

China's road to a global scientific powerhouse

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Abstract

Drawing on the wider 'catching up' literature, we examine the rapid growth in Chinese spending on science and technology, which, in spite of its growing infrastructure, remains heavily reliant on foreign inputs. We examine both the economic and political drivers behind China's scientific development, making a distinction between domestic investments and international technology trade. Firms provide over two-thirds of total R&D funding, most of which has been spent on 'high-tech' sectors for export production. The fastest growing research area is in environmental sciences and energy technology. China's technology imports are shifting away from 'technologies for production', towards 'technologies for innovation', encouraged by the national development strategy on enhancing scientific research capacities. In particular, we present evidence from China's imported technology contracts. Energy is the second largest sector after manufacturing in terms of imported technology contracts.

Keywords China, R&D, science and technology, spillovers, imported technology contracts

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