Multinational company investment: impact on developing economies

As developing countries increasingly open up their domestic economies to foreign players, we assessed the impact of multinational company investment on four large developing countries (China, India, Brazil, and Mexico). Each of these countries has gone through some form of liberalization toward foreign direct investment (FDI) in the past 15 years. We conducted 14 in-depth sector case studies in five sectors (automotive, consumer electronics, food retail, retail banking, and information technology/business process offshoring (IT/BPO). The studies provide a rich fact base for understanding the more detailed pattern of FDI's impact on host countries and shed light on the process by which FDI has impact. (Exhibit 1).

FDI INTEGRATING DEVELOPING COUNTRIES INTO THE GLOBAL ECONOMY

Developing countries are being integrated into the global economy through growing foreign investments (Exhibit 2). While foreign investment during the "first great globalization era" at the end of the 19th century[1] were largely driven by search for natural resources, companies today are increasingly either seeking growth by entering developing markets or reducing cost by relocating parts of the production process to countries with lower labor costs. Two trends have enabled this evolution: removal of policy barriers limiting foreign trade or investment in many large economies; and continuing reductions in transactions costs that enable multinational companies to relocate labor-intensive steps of the production process across countries in an economic way.

¶ **Policy barriers limiting foreign investments have been removed** in a number of large developing economies. India's selective removal of prohibitions for FDI entry; Mexico's entry to NAFTA and Brazil's more liberal policies toward FDI in sectors like consumer electronics are just a few examples (Exhibit 3).

¶ **Transactions costs have declined** rapidly as physical transactions costs have been reduced and telecommunications costs have gone to a fraction of what they used to be (exhibits 4 and 5). This has enabled companies to disaggregate production value chains and relocate labor-intensive steps in the production process to lower labor cost economies – increasing efficiency-seeking FDI.

FIVE HORIZONS OF GLOBAL INDUSTRY RESTRUCTURING

The process of globalization is not uniform across all industries, and there are large differences in the extent to which developed and developing countries have been integrated into a single global market. We define five horizons that describe the different ways in which industry value chain can be restructured across locations. (Exhibit 6). These horizons are not exclusive of one another, nor necessarily sequential, and can often be mutually reinforcing.

---

[1] Among others, Jeffrey Williamson (2002): "Winners and Losers Over Two Centuries of Globalization". NBER Working Paper #9161.

Exhibit 1

OVERVIEW OF COUNTRIES/SECTORS STUDIED

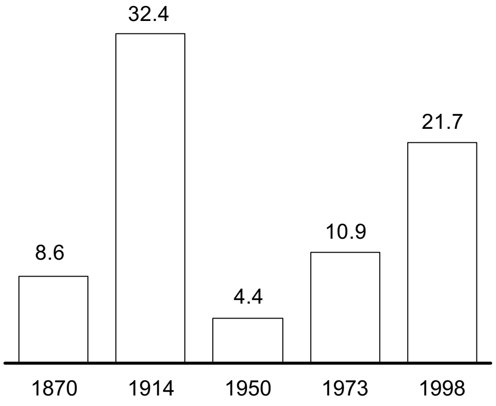
	China	India	Brazil	Mexico
Auto	✓ Mature FDI 1998-2001	✓ Mature FDI 1993-2003	✓ Incremental FDI 1995-2000	✓ Incremental FDI 1994-2000
Consumer electronics	✓ Mature FDI 1995-2001	✓ Early FDI 1994-2001	✓ Mature FDI 1994-2001	✓ Mature FDI 1990-2001
Retail			✓ Mature FDI 1995-2001	✓ Early FDI 1996-2001
Retail banking			✓ Early FDI 1996-2002	✓ Early FDI 1996-2002
IT/BPO*		✓ Early FDI 1998-2002		

* Information technology/business process offshoring

Exhibit 2

FOREIGN CAPITAL IS ONCE AGAIN PLAYING AN INCREASINGLY IMPORTANT ROLE IN DEVELOPING COUNTRIES

Gross value of foreign capital stock in developing countries
Percent of developing world GDP



	1870	1914	1950	1973	1998
Total stock in current prices $ Billions	4.1	19.2	11.9	172.0	3590.2

Source: "The World Economy: A Millennial Perspective," Angus Maddison

Exhibit 3

MANY DEVELOPING COUNTRIES HAVE REMOVED OR LESSENED TRADE BARRIERS OVER THE LAST 10 YEARS

Brazil

- In 2000, Brazil decreased most tariff rates by 3%
- The government offered large concessions including land, infrastructure, tax breaks, and low-interest loans in order to attract FDI in the auto sector

Mexico

- The government entered NAFTA in 1994 which will remove all tariffs on North American industrial products traded between Canada, Mexico, and the U.S. within 10 years; by 1999, 65% of all industrial US exports entered Mexico tariff free

China

- The weighted average import tariff decreased from 43% in 1991 to 20.1% in 1997
- China entered the WTO in 2001
- The 40% local content requirements in the auto sector were removed in 2001
- The government funded various infrastructure projects to attract FDI

