Point of View

High-Speed Ground Transportation

The following feature is published as part of the TR News *Point of View series. The opinions expressed in these articles do not necessarily represent the view of the Transportation Research Board or the* TR News *Editorial Board. Readers are encouraged to respond to the issues presented in this series in the form of a short article or a letter to the editor, which will be published in a subsequent issue of* TR News.

THOMAS B. DEEN

When the Transportation Research Board Committee for the Study of High-Speed Surface Transportation in the United States released its report, *Special Report 233—In Pursuit of Speed: New Options for Intercity Passenger Transport,* it was recognized that its findings would be controversial. High-speed systems operating between major cities or connecting city centers with other transportation terminals, such as airports, are quite appealing in view of increasing congestion on highways and in airways. Such systems, however, would be costly, would probably require some public subsidy, and do not yet have a strong constituency.

The committee found that although high-speed trains similar to those in Japan and Europe are available now, magnetically levitated (maglev) trains, which are in a relatively early stage of development, might prove to be a feasible alternative in the longer term. High-speed trains and maglev systems require large initial capital expenditures and are somewhat risky in the United States because the single most important measure of success, ridership, is also uncertain. Ridership determines many of the direct and indirect benefits and is a major factor in planning and engineering the design and operational components. On the other hand, forecasting future ridership on a new transportation system is extremely difficult. With so much depending on projected ridership, it is no surprise that private investors have so far been unwilling to move ahead.

In the judgment of the TRB study committee, such systems cannot be paid for solely with revenues from the fare box; subsidies will be necessary (see pages 10 and 11). Whether subsidies are justified is more a political question than a technical question, but they might be justified in specific cases if it can be shown that rail investment makes more sense than expanding airports or building new highways. The committee noted that U.S. governments are not organized to make investment tradeoffs between different modes: highway funds are held in trust for highways, airport funds for airports, and no one has the power to make a meaningful exception.

The following viewpoints are focused on different issues related to high-speed ground transportation and on different sides of the issues; the authors provide some thoughtful insights that should foster further discussion. We hope for and anticipate comments from readers on these opinions.

—Thomas B. Deen
Executive Director
Transportation Research Board

AMTRAK

Trapped in the Forecast An Economic Field of Dreams

LOUIS S. THOMPSON

Having participated in much of the rail passenger forecasting during the creation of the National Railroad Passenger Corporation (Amtrak), the analysis of nationwide high-speed rail (HSR) proposals, and the inception and development of the Northeast Corridor Project, I feel reasonably qualified to inject a note of caution into HSR demand forecasting in the United States. To paraphrase Winston Churchill, as for HSR demand forecasting, seldom in the field of economic endeavor has so much been projected for so many based on so little. As we consider ridership and revenue forecasts, some ideas must be kept in mind. (Operating and capital cost estimates raise another set of problems and are not addressed here.)

Europe and Japan Are Not Good Comparisons

Nearly every HSR proponent asserts, "They have HSR in Europe and Japan, so we should have it here." One variation is the "we cannot let them get ahead of us in a vital technology" argument. On one level, these are merely superficial, false analogies because Europe and Japan are quite different from the United States: population is much denser, distances are shorter, gasoline prices are three times higher, the rate of automobile ownership is lower, and airline tickets are twice as expensive. The technology argument simply misses the point: Europe is far behind the United States in heavy-duty rail freight technology, but Europeans feel no need to adopt U.S. freight technology. The needs are different, why should the technology not be different as well? The argument also includes the assumption that rail passenger service in Europe and Japan is successful, an assumption that is open to question. There is little doubt that the Train à Grande Vitesse (TGV) from Paris to Lyon is quite profitable, as is the Shinkansen from Tokyo to Osaka. It is not so clear, however, that any of the other HSR lines are actually earning a level of return that economists would usually demand. What is clear is that European railroads require massive support each year and that their governments are increasingly restive about paying. Moreover, the private sector has not made any investments solely in HSR in any country. Some HSR may well be justified somewhere, potentially even in the United States, but not all HSR investment has been (or would be) productive.

Louis S. Thompson is Railways Adviser, The World Bank, Washington, D.C.

