What Should the U.S. Learn from Asian HSR Experience

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What Should the U.S. Learn from Asian HSR Experience?

- “Asia” is China, Taiwan, Japan, Korea and India
- Comparative roles and scales of the systems
- Structure and Finance
- Institutions and Policy
Passengers Carried
(000)

US  JPN  CHA  KR  TW  IN

11  8818984  292037  0  1509210  41349  1060941  36939

0  27.2  0  0  226702  7246000  0

HSR
ALL
Passenger-Kilometers
(000,000)
Tonne-Km

(000,000)

<table>
<thead>
<tr>
<th>Country</th>
<th>Tonne-Km (000,000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>US</td>
<td>2468738</td>
</tr>
<tr>
<td>JPN</td>
<td>20255</td>
</tr>
<tr>
<td>CHA</td>
<td>2481666</td>
</tr>
<tr>
<td>KR</td>
<td>9452</td>
</tr>
<tr>
<td>TW</td>
<td>866</td>
</tr>
<tr>
<td>IN</td>
<td>600548</td>
</tr>
</tbody>
</table>
Passenger Service as % of Total Traffic
(P-km/(P-km+T-km))

US | JPN | CHA | KR | TW | IN
---|-----|-----|----|----|----
0.3 | 92.4 | 24.2 | 77.7 | 95 | 60
# Structure and Finance

<table>
<thead>
<tr>
<th>Country</th>
<th>Structure</th>
<th># of entities</th>
<th>Finance</th>
</tr>
</thead>
<tbody>
<tr>
<td>US</td>
<td>Freight vertically integrated, Amtrak uses freight tracks, NEC has Amtrak, commuters and freight</td>
<td>9 freight, 1 passenger</td>
<td>Freight private, Amtrak publicly financed</td>
</tr>
<tr>
<td>JPN</td>
<td>HSR integrated on separate tracks, conventional passenger is integral, freight uses passenger tracks</td>
<td>6 passenger, 1 freight</td>
<td>Old JNR was public, 3 new JRs are private, 3 still public. Status of freight is unclear. Financing is a mix</td>
</tr>
<tr>
<td>CHA</td>
<td>Monolithic</td>
<td>MOR only</td>
<td>Public with some private bonds</td>
</tr>
<tr>
<td>KR</td>
<td>Monolithic with separated HSR tracks and some integrated services. Freight uses conventional tracks</td>
<td>KR only</td>
<td>Wholly public</td>
</tr>
<tr>
<td>TW</td>
<td>HSR was private concession, now has 15% public share. Conventional services are integral</td>
<td>THSR for HSR, TR for conventional</td>
<td>Mostly private for HSR, public for conventional</td>
</tr>
<tr>
<td>IN</td>
<td>Wholly integrated monolith</td>
<td>IR only</td>
<td>Wholly public</td>
</tr>
</tbody>
</table>
# Institutions and Policies for HSR

<table>
<thead>
<tr>
<th>Countries</th>
<th>Institutions</th>
<th>Policies</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>US</strong></td>
<td>Amtrak is the only existing entity. New State level agencies created -- unclear mandates and financing, little or no expertise or experience</td>
<td>General support for HSR at Federal level, but no stable existing program to support of finance</td>
</tr>
<tr>
<td><strong>JPN</strong></td>
<td>3 existing JR's have HSR. Private institutions, clear mandate, deep expertise</td>
<td>Government strongly supportive of HSR, balance of funding private/public depending on project</td>
</tr>
<tr>
<td><strong>CHA</strong></td>
<td>MOR has clear mandate and deep experience. High implementation capability.</td>
<td>HSR system not well justified, program probably too fast, little actual information available. Some HSR built to free-up freight capacity</td>
</tr>
<tr>
<td><strong>KR</strong></td>
<td>KR has clear mandate and full expertise. Program pace has been deliberate.</td>
<td>Government supportive of HSR and has defined a multi-year program</td>
</tr>
<tr>
<td><strong>TW</strong></td>
<td>THSRC was intended to be private, but rapidly hit funding and management problems. Required government financing which &quot;will be paid back&quot;</td>
<td>Government was too ambitious about private sector concessioning. May not yet have reached a stable solution</td>
</tr>
<tr>
<td><strong>IN</strong></td>
<td>IR is slow and bureaucratic. Technically competent for conventional service, no experience with HSR</td>
<td>Government exploring HSR, but no clear policies or priorities: possibly higher priority for dedicated freight lines</td>
</tr>
</tbody>
</table>
So, What Can the U.S. Learn?

- Technology is fun, but not the problem
- Clearer understanding of public and private roles
  - U.S. has little experience with private rail passenger services
  - Little U.S. experience with PPPs, especially when the balance of benefits and cost requires partial public funding
- Critical role for stable planning and financing environment (50 year project -- one-year funding)
- Will take years to build full managerial capability
- Overall, realism in project planning for demand, costs, and integration with state and local transport
Bullet text level 1
Bullet text level 1
  ■ Bullet text level 2
  ■ Bullet text level 2
Bullet text level 1
Bullet text level 1
Column Chart Title

1st Qtr  | 2nd Qtr  | 3rd Qtr  | 4th Qtr
---|---|---|---
East     | West | North
0 | 20 | 80 | 30
20 | 40 | 60 | 40
40 | 60 | 100 | 50
60 | 80 | 120 | 60
80 | 100 | 140 | 70

Legend:
- East
- West
- North
Pie Chart Title

- 1st Qtr: 35%
- 2nd Qtr: 15%
- 3rd Qtr: 30%
- 4th Qtr: 20%