India

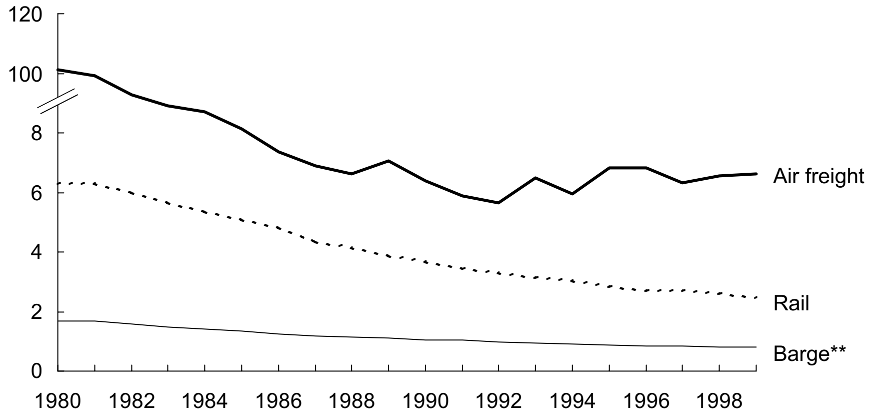
- Auto licensing was abolished in 1991
- The weighed average import tariff decreased over 60% from 87% in 1991 to 20.3% in 1997
- In 2001, the government removed auto import quotas and permitted 100% FDI investment in the sector

Source: Literature searches

Exhibit 4

TRANSPORTATION COSTS HAVE DECLINED OVER TIME

Revenue per ton mile, cents*



* Revenue decreases used as a proxy for price decreases; adjusted for inflation

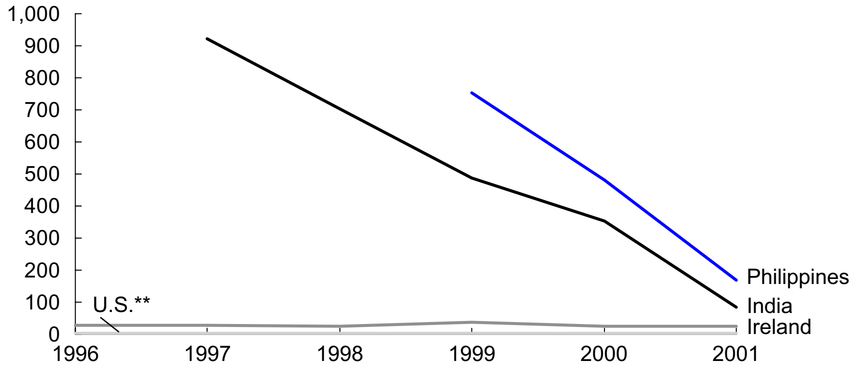
** For inland waterways shipping (e.g., Mississippi River)

Source: ENO Transportation Foundation

Exhibit 5

TELECOM COSTS HAVE FALLEN DRAMATICALLY, PARTICULARY IN DEVELOPING COUNTRIES

$ Thousand/year for 2 Mbps fiber leased line, half circuit*



* Cost of international leased line for India; cost of long distance domestic leased line in the U.S.; costs are for January each year; for India, based on Mumbai or Cochin

** U.S. half circuit data is derived by dividing full circuit data by half

Source: VSNL press releases; literature search; Lynx; Goldman Sachs estimates; McKinsey Global Institute

Exhibit 6

5 MAIN TYPES OF GLOBAL INDUSTRY RESTRUCTURING

Global industry restructuring

① **Market entry**
- Companies enter new countries in order to expand consumer base (e.g., auto, retail, and retail banking) with similar production model to home market

② **Product specialization**
- Most components for one specific product (e.g., Sony walkmans) are produced in the same location/region, with different regions specializing in different products and trading finished goods (e.g., auto)

③ **Value chain disaggregation**
- Different components of one product (e.g., car engine, brakes) are manufactured in different locations/ regions and are assembled into final product (e.g., consumer electronics)

④ **Value chain reengineering**
- After moving value chain steps to new location, processes can be redesigned to capture further efficiencies/cost savings (e.g, capital/labor tradeoffs in IT/BPO and auto)

⑤ **New market creation**
- By capturing full value of global activities firms can offer new products at significantly lower price points and penetrate new market segments/ geographies

Source: McKinsey Global Institute

¶ **Market entry.** Companies have entered new countries in order to expand their consumer base, using a very similar production model in the foreign country to the one they operate at home (e.g., global expansion strategies of multinational companies in food retail, auto, and retail banking; Exhibit 7).

¶ **Product specialization.** Companies have located the entire production process of a product (components to final assembly) to a single location or region, with different locations specializing in different products and trading finished goods (e.g., in auto assembly within NAFTA, Mexico produces all Pontiac Aztecs and trades them for Chevrolet TrailBlazers produced in the U.S.; Exhibit 7).

