# Comparing Financing Models for US Intercity Passenger Rail Development

## Private Versus Public Sponsorship and Applying the Denver Model

Malcolm M. Kenton

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Dr. Jonathan Gifford

George Mason University

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Very scant literature exists on the use of public-private partnerships (P3s) to finance and deliver passenger rail projects. Only two such projects in the United States — Denver's Eagle P3 commuter rail project, and Maryland's Purple Line light rail project — closely follow the well-established P3 model that has been used to complete many toll roads and bridges as well as other revenue-generating infrastructure. Only within the past two years have a handful of project sponsors explored using at least some aspects of this model to deliver new intercity passenger railroads or new intercity passenger trains on existing rail lines. What little information has been released to date about these efforts raises serious doubts that the model can be successfully transferred to intercity rail — mainly because private investors seem to lack confidence, in the absence of any previous examples of success in North America, that these projects will generate enough future revenue to allow their sponsors to repay bonds.

This paper will explore the extent to which three intercity passenger rail projects currently being pursued — California High Speed Rail (CHSR), All Aboard Florida (AAF), and Texas Central Railway (TCR) — are making use of private versus traditional government financing. Using Denver's Eagle P3 as a model for a successful passenger rail P3 delivery, it will draw comparisons between the financing and procurement instruments the sponsors of these three projects are using and their likelihood of attracting the required investment. It will also touch upon the reasons why all three intercity passenger rail projects are fraught with uncertainty and plagued by persistent political opposition, while Eagle P3 was delivered on-time and under budget with hardly any organized opposition.

## Financing and Delivering Eagle P3

The Eagle P3 project, which the Regional Transportation District of Denver (RTD) awarded in 2009 as a design-build-finance-operate-maintain (DBFOM) concession, includes the new construction of three electrified commuter rail lines co-terminating at Union Station in downtown Denver. One is the 22.8-mile East Corridor (extending east to Denver International Airport); the second is 7.3-mile Gold Line (extending west to Wheat Ridge/Ward Road in Arvada via Berkley); and third is 5.2- Northwest Electrified Rail Segment (NWES, to Westminster, which will eventually be extended to Boulder and Longmont). Also included is the construction and operation of a new rail equipment maintenance facility. Eagle P3 is one component of the RTD's FasTracks program, which encompasses building 140 miles of new light rail, commuter rail and bus rapid transit lines in the growing Denver region.[1]

Financiers Barclays Capital and Bank of America-Merrill Lynch (BAML) underwrote $397.8 million in tax-exempt Private Activity Bonds (PABs) for Eagle P3. Financial close occurred on August 4, 2009. This came just six weeks after the DBFOM concession was awarded to Denver Transit Partners (DTP), a Special Purpose Vehicle (SPV) led by construction firm Fluor Enterprises, Inc. The SPV also consists of Denver Rail Holdings, Inc. (a unit of John Laing PLC), Aberdeen Infrastructure Investments (No. 4) USA LLC, Balfour Beatty Rail Inc. (for vehicle maintenance), Alternate Concepts Inc. (for train operations), Ames Construction (to build the Vehicle Maintenance Facility) and HDR Inc.[2] Alternate Concepts, Balfour Beatty and Fluor formed a separate joint venture, Denver Transit Services, to handle ongoing operations and maintenance.[3]

DTP mandated that Barclays and BAML underwrite the PABs. The preliminary offering documents estimated average yield at 6.17% over a 30-year term, with a debt service coverage ratio of 1.52 at the end of construction in 2017, rising to 2.04 by 2040. $55.1 million in equity

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[1] "Denver's Eagle P3 Project Breaks Ground." *Project Finance*, July 29, 2010. http://global.factiva.com/redir/default.aspx?P=sa&an=PTF0000020100907e67t0004t&cat=a&ep=ASE. Note: This source gives the line lengths in kilometers; they were converted to miles using Google.

[2] Denver Transit Partners, "Welcome to Denver Transit Partners." http://denvertransitpartners.com, accessed October 31, 2015.

