

INFRASTRUCTURE CASE STUDY:

Dulles Greenway



SUMMARY

PROJECT TYPE	YEAR	DEAL STRUCTURE
Limited-access highway	1995	Design-build-finance-operate-maintain agreement

TOTAL COST

\$350 million construction costs paid by private partners, plus ongoing operations and maintenance

FINANCING

Private equity, current pay interest-only bonds, and zero coupon bonds

FUNDING

User-paid toll

PUBLIC BENEFIT

Reduced travel times and provided a new commuting option and the potential for real estate development along its corridor, adding to the tax base and creating jobs



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Background

The Dulles Greenway is a 14-mile toll road connecting Washington Dulles International Airport with Leesburg, Virginia, for the purpose of reducing travel times for commuters.¹ The toll road opened in 1995 and is currently operational.² This was a public-private partnership (P3) project under a design-build-finance-operate-maintain (DBFOM) agreement.³ The private partner, currently Macquarie Group Limited, will cede control of the Greenway back to the public partner, the state government of Virginia in February 2056,⁴ a deadline that was extended from 2036 after the private partners could not pay back costs.⁵ Toll increases are regulated by Virginia's State Corporation Commission (SCC) and are subject to annual increases as prescribed in the Virginia Highway Corporation Act of 1988 (VHCA). Macquarie collects the revenue, while paying operational costs and interest expenses from incurred debt. The current toll is \$4.30 in non-peak hours and \$5.20 during peak hours, an increase from the original price of \$1.75 in 1995.⁶

Project Description

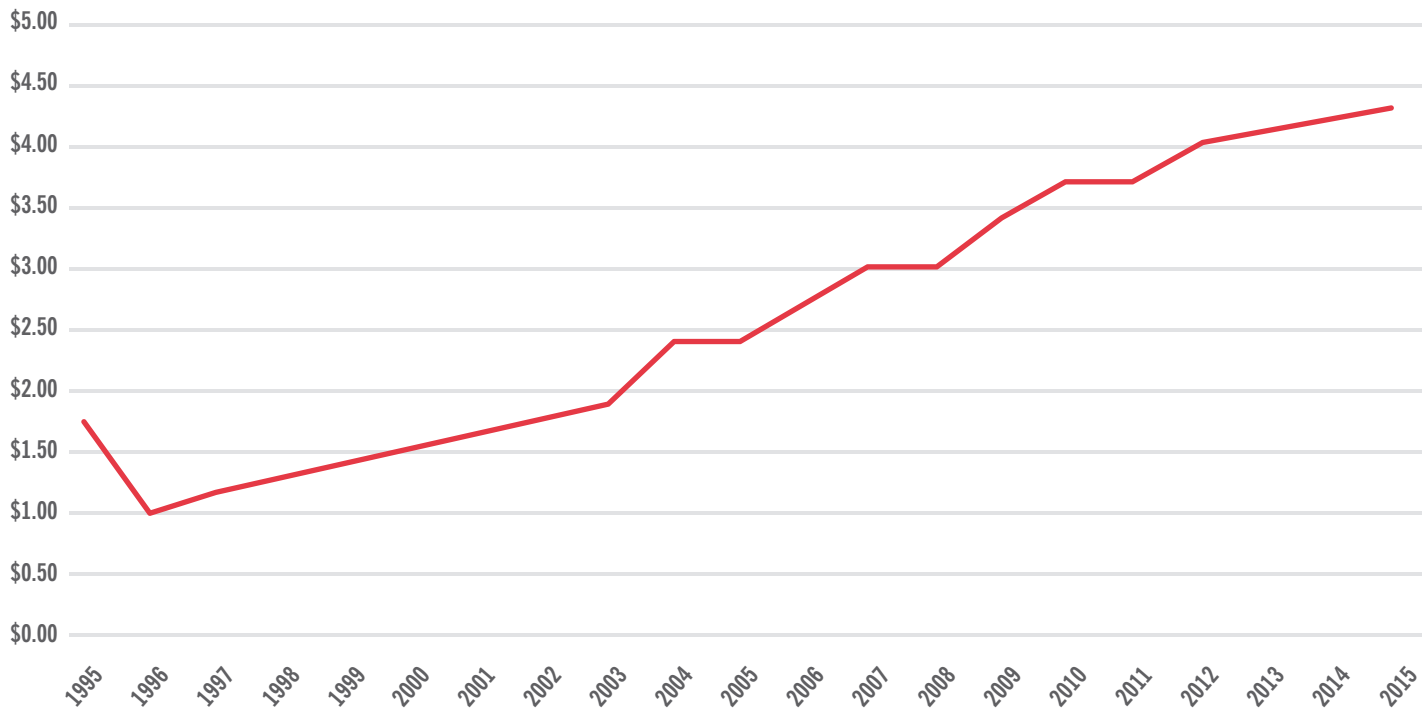
In 1988, Virginia passed the VHCA, which allowed private developers to enter into build-operate agreements with the SCC. An extension of the existing Dulles Toll Road to Leesburg was proposed by the Toll Road Corporation of Virginia (a private corporation) in 1989 and was approved in the same year by the Virginia SCC as a DBFOM P3. Construction began in 1993, and the project opened to users in September 1995.⁷ A report in 1990 projected that the public cost of building and operating the Dulles Greenway over 40 years (including debt payments) would have been \$894.8 million, versus \$3.5 billion for a private owner, because state governments can take advantage of much lower interest rates than a private company.⁸ Projections for use and profits were based on meeting expected demand from new developments in the Dulles corridor in Fairfax County.⁹ This potential was enough for a private consortium to take on the high costs, whereas the state government could not have managed the costs within its six-year plan for Virginia.¹⁰