¶ **Value chain disaggregation.** Different components of one product are manufactured in different locations/regions and are assembled into final product elsewhere (e.g., Mexico has focused on final assembly for the North American market, using mostly components manufactured in Asia; BPO investments in India can be very narrowly defined parts of broader business operations in the U.S.; Exhibit 8).

¶ **Value chain reengineering.** After moving value chain steps to new location, processes can be redesigned to capture further efficiencies/cost savings – most importantly, to take advantage of lower labor costs in developing countries through more labor-intensive methods in (e.g., increasing shifts in IT/BPO and reducing automation in auto assembly; Exhibit 8).

¶ **New market creation.** By capturing full value of global activities, firms can offer new products at significantly lower price points and penetrate new market segments/geographies (e.g., increased service level through phone for bank customers in developed economies; offering lower cost products in developing countries, such as cars in India and PCs/air conditioners in China; Exhibit 9).

MARKET SEEKING AND EFFICIENCY SEEKING INVESTMENTS

The 1990s saw a real boom in multinational company investment in developing countries (Exhibit 10). This boom included both market-seeking investments made in order to gain access to the host country markets – still the dominant motive for international expansion for companies; and efficiency-seeking investments made to reduce global production costs of multinational companies.[2] We make a further distinction within market-seeking FDI depending on whether government policy barriers preventing imports created an incentive for investing within the host country (Exhibit 11).

¶ **Efficiency-seeking FDI** is motivated by multinational companies seeking to reduce costs by locating production to countries with lower factor costs. Among our sectors, consumer electronics in Mexico and partly in China, auto in Mexico, and IT/BPO sectors in India were motivated by MNCs looking for more efficient production locations for products and services sold mostly

[2] An additional major factor contributing to large FDI inflows to developing countries in 1990s were large-scale privatizations in many developing countries (e.g., Brazil, Mexico). We did not have cases directly related to privatization in our sample and have excluded them from our scope. Similarly for the two other motives for foreign direct investments: resource-seeking or technology-seeking investments.

Exhibit 7

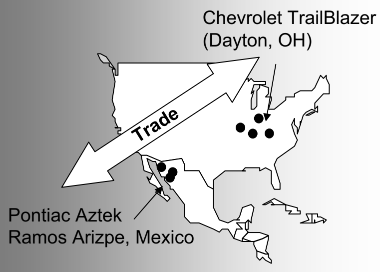
GRAPHICAL DEPICTIONS OF STAGES OF GLOBAL INDUSTRY RESTRUCTURING

Market entry

Retail

Product specialization

Auto



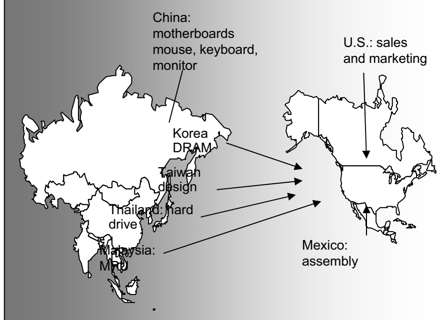
Source: Interviews; McKinsey analysis

Exhibit 8

GRAPHICAL DEPICTIONS OF STAGES OF GLOBAL INDUSTRY RESTRUCTURING (CONTINUED)