[3] Op cit. *Project Finance*.

came from two sponsors, Fluor and Macquarie (split 10% and 90%, respectively), with owner RTD making $1.14 million in construction payments, $44 million in availability payments before the end of construction, and $4.9 million in interest payments.[4] The PABs performed better than expected on the market — they were three times oversubscribed and priced at a better-than-expected margin when they hit the market in July 2009, according to Macquarie executive Nicholas Hann. Fitch rated the bonds at BBB- stable (one notch above "junk" status) and Moody's rated them Baa3. These agencies cited concerns over construction phase risk, the deal's high reliance on RTD financing, and the termination payment regime.[5] Notably, there were no concerns that future ridership would not meet expectations.

Upon commencement of revenue commuter rail service, RTD (which will directly receive farebox revenue and other ancillary revenue and will maintain ownership of the assets at all times) will make monthly availability payments to DTP. The payment amounts will be contingent solely upon operational performance metrics specified in the contract, rather than ridership or revenue generated, and will cover operations, maintenance and debt service.[6] RTD has touted its success in completing the first procurement of its type in the United States to be successfully undertaken as a 100-percent P3. The agency credits this in part to having learned lessons from earlier P3 projects both in the US and overseas, and to hiring professionals with direct experience in successful overseas P3 projects.[7]

Among the practices RTD cites as keys to its successful procurement is the careful development of performance specifications that are not overly detailed. A second is the use of an

[4] Ibid.

[5] Ibid.

[6] Ibid.

[7] Regional Transportation District of Denver. "Eagle P3 Project Procurement Lessons Learned." White Paper. Denver: Regional Transportation District of Denver, August 31, 2011. http://www.rtd-fastracks.com/media/uploads/ep3/Eagle_P3_Procurement_Lessons_Learned_Report.pdf, page 2.

"Alternate Technical Concepts" approach, rather than the traditional, US Department of Transportation-mandated "Value Engineering" approach, to enable proposers to effectively manage their project costs. Thirdly, RTD paid a stipend to all proposers to defray the costs of proposal preparation. Fourth, RTD maximized federal support through the Federal Transit Administration's (FTA) Public-Private Partnership Pilot Program ("Penta-P"), which allowed the agency to deliver the project sooner thanks to a streamlined review and funding process.[8] FTA provided RTD a dedicated adviser in order to ensure that the risk transfer parameters met FTA standards and sufficiently protected the RTD from excessive risk.[9] RTD also said it was "essential to provide … proposers with maximum design flexibility," that it was important to involve FTA as P3s are new to them also, and that keeping its focus on performance standards rather than micromanaging the design or infrastructure aspects of the project helped procurement to go smoothly. RTD made absolutely clear which entity would assume crucial risks, which reduced proposers' need to reserve funds for all possible risks, and says that and having strong public sector support reduced the financing costs by five to eight basis points.[10]

FTA "New Starts" capital grants covered 46.8% of the project's total financing, with the concessionaire's private equity covering 22.2%, a US DOT Transportation Infrastructure Finance Innovation Act (TIFIA) loan covering 12.7%, with much of the remaining 18.3% coming from RTD bond proceeds, a 0.4% Sales and Use Tax in the partner jurisdictions that funds RTD, and contributions from municipalities and counties served by the new commuter rail lines. While no media reports indicate that there was any organized citizen opposition to Eagle P3, Wikibooks says RTD has been criticized for giving in to proposers' project risk transfer issues

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[8] Ibid, page 1.

[9] Wikibooks (written by George Mason University graduate students). "Public-Private Partnership Policy Casebook/ Eagle." Wikibooks, November 11, 2014. https://en.wikibooks.org/wiki/Public-Private_Partnership_Policy_Casebook/Eagle.

