

Background

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America's Coming High-Speed Rail Financial Disaster

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Abstract: *President Barack Obama has committed the United States to building at least 13 high-speed rail (HSR) lines, one of the most expensive forms of transportation that a nation could choose. Even in a strong economy, building HSR makes little sense, offering minimal reductions in travel times at exorbitant costs. In the current weak economy and with the government facing massive budget deficits, the country simply cannot afford to squander \$8 billion in stimulus funding, \$5 billion over the next five years, and billions of dollars in matching state funding on a transportation system that will at best serve a minute fraction of the traveling public. The country would be better off either not spending the money or spending it on something productive.*

In January 2010, the Federal Railroad Administration (FRA) of the U.S. Department of Transportation belatedly awarded \$8 billion in the stimulus grants for high-speed rail (HSR) as authorized by the American Recovery and Reinvestment Act (ARRA).¹ By pushing for these grants and promising to spend an additional \$5 billion over the next five years, the Obama Administration has committed the United States to one of the most expensive forms of transportation that a nation could choose.

In addition to the billions of dollars in capital costs that the federal and state governments will incur, domestic and international experience indicates that the President has committed the nation to providing a perpetual stream of substantial subsidies to offset the

Talking Points

- President Barack Obama's endorsement of a high-speed rail plan will commit the United States to an exceptionally expensive form of transportation.
- The President is also committing the taxpayers to a perpetual stream of vast operating subsidies to keep the system running.
- An Amtrak study found that passenger rail subsidies in six European countries totaled \$42 billion per year, proportionately similar to what the U.S. federal government spends on all transportation.
- Despite these subsidies, only 7.9 percent of all surface passengers in these six countries use rail, while only 6.1 percent of passengers in all of Europe use rail.
- Despite these high subsidies for European rail, passenger rail's share of the market has declined over the past decade, while faster and cheaper airlines have gained.

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difference between fare revenues and operating costs of HSR and passenger rail in general. As a result, the HSR program could come to rival the nature of some entitlement programs in how much it will contribute to out-of-control annual federal deficits.

High Costs of Low Technology

At present, the United States has no genuine HSR lines, although some consider the Acela, which operates in the Northeast Corridor, to be an HSR line. Although there is no fixed rule as to what constitutes HSR, a common definition is a rail line that operates at an average speed of at least 125 miles per hour (mph). Some HSR lines in France and Japan maintain average speeds in excess of 180 mph. While the Acela averages about 85 mph, it can reach about 150 mph on a short section of the line between New York City and Boston.

To sustain these speeds over long routes requires a substantial investment in a secure and exclusive roadbed built to precise standards and tolerances, using equipment that meets the same high standards. As a result, an HSR line costs much more to build and operate than an ordinary passenger rail line. It is believed that only two HSR lines in the world earn enough revenue to cover operating and capital costs: Paris–Lyon and Tokyo–Osaka.²

“[I]nvesting \$13 billion (or even \$8 billion) in passenger railroads is a little like building a bridge to the 19th century.”

The world’s passenger rail systems consist mostly of “ordinary” passenger rail, which operates at average speeds between 50 mph and 85 mph. Some systems include a few genuine HSR lines. In the United

States, passenger rail (Amtrak) is the most heavily subsidized of all passenger travel modes, requiring a federal subsidy of \$237.53 per 1,000 passenger miles, compared to \$4.23 for commercial aviation and \$1.50 for intercity busses.³ Rail subsidies in Europe are just as high, if not higher.

In addition to the high costs that the HSR program will impose on taxpayers during a period of economic hardship and slow recovery, the President’s commitment to HSR raises serious questions about his judgment and the judgment of his economic advisers. They presumably thought, given all of the options before them, that this program would be a good use of scarce taxpayer money to spur the economy. As the editorial board of the liberal *St. Louis Post-Dispatch* recently concluded, “With apologies to futurists, people in the construction industry and rail buffs, investing \$13 billion (or even \$8 billion) in passenger railroads is a little like building a bridge to the 19th century.”⁴

How Could They Have Gone So Wrong?