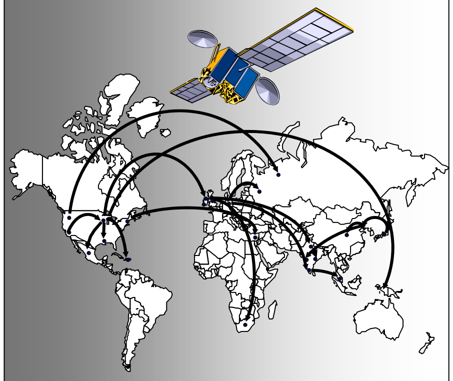
Value chain disaggregation

Consumer electronics: PCs



Value chain reengineering

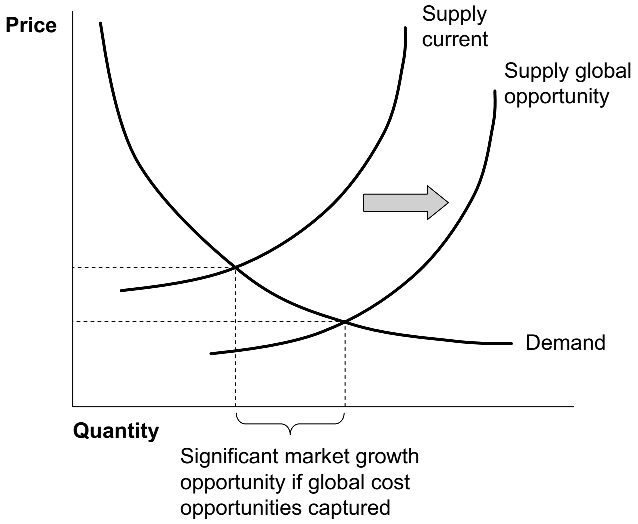
Offshored Services



Source: Interviews; McKinsey analysis

Exhibit 9

OPPORTUNITY TO DEVELOP NEW MARKETS AFTER GLOBAL COST OPPORTUNITY CAPTURE

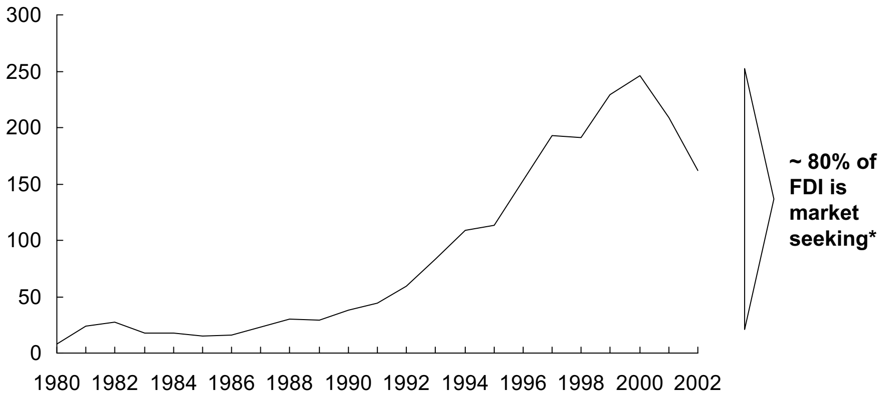


Source: Interviews; McKinsey analysis

Exhibit 10

FDI INVESTMENT IN DEVELOPING COUNTRIES HAS RAPIDLY INCREASED AND IS MAINLY MARKET SEEKING

Inflows
U.S. $ Billions



* Based on estimates from OECD 2000 segmentation of total FDI (developed and developing countries); excludes "resource seeking" FDI (e.g., for petroleum); with this category, FDI is 84% market seeking

Source: OECD; McKinsey Global Institute; WDI

Exhibit 11

FDI TYPOLOGY BY MOTIVE OF INVESTMENT

Sector type

	Pure market seeking	Tariff-jumping	Efficiency seeking
Manufacturing	• Consumer electronics, China	• Auto, Brazil • Auto, China • Auto, India • Consumer electronics, Brazil • Consumer electronics, India	• Auto, Mexico • Consumer electronics, Mexico • Consumer electronics, China
Services	• Food retail, Brazil • Food retail, Mexico • Retail banking, Mexico • Retail banking, Brazil		• IT • BPO

Motive for entry

Exhibit 12

FDI TYPOLOGY AND OVERALL FDI IMPACT ASSESSMENT

Overall FDI impact

	Pure market seeking	Tariff jumping	Efficiency seeking
Very positive	• Consumer electronics, China	• Auto, India	• Auto, Mexico • Consumer electronics, Mexico • Consumer electronics, China • BPO
Positive	• Food retail, Mexico • Food retail, Brazil • Retail banking, Mexico	• Auto, China • Consumer electronics, Brazil • Consumer electronics, India • Auto, Brazil	• IT
Neutral	• Retail banking, Brazil		
Negative			

Motive for entry

- Efficiency seeking FDI is overwhelmingly positive
- For market seeking, impact ranges from neutral to very positive

Note: Exhibit 23 provides the background on each component of FDI impact in each case study.
Source: McKinsey Global Institute

outside of the host country.

¶ **Pure market-seeking FDI** is motivated by MNCs looking for revenue growth by expanding their operations in other countries. Both food retail and retail banking cases belong to this category. In addition, the rapidly growing domestic market in China adds market-seeking motive to FDI in China consumer electronics sector, so that both motives are driving the current investment boom.

¶ **Market seeking FDI to overcome policy barriers – or tariff-jumping FDI** refers to cases where import barriers limit foreign companies' capacity to supply local demand through imports, and as a result they end up investing in plants for domestic production only. The auto sector cases fit this category, except Mexico, as do the highly protected consumer electronics sectors in India and Brazil.

LARGE ECONOMIC VALUE CREATION THROUGH FDI

In our sample, we found FDI to have created substantial economic value within host countries. In 13 out of our 14 case studies, we found FDI to have had an overall positive or very positive economic impact. This finding strongly suggests that many of the criticisms directed at foreign operations in developing countries – e.g., that they act as monopolies, lay off workers, without generating spillover effects on the rest of the economy – are not broadly warranted. And while we found a positive impact across the different sectors and varying policy regimes, we found a clear pattern by type of FDI (Exhibit 12).

¶ **Efficiency-seeking FDI overwhelmingly had a positive impact on the host countries.** It consistently had a positive or very positive impact on sector productivity, output, and employment. At the same time, focus on exports meant that these investments did not have significant costs to incumbent domestic companies. This explains the focus of many developing country policy makers on boosting export-oriented FDI – even while keeping domestic services closed to foreign investors (e.g., India).

Two typical examples of efficiency-seeking FDI are consumer electronics in Mexico and business process offshoring (BPO) in India. In both cases, foreign companies serving the U.S. market have located a specific part of their value chain in a lower labor cost country (final assembly for white goods and audio-video equipment in Mexico; labor-intensive data management and customer support in India), and created a new, rapidly growing sector with large employment within their host countries.