Change Is Slow, Its Rate Unpredictable

Demand models rarely address the vital issue of how, and how fast, we get from here to there. Even when confronted with desirable choices, people rarely change behavior rapidly because they have already bought an automobile, they do not want to move to another house, they do not read the advertisements, and so on. When a project consists of large (typically underestimated) investments up front, any delay in the benefits, even if they do eventually reach the predicted levels, is fatal to achieving the targeted rate of return.

Sex Appeal Is in the Eye of the Forecaster

Demand modeling often trips on the issue of image. No matter what their actual attributes, services that are perceived as "modern" often enjoy demand beyond what experience would indicate; the opposite is true of services that are not perceived as à la mode. In demand forecasting, there is a tendency to assume that the potential passenger will have the same favorable view of rail as does the forecaster or promoter, and sometimes it does not work out that way.

Reality Has a Way of Superseding the Models

Modelers, especially demand modelers, eventually come to believe that if there is a difference between reality and their model, then reality, not the model, is off the mark. Several important examples of this phenomenon have caused real problems.

- *Nature is nonlinear, whereas models often are not.* Because multivariate, linear regressions are the predominant method of assembling data into model form, they tend to be used as "the best available." This is not too bad when forecasters stay within the limits of the data available, but HSR forecasts are almost by definition outside the regression limits because HSR service has never existed before in most parts of the United States. Figure 1 shows the typical result: extrapolating regression coefficients far outside the actual experience is asking for trouble.
- *Forecasters sometimes focus on the wrong things.* In demand forecasting for the Northeast Corridor, a great deal of time and money were spent analyzing potential responses to various modal factors, particularly comparative trip time, cost, and frequency. The factors that really determined the outcome, however, were total population and income trends. These factors did not receive anywhere near the same attention (and were overly optimistic).
- *Models inherently make estimates of the price elasticity of demand.* As with the directly modal issues, these estimates may only be valid within the range of current experience. Northeast Corridor demand modeling suggested that at least some demand existed even at extremely high prices, leading to the "Howard Hughes effect": raise the prices until only someone as wealthy as the late American businessman Howard Hughes can afford to ride. A variation is the red train/blue train phenomenon, in which any new mode attracts some new demand: new red trains, traveling one mile per hour faster than existing blue trains, will attract at least some new demand (mathematically, if not physically).
- *Beware of induced demand.* Logically, if an entirely new option is available, at least some demand will occur that is entirely new and would only exist with the new mode. Common sense (unlike some models) suggests that, if all else is held constant, little new demand would actually result. Clearly, models that predict significant levels of induced demand must bear the burden of proof.

So What?

It is easy to examine a task as complex as demand forecasting and determine what not to do. Is there any formula for what should be done? Yes: Keep It Simple, Stupid (KISS) is a principle that deserves to be engraved on all demand forecasts: if it cannot be explained with a pencil and (preferably linear) graph paper, it deserves real caution. Be sure to focus on the important factors: if the important variables are gross national product (GNP) and population, do not spend too much time modeling precise modal characteristics, and keep in mind that GNP and population forecasts have occasionally been wrong. Use a "giggle" test and compare the model forecasts with current experience: if current annual rail ridership in a market is 800,000 passengers, and if air service carries no more than 1 million, an HSR forecast of 36 million deserves some skepticism. Perhaps most important, until you hear U.S. politicians advocate an additional $2 per gallon tax on gasoline (which would still leave gasoline cheaper in the United States than in Europe and Japan) and not advocate spending the extra revenue on more and better highways, do not plan on getting people out of their automobiles, even if the model says it can be done.

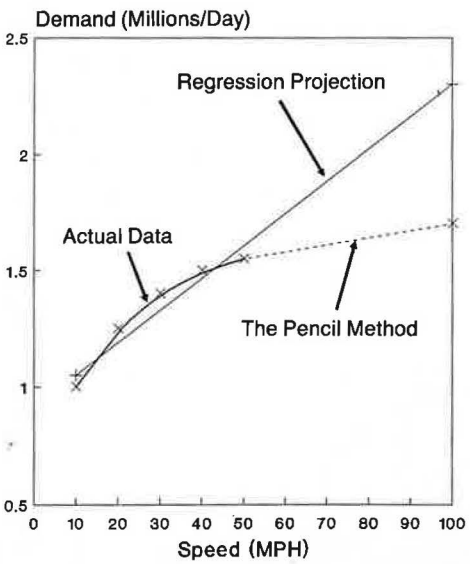


FIGURE 1 Extrapolating regression coefficients far outside actual experience is asking for trouble.