[10] Op cit. Regional Transportation District of Denver, pages 6-8.

in an effort to keep the remaining two teams in the running. RTD counters that the competition between the only two teams interested and qualified enough for such a large project was intense enough that the process remained very competitive despite having only two bidders.[11]

## The Doubt-Plagued Saga of California High Speed Rail

In November 2008, California voters approved a ballot measure placed by the state legislature, dubbed Proposition 1A. It mandated that the pre-existing California High Speed Rail Authority (CHSRA), a state government agency, complete construction of what would be the United States' first world-class high-speed rail line, and provided for the issuance of $9.95 billion in general obligation bonds, $9 billion of which was to be used in conjunction with matching federal funds, funds from revenue bonds, and local funds to finance its construction.[12] (The remaining $950 million went to upgrading existing, conventional passenger rail services in the state.) The measure mandated the buildout of an entirely new rail line to link Anaheim and Los Angeles with San Francisco and Sacramento via Palmdale, Bakersfield, Fresno and Stockton, offering a maximum end-to-end travel time of two hours and 40 minutes, with trains traveling up to 220 miles per hour (meeting the generally-accepted global definition of high-speed rail).

At the time of Prop. 1A's passage,  the project was estimated to cost $33 billion to construct, with ongoing operational costs of over $1 billion per year. The next year, the first construction phase of the project, linking Fresno with Bakersfield, was awarded a federal grant of almost $2.5 billion,[13] the largest single share of the $8 billion devoted to passenger rail improvement projects

[11] Op cit. Wikibooks.

[12] Secretary of State of California. "Official Voter Information Guide: 2008 General Election: Prop 1A." California General Election: Official Voter Information Guide, 2008. http://voterguide.sos.ca.gov/past/2008/general/title-sum/prop1a-title-sum.htm.

[13] U.S. Department of Transportation, Federal Railroad Administration. "Grant/Cooperative Agreement No. FR-HSR-009-10-01-01, Amendment No. 1." U.S. Department of Transportation, August 17, 2010. http://www.hsr.ca.gov/docs/about/funding_finance/funding_agreements/FRA-HSR-0009-10-01-01.pdf.

in the American Recovery and Reinvestment Act of 2009 (ARRA), which mandated that all infrastructure projects receiving grants be completed by the end of 2017.[14]

CHSRA released a revised business plan for the project in April 2012 that raised the total forecast construction cost to $68.4 billion.[15] It also scaled back on the original plan to build an entirely new railroad by planning for high-speed trains to share upgraded existing lines with commuter trains between Los Angeles and Palmdale and between San Francisco and Gilroy (dubbed the "blended system" approach).[16] CHSR opponents, including the libertarian Reason Foundation, say this approach will not permit the two-hour, 40-minute travel time mandated by Prop. 1A (no revised travel time estimate has been published), and for that and other reasons, the entire project should be canceled.[17] There have also been numerous legal challenges to components of CHSR, with one of the most recent ending in a near-unanimous October 2014 decision by the California Supreme Court not to review a lower court ruling allowing the voter-approved bonds to be sold. Nevertheless, opponents plan to keep fighting in court, contesting the estimated trip time and whether Prop. 1A allows the system to operate with a subsidy.[18]

In December 2014, before it was able to secure private financing, the Authority announced that it had selected a team of contractors for the 130-mile Madera-Bakersfield segment. The winning bid of $1.23 billion for the 65-mile Fresno-Allensworth subsection came from Dragados-

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[14] Peterman, David Randall, John Frittelli, and William J. Mallett. "The Development of High Speed Rail in the United States: Issues and Recent Events." CRS Report. Washington, DC: Congressional Research Service, December 20, 2013. https://www.fas.org/sgp/crs/misc/R42584.pdf, page 11.

[15] California High Speed Rail Authority. "California High Speed Rail Program Revised 2012 Business Plan: Building California's Future - Executive Summary" California High Speed Rail Authority, April 2012. http://hsr.ca.gov/docs/about/business_plans/BPlan_2012ExecSum.pdf, page ES-4

[16] Ibid, pages ES-2 - ES-3.

[17] Vranich, Joseph, and Wendell Cox. "California High Speed Rail: An Updated Due Diligence Report." Washington, DC: Reason Foundation, April 2013. http://reason.org/files/california_high_speed_rail_report.pdf.