This overwhelmingly positive impact goes against the view that efficiency-seeking multinational companies are exploiting their host countries because they pay low wages and provide fewer benefits than they would at their home markets. In fact, beyond the positive economic impact, we found that in almost all of cases – both efficiency and market seeking ones – foreign players paid a wage premium above their domestic competitors, and they were more

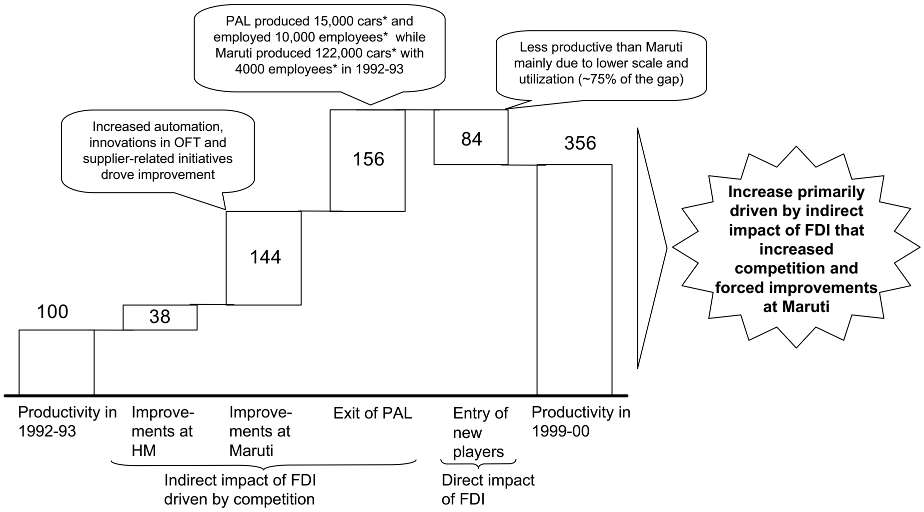
Exhibit 13

Auto India

POSITIVE FDI IMPACT ON PRODUCTIVITY CAEM THROUGH INCREASED COMPETITIVE INTENSITY

Labor productivity

Equivalent cars per equivalent employee; indexed to 1992-93 (100)



* Actual cars and employment (not adjusted)

Source: MGI; McKinsey Global Institute; team analysis likely to comply with labor regulations than domestic companies within the same sector.

¶ **Market-seeking FDI also had a generally positive impact on sector productivity and output, the improvement coming in most cases at a cost to domestic incumbent companies**. We saw some differences in outcomes depending on the policy and competitive environment of the sector however:

- In pure market-seeking cases, FDI tended to improve sector productivity. Our food retail cases are examples where foreign player entry had a positive impact on the domestic sector performance – although the impact came in very different ways. In Brazil, MNCs took equity positions in 90 percent of modern retailers, and provided the capital that allowed them to improve productivity in distribution and marketing, and seek to gain share by acquiring modern informal players. In Mexico, Wal-Mart acquired a leading modern retailer and introduced aggressive pricing and best practice transfer in operations and supply chain management. This change in competitive dynamics has led other leading domestic food retailers to similar operational improvements that are likely to improve sector productivity going forward.

  In both food retail cases, the productivity improvements come at a cost to the domestic incumbents who saw their margins decline as foreign player entry increased competition. And while the impact of foreign players on employment has been neutral until now, we expect the productivity improvements to lead to decline in employment going forward as larger formats continue to gain market share.

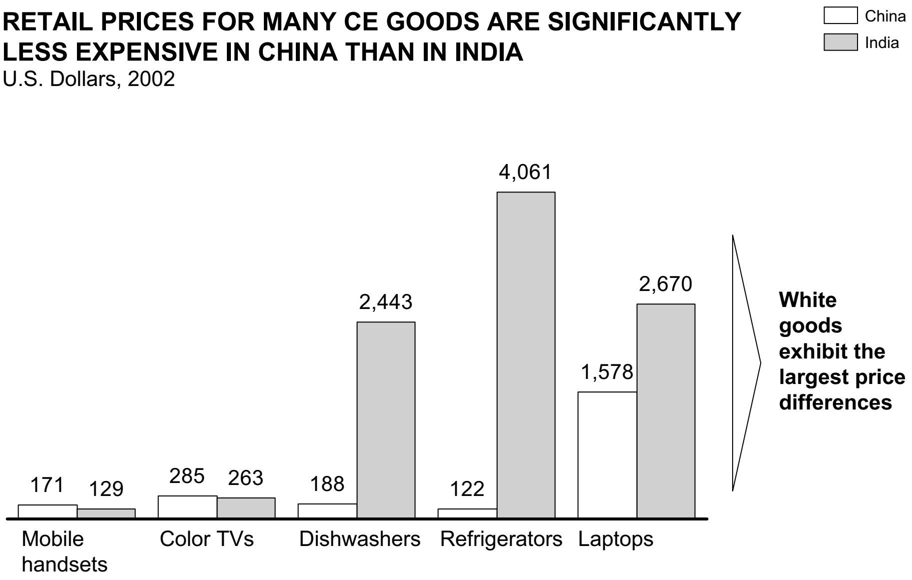
- In cases where FDI was motivated by tariff jumping, we found FDI also to have a consistently positive impact on sector performance. Given the protection provided to the sector, a very low level of performance was typical, allowing for significant positive impact even when the tariffs or other regulations limited FDI's full potential impact. As a result of tariffs or unique standards limiting trade, and barriers to foreign player entry, sectors like Brazilian consumer electronics or Indian auto were starting from a very low productivity base and had consumer prices significantly above world prices. When policies to FDI were liberalized and foreign players entered to supply the protected domestic market, increased competition led to improved productivity of the sector. This impact came both directly – as in the case of productivity improvements in Brazilian consumer electronics companies that were acquired by foreign players – and indirectly, as in the case of the Indian auto sector where increased competitive pressure led to player exit and productivity improvements in the leading domestic player, Maruti-Suzuki (Exhibit 13).

