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WINNERS AND LOSERS FROM STRUCTURAL REFORMS IN INDIA

The analysis of structural reforms that took place in the 1990s in India reveals interesting insights in the context of the actual debate for further liberalization of the services sector. Trade liberalization and the reform of the banking sector have improved aggregate productivity of the manufacturing sector in India. The effects seem to be different across firms: it has mostly benefitted the ones which were initially efficient. This might have led to a reallocation of ressources from the least to the most productive firms.

The recent announcement by the Indian Government on a new package of economic reforms in September 2012[1] has woken up a wave of social protests and also provoked the loss of a coalition partner for the Government. The aim of these reforms was to go on with the process of liberalization of the Indian economy started in the early 1990s. The new policy-instruments announced recently by the Indian Government consisted in opening the country's retail and aviation sectors to domestic and foreign private investors.

In the light of this debate, the evaluation of the consequences of the structural reforms undertaken in the 1990s becomes crucial to understand the gains and losses that are at stake. The reforms materialized in a process of liberalization of the real and financial sectors, with the aim of removing barriers to growth of businesses. Real GDP growth improved mostly during the second half of the 1990s, and more substantially during the 2000s: real GDP growth reached 10% in 2007 and in 2010 (Table 1). Whether this aggregate performance can be explained by the reforms remains unclear and requires empirical investigation.

Table 1 – Aggregate patterns of the Indian Economy (1980-2010)

Growth rates	1980s	1990s	2000s
Real GDP	5.4	5.6	7.0
Real GDP per capita	3.3	3.7	5.3
Trade openness	5.8	9.7	17.6
Private credit / GDP	26.0	22.7	35.0

Source: IMF World Economic Outlook and World Bank World Development Indicators. Trade openness is measure by (Exports + Imports) / GDP.

1. See A. Kazmin & V. Mallet (2012), "India reveals retail and aviation reforms", The Financial Times, September 14; N. Munshi (2012), "Indian reforms: all in the implementation", The Financial Times, September 21.

India's trade reforms in the 1990s

India's trade policy during the 1970s and 1980s was characterized by the "license raj". This trade system was based on trade protection policies with an emphasis on import substitution. This regime was very restrictive, with high levels of nominal tariffs and import licenses in almost all sectors.

Two waves of trade liberalization can be distinguished in India during the 1990s. The first unilateral trade-reform plan was launched in the early 1990s as a consequence of the Balance of Payments crisis and as a part of an IMF stabilization program. Trade liberalization was at the core of structural reforms launched during the "Eighth Five-Year Plan" period from 1992-1997. Under this plan, gradual tariff cuts were applied in all sectors, and at the same time, non tariff barriers and licenses were removed. During this period India also became a member of the WTO (World Trade Organization) in 1995, with the commitment to continue the process of trade liberalization started in the early 1990s. Although average tariff were reduced by 47 percentage points between 1990 and 1997, they remained in the late 1990s relatively high in most sectors as compared to other developing countries. The average output tariffs across all industries reached 34 percent in 1998.

The second wave of trade liberalization started at the end of the nineties when the Government decided to launch the "Ninth Five year plan". Tariffs reductions were implemented continuously till the mid-2000s. This second wave of trade reforms consisted in new tariff reductions and eliminations of remaining trade restrictions. As stated in the "Ninth Five-Year Plan", "Import tariffs have also been reduced significantly over time, but our import tariff rates continue to be much higher than in other developing countries. Continuing with high levels of protection is not desirable if we want our industry to be competitive in world markets and it is therefore necessary to continue the process of phased reduction in import tariffs to bring our tariff levels in line with levels prevailing in other developing countries"[2]. Between 1998 and 2006 average tariff were reduced by 18 percentage points from 34 percent to 16 percent.

Trade liberalization and firm performance

Several works have investigated the effects of tariff reductions on Indian manufacturing firms' productivity, ability to produce new products in the domestic market, markups changes and firms' decision to upgrade foreign technology. Trade liberalization is generally expected to affect firm performance through different channels.

Reductions of tariffs on final goods enhance competition in the domestic economy, which generate incentives for domestic firms to improve their efficiency (through investment) in order to face foreign competition. In that context, the economic theory predicts that only the most efficient firms expand whereas the least efficient firms are predicted to reduce their size or even leave the market if they are not sufficiently profitable. The consequence of this reallocation of market shares within the industry is that aggregate productivity is expected to improve.[3] In the context of the trade reform implemented in India in the early 1990s, tariff reductions were indeed associated with an improvement of Indian manufacturing firms' productivity.[4]

A second channel through which trade reforms could also affect economic growth is through changes in tariffs on intermediate and capital equipment goods that are used by manufacturing firms for the production of their final goods. Changes in input tariffs can indeed affect firms' performance through the reduction of their production costs, the opportunity to source a greater variety of inputs which can be optimally combined in the production process, or through the imports of inputs and machinery characterized by a higher quality.[5]

The empirical studies that have investigated the consequences of trade reforms on the Indian economy put forward that essentially input tariff cuts contributed significantly to the improvement of Indian firms' performance, through an increase of productivity, the introduction of new products in the Indian market, and an upgrading of technology through imports. During the first wave of trade liberalization, input tariff cuts have been associated with an expansion of productivity by 4.8 percent among Indian firms.[6] In this period, input tariff reductions have also accounted on average for 31 percent

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2. The objectives of the 'Ninth Plan' are explained in detail in the website from the Planning Commission of the Government of India: http://planningcommission.nic.in/.

3. A. Harrison, L. Martin & S. Natarajn (2011), "Learning Versus Stealing: How Important are Market-Share Reallocations to India's Productivity Growth?", *NBER Working Paper* 16733.