[18] Calefati, Jessica. "High-speed rail: California Supreme Court eliminates hurdle." *San Jose Mercury News*. October 15, 2014, Local edition, sec. Traffic. http://www.mercurynews.com/california-high-speed-rail/ci_26733677/california-supreme-court-declines-review-high-speed-rail.

Flatiron and was substantially lower than two competing bids. Construction work currently taking place as of October 2015 is covered under a contract with Los Angeles-based Tutor Perini for the first 29-mile subsection Merced-Madera section, which was signed in 2013.[19]

Finally cleared to move ahead with securing private financing, CHSRA issued a Request for Expressions of Interest (RFEI) in June 2015, seeking businesses' ideas for how they can best participate in financing and building the system by the early 2020s, starting with the 300-mile "Initial Operating Segment" from Merced to Burbank. The 17-page RFEI envisions an SPV building and providing passenger service over the line in exchange for availability payments to repay its initial investment over a 25 to 50-year period. It presumes that revenues from the state's cap-and-trade (C&T) program will fund these availability payments. C&T is an effort to put a price on carbon emissions. Gov. Jerry Brown has committed 25% of its revenues to CHSR, which would amount to about $500 million in the 2015-16 fiscal year. The remaining $4 billion in Prop. 1A bonds that has yet to be committed would be used to make "milestone" payments based on to-be-determined benchmarks and match a portion of the concessionaire's capital investment, but "the developer would be expected to finance the remaining costs."[20]

CHSRA received 36 responses to the RFEI, but did not release them until news media requested them under the state's Public Records Act. There was a noted uptick in private interest upon state legislators' decision to devote $250 million in fiscal 2015-16 C&T revenues to CHSR.[21] In the unveiled documents, however, respondents "raised serious doubts about [how]

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[19] Vartabedian, Ralph. "California Selects Contractors for next Phase of Bullet Train Route." *Los Angeles Times.* December 11, 2014. http://www.latimes.com/local/california/la-me-bullet-train-bid-20141212-story.html.

[20] Sheehan, Tim. "High-speed rail board seeks private-sector ideas, interest on financing, development." *The Fresno Bee*. June 28, 2015, sec. Local News. http://www.fresnobee.com/news/local/high-speed-rail/article25720360.html#storylink=cpy.

[21] Young, Eric. "Private Investors Warming to California Bullet Train." *San Francisco Business Times*. August 5, 2014. http://www.bizjournals.com/sanfrancisco/news/2014/08/05/investors-california-bullet-train-aecom-grupo-acs.html.

they would get paid, serious doubts about how much money is going to be in it, and those doubts were never made public," according to State Assembly member and project critic Jim Patterson (R-Fresno).[22]

The California Public Interest Research Group (CALPIRG) released a white paper in July 2011 giving recommendations to CHSRA based on other US experiences with P3s. "The report shows that private financing can be a supplement but not a substitute for public commitments to support high-speed rail," CALPIRG State Director Emily Rusch said in the group's press release. "In other nations, the majority of support comes from the public sector," with most rail companies either under public ownership or organized in a quasi-public corporate fashion akin to Amtrak. The group recommends that P3s only be pursued if they can in fact deliver a project for a lower price or with higher quality, rather than pursuing them in order to avoid budgetary oversight, labor standards or other regulations. They must also deliver added value to the taxpayer (when all measurements are included), align incentives for concessionaires with public sector goals, and be pursued only when ample competition exists, among other criteria to ensure transparency and accountability, according to CALPIRG.[23]

So far, CHSRA has made some strides towards applying the P3 financing model to at least portions of the high speed rail project in an effort to reduce overall delivery costs and transfer some construction-phase risks to the private sector by using availability payments funded through federal grants and state revenues, particularly from the state's unique greenhouse gas cap-and-trade program. However, it is difficult to evaluate the entire project — one of the most complex infrastructure undertakings occurring in the United States — in comparison with other passenger

[22] Sheehan, Tim. "GOP legislators demand probe of high-speed rail as construction progresses." *The Fresno Bee*. October 29, 2015, sec. Local. http://www.fresnobee.com/news/local/high-speed-rail/article41880306.html.