  The biggest beneficiaries of foreign players' entry into the protected markets were consumers who saw declining prices, broader selection, and increasing domestic consumption. As a result of output growth, the impact on employment was neutral in most cases, as sector growth helped keep employment levels stable despite increases in labor productivity. However, the remaining protected policies kept prices higher and domestic sales lower than they would be with more liberal policies. A good example of the cost of the remaining policy barriers is the case of consumer electronics in India,

Exhibit 14

RETAIL PRICES FOR MANY CE GOODS ARE SIGNIFICANTLY LESS EXPENSIVE IN CHINA THAN IN INDIA

U.S. Dollars, 2002



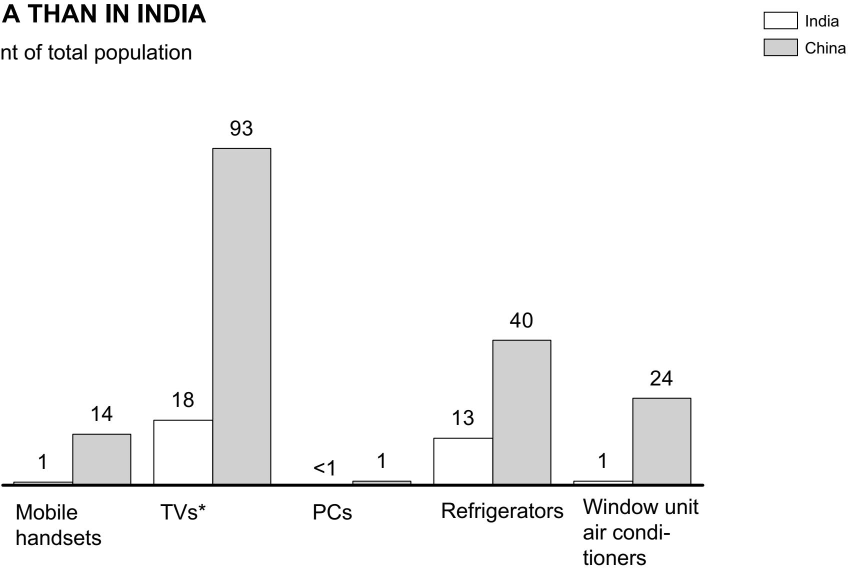
White goods exhibit the largest price differences

Source: Euromonitor; McKinsey Global Institute

Exhibit 15

CONSUMER ELECTRONICS PENETRATION RATE IS MUCH HIGHER IN CHINA THAN IN INDIA

Percent of total population



* Black and white

Source: Literature searches

where higher prices have kept penetration rates of refrigerators and TVs significantly below the rates in China (exhibits 14, 15).

- The one exception to the rule was retail banking, where the nature of retail banking limited the potential impact of FDI to capitalization of the sector and some productivity gains.[3] While in Mexico foreign capital played a key role in capitalizing and stabilizing the local financial system, direct benefits to consumers or local companies have been limited in both Mexico and Brazil, because of the nature of the sector and the market conditions in the two countries:
  - First, retail banking in general tends to limit competition because of high switching costs for consumers and high entry barriers like the need to develop large branch networks – and this applies to both foreign and domestic players.
  - Second, two characteristics further reduced incentives for competition in Brazil and Mexico: high interest rates made it very profitable for banks to lend to the government rather than to consumers, while lack of a long-term debt market has made mortgage lending a segment with relatively low switching cost very difficult; and there were no significant non-bank players like money market mutual funds to induce competition (as in the U.S. banking sector in the 1980s).
  - And last, leading Brazilian private banks like Itau, Unibanco, and Bradesco were well capitalized, profitable, and already above the average productivity level of U.S. banks[4], leaving less room for large FDI impact on the sector stability than in Mexico.

FDI ENTRY LEADS TO POSITIVE SUPPLIER SPILLOVERS

In addition to the clear positive impact on sector performance, we found foreign player entry to have positive or very positive impact on suppliers in 7 cases, and neutral in 5 cases.[5] The stage of industry restructuring of the sector determined the potential supplier impact, with some variance on outcomes depending on sector initial conditions.

