be sufficient to cover all of the P3 projects, concludes Bryan Grote, the TIFIA expert at Mercator Advisors.³⁷ He estimated that the TIFIA program’s \$2 billion in funding could support as much as \$30 billion of loans, assuming a continued subsidy rate of 7.5% for the remainder of the FAST Act.

5.2.2 THE FAST ACT AND PABS

Many P3 advocates urged Congress to increase the current \$15 billion cap on PABs for highway, transit, and freight projects in FAST Act negotiations, but the idea gained little traction.³⁸ During the 2017 tax reform process, in order to meet congressional budget rules, the original House legislation proposed eliminating equal tax treatment of PABs that

³⁷ Bryan Grote, Mercator Advisors, email interview, 26 June 2019.

³⁸ “Back in Business: A Blueprint for Renewing America’s Infrastructure,” Business Roundtable, *Businessroundtable.org*. May 2017. <https://s3.amazonaws.com/brt.org/staging-qeOOpdhhbbqqq3/BRT-Infrastructurepaper5142017.pdf> (29 July 2019).

provides PABs the same tax-exempt treatment as municipal bonds. Fortunately, the final legislation maintained the current tax treatment of PABs.

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The \$15 billion PABs cap remains a real problem.

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The \$15 billion PABs cap remains a real problem. According to the Federal Highway Administration’s Center for Innovative Financial Support, as of December 2020, DOT had awarded \$14.9 billion in PABs to 32 highway, transit and rail projects.³⁹ Unless the \$15 billion cap is increased, DOT will not be able to authorize the issuance of additional PABs by a qualified entity (typically a state agency, on behalf of the project developer). Without action, several projects might have to be canceled in 2021.

As of early 2021, key House and Senate committees were considering an increase in the PAB lifetime cap from \$15 billion to \$30 billion.⁴⁰ The plan is for the House Ways and Means and Senate Finance Committees to pass companion bills. The cap was originally instituted because PAB skeptics argued that demand for PABs might be low. Given the demonstrated importance of PABs in financing megaprojects, there are no longer technical doubts about their success.

The 2018 White House infrastructure plan expanded PAB eligibility to include brownfield reconstruction projects and other facilities eligible for TIFIA funding, although no formal legislation was introduced in Congress.⁴¹ Given a projected investment backlog of \$740 billion–\$836 billion in the highway sector alone, additional brownfield financing authority is vital.⁴²

³⁹ “Private Activity Bonds,” U.S. Department of Transportation, *transportation.gov*, 2021, <https://www.transportation.gov/buildamerica/financing/private-activity-bonds-pabs/private-activity-bonds>, (January 2021).

⁴⁰ In February 2019, Senators John Cornyn and Mark Warner introduced legislation to increase the PABs cap from \$15 billion to \$20.8 billion. In the House, Representatives Blumenauer, Kelly, Sewell, and Davis introduced a similar House bill in May 2019.

⁴¹ Lance Brasher and Joshua Nickerson, “White House Infrastructure Plan—Perspectives for the PPP Market,” *Skadden.com*, 16 February 2018. <https://www.skadden.com/insights/publications/2018/02/white-house-infrastructure-plan> (9 July 2019).

⁴² “New USDOT Conditions Report Highlights \$926 Billion Highway, Transit Investment Backlog,” *News.Transportation.org*. 9 November 2016. <https://news.transportation.org/Pages/012017conditions.aspx> (9

Any bill to increase the PAB cap is unlikely to pass on its own. A PAB increase would have to be attached to other legislation, most likely the reauthorization of the surface transportation authority. A PAB cap increase could also be paired with a change in tax policy. But the most realistic opportunity to increase the PAB cap is to pair it with the surface transportation reauthorization.

5.2.3 THE FAST ACT AND TOLLING POLICY



The FAST Act also made several changes in federal tolling policy that will affect toll-financed concession projects. One of the largest potential areas for such projects would be the replacement of aging Interstate highways as they reach the end of their 50-year design life.