4. P. Topalova & A. Khandelwal (2011), "Trade liberalization and firm productivity: The case of India", *The Review of Economics and Statistics*.

5. There is indeed evidence that more than 75% of capital goods imported by India originate from OECD countries. This number is obtained by using the HS6 product-level bilateral trade BACI dataset developed by the CEPII (http://www.cepii.fr/anglaisgraph/bdd/baci.htm), combined with the Broad Economic product Classification provided by the United Nations (http://unstats.un.org/unsd/cr/registry/regot.asp?Lg=1) that distinguishes capital goods from other types of goods. See M. Bas & A. Berthou (2012a), "Does input-liberalization affect firms' foreign technology choice?", mimeo.

6. P. Topalova & A. Khandelwal (2011).

of the new products introduced by domestic firms, while tariffs on final goods did not change firms' product scope.[7] During the second wave of trade liberalization the average input tariff reductions (12 percentage points) implied a 4 percent increase in the probability of upgrading foreign technology (through capital goods imports).[8]

These studies also show that the gains associated with both waves of trade liberalization were unequal across firms. Input tariff cuts did not allow the least productive firms to upgrade their foreign technology, and the gains were mostly concentrated among firms with medium-high productivity levels. The consequences of trade reforms on aggregate Indian economic growth are therefore – to some extent - explained by a process of reallocation of market shares: initially more productive and efficient firms increased their market shares compared to initially least productive firms.

Overall, trade liberalization is found to have improved manufacturing firms' performance in several ways. What we learn from trade liberalization during the 1990s is that the impact of intermediate goods tariffs reductions (input channel) on firms' efficiency is greater than reductions of tariffs on final consumption goods (import competition effect).

Banking reform, financial development and firms' growth

A second major change for the Indian economy was related to the banking reforms that were initiated during the 1990s, and involved a significant change in the availability of external financial resources for the private sectors. These structural changes improved Indian firms' growth, according empirical investigations.

Until the end of the 1980s, the banking system in India was dominated by the presence of public banks and by a significant role of the State Bank of India. The financial regime was characterized by an administered interest rate and a pre-emption of a large proportion of bank deposit. In the early 1990s, as part of the overall reform process in the Indian economy, banking liberalization was designed to increase competition in the banking sector and to improve the efficiency of credit allocation. The main reforms in the financial sector were implemented between 1994 and 2004. They consisted in (i) the liberalization of the interest rate, (ii) freedom for banks to choose their deposit and lending rates, (iii) facilitation of the entry of domestic and foreign private banks and (iv) diversification of the ownership of state-owned banks.

Consequently, the banking system was completely transformed and private banks have now a predominant role. At the beginning of the 1990s, state-owned banks had more than 90 percent share in the assets of the banking system, while in 2004 their share decreased down to 75 percent. In 2004, the Indian banking system was characterized by 40 private domestic sector banks, 33 foreign private banks and 27 state-owned banks in which the Government had majority ownership. These figures suggest that competition across banks in India was enhanced after the reforms of the financial sector.[9]

Banking reforms initiated a process of financial development that can be measured by the ratio of credit over GDP in 21 Indian states. Indian states were initially heterogeneously endowed in terms of the availability of financial resources. This heterogeneity also affected the evolution of credit consecutive to the banking reforms: Indian states with developed financial institutions, or with a higher level of GDP per capita in the early years of the reforms, experienced a greater growth of credit.

The empirical investigations that have studied the effects of banking reforms on the economic growth in India have allowed indentifying how these structural changes fostered economic growth. They put forward a causal effect of financial development on firms' growth across Indian states: firms located in states where the availability of external finance increased more rapidly had better growth performance during the period of the banking reforms (second half of the 1990's and the following decade). Using the ratio of credit over GDP across Indian states, we find that financial development boosted firm growth in India: the average annual increase of the credit ratio (8 percentage points) is associated with 1.8 to 2 percentage points growth of capital stock and value added.[10] The effects of financial development are unequal across firms: credit expansion had a greater effect on firms that were initially larger, more productive or profitable. This financial reform seems to have benefitted to firms' productivity also and mainly to foreign affiliates relative to domestic companies.[11]

7. P. K. Goldberg, A. K. Khandelwal, N. Pavcnik & P. Topalova (2010), "Imported intermediate inputs and domestic product growth: Evidence from india", *The Quarterly Journal of Economics*, 125(4):1727-1767.
8. M. Bas & A. Berthou (2012a).
9. M. Bas & A. Berthou (2012b), "The unequal effects of financial development on firms' growth in india", *CEPII Working Paper*, No. 2012 -22, October.
10. M. Bas & A. Berthou (2012b).
11. J. Arnold, B. S. Javorcik, M. Lipscomb & A. Mattoo, (2010), "Services Reform and Manufacturing Performance: Evidence from India", *CEPR Discussion Paper* No. 8011, September.

So, overall, banking reforms also improved aggregate economic growth performance in India by improving growth performance by initially more efficient firms. Banking sector reforms triggered a reallocation market shares towards initially more efficient firms, which contributes to explain the aggregate growth in Indian manufacturing sector.

Conclusion

Both trade liberalization and the reform of the banking sector seem to have improved the aggregate industry growth through two main channels: (1) within-firm growth and (2) reallocation of resources from least efficient towards most productive firms. On the one hand, both reforms have increased manufacturing firms' productivity and value added growth. On the other hand, input tariffs reductions have benefited firms with a certain level of productivity (firms with relatively mid-high initial productivity levels) to upgrade their technology. The reform of the banking sector has mostly benefitted firms which were initially more efficient. This evidence suggests that economic resources might have been reallocated towards the most efficient firms increasing the overall productivity of the industry.

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