The \$350 million¹¹ construction project was developed by the Toll Roads Investor Partnership II (TRIP II), a renamed private consortium that was originally the Toll Road Corporation of Virginia.¹² At this initial stage, TRIP II put down \$40 million in private equity and borrowed \$310 million in privately placed taxable debt to come up with the funds (credit came from ten institutional investors and various banks).¹³ In 1999, four years after the project opened, TRIP II faced disappointing returns as a result of lower than expected usage. Traffic on the toll road was almost 70 percent below projections.¹⁴ Drivers cited the high toll cost as a major deterrent, and growth in the Dulles corridor was not rapid enough to meet the expected ridership numbers.¹⁵ Facing bankruptcy, the partners were forced to restructure the debt.¹⁶

In 2005, the entire partnership was bought out by Macquarie Group Limited, an Australian firm, which paid \$617.5 million for the Greenway, absorbing the original owners, and their debt, in the process.¹⁷ TRIP II still exists as the name of the private consortium, but it is now owned and operated by two investment funds managed by affiliates of Macquarie Group Limited (50 percent Macquarie Atlas Roads and 50 percent by Macquarie Infrastructure Partners). Macquarie also took on debt of its own at this time. Over the course of the project, no public dollars have been used, and all operation costs and interest expenses have been covered by the private partners (until 2056, when the toll road is handed back to the state).

There is some concern over the Dulles Greenway's rising toll costs (see Figure 1). The VHCA gives the Virginia SCC the power to approve or deny toll increases beyond a set ceiling (originally \$2.00). According to TRIP II financial statements: "In addition, a recently executed amendment to the act authorizes annual toll increases between 2013 and 2020 at the greater of CPI plus one percent, GDP growth, or 2.8 percent, with additional increases if necessary to offset more rapid growth in property taxes or to ensure that the partnership has sufficient revenues to achieve debt service coverage ratios."¹⁸ An investigation into the toll price-setting practices, initiated by State

Figure 1. Dulles Greenway Toll Rate (Cars, Non-Peak)



Note: Data was unavailable for 1998-2002. However, tolls would not have exceeded \$2.00 during this period, as the request to raise the ceiling from \$2.00 to \$3.00 was not approved until 2004. Toll rates dropped between 1995 and 1997 in an attempt to attract interest from consumers.

Delegate David Ramadan, ruled in favor of the toll road, concluding that “the tolls—individually and collectively—meet the statutory requirements under [the Code of Virginia.]”¹⁹ Further, it is worth noting that despite toll increases, annual average daily traffic has increased every year since 2012, demonstrating continued and increasing customer demand for the toll road at the existing toll levels.

In 2013, \$74.9 million in revenue was recorded for the Greenway.²⁰ This was almost exclusively from tolls. Operating expenses were \$26 million. Interest expenses, which cost \$65 million in 2013, led to a yearly loss of \$16 million. Macquarie’s 2013 financial statement reveals \$964 million in long-term debt to be paid. This debt was incurred at two points in the project’s history. A total of \$1.1 billion was incurred in 1999 when TRIP II was forced to restructure as it faced bankruptcy. Another \$2.75 billion in bonds was incurred in 2005, at the time of Macquarie’s buyout of the project. Future toll revenue is the likely means of repaying this debt.²¹

Benefits and Criticisms

The main argument against the P3 arrangement for the Dulles Greenway is that toll costs would not be as high if the road was under the ownership of the state. However, it is extremely unlikely that the project would have been taken on by the state if the costs were not financed by a private company. The state had no plans to take this project on itself.²² If it had done so, it would have had to borrow a significant amount and would have borne all of the usage risk itself.

This project is an example of how usage risk can be shifted to private investors in a P3. Though the private companies involved in the project have struggled, the state has benefited from having another commuting option for which it does not have to provide maintenance.

Macquarie representatives remain confident about the project. “The Dulles Greenway has two investment-grade credit ratings,” the company says. “It has shown very strong growth in [earnings before interest, taxes, depreciation, and amortization] and is comfortably meeting its debt service requirements. Its equity has clear value.”²³ However, in 2015, TRIP II’s credit rating was downgraded to BB+.²⁴

Takeaways

The challenges that this project faced show that a project's usage estimates should be thorough and conservative. In P3s that have been undertaken since the Greenway, project partners have found ways to share the usage risk between the public and private partners—for example, through availability payments or upside/downside sharing provisions. When negotiating a P3 agreement, the public partner should also consider the necessary balance between approving the requested toll increases of the private consortium and meeting public concerns.

The Dulles Greenway project also shows how interest payments can become a hurdle to a project's profitability. The cost of capital for the private partner was a big challenge for this project. Since the Greenway was built, new programs have been created to help bring down the cost of capital for P3s, setting it closer to what it is for publicly financed projects. For example, the federal TIFIA program provides low-interest financing for P3s as well as for publicly financed transportation projects. The Greenway project would likely have benefited from these programs had they existed when it was built.

Endnotes

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