Why Is Demand Forecasting So Hard?

Demand forecasting is not hard. The problem is that forecasts are being used to answer the wrong question. We keep asking whether HSR can compete with highly available and relatively inexpensive automobile and air options, and we do not make automobile and air passengers pay for the pollution, noise, and land-use impacts they create. Any model that predicts high demand for rail under these circumstances should be regarded with suspicion. The real question is whether cheap gasoline, airport noise, and free landing slots at major airports should be enshrined in public policy. We might better model what would be the result for HSR if these policies were changed. As a former Federal Railroad Administrator said (under a somewhat different context, to be sure), we ought to bite the bullet before we rush out to build it.

In Pursuit of Sense

PAUL H. REISTRUP

High-speed trains are being given a closer look in the United States than ever before.

The news out of Chicago is that the proposed third major airport for that city is dead because of stringent community opposition. Now officials at city hall are asking how high-speed rail (HSR) systems can help bring about major transport capacity increases in the future.

In Florida, a plan to build a Miami-Tampa high-speed line using only private funding has been cast aside as unrealistic. Authorities are now looking at a public-private financing partnership, similar to the pattern evident in the air and highway modes. Meanwhile, planners for the Orlando Transrapid magnetic levitation (maglev) demonstration line are expecting to test trains in 1995 and offer revenue service the following year.

HSR for Texas is bitterly opposed by Southwest Airlines. The airline is trying to protect its monopoly position at Love Field in Dallas, where it operates 70 flights a day to and from Houston. Others in aviation with more vision favor integration of air and rail services.

These examples demonstrate, in different ways, that HSR finally is being taken more seriously by business and elected leaders in many regions of the United States. The evidence that people will ride fast intercity trains is before us right now: look at the number of people who daily opt for such service in the few places it is available.

For example, in the New York-Washington market, National Railroad Passenger Corporation (Amtrak) Metroliners, which travel at a top speed of 125 miles per hour, carry more passengers than either of the airline shuttles in that market. Include Philadelphia traffic, and Amtrak carries more riders than all the airlines combined. The borderline high-speed New York-Washington line qualifies for major upgrading, as does the Boston-New York line. I believe that other corridors with intense travel densities, such as Chicago-Detroit and Dallas-Houston, should be linked by all-new high-speed lines.

I am a proponent of HSR, but I hope I am known as a reasonable one. I will concede that it is unnecessary to cover the entire nation with HSR. However, such service can prove indispensable for easing traffic gridlock on highways and at airports in the busiest metropolitan areas.

The basic problem is institutional. The United States has the design and engineering standards, an experienced labor force, and companies willing to assume the reasonable risks necessary to bring HSR from the drawing boards to reality. What is lacking, as was stated in TRB *Special Report 233—In Pursuit of Speed: New Options for Intercity Passenger Transport,* is a strong government framework.

Washington decision makers, while evaluating legislation, have been considering TRB's report with mixed results. The study both helped and hurt evaluation of HSR potential. It helped by recommending assistance from the aviation and highway trust funds because users of those systems would benefit from HSR. As good as the report was, however, the manner of its presentation is proving harmful. Some members of Congress now are opposing HSR, quoting the report's findings that it is "expensive."

Joseph Vranich, author of the book *Supertrains: Solutions To America's Transportation Gridlock* (St. Martin's Press), has been critical of TRB. "An excellent, substantive piece of work was overshadowed by a misuse of the word 'costly.' TRB repeatedly used it out of context, creating a wave of damaging headlines across the nation. If trains are 'costly,' so is the $5.8 billion Central Artery project, a highway merely 7½ miles long in Boston. The third airport for Chicago would cost between $10.8 billion and $17.5 billion. We could build a significant amount of high-speed rail for those amounts of money."

Vranich decried the "misleading and damaging" news conference at which the report was released, adding, "No one is asking TRB to become a promotional agent for high-speed rail. However, failure by such a group of talented researchers to put costs in perspective is difficult to understand."