[23] Rusch, Emily. "News Release: PRINCIPLES FOR PUBLIC PRIVATE PARTNERSHIPS AND CALIFORNIA'S HIGH-SPEED RAIL PROJECT." Nonprofit Organization. CALPIRG, July 19, 2011. http://www.calpirg.org/news/cap/principles-public-private-partnerships-and-california's-high-speed-rail-project.

rail P3s such as Eagle. This is because CHSR is being broken into phases, each of which is being financed and bid separately, and no concrete plan exists for how ongoing train operations will be procured and paid for. It is primarily for this reason, along with the substantial risk that future required federal and state appropriations will not be forthcoming, that potential private financiers have been less than enthusiastic about the return they might receive for floating bonds to invest in CHSR. Though, for such a complex project with such a long timeline, it is difficult to imagine reorganizing it in a way that would sufficiently boost investor confidence.

## All Aboard Florida: A What's-Old-Is-New-Again Approach

Florida East Coast Industries (FECI) and its corporate parent, Fortress Investment Group, are taking a page from the business plan of the founder of its corporate lineage and builder of the rail line it owns and plans to use, 19th century industrialist Henry Flagler. Flagler used his railroad as a development tool, buying up inexpensive land surrounding planned stations and selling it at a profit, transforming Florida into the vacation and retirement destination as which it is now known.[24]

Today, FECI subsidiary All Aboard Florida (AAF) is using the same right of way, much of it used by Fortress-owned freight rail carrier Florida East Coast Railway (FECR), to develop a new 220-mile passenger rail service linking South Florida with Orlando. AAF's modern trains, which will operate under the brand name Brightline, will eventually run 32 trips per day (16 in each direction), providing nearly hourly service connecting the downtowns of Miami, Fort Lauderdale and West Palm Beach with Orlando International Airport, running at top speeds of 110 to 125 mph and offering a Miami-Orlando travel time of three hours.[25] Phase 1, however, will only offer

[24] Taylor, Bryan. "The Land Co. of Florida and the Florida Real Estate Bubble." Global Financial Data. Accessed November 1, 2015. https://www.globalfinancialdata.com/gfdblog/?p=1338.

[25] Sigo, Shelly. "Analysis Questions Florida Train Viability." *Bond Buyer.* March 5, 2015, sec. Regional News. http://search.proquest.com.mutex.gmu.edu/docview/1660636326/abstract?.

service between Miami and West Palm Beach, and will include the construction of the three new stations.[26]

AAF's estimated startup costs are $3.6 billion, including the cost of financing and land acquisition.[27] This is very low compared to CHSR primarily because its route consists almost entirely of existing tracks that will be shared with FECR freight trains. These tracks, as part of the Phase 2 extension to Orlando, will be upgraded by adding more capacity and boosting top freight and passenger train speeds on 195 miles of the FECR. Only the last 25-mile segment connecting the existing FECR line to Orlando International Airport will be new construction. AAF has also placed an order for ten new trainsets (five for each phase) from Siemens USA's Sacramento plant.[28] Part of AAF's financing will come from selling or renting commercial and residential space in station-oriented developments around its three South Florida stations. Much of the initial financing, though, will come from $1.75 billion in tax-exempt Private Activity Bonds (PABs), which will supplement the $405 million in corporate bonds sold in 2014.[29]

Despite the fact that AAF is moving forward without any government funding — though some have called its ability to use tax-exempt PABs a form of subsidy — it has not been without substantial opposition. Citizens Against Rail Expansion in Florida (CARE FL) sued unsuccessfully to stop the sale of the PABs, and commissioned a study that concludes that AAF "will generate annual losses of more than $100 million and will be unable to service its large debt burden." An AAF spokesperson responded that the study does not use any facts or figures

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[26] All Aboard Florida. "Press Release: Congresswoman Corrine Brown Comments on All Aboard Florida Progress." Corporate Site. All Aboard Florida, July 10, 2014. http://www.allaboardflorida.com/in-the-news/press-releases/2014/07/10/congresswoman-corrine-brown-comments-on-all-aboard-florida-progress.