The FAST Act also made several changes in federal tolling policy that will affect toll-financed concession projects. One of the largest potential areas for such projects would be the replacement of aging Interstate highways as they reach the end of their 50-year design life. An existing federal pilot program allows three states to gain exemption from the general federal prohibition on using tolls for rebuilding Interstate corridors currently not tolled.⁴³ Specifically, it allows each state to use toll finance to reconstruct one Interstate, with the toll revenue dedicated to the capital and operating costs of the rebuilt facility. The potential to charge higher tolls, thereby turning the rebuilt Interstates into cash cows, has prevented support for such projects by highway user groups such as the American Automobile Association (AAA) and trucking organizations such as the American Trucking Associations (ATA).

July 2019); Clarissa Hawes, "U.S. Has a \$740 Billion Backlog of Roads and Bridge Repairs," *Trucks.com*. 9 November 2016. <https://www.trucks.com/2016/11/09/infrastructure-spending-740-billion-backlog/> (9 July 2019).

⁴³ "FHWA Reopens Pilot Program to Allow Three States to Toll Interstate Segments," *AASHTO Journal*, November 2017. <https://news.transportation.org/Pages/110317tolling.aspx> (1 July 2019.)

Several groups argued for revising the pilot program to make it more customer-friendly. They proposed explicitly restricting the use of the toll revenues to the capital and operating costs of rebuilt/replaced Interstates, and requiring rebates of state fuel taxes for miles driven on the replacement (tolled) Interstates to avoid what amounts to motorists' "double taxation" of highway funding. Along with those provisions, they also argued that the program should be expanded to more states, and that each participating state be allowed to devise a long-term plan to replace all its first-generation Interstates with new ones, using toll finance. The AAA national board approved of tolling that followed these specific recommendations at its annual meeting in 2015, and several state chapters of AAA have softened their opposition to tolling.⁴⁴ Several state ATA chapters have begun to look seriously at tolling, calculating that it might be worth paying tolls for rebuilt and widened Interstates in some situations. However, the ATA national organization remains opposed to any expansion of tolling. Clearly, making changes to the pilot program would help build support.

Legislators heard these arguments but were only willing to make small tweaks to the existing three-state pilot program. The key change was adding a use-it-or-lose-it provision that required states to take documented steps toward implementing tolling or give up their slots. Since none of the original three states holding the slots (Missouri, North Carolina, and Virginia) had obtained legislative consent to proceed with rebuilding its designated Interstate by early 2017, those states were required to give up their slots in 2018. New participants in the pilot program would have an initial two years to have their project authorized and moving forward. A number of states, including Connecticut, Indiana, Michigan, Wisconsin, and Wyoming, have expressed interest in acquiring a slot, but reaching political consensus in any state has been challenging.⁴⁵

5.3

OTHER FEDERAL TOLLING POLICY

States can consider three additional tolling options. While these options don't *require* P3s, many tolling projects are P3s.

The first and most popular option thus far is for states to add variably priced managed lanes, which price lanes dynamically to manage congestion and maintain high

⁴⁴ Kathleen Bower, AAA Senior Vice President of Public Affairs, in-person interview, December 2015.

⁴⁵ Heather Jarvis, Staff Attorney, Wyoming State Legislature, in-person interview, 13 June 2019.

throughput.⁴⁶ Some are conversions from poorly operating high-occupancy vehicle (HOV) lanes, while others are new construction. Many large metro areas, including Atlanta, Dallas, Denver, Houston, Los Angeles, San Francisco, San Diego, Seattle, South Florida, and Washington, D.C., plan to build networks of variably priced managed lanes. While these lanes work best in urban areas, a recent Reason study highlighted several Interstate corridors that pass through more-rural areas in which variably priced lanes may be feasible.⁴⁷



Many large metro areas, including Atlanta, Dallas, Denver, Houston, Los Angeles, San Francisco, San Diego, Seattle, South Florida, and Washington, D.C., plan to build networks of variably priced managed lanes.



The second option is the FHWA Value Pricing Program, which allows a state to charge variable tolls on all lanes of an Interstate to reduce congestion.⁴⁸ Oregon has applied for the program to put variable tolls on all lanes of I-5 in the Portland region.

The third option is the Interstate System Reconstruction and Rehabilitation Pilot Program (ISRRPP), which allows a state to use toll financing to rebuild one of its Interstate highways. Since congestion is worst in urban areas, the Value Pricing Program is a better fit in urban regions, while the ISRRPP is a better choice to rebuild an entire corridor.