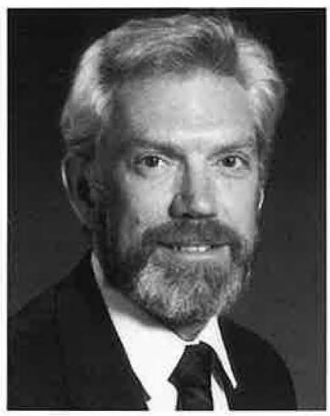
He has a point. We must be more careful in the future about how we present our work. We should use subjective terms with caution so that our substantive views, over which we labor so hard, receive more thoughtful attention.

The TRB study committee recommended that government provide financial assistance for HSR; preserve and acquire rights-of-way; establish HSR safety regulations; create a clearinghouse to facilitate environmental permitting; and take a closer look at developing maglev technology. Those ideas make sense to HSR planners across the nation.

I am convinced that there is a role for high-speed trains in the United States. More than ever, I am tempted to urge transportation planners to use common sense. In 200- to 500-mile corridors where high-speed trains can measurably alleviate highway gridlock and airport "winglock," we should start building them now.

Paul H. Reistrup is Principal, Railroad Development Corporation, Washington, D.C.

Panacea—or Solution in Search of a Problem?



PETER STOPHER

At the outset, I admit openly to being a proponent of rail, one who wishes to be convinced that high-speed ground transportation (HSGT) has a place in and could work in the U.S. transportation market. HSGT clearly works in Europe and Japan. The Japanese Shinkansen and the various high-speed trains in Europe have succeeded in penetrating the intercity market and building a patronage base sufficient to make them financially viable. Given these commercial successes, an important issue in the United States is consideration of the market differences and similarities between use of the technology in Europe and Japan and potential use in the United States.

Given the vast distances involved (compared with Europe and Japan) and the extensive development of the domestic air system in the United States, HSGT has a limited market, in which longer distances do not offer significant market potential. HSGT speeds probably would have to exceed 650 km/hr (400 mph) for transcontinental travel to be competitive on travel times, whereas current developments in the technology offer a probable maximum of around 500 km/hr (310 mph). Therefore, the likely market for HSGT is in the short- to medium-haul intercity travel market.

Competitive Position of HSGT

Two issues on the competitive position of HSGT bear further examination: the diversion from existing markets to HSGT and the range of intercity distances in which HSGT may be considered competitive.

The basis of market-share estimates in TRB *Special Report 233—In Pursuit of Speed: New Options for Intercity Passenger Transport* is clearly stated on page 107, under the heading Market Potential Guidelines:

> Although new HSGT systems would certainly divert some travelers from private automobiles and would induce some travel that would otherwise not occur, the primary potential market in most corridors would be air travelers.

Consistent with this, the TRB study committee assumed the size of the air market and the ability of HSGT to divert from it to be the sole identifier of potential corridors for HSGT. The fraction of the air market that could be diverted is also used to assess potential revenue generation and overall viability of various corridors. Given that automobile trips represent about 80 percent of total intercity passenger miles in the United States (and about 92 percent of all person trips) and that air carries about 54 percent of the remaining 20 percent (or about 10 percent of the total intercity passenger miles and about 7.5 percent of intercity passenger trips), it could be argued that even a modest penetration into the automobile market could provide HSGT ridership comparable to the ridership that diversion of a substantial portion of the existing air market would provide. If, in the shorter distance markets for intercity travel, where HSGT should have a strong competitive edge, the diversion from air travel were around 50 percent and from automobile travel a mere 5 percent, HSGT would end up with an approximately 3.75 percent market share from diversion of air passengers and 4.8 percent more from diversion of automobile users, based on the average market-share figures. Thus, the diversion from automobile, even assumed at one-tenth the rate for air, would more than double the total market share for HSR.

All such analyses are highly speculative, but the issue here is that concentration on diversion from the small market currently enjoyed by air may seriously underestimate the potential ridership for HSGT. This is not to say that HSGT will likely divert a large proportion of the automobile market, but instead that even a small diversion could double the potential market for HSGT.