[27] Sigo, Shelly. "Florida Train Backers Say Bond Lawsuit Won't Deter Them." *Bond Buyer*. May 13, 2015, sec. Regional News. http://search.proquest.com.mutex.gmu.edu/docview/1680966304/abstract?

[28] "All Aboard Florida's New Trains: What We Know." Blog. Orange Circle Line, September 12, 2014. http://www.orangecircleline.com/2014/09/12/all-aboard-floridas-new-trains-what-we-know/.

[29] Op cit. Sigo, March 2015.

provided by AAF, and relies on speculation. AAF could generate an annual operating profit of $14.3 million (projected operating revenue minus operating cost) under the most optimistic scenario, but will have to pay $125 million in interest on bonds and other debt, according to the spokesperson. But CARE FL maintains that AAF has not revealed how much tickets will cost and how much debt it will use over the course of the project.[30]

AAF was able to take advantage of PABs issued through the US Department of Transportation by using a state government body, the Florida Development Finance Corporation (FDFC), as a conduit through which to issue the bonds. The FDFC will earn a $1.8 million fee from the bond sale.[31] The FDFC's Board approved this arrangement in 2014, but has yet to finalize the deal or hold public hearings in accordance with state law.[32] These were some of the main points of contention in CARE FL's lawsuit, along with the fact that the FDFC's Board only has three members appointed by the governor, while state law requires it to have five members.

In addition, two counties through which the FECR passes sued to block the bonds from being issued, but a federal judge denied their request for an injunction in June 2015.[33] The counties maintain that USDOT cannot issue the bonds because it has not given AAF engineering or environmental approval, but USDOT and AAF respond that the counties lack standing because USDOT's right to approve PAB applications is not subject to federal environmental or historic preservation reviews, nor can the counties show that denying the PABs would stop the project. AAF says it will use other sources of funding to complete the track upgrades if it cannot

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[30] Ibid.

[31] Mayo, Michael. "What happens if All Aboard Florida can't repay bonds?" *Fort Lauderdale Sun Sentinel*. August 7, 2015, sec. Opinion. http://www.sun-sentinel.com/news/fl-mayocol-b080915-20150807-column.html.

[32] Op cit. Sigo, March 2015.

[33] Sigo, Shelly. "Florida Agency Postpones Consideration of Train Bonds." *Bond Buyer.* June 8, 2015, sec. Regional News. http://search.proquest.com.mutex.gmu.edu/docview/1686988417/abstract?

get the PABs, but that using taxable bonds would make the project more expensive to construct and might delay its completion.[34]

As of October 2015, Fortress Investment Group has selected Bank of America-Merrill Lynch (BAML) as the leading underwriter of the PABs, and BAML is still trying to line up investors, but has not set a date for the formal bond offering, which the FDFC approved on August 5, 2015. The bonds are unrated, thus being classified as “junk” and carrying “a high degree of risk” according to BAML. AAF, which has never constructed or managed a passenger railroad, will have to earn $105 million per year to be able to repay bondholders. The memorandum for the bond sale includes 25 pages listing risk factors that could lead to default or insolvency, including “possible construction delays, cost overruns, faulty ridership and revenue projections, regulatory problems, pending lawsuits and high debt load.”[35] The Real Deal reports that Fortress faces skepticism from bond investors who doubt that Brightline’s ridership will be sufficient to make it profitable.

But Fortress says AAF may raise more capital from equity investors to reduce the concerns of potential PAB investors.[36] Brightline is forecast to serve about 100 million annual visitors to Florida, which will be its primary target demographic, with business travelers and Florida residents coming second. “We are treating this as a hospitality service, not a transportation service,” AAF President & CEO Michael Reininger told *Miami Today*.[37] In line with this, AAF plans to add value to Brightline by selling other ground transportation connections and hotel/

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[34] Op cit. Sigo, May 2015.

