

OPINION

China's Fast Track to Development

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The 350-kilometer-per-hour Wuguang Harmony Express rockets through China's heartland delivering passengers 1,000 kilometers from Wuhan to Guangzhou—roughly the distance between Washington, D.C. and Chicago—in just three hours. Outside, quintessential scenes of

High-speed rail is about more than passengers. The new lines will free up valuable space for freight.

modern China unfold. Future urban districts populated only by cranes, the skeletons of concrete buildings and the cooling towers of coal-fired power plants rise out of fields of bright-yellow rapeseed dotted with the occasional dilapidated brick farmhouse.

Such glimpses of an agrarian country still in its initial stages of development make the state-of-the-art Wuguang Harmony Express seem an extravagant indulgence, an emblem of Beijing's obsession with infrastructure, regardless of cost or utility. Critics say China's mammoth high-speed passenger rail network (16,000 kilometers of which a quarter is complete) serves no useful purpose and will saddle the country with a crippling debt.

Such criticism is misguided. The high-speed rail program is

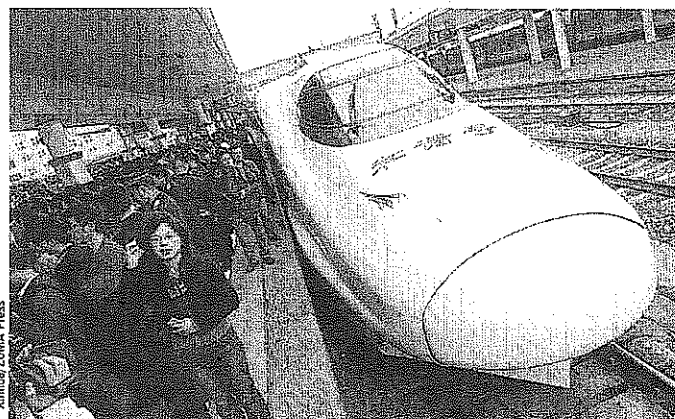
not a desperate throw of gold-plated dice in response to the global financial crisis, but a carefully considered component of a long planned and desperately needed upgrade of China's rail system.

As incomes rise, China's passenger railroads will become by far the world's busiest. Moving passenger traffic off clogged conventional rail lines will free up room for an explosion of freight traffic, so increased freight revenue will pay the capital cost of building the new lines. And by reducing the need for airplanes, cars and trucks to carry passengers and freight, the system will yield big savings in energy intensity and carbon emissions.

China's rail system is already the most intensively used in the world. China carries a quarter of the world's rail freight and passenger traffic on only 6% of the world's track. China's intensity of rail use (passenger and freight combined) is double India's, triple that of the United States, and a dozen times Europe's. Over the next decade, China's Ministry of Railways expects freight carriage to rise 55%, while passenger-miles will double. More miles of track are not a luxury, but a necessity. In addition to the high-speed lines, the ministry plans to lay another 18,000 kilometers of new conventional freight and passenger track by 2020.

One objection is that high-speed lines cost far more to build than conventional lines. Maybe new passenger lines are not a luxury, but high-speed lines are.

Wrong again. In France, Spain



Building a high-speed rail network now is a good investment.

or Japan a mile of high-speed track costs triple a conventional mile. But in China, according to World Bank estimates, the cost premium is as low as 20% to 30%. Cheap labor and locally produced equipment help; so does the decision to build much of the network on viaducts, minimizing land acquisition cost. Finally, building an entire network all at once produces massive economies of scale.

This modest cost premium translates into affordable ticket prices—higher than for conventional rail, but lower than for air travel. The average household income in China's 36 biggest cities is now more than \$10,000, so tens of millions of Chinese can easily afford high-speed tickets, especially for business trips.

On several recent trips on the Nanjing-Wuhan, Wuhan-Guangzhou and Guangzhou-Shenzhen lines, we found the trains to be

about 90% full. The World Bank reckons that in a few years' time the Beijing-Hong Kong line will carry more than 80 million passengers a year, becoming the world's busiest high-speed passenger rail line.

But the really big gain is that by moving most passenger traffic off existing conventional lines, more space is freed up for cargo. China's businesses—ranging from manufacturers to coal mines—have complained for years about the difficulty of securing space on freight trains, which forces them to move a lot of their cargo on more expensive and less efficient trucks. An increase in rail capacity will enable them to put their freight back on trains, generating huge savings. Ton for ton, freight carried by rail costs nearly 70% less than carriage by truck, uses 77% less energy and produces 91% less carbon dioxide

emissions.

All well and good, but these benefits will accrue over many years. The cost of building the network is happening now, and is financed mainly by a huge run-up in debt. Isn't the financial risk too great?

Actually, no. For one thing, building the network now, when labor costs are still low, is smarter than waiting a decade or two, when higher wages will push the real cost far higher. And anyway, financing projects whose economic benefit takes a long time to emerge is precisely what debt is for.

That said, Beijing does need to diversify the sources of rail finance. MOR's liabilities rose by nearly 50% in 2009 to 1.3 trillion yuan (\$190 billion), and it is near the limit of its ability prudently to issue more bonds. It has begun to get local governments to shoulder about one-third of the cost of building new lines, but direct budgetary support from the central government may also be required in the next five-year plan.

Yet this is hardly unusual—most countries with high-speed rail networks financed the capital construction mainly or entirely from budgetary funds. The bottom line is that, however it is financed, China's ambitious rail build-out is an investment well worth making.

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