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Financing High-Speed Rail

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Presentation Overview

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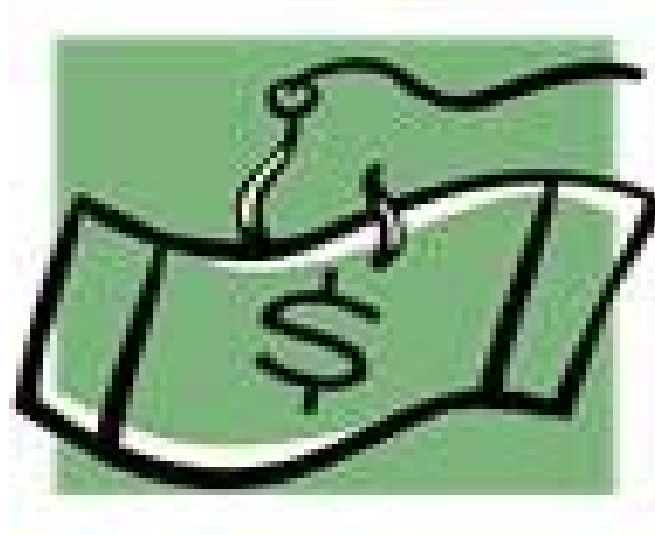
- How are other rail projects in the US customarily funded?
- How is the financing of HSR different from financing other rail projects?
- Why is financing HSR so challenging?
- How has/is HSR being funded in other countries?
- Application of international experience to the US market.



Funding for Other Passenger Rail Services

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- Intercity Passenger Rail Service
 - Benefit from legacy assets
 - Ridership revenue
 - Government subsidies
- Commuter Rail Service
 - Ridership revenue
 - Regional sales taxes
 - Federal grants
- Light Rail/Subways
 - Ridership revenues
 - Sales taxes
 - Subsidies
 - Federal grants



Why HSR Financing is Different ?

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- High-speed rail financing is part of broader government transportation policy, involving highways, aviation and other rail services.
- Development of high-speed rail also has implications for national energy and environment policies.
- Funding of a high-speed rail network will require significant public investment.
- Public investment will likely need to be supplemented with private investment.
- Potential Revenue from Ridership is more significant.



Why so Challenging?

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- Capital costs
- Complexity of the projects
 - System component interfaces
 - Lengthy construction periods
- Uncertain of ridership
 - Volumes
 - Price sensitivity
- Competition from other modes of transportation
- Undefined standards
- Competition for funding – public and private



Lessons Learned from Other Countries?

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- **Public sector support is essential.**

Example: Tours – Bordeaux HSR is a 340 km high speed rail project on an existing corridor which will be linked via another high speed rail corridor to Paris.



The French State, local governments and the State-owned rail infra-

Structure firm (RFF) provided €4 billion of the €7.8 billion capital costs directly.

In addition, RFF guaranteed 60% of the remaining costs.

The European Investment Bank provided €1.2 billion in financing, including a €200 million loan guarantee.

Lessons Learned from Other Countries

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- Construction coordination and interface is key.

Example: HSL-Zuid (Netherlands) Amsterdam to Rotterdam

125 Km

Opened 2009



Construction of the project was broken into three separate components: substructure, superstructure and operations.

Legal issues with respect to the bidding of the substructure led to time delays and cost overruns which the government was forced to bear. In addition, the government was liable for payments to the superstructure contractor and the operations provider for the time delay.

Lessons Learned from Other Countries

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- Mitigating ridership risk is highly beneficial.

Examples:

European Investment Bank's Loan Guarantee for Trans-European Transport Network provides a €200 million of subordinated credit facility which can be drawn upon if ridership revenues fall below expectations to cover debt service costs.

TIFIA Line of Credit can be drawn after substantial completion to supplement project revenues during the first ten years of operations to cover debt service obligations, operations and maintenance costs, etc.

Lessons Learned from Other Countries

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- HSR is a long-term investment.

Example:

HS 1 Rail (UK)



The UK government last year offered via competitive bidding a 30 year concession for High Speed One (“HS1”) – the 109 km of high speed rail from London (St. Pancras) to the Channel Tunnel. The team of Borealis Infrastructure and Ontario Teachers’ Pension Plan paid £2.1 billion for the rights to the concession. The purchase was funded by a combination of equity and non-recourse debt.

Financing HSR in the US

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- Key components of a financing program for HSR:
 - Source of funding
 - Risk acceptance
- Government support is essential for initial construction works.
- Minimizing initial capital costs
- Reduce funding costs
 - RRIF
 - TIFIA
 - Private Activity Bonds
- Ridership risk/guarantees



Role for Public-Private Partnerships (P3s)?

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Private investment can have an important role to play in the development and financing of high speed rail.

- Expertise and experience
- Innovation – speed, cost and quality
- Lower “life of the asset” costs
- Risk allocation
- Access to capital



Can We Afford HSR?

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- HSR systems in other countries have significantly reduced the volume of short-haul flights and intercity car travel:
 - Energy savings
 - Emission reductions
- Economic benefits:
 - Job creation
 - Transit-oriented development
- HSR is a long-term investment.
- Affordability improves with both private sector and public sector participation.