The FRA report listing each of the HSR awards and the brief justification for each award actually reveals how little benefit the FRA can find in each of these projects relative to their cost. This deeply flawed outcome makes one wonder what could possibly have transpired during the FRA decision-making process to produce this multi-year, multi-billion-dollar commitment to obsolete technology.

One has to wonder what exactly motivated the FRA review team to endorse the proposed \$1.1 billion investment in the Kansas City–St. Louis–Chicago route, which would allow customers to reach their destinations 10 percent faster than they could by driving between Chicago and St. Louis. The same thought applies to the \$1.25 billion federal invest-

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1. Press release, “President Obama, Vice President Biden to Announce \$8 Billion for High-Speed Rail Projects Across the Country,” U.S. Department of Transportation, January 28, 2010, at <http://www.dot.gov/affairs/2010/dot1810a.htm> (March 11, 2010).
 2. David Randall Peterman, John Fritelli, and William J. Mallett, “High Speed Rail (HSR) in the United States,” Congressional Research Service *Report for Congress*, December 8, 2009, p. 19, note 59, at <http://www.fas.org/sgp/crs/misc/R40973.pdf> (March 11, 2010).
 3. Wendell Cox and Ronald D. Utt, “Federal Transportation Programs Shortchange the Motorists: Update of a USDOT Study,” Heritage Foundation *Background* No. 2283, June 8, 2009, p. 3, at <http://www.heritage.org/research/smartgrowth/bg2283.cfm>.
 4. Editorial, “High-Speed Wail: A Bridge to the 19th Century,” *STLtoday.com*, January 29, 2010, at <http://www.stltoday.com/blogzone/the-platform/uncategorized/2010/01/high-speed-wail-a-bridge-to-the-19th-century> (March 11, 2010).

ment in a \$3.2 billion project to build a high-speed rail line between Orlando and Tampa, which would reduce travel time between the two cities to less than one hour, compared to about 90 minutes by car.⁵ In essence, the federal government is paying massive subsidies to achieve minor benefits for a tiny fraction of the traveling public.

From another perspective, the Obama transportation team apparently thinks that shaving a few minutes here and a few minutes there from a handful of intercity trips will soften the pain of the Great Recession and propel the economy forward. Yet achieving these modest goals will require a number of years, \$8 billion in federal taxpayer money today, another \$5 billion in federal money over the next five years, and an even greater sum from the unfortunate taxpayers of the states that are receiving these federal awards.

The U.S. Department of Transportation's Inspector General estimates that reducing travel time between Washington, D.C., and New York City and between New York City and Boston by 30 minutes each will cost \$14 billion while reducing auto ridership by less than 1 percent.

However extravagant this commitment to jazzed-up 19th century technology may be, the ultimate costs of bringing HSR to the 13 corridors already approved by the FRA will be staggering. California received a \$2.3 billion grant toward an HSR rail system with an official cost of \$50.2 billion (in 2006 dollars), but independent analysts contend that it will more likely cost \$81.4 billion.⁶

The supposed benefits do not even begin to justify the exorbitant costs. Along the Northeast Corridor, Amtrak's Acela pretends to provide high-speed train service. The U.S. Department of Transportation's Inspector General estimates that reducing travel time between Washington, D.C., and New York City and between New York City and Boston by 30 minutes each will cost \$14 billion while reducing auto ridership along the corridor by less than 1 percent.⁷

The Foreign Experience

Other countries' experiences with HSR and passenger rail in all of its costly forms are instructive in judging how fiscally damaging the Administration's enthusiastic commitment to HSR may prove to be.⁸

Europe in General. In 2008, Amtrak's inspector general published an analysis of government subsidies to passenger rail in Europe and compared them to Amtrak's subsidies. One purpose of the review was to address the contention that passenger rail in other countries, especially HSR, operates at a profit (i.e., without subsidies). For 1995–2006, the study found that the governments of Germany, France, the United Kingdom, Spain, Denmark, and Austria spent “a combined total of \$42 billion annually on their national passenger railroads.”⁹ The \$42 billion that these six countries, which have a combined population of 269 million, spent on just passenger rail in 2006¹⁰ is roughly proportionate to the \$54.8 billion (most of which was funded by user fees) that the government of the United States (population of 309 million) spent on *all* forms of transportation, including highways, rail, aviation, water transport, and mass transit.¹¹