[35] Op cit. Mayo.

[36] The Real Deal. “Bond Issue for All Aboard Florida Still Pending.” The Real Deal Miami. Accessed October 30, 2015. http://therealdeal.com/miami/blog/2015/10/11/bond-issue-for-all-aboard-florida-still-pending/.

[37] Miami Today. “All Aboard Florida Ticketing 15 Months off.” *Miami Today*, October 13, 2015. http://www.miamitodaynews.com/2015/10/13/all-aboard-florida-ticketing-15-months-off/.

resort packages in conjunction with rail travel on the same reservation, offering customers complete door-to-door travel.[38]

Opposition to the Brightline project centers around the impact of increased train traffic, particularly the greater number of freight trains that the line upgrades will make possible. Long freight trains block road traffic at grade crossings, hampering emergency responders and residents living near the line, and also disrupt boating and fishing. "We are concerned that this is really about the freight as much as it is about the AAF," CARE FL president Brent Hanlon told *Fortune* magazine. "If you were just building this for the passenger train, you would not be getting this level of opposition."[39] If AAF were to face cost overruns or insufficient revenue, investors would be on the hook, but it would not be out of the realm of possibility for AAF to seek a government bailout.[40]

The case of Brightline does not serve as a direct analogue to Eagle P3 or CHSR (which more closely resemble each other than they do Brightline) because the ownership, impetus, planning and direction of the project lie entirely within the private sector. The only public-sector "partner" to AAF is the FDFC, which is only playing an ancillary role instead of the traditional role of the government agency "owner" of an asset built and/or maintained as a P3. Nevertheless, there are obvious parallels between AAF and CHSR in terms of the difficulties both have encountered in attracting investors amid pervasive doubts that an intercity passenger rail service can turn a profit or generate sufficient revenue (be it from ticket sales, food and beverage, sales of advertising or other ancillary revenue) to pay back investors.

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[38] Shatzman, Marci. "New train stations in the works but not in Boca." *Fort Lauderdale Sun-Sentinel,* November 13, 2013, sec. News. http://articles.sun-sentinel.com/2013-11-13/news/fl-brf-station-1113-20131113_1_all-aboard-florida-quiet-zones-passenger-train.

[39] Morris, David Z. "Why This Private Passenger Rail Faces Heavy Opposition." *Fortune*, September 25, 2015. http://fortune.com/2015/09/25/all-aboard-florida-private-passenger-rail/.

[40] Op cit. Mayo.

Eagle did not face nearly as much investor skepticism because the RTD guaranteed a revenue stream sufficient to make availability payments regardless of ridership levels. Though it is also possible that there is a conceptual hurdle for investors to overcome between commuter rail and transit, which are understood to be more akin to government services, and intercity passenger rail, which is seen as competing with private-sector airlines and intercity bus companies. Another consideration is that Brightline is being conceived of, as AAF's CEO said, as a hospitality service marketed towards tourists from around the world, while Eagle and CHSR are seen more as meeting riders' needs for basic transportation.

## A Note on Another Private High Speed Endeavor

This comparative study would not be complete without a brief reference to a second major passenger rail project that is completely spearheaded by a private company: Texas Central Railway (TCR). Texas Central Partners, a consortium that includes a major privatized Japanese railroad whose equipment that is operating in Japan would be used in Texas, seeks to build an entirely new, 230-mile world-class high-speed railroad between the Dallas and Houston metropolitan areas.[41] The company has raised $75 million in private capital, and commissioned a study finding that the line would generate $36 billion in economic development through direct spending, including employment and taxes paid.[42]

TCR President Robert Eckles insists that his railroad "is not backed by public funds," adding that "if we start taking the federal money, it takes twice as long [and] costs twice as much."[43] Nevertheless, the company welcomes less direct forms of government support, which is

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[41] Batheja, Aman, and Stephen J. Smith. "The Bullet Train That Could Change Everything." *The Texas Tribune*, August 18, 2014. http://www.texastribune.org/2014/08/18/bullet-train-could-change-everything/.

