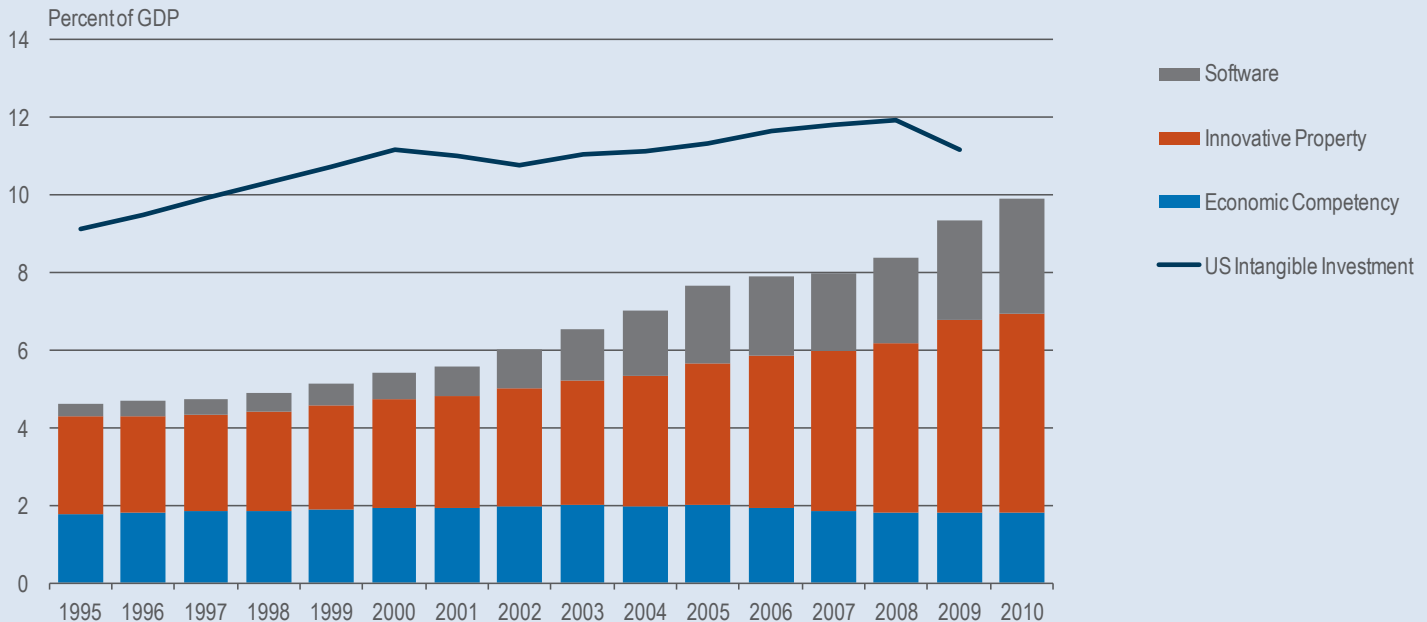




## Intangible investment in China has grown rapidly – but is it efficient?

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Sources: The Conference Board

- Intangible investment – an important source of growth for advanced economies – refers mostly to capital expenditure beyond physical business capex (e.g. plants, machinery, etc.) in things like research, product design and marketing, software-enabled organizational capabilities, and human capital development. The bars in the chart above represent “intangible investment” in China as a share of GDP, broken down by three categories: Software, Innovative Property and Economic Competency, as estimated by The Conference Board.<sup>1</sup> For comparison purposes, the purple line shows intangible investment in the non-farm business sector of the U.S. as a share of GDP.<sup>2</sup>
- China’s intangible investment share of GDP has risen swiftly over the past two decades. Intangible assets can be broken down into three groups: computerized information, innovative property and economic competencies. The first includes software and database spending. Innovative property is comprised of R&D, mineral exploration, copyrights and licensing, financial innovation, and architectural and engineering designs. The third group includes investments in brand equity, firm-specific human capital, and organizational structures and processes. China invested 9.9 percent of GDP in intangible assets in 2010, up from 4.6 percent of GDP in 1995. In 1995 China lagged the U.S. by 4.5 percentage points, but the gap fell to 1.8 percentage points by 2009. In contrast, India lagged far behind the U.S., investing 2.7 percent of GDP on intangible assets in 2008, a 10.2 percentage point gap. China’s rapid increase in intangible investment has mostly emanated from expanded spending on software (which grew from 0.32 percent of GDP in 1995 to 2.94 percent in 2010), R&D and design.
- Despite the substantial top-line growth, it appears that overall spending on intangibles in China has largely been policy driven, rather than deriving from firm-level innovation. The Chinese government has set a lofty goal to increase R&D spending to 2.5 percent of GDP by 2020<sup>3</sup>, up from 1.8 percent today. Accordingly, central R&D outlays are significant and increasing; however, where they go, how they’re used, and whether they result in tangible innovative outputs is a matter of considerable debate. While many SOEs and government agencies have, in response to Government policy, invested significantly in “informatization” over the last 10-plus years, bureaucratic factors, according to industry participants, have undermined the installed systems from being used anywhere near full potential. And clearly, the large growth of investment in architectural and engineering design is attributable to China’s enormous infrastructure and real estate expansion over the last 10 years; the high growth in this area may thus be an anomaly in China’s overall intangible investment picture.
- Looking forward, a critical issue for China will be to fully leverage the large outlays on intangible investment that are being made, and to convert them into increased enterprise productivity.

<sup>1</sup> Hao, Janet and Charles Hulten, 2012. Intangible Investment in China. Deliverable to WIOD Project, funded by the European Commission.

<sup>2</sup> Corrado, Carol; Jonathan Haskel, Cecilia Jona-Lasinio and Massimiliano Iommi, 2012. “Intangible Capital and Growth in Advanced Economies: Measurement Methods and Comparative Results” Working Paper, June.

<sup>3</sup> State Council of China, 2006. The Guidelines of National Mid-term and Long-term Science and Technology Development, 2006-2020. Available at [http://www.gov.cn/jrzq/2006-02/09/content\\_183787.htm](http://www.gov.cn/jrzq/2006-02/09/content_183787.htm).