The second point pertains to the distance range in which HSGT would compete effectively on a time basis with air and automobile travel. The authors of Special Report 233 used a single set of assumptions about access and egress times for each HSGT and air. They also assumed a single speed for air travel and three possible speeds for HSGT service. For air travel, aircraft speed is assumed to be 550 miles per hour, with an access and egress time of 2 hours, 30 minutes. For rail, speeds of 140, 220, and 300 miles per hour and a total access and egress time of 1 hour, 40 minutes are assumed. From these assumptions, it is taken that the competitive range for HSGT is from 100 miles (where travel by automobile is no longer the fastest alternative) to 600 miles (where the fastest HSGT loses competitiveness with air).

The access and egress times of 2 hours, 30 minutes for air appear reasonable, on the basis of the assumptions that they include an average of 30 to 40 minutes for

Peter Stopher is Director, Louisiana Transportation Research Center, Baton Rouge.

access to and egress from the airport, arrival at the airport 30 minutes before departure time, 20 minutes for baggage pick-up on arrival, and 5 to 10 minutes for obtaining ground transportation. However, using a speed of 550 miles per hour and the intercity distance to compute the rest of the trip time is incorrect. A good example is provided by looking at scheduled flights between Dallas-Fort Worth and Los Angeles, for example. A speed of 550 miles per hour for the 1,230-mile trip would require 2 hours, 15 minutes flying time. Flying time between Dallas and Los Angeles is scheduled at between 3 hours and 3 hours, 15 minutes, which includes built-in schedule delay and ground delays from pullback to takeoff and from landing to gate arrival. For flying to or from one of the large domestic hub airports, an additional allowance of approximately 30 minutes should be added to the air time at each end to allow for ground delays. This will extend the maximum range of distance for HSGT from 600 miles to 1,250 miles. Similarly, if a shorter distance to and from the rail station is assumed, requiring 25 minutes less on average, allowing arrival at the station about 20 minutes before departure (because check-in procedures will not be time-consuming like those for air travel), and assuming that, as in Europe and Japan, baggage is handled by the passenger, a total of 1 hour, 15 minutes is probably adequate for access and egress in addition to train travel time. This would further extend the competitive range of HSGT to 1,550 miles.

Such calculations show how sensitive the underlying major premise is in Special Report 233 with respect to the markets within which HSGT might compete. It could easily be argued from this that a range of up to 1,200 miles would be far more correct, which opens up many intercity markets not considered in the report.

Two points should be made on competitiveness. The first relates to reliability or schedule adherence. In Japan and Europe, the high-speed trains run exactly on schedule, or within a minute or two. On-time performance by U.S. airlines is not this good, and as congestion increases, both in airports and in the air, air travel will become increasingly unreliable. However, the National Railroad Passenger Corporation (Amtrak) currently is able to run many of its intercity services on a schedule that is almost as reliable as those in Europe and Japan. This attribute should add to HSGT competitiveness.

The second point relates to an oversimplification, illustrated by the previous issue. Choices among travel modes are not based on price and travel time alone. Other attributes are important, including comfort, environmental control, convenience, safety, and, as already mentioned, reliability. On many of these, HSGT may have distinct additional advantages over air, which will likely contribute to an improved market potential for HSGT. These attributes may also be instrumental in increasing competition with automobile travel.

Subsidies and Other Matters

Automobile use is heavily subsidized for travel both within and between cities. Although construction of Interstate highways has been funded from a trust fund of user taxes, the local share of those construction funds was usually generated from general revenues. Repair, maintenance, and police services are usually paid for entirely from general revenues. The provision of parking in urban areas (except in some cases of downtown parking, where charges may approach the real costs) and the extensive networks of state and local roads used for urban area traffic also represent heavy subsidies, in which all costs, from planning to maintenance, are usually derived from general revenue.

Similarly, air travel in the United States is also subsidized, particularly through the air traffic control system and the provision of airports and their facilities. In addition, increasing costs are being borne by the public to soundproof homes and schools near flight paths, or to relocate residents away from airport noise.

There are other, perhaps more significant, potential benefits to the public welfare from using HSGT instead of expanding the air and highway systems. One example is reduced congestion on highways and in the air. In addition, diverting energy use from petroleum-based fuels to other energy sources—renewable sources, such as hydroelectricity or solar power—for HSGT power generation could prove beneficial. The potential public benefits may be significant, and an appropriate HSGT subsidy may yield a more level playing field for intercity passenger transport.

