Abstract for “Measuring the Capital Input in the Chinese Economy, 1949-2010”

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Capital stock and its service in the Chinese economy have never been properly measured due to severe data problems caused by both the legacy of the Soviet-style statistical system adopted in the central planning period and the misreporting and mishandling of the data in the reform period by growth-motivated local governments and investment-hungry state firms. Particularly, the confusion between the fixed capital formation and inventory in the expenditure accounts has resulted in inaccurate measures of the real investment, hence making unreliable estimates of the size and change of China’s capital stock. Misunderstandings of these problems have caused inconsistencies between the expenditure and production accounts in the existing studies and hence leading to some questionable productivity assessments on the Chinese economy.

This study follows the SNA concepts of investment in productive fixed assets and Jorgenson’s capital theory and investment behavior of producers in data construction and measurement. It uses the industry-level accounting data to reconstruct the flow of investment for the formal sector in industry, and then estimates the investment of the informal sector in industry and services of the economy. It attempts to make the best use of the available data and information, especially those that have not been considered in the literature, including the information on China’s first asset survey and revaluation in 1951, internal historical reports on fixed asset stocks at industry level, 6-digit level of equipment and machinery price indices, and state policies on asset service lives and depreciation rate by industry.