[42] Martin, Joe. "High-Speed Rail Company Moves Forward with Partnership Announcement." *Houston Business Journal*, October 20, 2015. http://www.bizjournals.com/houston/morning_call/2015/10/high-speed-rail-company-moves-forward-with.html.

[43] Nicholson, Eric. "Texas Central Railway's Fuzzy Definition of 'Privately Financed.'" *Dallas Observer*. August 11, 2015. http://www.dallasobserver.com/news/texas-central-railways-fuzzy-definition-of-privately-financed-7479867.

why it is preparing an environmental impact study compliant with federal and state law, expected to be complete by late 2016 or early 2017. Engineering and pre-construction design work has also begun.[44] Like AAF, TCR is looking to sell tax-exempt PABs, and to take advantage of federal TIFIA and Railroad Rehabilitation and Improvement Financing (RRIF) loans. The railroad says these sources will complement "multiple billions of dollars" in equity from the Japan Bank for International Cooperation — a government entity, but a foreign one.[45]

## Conclusion

Passenger rail has always been a difficult business to make money in, primarily due to the high fixed costs of owning and maintaining all the necessary infrastructure (tracks, bridges/tunnels, signal systems, trains and stations). The ownership and maintenance of this infrastructure, along with the provision of rail transportation, have historically been a private-sector responsibility in the United States, even when railroads' competition benefitted from government ownership of key infrastructure (highways, airports, air traffic control systems, etc) and ongoing taxpayer subsidy. Private railroads were able to maintain passenger services early on because the competition had yet to catch up, and kept them going in the mid-20th century thanks to contracts to carry the US Mail and package express on fast passenger trains. Commuter and intra-city rail transit service was also primarily a private-sector business, but has transitioned more quickly to the public ownership model due to the degree of local control and the fact that local elected officials are more in tune with the value of these services to their constituents.

But the failure of contemporary intercity passenger trains to make it as self-sufficient commercial enterprises does not mean that there is not just as much of a need for them as there is for intra-urban rail. This is particularly true in smaller and rural communities that lack the

[44] Op cit. Martin.

[45] Op cit. Nicholson.

plethora of other intercity travel choices that residents of larger metropolitan areas enjoy. Nor does it mean that there is not the potential for a well-designed, fast, frequent corridor train service between major population centers to be competitive enough with driving and/or flying that it attracts sufficient ridership to turn a profit, at least in terms of operating costs.

Denver's Eagle P3, by most measures a success, benefitted from a sponsor agency that was sufficiently empowered by enabling legislation and that took the time and built the staff expertise necessary to put together a credible long-term business plan and head off whatever public opposition may have existed at the outset. The RTD's plan for generating revenue, and its back-up plan in case this revenue falls short, succeeded at attracting enough investors to its concessionaire SPV. California High Speed Rail, by contrast, was conceived as a primarily publicly-funded project, and thus no precautions were taken to make it attractive to private investors from the get-go. The CHSRA has only attempted to apply the P3 financing model to a limited portion of the project after its cost estimates rose and it became clear that the anticipated federal funding would not be forthcoming. CHSRA is also not as proficient as RTD in managing the public's expectations or anticipating criticism. It failed to do due diligence in the early stages to reduce skepticism before vocal opposition and lawsuits mounted.

Only time will tell whether the two completely private-sector projects, All Aboard Florida and Texas Central Railway, will succeed at securing the needed financing more quickly than CHSR, and whether all three projects' long-term financial pictures will live up to their backers' optimistic predictions. If AAF or TCR is able to deliver a reliable, well-patronized passenger train service more quickly than CHSRA, this could spur other similar private undertakings and could develop into an alternate model for California. And if other smaller-scale passenger rail projects are able to be delivered on shorter timeframes and for lower costs using the Eagle P3 model, sponsored by agencies with sufficient staff expertise to make them successful, then this could become the model for future publicly-backed intercity passenger rail projects.

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