



# High-Speed Rail: The California Experience in Context

“The Future of Transportation”

Chapman University

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# California in Context

- Experience in other countries
- Comparison with California

# HSR Experience: It Works!?

## ■ Japan:

- Exclusive “Shinkansen” system from Tokyo to Osaka in 1964.
- Now covers most major cities
- 11.5 billion passengers, no fatalities from train accidents
- Some lines “profitable,” others maybe not
- Old JNR “privatized.” Now 6 companies, 4 profitable.

## ■ France – TGV 1981

- Uses both HSR and conventional lines
- Serves most major cities and connects to Switzerland and Germany
- Some lines “profitable”: SNCF unprofitable

# HSR Experience

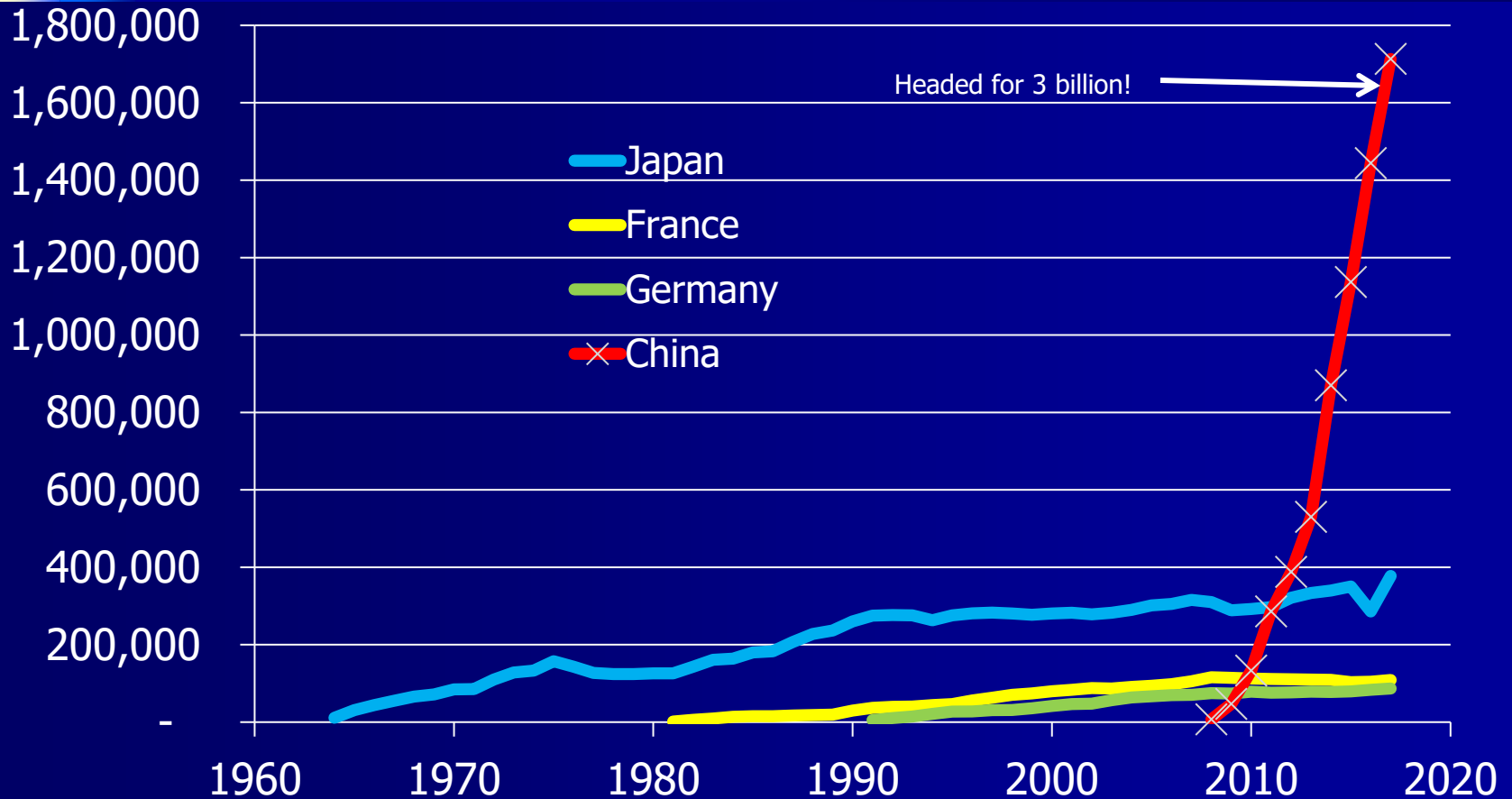
- Germany – ICE 1991
  - Mixed speed system (speeds and lines)
  - Germany, Austria, Switzerland, Belgium and Netherlands
  - Major accident 101 fatalities
  - DB major financial problem for Germany
- China – started service 2008 (**Prop 1A**)
  - 21,000 Km today, headed for 38,000. Exclusive system
  - Multiple objectives, not just “profitability”
  - Financial impact uncertain (high debt)
  - Wenzhou accident, 40 fatalities, low speed signals

# HSR Systems Elsewhere

Profile of Higher Speed Railways						
Country	Km of Higher Speed Line			2017 HSR Passengers (000)	2017 HSR Passenger- Km (000,000)	Average Trip Length (Km)
	> 250 Km/hr	160 to 250 Km/hr	Total			
Japan (4 JRs)	2,849		2,849	377,441	101,247	268
China	10,480	11,155	21,635	1,517,800	577,635	381
Taiwan (THSRC)	350		350	60,570	11,103	183
Korea (KTX)	149		657	59,669	14,869	249
France (RFF/SNCF)	2,166		2,166	108,721	58,280	536
Germany (DB)	1,104	1,511	2,615	86,732	28,502	329
Italy (FS)	909	1,718	2,049	23,882	5,513	231
Spain (ADIF/RENFE)	2,482	713	1,255	22,955	6,514	284
Sweden*		na	na	9,918	3,604	363
Belgium (SNCFB)	108		108	6,400	1,500	234
Netherlands		120	120	4,098	413	101
UK**		10,869	10,869	10,300	4,825	468
U.S. (Acela)		596	596	3,442	1,048	305
U.S. (NEC Regional)		596	596	8,570	2,142	250
<b>CAHSRA (Phase I)</b>	<b>741</b>	<b>97</b>	<b>837</b>	<b>42,000</b>	<b>16,002</b>	<b>381</b>

# Annual Passenger Volume

(000)



See Table 2 for details

# Structures Differ, and They Matter

Organization and Ownership of Higher Speed Railways					
Country	Ownership of Infrastructure	Multiple HSR Access?	Multiple Access by Non-HSR	Private Operators for HSR?	Access Regime
Japan (4 JRs)	Private Corp	No	No	Yes	Closed
China	Public Corp	No	No	No	Closed
France (RFF/SNCF)	Public Agency	No	Yes	No	"Open"
Germany (DB)	Public Agency	Yes	Yes	Yes	Open
U.S. (Acela)	Public Corp	No	Yes	No	Limited
U.S. (NEC Regional)	Public Corp	No	Yes	No	Open
<b>CAHSRA (Phase I)</b>	Public Agency	No?	Yes	Yes	Limited

# So, What's the Problem?

- Stable and unified leadership
- Reliable and adequate funding
- Managerial capability (depth)
- Valid planning and system objectives
- Protracted litigation environment



# Questions

- Could these problems with CA HSR have been foreseen and alleviated at the start?
- Can (or should) we fix them now?