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5. Press release, “President Obama, Vice President Biden to Announce \$8 Billion,” attached fact sheets.
 6. Wendell Cox and Joseph Vranich, “The California High Speed Rail Proposal: A Due Diligence Report,” Reason Foundation Policy Study No. 370, September 2008, at <http://reason.org/files/1b544eba6f1d5f9e8012a8c36676ea7e.pdf> (March 11, 2010).
 7. Peterman *et al.*, “High Speed Rail (HSR) in the United States,” pp. 15 and 20.
 8. In most countries, the HSR system is part of a larger government-operated slower-speed passenger rail system, and their periodic financial and performance reports reflect a combination of both. Consequently, isolating HSR system performance data is often difficult if not impossible.
 9. Amtrak, Office of Inspector General, “Public Funding Levels of European Passenger Railroads,” April 22, 2008, p. 4, at [http://www.amtrakoig.com/S\(rrrqumnhwybh1c55un4uujbo\)\)/Reports/E-08-02-042208.PDF](http://www.amtrakoig.com/S(rrrqumnhwybh1c55un4uujbo))/Reports/E-08-02-042208.PDF) (April 13, 2010).
 10. Randal O'Toole, “High Speed Rail: The Wrong Road for America,” Cato Institute Policy Analysis No. 625, October 31, 2008, p. 12, Table 2, at http://www.cato.org/pub_display.php?pub_id=9753 (March 11, 2010).

To put the European commitment to passenger rail in perspective, rail ridership (high speed, conventional intercity, and metropolitan commuter rail) in these six countries accounted for just 7.9 percent of all surface transportation modes on a per passenger, per billion kilometer basis. This suggests that these countries received a poor return on their money given that more than 90 percent of passengers in these countries chose other travel modes—mostly auto—despite the subsidies.

Despite Europe's huge investment in passenger rail, its market share declined from 6.6 percent in 1995 to 6.1 percent in 2007.

In Europe as a whole (EU-27), rail accounted for only 6.1 percent of passenger travel in 2007, including travel by air and sea. Buses accounted for 8.3 percent of the market, and air travel accounted for 8.8 percent. Despite Europe's huge investment in passenger rail, its market share declined from 6.6 percent in 1995 to 6.1 percent in 2007. Over that same period, commercial air increased its share from 6.3 percent to 8.8 percent. By providing faster service and competitive prices, it took passengers away from rail, buses, and autos.

This last point is of some importance because one goal of the HSR scheme is to shift travel from largely unsubsidized commercial aviation to heavily subsidized trains. Yet the same scheme in Europe seems to have failed over the past dozen years, despite massive government subsidies. Nonetheless, as problematic as the general European experience with passenger rail has been, some individual countries have experienced even worse results.

Japan. Japan's passenger rail—both high speed and not-so-high speed—has been extremely costly

and has been a contributing factor in the genteel process of decline now enveloping this onetime economic superpower.¹² Japan began operating an HSR system in 1964 at speeds of about 130 mph. By the 1990s, speeds in excess of 180 mph were common.

As a result of this commitment to HSR and the costs associated with the rest of the passenger rail system, the Japanese National Railway (JNR) was losing \$20 billion per year and was issuing debt to cover all but the \$5 billion covered by direct government subsidies. By the mid-1980s, the JNR's accumulated debt exceeded \$300 billion. Recognizing that the JNR was not financially sustainable as a government program, the government began privatizing the passenger rail system in 1987, converting the JNR into seven separate joint stock companies and selling them off to the public over the next several years.¹³

In Japan, unlike the United States, where Amtrak's losses can be attributed to half-filled trains, a trivial market share, and powerful unions, about 28.7 percent of passengers traveled by rail in 2007—the highest rate of rail use in the developed world.¹⁴ Today, several of the restructured, privatized Japanese passenger rail lines run at a profit, but only because they were acquired at a fraction of their capital costs and the government absorbed much of the system's debt.