¶ **In the case of new-market entry FDI – when companies need to build a full value chain within host country to operate – we found FDI to lead to significant supplier spillovers**. The one exception was when informality isolated the informal supply chain from FDI impact. These spillover effects are illustrated by the food retail cases in Brazil and Mexico and auto cases in India and China.

- Our Mexico food retail case and previous MGI work on retail show the very

---

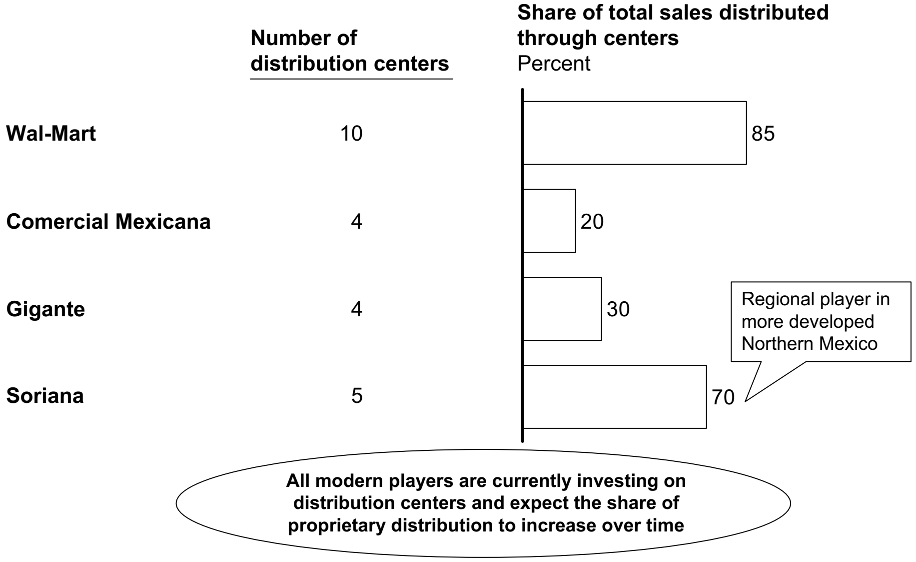
3. Other sectors like public utilities and telecommunications need similarly to be treated differently because their nature – very high economies of scale leading to monopolistic market dynamics, critical role of regulation – make them very different from competitive markets. As a result, the impact of FDI on the sector dynamics is also likely to be different than that for most other sectors. As mentioned previously, we do not have studies these sectors and exclude them from our scope.
4. McKinsey Global Institute. Productivity, The Key to an Accelerated Development Path for Brazil, Washington D.C.:1998.
5. We do not discuss retail banking where there are no significant suppliers.

Exhibit 16

Food retail Mexico

ROUGH ESTIMATES

WAL-MART HAS SUCCEEDED IN CONCENTRATING DISTRIBUTION TO PROPRIETARY CENTERS



All modern players are currently investing on distribution centers and expect the share of proprietary distribution to increase over time

Source: Interviews

Exhibit 17

Food retail Mexico

SPILL-OVER EFFECTS TO WAL-MART SUPPLIERS ARE ALREADY SIGNIFICANT AND LIKELY TO INCREASE

	Direct impact on suppliers	Likely outcome
Wal-Mart's increasing market share	• Increasing Wal-Mart's negotiation power • Requires minimum supplier scale • Increasing cross-regional competition for suppliers	• Increasing supplier concentration
Wal-Mart's aggressive COGS reduction targets	• Direct margin and income pressure • Increased working capital needs with 30 days payable	• Rationalization of supplier base • Increased operational efficiency of surviving suppliers
Shift to Wal-Mart distribution centers	• Local and regional distributors become redundant • Loss of distribution revenue to suppliers with proprietary distribution channel • Increases marginal cost of supplying traditional retailers	• Accelerating the shift to modern formats • Some suppliers with proprietary distribution channels are building alternative sales channels (Oxxo & Extra convenience stores by Coca Cola and Modelo)

Source: Interviews

large spillover potential through supplier productivity improvements in food processing and distribution. In Mexico, a Wal-Mart-led transition to proprietary distribution and aggressive supplier price targets increased competitive pressure among suppliers and led to productivity improvements through increased scale and productivity-improving investments (exhibits 16 and 17).

- The reason these potential benefits were not realized in Brazil food retail was the high level of informality in food processing, isolating more than 50 percent of the market into an informal market operating under significant cost benefits from tax avoidance (Exhibit 18).
- In the India and China auto sectors, import tariffs and FDI barriers contributed to the adoption of capital-intensive production methods by foreign OEMs and rapid localization of the full auto value chain. Indeed, in China, some OEM investments in parts suppliers actually preceded the entry of the OEMs themselves. While this has led to rapid growth and productivity improvements in domestic parts production, the full welfare impact of policy-induced localization is mitigated by the increased costs to domestic consumers.

