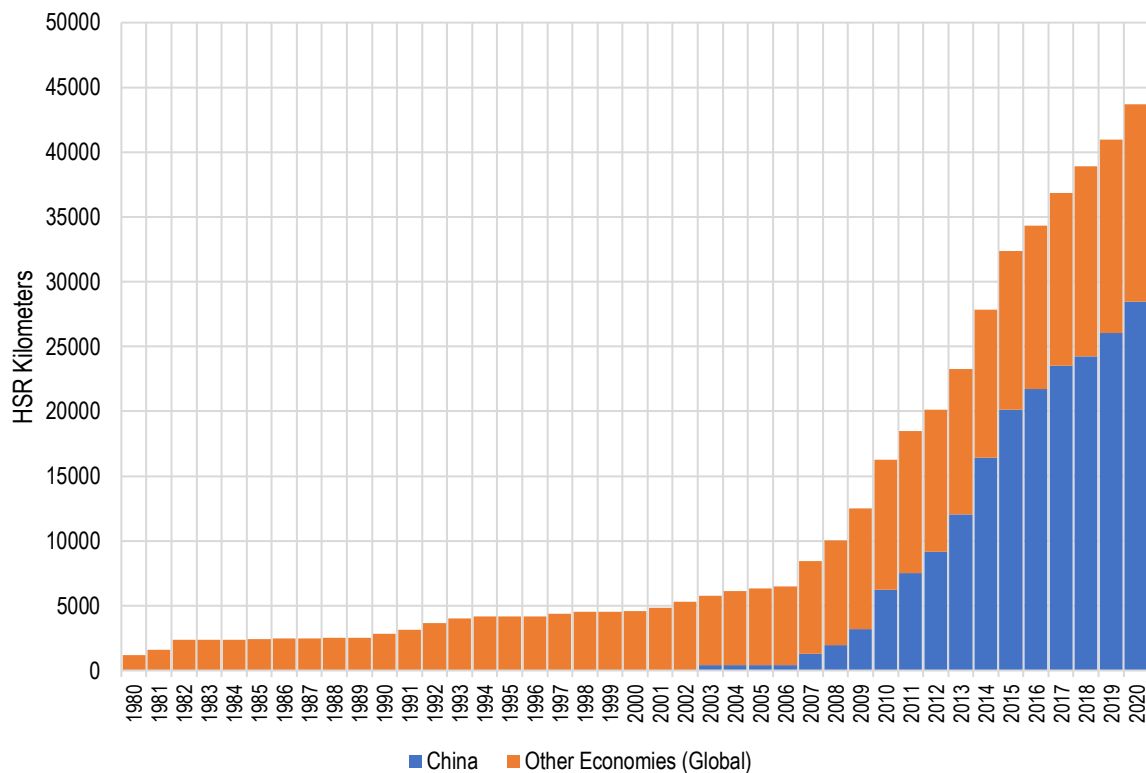


Asian Transport Outlook (ATO)

High-Speed Railways – The State of Play in Asia

The first high-speed rail¹ system began operations in Japan in 1964. Since then, Asia has added more than 30,000 kilometres, with China alone expanding more than 27,000 kilometres, well more than the rest of the world combined (Fig. 1). At 900 billion passenger-kilometres per year, the current demand level on high-speed rail infrastructure in ATO economies confirms the growing relevance of such a service. While the high-speed rail constitutes only 8% of intercity rail infrastructure, it constitutes about 20% of intercity rail in passenger-kilometres travel in ATO economies. The availability of high-speed rail infrastructure and services broadens intercity travel mode options enabling high competition to the aviation and road sector. At the same time dedicated high-speed rail systems can free up a significant capacity on the conventional inter-city railway systems for passenger and freight services.

Figure 1: High Speed Rail Infrastructure China and Rest of the World, 1990 - 2020



Source: <https://www.thetransportpolitic.com/databook/world-high-speed-rail-kilometers-by-country/>, UIC

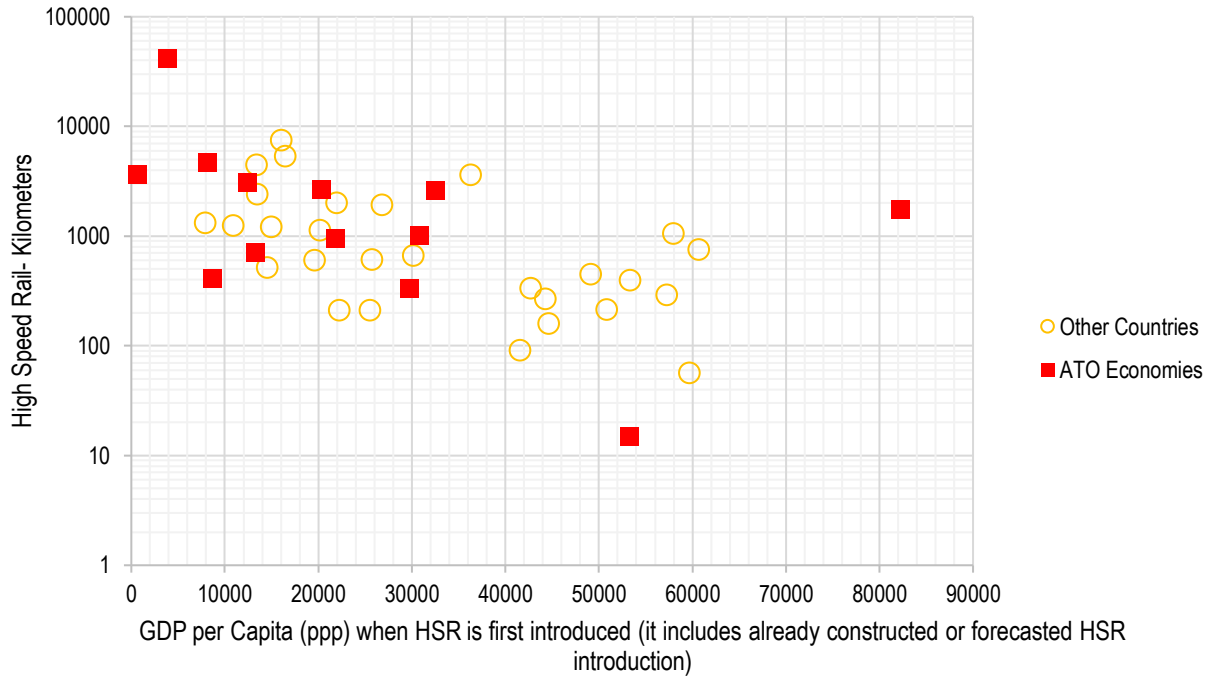
ATO data used - INF-TTI-019

¹ UIC considers a commercial speed of 250 km/hour to be the principal criterion for the definition of HSR

High-speed railway construction in Asia has seen exponential growth mainly due to its growth in China². In the decades 1990-1999, 2000-2009 and 2010-2020, the average annual kilometres constructed was about 30, 750, and 3500.

Building upon China and Japan's considerable experience in planning, constructing, and operating high-speed railway lines, several other ATO economies plan to build or expand high-speed rail systems³. They do so at lower income levels than any other global region (Fig. 2).

Figure 2: High Speed Rail Kilometers and GDP Per Capita when HSR was first introduced.



Source: UIC, IMF GDP Outlook

ATO data used: INF-TTI-019, SEC-SEG-002

² <https://documents.worldbank.org/en/publication/documents-reports/documentdetail/933411559841476316/chinas-high-speed-rail-development>

³ Australia, India, Indonesia, Kazakhstan, Malaysia, Republic of Korea, Thailand, Viet Nam, Iran, and Russia