United Kingdom. In the U.K., 6.4 percent of surface passengers (excluding air and sea travel) travel by a passenger rail system that was privatized beginning in 1994 by way of concessions provided to private rail operators. Much like Japan, the U.K. decided to privatize its passenger rail system because of the burden of providing operating subsidies and the lack of government financial resources to refurbish the deteriorating infrastructure. Impor-

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11. U.S. Office of Management and Budget, *Historical Tables, Budget of the United States Government, Fiscal Year 2009* (Washington, D.C.: U.S. Government Printing Office, 2008), p. 161, Table 8.8, at <http://www.whitehouse.gov/omb/budget/fy2009/pdf/hist.pdf> (March 11, 2010).
 12. Ronald D. Utt, "Learning from Japan: Infrastructure Spending Won't Boost the Economy," Heritage Foundation *Background* No. 2222, December 16, 2008, at <http://www.heritage.org/Research/Economy/bg2222.cfm>.
 13. Ron Kopicki and Louis S. Thompson, *Best Methods of Railway Restructuring and Privatization*, 2nd ed., The World Bank, Cofinancing and Financial Advisory Services, December 1997.
 14. Japan, Ministry of Internal Affairs and Communications, Statistics Bureau, *Statistical Handbook of Japan 2009*, p. 100, Table 9.1, at <http://www.stat.go.jp/english/data/handbook/c09cont.htm> (March 11, 2010).

tantly, while a Conservative government implemented the privatization process, the subsequent Labor government made no effort to halt or undo the privatization process, despite the many problems that have emerged in the operations of the privatized rail system.

Although service has improved and ridership has increased to record levels since privatization, ticket prices have also increased, and government subsidies have exceeded pre-privatization levels.¹⁵ In the 1994–1995 budget year, just before privatization, government rail subsidies totaled an inflation-adjusted £2,178 million (\$3.4 billion), but after more than a decade of privatization, government rail subsidies for the 2008–2009 budget year totaled £4,896 million (\$7.6 billion).¹⁶

Regardless of organization, ownership, and the intensity of the reform effort, building and operating a system of passenger rail service still requires massive public subsidies.

Demonstrating that poor judgment is not unique to any one party or ideology, the opposition Conservative Party has promised to introduce HSR if it is returned to power, notwithstanding the high subsidy costs and high government deficits incurred by maintaining an ordinary passenger rail service used by just 6.4 percent of the market.¹⁷ In response, the Labor Party has promised to build an HSR rail line connecting London to Manchester and Leeds at an estimated cost of \$45 billion.¹⁸

The point of reviewing the recent U.K. experience is not to criticize the rail reforms that the U.K. undertook, but to note that regardless of organization, ownership, and the intensity of the reform effort, building and operating a system of passenger rail service still requires massive public subsidies.

France. The French government operates 30,500 miles of track, 1,160 miles of which are genuine HSR lines (called TGV) that have average speeds of about 180 mph. Although the entire French passenger rail system receives an estimated annual government subsidy of approximately \$10 billion (compared to the annual estimated subsidy of \$22.8 billion for the somewhat larger German passenger rail system, which also includes an HSR component),¹⁹ the HSR service between Paris and Lyon—one of 11 TGV lines and 267 miles of the system—is believed by some to be one of only two HSR routes in the world that generate enough revenue to cover both capital and operating costs.²⁰

Taiwan. In 2007, a privately owned and partially privately financed HSR system began operating HSR on a 214-mile route connecting Taipei and Kaoshiung, the two largest cities in Taiwan. Building the system cost an estimated \$15 billion. It uses Japanese technology, and the trains run at a top speed of 186 mph.

Since opening, the system has lost \$2.1 billion, leading *The China Post* to describe the situation as a “hyper-modern technology [that] was meant to be a source of pride, but instead has turned into a rich source of embarrassment.”²¹ The company operating the system is now seeking government subsidies.

