Changing Sectoral Patterns in China: a Structuralist Dynamic CGE Model

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China is undergoing a substantial structural transformation, with a decline in traditional industry and growth of higher skill manufactures and services. Average wages in China’s manufacturing sector have soared above those of countries like Brazil and Mexico (FT, 26 Feb. 2017). China has improved its living standard and working conditions after a rapid manufacturing expansion and allowing average hourly wage to appreciate. A rapid decline in the labor force growth is often considered as driving factor of the ongoing wage push.

According to national statistics, China’s service sector has surpassed the secondary sector and became the largest component of the GDP. In 2015, the share of the service sector in GDP rose by 2.4 percentage points in 2015, reaching 50.5%, 16.7 percentage points higher than the industrial sector. It is recognized that service sector could create favorable conditions for reducing overcapacity, and destocking and deleveraging, it would also facilitate the sector's transformation and upgrading and release huge demand potential. Meanwhile China's new industries, new forms of business and new products took shape and grew more rapidly, and the added value of high-tech industries was up 10.2% year-on-year, growing much faster than traditional industries.

In 13th five-year plan (2016-2020), the government will target on increasing proportion of registered population in urban area to 45% to facilitate urbanization, which will release new demand and create huge potential for new supplies. It still poses the "biggest dividend" for China's transformation-based development.

The database construction, the model simulation and analysis will capture the trends and planned government interventions in the labor force composition (gender, skills/occupation, urban/rural workforce).

A SAM for China for the year 2012 is constructed based on Yang and Zhao (2010) approach based on four data sources Input-Output Tables, China Statistical Yearbook, China Labor Statistical Yearbook, and China Financial Statistical Yearbook. Given some changes in statistical scales and dimensions in the 2012 China financial statistical yearbook, some missing data are obtained via cross-entropy.

A structuralist simulation model (structuralist CGE) with differentiated adjustment mechanisms for agricultural, industrial and service sector is used to simulate the existing appreciation path and employment composition changes and identify policy scenarios that supports growth.