The fourth option is for states to rebuild their untolled bridges and tunnels with tolled bridges using a provision in the 1998 Transportation Equity Act for the 21st Century (TEA-

⁴⁶ States adding managed lanes include California, Florida, Georgia, Maryland, Minnesota, North Carolina, Texas, Utah, and Virginia.

⁴⁷ Baruch Feigenbaum, “Managed Lanes Connecting Metro Areas: The Pragmatic Solution,” Reason Foundation. April 2019, <https://reason.org/wp-content/uploads/managed-lanes-between-metro-areas-the-pragmatic-solution.pdf> (26 June 2019).

⁴⁸ “Value Pricing Pilot Program,” Office of Operations, Federal Highway Administration, *Ops.FHWA.DOT.gov*, 2019. https://ops.fhwa.dot.gov/congestionpricing/value_pricing/index.htm (27 June 2019).

21).⁴⁹ Rhode Island, which has the largest percentage of structurally deficient bridges in the country, tolls trucks (but not light-duty vehicles) on the state's Interstates and other major arterials. FHWA approved the toll truck program in 2016, leading to a lawsuit from ATA challenging the constitutionality of tolling trucks but not cars. Connecticut and Indiana are developing proposals to rebuild parts of their Interstate highways using tolled bridges.

⁴⁹ Robert Kirk, "Tolling U.S. Highways," Congressional Research Service, 2016. <https://fas.org/sgp/crs/misc/R43575.pdf> (27 June 2019).

PART 6

P3 LEGISLATION AND HIGHWAY ACTIVITY BY STATE

6.1 OVERVIEW OF STATE P3 LEGISLATION

The FHWA Center for Innovative Finance Support lists 36 states, the District of Columbia, and Puerto Rico as jurisdictions that have P3 authority for transportation infrastructure.⁵⁰ Last updated in August 2018, the FHWA does not include New Jersey, which passed P3 enabling legislation in 2020.⁵¹ However, the enabling acts vary in authority provided from state to state. Further, many of these states with authority have entered into DBFs or DBMs but not DBFMs or DBFOMs. Full P3s have been implemented in only 11 states, in Puerto Rico, and in projects under the auspices of the Port Authority of NY/NJ.

Legislators in the other states have failed to enter into P3s for one or more of several reasons: Some legislation contains language that makes entering into P3s a poor choice for

⁵⁰ “State PPP Legislation,” Center for Innovative Highway Support, U.S. Department of Transportation. *FHWA.DOT.gov*, 2018. <https://www.fhwa.dot.gov/ipd/PPP/legislation/> (25 June 2019).

⁵¹ Eugene Gilligan, “New Jersey PPP Bill Could Spur Variety of Opportunities; Obstacles Remain,” *Inframation News*, *InframationNews.com*. 15 August 2018. <https://www.inframationnews.com/news/2940326/new-jersey-PPP-bill-could-spur-variety-of-opportunities-obstacles-remain.html> (25 June 2019).

the public partner, the private partner or both; other states have had political challenges in which the governor or a state's legislative body was opposed to P3s. Other states have not found a project that is a good fit for a P3. Table 9 lists the type of P3 authority in states with authorizing legislation.

TABLE 9: P3 STATES BY AUTHORITY

Broad Authorization	Restricted Authorization	States Entering into Full P3s
<ul style="list-style-type: none"> • Arizona • Colorado • District of Columbia • Delaware • Florida • Georgia • Illinois • Indiana • Kentucky • Louisiana • Maine • Maryland • Massachusetts • Michigan • Mississippi • Missouri • New Hampshire • New Jersey • Ohio • Oregon • Pennsylvania • South Carolina • Virginia • Washington • West Virginia 	<ul style="list-style-type: none"> • Alabama • Alaska • Arkansas • California • Connecticut • Minnesota • Nevada • North Carolina • Oklahoma • Puerto Rico • Tennessee • Texas • Utah • Vermont • Wisconsin 	<ul style="list-style-type: none"> • California • Colorado • Florida • Indiana • Maryland • Michigan • North Carolina • Ohio • Pennsylvania • Texas • Virginia • Port Authority of NY/NJ • Puerto Rico

Source: Center for Innovative Finance Support: State P3 Legislation. [FHWA.DOT.gov](https://www.fhwa.dot.gov).

6.2

2020 STATE LEGISLATIVE P3 ACTIVITY

Over the past year, only one state debated bills establishing or expanding P3 authority. Table 10 summarizes that bill. The following section provides more details on P3 activity.