15. At present, it is less expensive for two people traveling from Heathrow airport to downtown London to hire a limousine that meets them at the baggage claim and takes them directly to their destination than it is to take the Heathrow Express to Paddington Station and then take the Tube or a taxi to their final destination.

16. U.K. Office of Rail Regulation, “National Rail Trends—Spreadsheets,” Table 6.2a, at <http://www.rail-reg.gov.uk/upload/xls/nrt-tables-6misc-171209.xls> (March 11, 2010).

17. Theresa Villiers, “The Conservative Approach to the Railways,” January 13, 2010, at http://www.conservatives.com/News/Speeches/2010/01/Theresa_Villiers_The_Conservative_Approach_to_the_Railways.aspx (March 11, 2010).

18. Philip Pank and Mary Bowers, “Protests as Lord Adonis Reveals Plans for £30bn High-Speed Railway Network,” *The Times* (London), March 12, 2010, at <http://www.timesonline.co.uk/tol/news/uk/article7059089.ece> (March 16, 2010).

19. Amtrak, “Public Funding Levels of European Passenger Railroads, p. 4.

20. Peterman *et al.*, “High Speed Rail (HSR) in the United States,” p. 19, note 59.

21. Benjamin Yeh, “Taiwan High-Speed Rail: From Pride to Embarrassment,” *The China Post* (Taipei), September 28, 2009, at <http://www.chinapost.com.tw/taiwan/t-business/2009/09/28/226411/Taiwan-High-Speed.htm> (March 11, 2010).

Spain. Spain opened its first HSR line in 1992. Since 2003, it reportedly has spent more on rail than on roads.²² Despite this commitment, the EU reports that rail in Spain accounts for only 5.1 percent of ridership, almost 2 percentage points below the EU-27 average of 6.9 percent for all *surface* transportation modes.²³

Decision Time for America

As the preceding analysis reveals, the potential for serious financial problems with an HSR program include:

- Perpetual massive government subsidies and larger budget deficits;
- Wasted money because few passengers will use the system even with the high per-passenger subsidies for operating and capital costs;
- Service provided to only a small fraction of the traveling public in a handful of communities;
- Additional burdens imposed on hard-pressed state governments, which will be required to match the perpetual federal subsidies to build the system;
- Little or no difference in passenger mobility or environmental quality; and
- The creation of high-paying, low-productivity union jobs for political supporters.

While these deficiencies make the HSR program a winner for some of the President's supporters and some Members of Congress, it will be a major loser for the taxpayers who will be forced to fund this new system.

Most taxpayers will continue to travel by more cost-effective and largely self-financed modes, such as cars and airplanes. They will also find that government will continue to shortchange their preferred transportation choices, notably autos and airlines, to pander to key constituencies: environmentalists, rail hobbyists, and labor unions. Given that more than 20 percent of federal transportation funding already goes to transit, which serves less than 2 percent of passengers nationwide, the federal government is quite capable of squandering even more money on additional low-value and underutilized transportation projects such as HSR.

Conclusion

As a chastened Congress looks back at the many mistakes it has made over the past year and a half, its more sensible Members will have many opportunities in 2010 to make amends and restore some measure of fiscal sanity to the federal government. Two of the first opportunities will be President Obama's over-the-top follow-up HSR spending plans: an additional \$8 billion through the ARRA and \$5 billion over the next five years in the Administration's FY 2010 budget proposal. Meanwhile, Representative James Oberstar (D-WI), chairman of the House Committee on Transportation and Infrastructure, has introduced legislation to provide \$50 billion to HSR over the next five years. All of these proposals would waste massive amounts of money that the nation can ill afford to waste.

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22. Peterman *et al.*, "High Speed Rail (HSR) in the United States," p. 9.

23. European Commission, Directorate-General for Energy and Transport, *EU Energy and Transport in Figures 2009*, 2009, p. 118, Table 3.3.2, and p. 119, Table 3.3.3, at http://ec.europa.eu/energy/publications/statistics/doc/2009_energy_transport_figures.pdf (March 11, 2010).