One final point: is HSGT just another technological solution looking for a problem, or are there real problems that HSGT can cost-effectively solve? I doubt that the information to answer this question has been assembled. Piecemeal planning of an HSGT line in one state or another is not likely to provide the underpinnings of a national system or represent any type of optimal investment strategy. What is needed is a national strategic planning effort to examine potential strategies for the entire intercity market and to assess alternatives, including a do-nothing scenario under which congestion grows as the intercity market grows, a continuation of current policy that includes limited capacity increases in both highway and air, and scenarios in which various levels of investment in HSGT might be undertaken, with appropriate reductions in capacity increases for highway and air. In addition to an examination of the capital and operating costs versus the fare potentials from HSGT in such analyses, a wide range of environmental, resource, and social welfare issues that would likely change under the alternative scenarios should be considered.

A better intermodal balance in the U.S. domestic travel market also could be achieved by concentration of HSGT in medium-haul markets and air service in long-haul markets, where it is most compatible. A number of interesting rearrangements of airports and supporting rail services could be explored.

Finally, attention must also be paid to the micro level of the provision of passenger facilities and access and egress travel modes at HSGT stations, comparable with those provided at state-of-the-art airports. Even though this may require some initial subsidies, failure to pay attention to this micro level will doom HSGT to failure.

Balancing Transportation Initiatives Private Strategies and Public Practices

LAWRENCE D. GILSON

My perspective on high-speed trains, and, no doubt, my biases, are heavily influenced by recent experience. First, I led the effort to build a 120-mile high-speed passenger rail system connecting Los Angeles Airport, downtown Los Angeles, Orange County, and San Diego. The project team was committed to doing this without public funds although we certainly realized we would be proceeding in a public environment that was in the largely uncharted terrain of a public-private interface. Second, for the past nine years I have served as President of Venture Associates, a California firm with a specialized international practice of helping public utilities and government authorities to understand the key drivers of the extraordinary changes in their competitive, operating, and regulatory environments and to develop and implement strategies to respond to those changes.

I believe that the real challenge of implementing high-speed rail (HSR) service in the United States lies in redefining the long-established terms of engagement between the public and private sectors. What gives this matter urgency is the shift toward the provision of traditional public services by private companies or hybrid institutions and the still largely untested hope of public policy makers that such private initiatives can be a major part of surface transportation in the future. This challenge can be met, but several issues must be addressed first.

Lawrence D. Gilson is President, Venture Associates, Los Angeles, California.

Public Funding

I am convinced that some projects, including the California project I managed, can be economically viable on a purely commercial basis. I also believe that a complete absence of government funds is infinitely superior to even a small amount of public financial support. This is because public support, usually in the form of seed money to finance concept development, feasibility studies, and public review, introduces ambiguity about the obligations of the private developer and the legitimate expectations of the public and the government.

The absence of public money created a clear market test for the California project, as it would for others. Several initiatives remain active simply because of the crutch of government support. This has led to the false impression that something is being accomplished when little actually is. This misimpression has created the hope that rhetorical encouragement and nominal government seed money are sufficient to spawn privately developed HSR in numerous corridors. This is regrettable because it has diverted energies from what needs to be done by both the public and private sectors. Where the economics are sufficient to justify truly private initiatives, the public role should be to ease the bureaucratic hassles, then stand back. In several other corridors, public interests may be served by HSR, but the government role will need to be much more substantial.

Private financing enables project developers to pursue options that are impossible if public dollars are involved. These options include negotiating with vendors without competitive procurement, avoiding restrictive Buy America requirements, and resisting public disclosure of proprietary information about markets and technologies. Private financing liberates the project developers so they can make business decisions crucial to gaining project success and enhancing credibility with financial sources without adhering to a political agenda.

Risk Capital

No source of institutional venture capital exists in the United States for large-scale projects of any kind. If private high-speed surface transportation projects are to be successful, they will have to be sponsored by large, established corporations that have interests in the technology or the market, in addition to great institutional patience. Otherwise, a new large source of seed capital will have to be assembled.