TABLE 10: P3 LEGISLATIVE ACTIVITY PER STATE

State	Bill	Pass/Fail/Pending	Summary
Pennsylvania	HB 2065	Fail	Authorizes counties and major cities to procure P3 deals

Source: Inframation Infrastructure News.

PENNSYLVANIA

In the 2020 legislative session, **HB 2065** failed. The bill would have allowed additional P3 projects such as rest areas and weigh stations to be eligible for P3s.⁵² The bill also included a measure that allows cities such as Pittsburgh to procure P3 transportation projects. This would have widened their authority, which is limited to conducting P3 procurement through a municipal agency that owns a transportation facility, such as an airport or port authority. The bill also would have created more transparency in the P3 process by requiring an annual report that includes descriptions of evaluated projects, adopted resolutions, project denials, unsolicited plans submitted by private entities, and a description of all requests for transportation projects.⁵³

6.3

STATE CONCESSION ACTIVITY

Three states had major proposed highway concession activity in 2020, detailed after Table 11.

TABLE 11: MAJOR SURFACE TRANSPORTATION P3 CONCESSION ACTIVITY BY STATE

Project	Location	Status	Cost \$ (B)	Type	Duration	Concessionaire
Pennsylvania Major Bridge Program P3	Pennsylvania	Pre-Launch	\$2.20	DBFOM AP	30 Years	TBD
Poppo Ferry Bridge	Biloxi, MS	Transaction Launch	\$0.12	DBFOM AP	TBD	TBD
Georgia SR-400 P3	Atlanta, GA	Shortlisted Proponents	\$1.30	DBFM AP	35 Years	TBD

Source: Inframation Infrastructure News, City of Biloxi, and Georgia Department of Transportation.

⁵² "Bill Would Clear Pennsylvania Cities to Launch Transportation P3," Inframation News, *InframationNews.com*, 29 October 2020. <https://www.inframationnews.com/news/6837901/bill-would-clear-pennsylvania-cities-to-launch-transportation-p3.shtml> (15 March 2021).

⁵³ "House Bill 2065, Regular Session 2019-2020," Pennsylvania General Assembly, November 2020. https://www.legis.state.pa.us/cfdocs/billInfo/bill_history.cfm?year=2019&sind=0&body=H&type=B&bn=2065 (15 March 2021).

GEORGIA

In July 2020, GDOT released the environmental assessment of the SR 400 DBFM availability payment managed lanes. The project adds two buffer separated lanes in each direction to a 16-mile section from the North Springs MARTA station to north of McFarland Parkway.⁵⁴ GDOT issued a public response letter in November. The lanes are part of a regionwide managed lanes network and would be Georgia's first P3.

MISSISSIPPI

In August, the city of Biloxi, Mississippi announced that it was soliciting proposals for companies interested in procuring a new DBFOM availability payment P3 for a new fixed span of the Popp's Ferry Bridge.⁵⁵ The \$120 million project would include widening of the approach roads. Currently, the city is evaluating the bids. The project would be Mississippi's first full P3.

PENNSYLVANIA

In November, Pennsylvania's Public Private Transportation Partnership (P3) Board approved the Major Bridge Program P3, an initiative to accelerate the \$2.2 billion reconstruction and rehabilitation of nine Interstate highway bridges across the state.⁵⁶ However, bills introduced in both the state House and Senate would require P3 projects to receive legislative endorsement and prevent any P3s that include tolling. The state is pursuing the P3 for work to be completed over the next 5-10 years due to gas tax losses.

⁵⁴ "SR 400 Express Lanes," Georgia Department of Transportation, <https://0001757-gdot.hub.arcgis.com> 30 November 2020. <https://0001757-gdot.hub.arcgis.com>, (15 April 2021).

⁵⁵ "Popp's-Ferry Bridge P3 Project," City of Biloxi, www.biloxiplans.com, 30 December 2020. <https://www.biloxiplans.com/jobs/8896/details/rfp-popps-ferry-bridge-p3-project>, (15 April 2021).

⁵⁶ "Major Bridge P3 Program," Pennsylvania Department of Transportation, penndot.gov, 7 January 2021. <https://www.penndot.gov/ProjectAndPrograms/p3forpa/Pages/Major-Bridges.aspx>, (15 April 2021).

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