

# Regulatory reform in services sectors: The missing explanation for the revival of Indian manufacturing?

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*Conventional explanations for the post-1991 growth of India's manufacturing sector focus on trade liberalisation and industrial de-licensing. This column examines 4,000 Indian firms from 1993 to 2005 and argues that a key factor for the success of Indian manufacturing may lie outside of manufacturing – in the services sector.*

A vital element of India's rapid economic growth since the early 1990s has been the impressive performance of its manufacturing industries. Output in manufacturing grew by 5.7% per year in the period 1993-2005, while exports grew at almost twice that rate (Reserve Bank of India 2008). The conventional explanations for the revival of Indian manufacturing point to policy reforms in manufacturing industries, such as tariff liberalisation and the dismantling of the "license raj" (Aghion et. al. 2005, 2008), and limited labour market reforms (Besley and Burgess 2004). But are these explanations missing an essential element of the story?

Recent evidence suggests that a key factor for the Indian manufacturing success may actually lie outside of manufacturing itself, in the services sector. The neglect of services is surprising because even a casual examination reveals that manufacturing performance depends critically on the state of service inputs, notably finance, transport, and telecommunications. Moreover, reforms in the 1990s have visibly transformed these services sectors, allowing greater foreign and domestic competition with greatly improved regulation. Indian firms are no longer at the mercy of inefficient public monopolies but can now source from a wide range of domestic and foreign private-sector providers operating in an increasingly competitive environment. Available evidence suggests that firms today have access to better, newer, more reliable, and more diverse business services. These improvements have enhanced firms' ability to invest in new business opportunities and better production technology, to exploit economies of scale by concentrating production in fewer locations, to efficiently manage inventories, and to make coordinated decisions with their suppliers and consumers.

In a recent paper (Arnold et al. 2010), we document the competition-enhancing policy changes affecting Indian services sectors and provide empirical evidence for the importance of these reforms for the productivity of downstream manufacturing firms using panel data for about 4,000 Indian firms for the period 1993-2005. Our results suggest that the opening of services sectors to domestic and foreign entrants was an important driver of productivity improvements in Indian manufacturing companies.

Today most of the policy barriers to competition, and to foreign direct investment (FDI), are not in goods but in services (UNCTAD 2004). For example, countries in Southeast Asia, such as Malaysia and Thailand, which have reaped huge benefits from the liberalisation of trade and investment in goods, continue to maintain restrictions on foreign presence in services ranging from transport to telecommunications. Our evidence suggests that such restrictions in services sectors may deprive manufacturing industries of productivity gains.

## **India's rapid liberalisation of services sectors**

India implemented significant liberalisation in both goods and services between 1991 and

2005. Major liberalisation reforms began in 1991 as part of an IMF structural adjustment package, designed to combat balance of payments imbalances, and continued with the government's eighth four-year plan from 1992-1996. The elimination of barriers to entry in services provoked a dramatic response from foreign and domestic providers. FDI inflows into services following liberalisation exceeded those into other sectors.

The reforms produced striking improvements in performance of services providers. In 1990, the average turn-around time for a container at major ports in India was 8 days. By 2005, the average turn-around time at major ports in India had decreased to 3.5 days. For firms that compete in highly variable markets such as textiles and electronics where the ability to respond quickly to changes in demand is crucial, this improvement can make a major difference.

Similar improvements can be seen in telecommunications. Before the reforms, service was poorly distributed, fault rates were high and access to new lines was difficult. In the 1980s, the communications minister CM Stephens declared in parliament that telephones were a luxury, not a right, and that anyone unsatisfied with their service was welcome to return their phone as there was an eight year waiting list of people seeking telephone service (Panagariya 2008 p.372). In 1991, fault rates still averaged at 19 faults per 100 stations per month (Government of India 2008).

Liberalisation has since interacted powerfully with technological change to transform the telecommunications market. By 2005, the waiting lists for telephone services had virtually disappeared in urban areas. Even rural customers, projected by critics of the liberalisation reforms to have lost out from the privatisation, saw increases in access to phone lines. India now ranks number 2 in the world in terms of mobile phone lines. Access to internet services increased quickly as private providers were allowed to enter the market, and is now available at a relatively low price by international comparison. Indian businesses, severely handicapped in their ability to communicate with their customers and suppliers for a long time, are now enjoying world class communications services.

### **Effect of services liberalisation on manufacturing productivity**

In order to analyse the link between services reforms and manufacturing productivity, we collected detailed information on the pace of reform across Indian services sectors, with a particular focus on entry and conduct restrictions. To make it amenable to econometric analysis, this information was aggregated into time-varying reform indices, closely following the construction of a similar index developed by the European Bank for Reconstruction and Development for countries in Central and Eastern Europe (see EBRD 2004). We then related total factor productivity of manufacturing firms to the state of liberalisation in services sectors, taking into account other aspects of openness, such as tariffs on output and intermediate inputs as well as FDI in final and intermediate good sectors.

Our results suggest that pro-competitive reforms in banking, telecommunications, insurance and transportation boosted the productivity of manufacturing firms. The reforms benefited both foreign and locally-owned manufacturing firms, but the effects on foreign firms tended to be even stronger. A one-standard-deviation increase in the aggregate index of services liberalisation resulted in a productivity increase of 11.7% for domestic firms and 13.2% for foreign enterprises.

### **Lessons from India**

Despite significant improvements, services reforms in India remain incomplete and barriers to domestic and foreign competition continue to exist, both in India and in many other countries. The observed productivity improvements in manufacturing industries following services liberalisation suggest that, in addition to holding back the development of the

services sectors, these barriers also penalise manufacturing firms. Indeed, we find that services reform may be a missing element in the commonly cited explanations for the recent success of Indian manufacturing.

Wider appreciation of this link between services sectors and manufacturing industries may help create broader political support for pro-competitive regulatory reform in services. It may also provide greater perspective for international trade negotiations, which continue to focus on goods – agriculture and manufacturing – and only notionally address impediments to services trade and investment.

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