We raised more than $11 million in high-risk capital for our project in California. None of it came from traditional venture capital sources. Most came from U.S. and Japanese business interests and individuals in exchange for preferred positions as vendors of goods and services required

for the project or in exchange for options on subsequent public equity offerings. Attempts to get the building trades and other unions to invest in the project through the risk portion of their pension fund portfolios were unsuccessful.

Technology Selection

In my view, and in the view of most investors, there are enough project risks to overcome without undertaking a technology risk. Notwithstanding the allure of new technology, what I find appealing about HSR projects in the United States is the opportunity to employ proven technology.

The questions that investors, government agencies, and members of the public legitimately ask about train performance, safety, environmental impact, and other matters can only be satisfactorily answered through an existing technology. No private investor would commit to a multibillion dollar project with unproven technology. In the case of our project in California, the ability of the project team to show investors, lenders, and regulators 20 years of operating experience made the rest of the discussion possible. To be bankable, any large infrastructure project must be time-tested. At the time of the project in California, the only bankable technology was Japanese. Today, other technologies can be considered. Ultimately, however, bankers who have no technical background will determine what technologies are on the menu. For this reason, I consider an elaborate investigation of alternative technologies to be a waste of time.

Project Team Selection

The perception of differentness about a private HSR project in terms of technology, market acceptance, and method of financing requires an experienced project team.

This is important to the investment community, the state and federal regulators whose approvals are required, and the communities being served. Such a team is essential for confidence about capital costs, construction schedules, and system reliability. The trick, however, is to assemble a team that is confidence-inspiring without settling for those whose strong impulse is to view HSR initiatives as just another project financing. Especially with regard to financing and market analysis, the team must not just rely on generic analytical tools and rules of thumb, but must appreciate the unique economics of HSR and local circumstances, including the travel market, the financial situation, and the politics.

Regulatory Strategy Selection

Minimizing regulatory uncertainty and expense must be a priority. Two steps can support this objective: (a) consider only routes confined to one state to avoid Interstate Commerce Commission jurisdiction and to reduce the role of the Federal Railroad Administration (FRA); and (b) as early in the process as possible, seek consolidation of the several overlapping processes (state public utility commission, environmental impact review, and environmental impact statement) to conserve time and money and to avoid forum shopping by opponents. To the extent that a public tax-exempt financing authority is involved, its review should also be consolidated.

In a private project, favorable financing often depends on clearing defined regulatory milestones. During our project in California, federal and state regulators made a good faith effort to adapt their practices (which never anticipated a project such as ours) to fit the circumstances. Right-of-way and air-rights development approvals from the Federal Highway Administration and the U.S. Army Corps of Engineers, rail safety approvals from FRA, tax-exempt bond approvals from the U.S. Department of the Treasury, import licenses from the U.S. Department of Commerce, and certain elements of federal environmental reviews all hold the potential for delay, whether by action of project opponents or simply through lack of coordination and redundant requirements.

Setting the Pace

Nothing distinguishes a private initiative from a traditional public works project as dramatically as emphasis on the time value of money.

For this reason, streamlining government reviews—indeed streamlining all aspects of a project—is critical. At a more fundamental level, this is why it is so important to distinguish as clearly as possible between public and private projects. For example, every year of delay in our California project would have cost about $500 million in carrying costs and inflationary impact.

Political Leadership

Even large private projects are ultimately public projects. The approval processes and the public interest make them so. This imposes a special obligation on the project team and community leaders.

The role of community leaders—in the government and the press—is to frame the public debate in a fashion such that the project is examined not in the abstract, but in comparison with alternatives that also have positive and negative consequences for the public. Only third parties can ask how the project compares with alternatives, and, ultimately, only projects for which that is the frame of reference can be successful.

The project in California received local political support and opposition. I was surprised that, given the number of public benefits to be gained, political leaders did not offer more support. I was also surprised that the local press did not cover the project as a business story, but instead treated it almost exclusively as a political story.

In sum, I believe that such projects are possible and that they could be completed by the private sector. However, a source of risk capital, indigenous financial and analytical capability, a way to focus and expedite government reviews, and sufficient community leadership to frame the public discussion are necessary. In many ways, these factors require changes in established institutions in both the public and private sectors. Where the underlying economics do not support a truly private initiative, even when the conditions discussed here are in place, we should stop kidding ourselves and consider HSR to be one potentially appealing element in the public transportation infrastructure.