¶ **FDI in the Mexico and Brazil auto sectors was characterized by product specialization. Here, the potential supplier impact is again very large as full value chain production is located within host country, with further scale benefits from specialization.** In Mexico auto, we saw a positive impact that has created a large sector (more than 7 times the number of employees than among OEMs themselves), yet with significant further potential for productivity growth. In Brazil, there has been significant productivity growth among parts suppliers – despite the negative impact on employment caused by the macroeconomic downturn.

¶ **In the case of FDI under a disaggregated value chain, the potential for supplier spillovers is significantly more limited, as very specific activities can be located in different parts of the globe – with the exception of the few locations that become global supply basis for key components.** Among our cases consumer electronics illustrates this well. While China has been able to become the global hub for some electronics parts, Mexico is very focused on assembly using parts imported from the U.S. or Asia – with very limited backward linkages to local suppliers (Exhibit 19). And while policy barriers have created final electronics product assembly operations in India and China, they have not led to significant supplier spillovers there either.

CONSUMERS HAVE BEEN THE BIG WINNERS

Among all the constituencies within the host country, consumers are the major beneficiaries as foreign player entry leads to direct improvements in their standards of living. Consumers saw positive impact through price reductions, improved selection, or both, and these led to increased output or domestic consumption in most cases. These benefits were present across both market-seeking and efficiency-seeking cases, and in all sectors except retail banking.

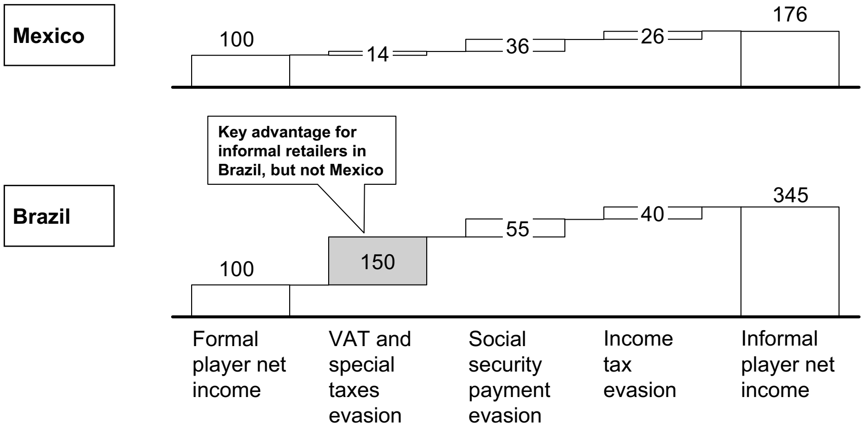
Exhibit 18

Food retail Brazil and Mexico

ROUGH ESTIMATE

BENEFITS FROM INFORMALITY ARE LOWER IN MEXICO THAN IN BRAZIL

Indexed to formal sector net margin = 100

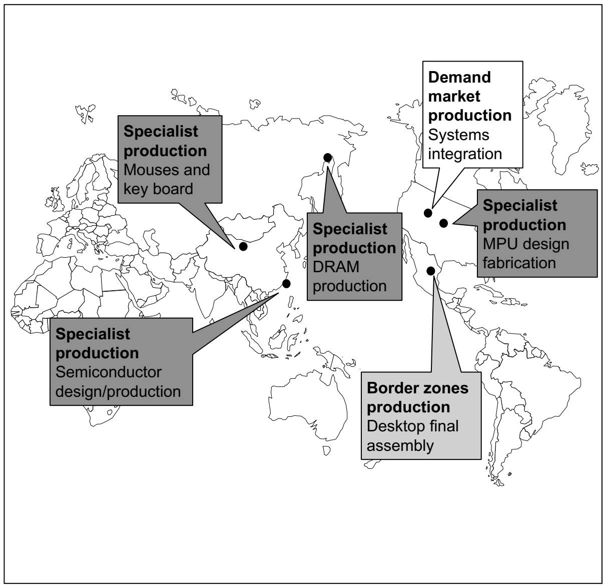


Note: Analysis modeled for a representative supermarket – informal sector assumption is that 30% net sales and employee costs go unreported

Source: McKinsey analysis

Exhibit 19

ROLES COUNTRIES PLAY IN GLOBAL CONSUMER ELECTRONICS VALUE CHAIN



Demand market production
- Perform tasks where good/service cannot be effectively sourced outside demand market due to structural, policy, or organizational factors

Border zones production
- Perform production for goods where transportation sensitivity outweighs advantages presented by specialist production zones

Specialist production
- Produces goods at lowest possible cost by capturing low labor costs, economies of scale/scope, and/or natural resource cost advantages

This impact on domestic standards of living is the great success story of FDI – but one that is seldom heard because of the fact that consumers are a fragmented, less vocal political body than, say, incumbent domestic companies.

¶ **In market-seeking FDI cases, prices to consumers declined in 7 out of 10 cases, and selection available to consumers grew in all but the retail banking cases.**[6] In pure market-seeking cases like Mexico food retail, there were strong consumer benefits from lower and more transparent prices early on as foreign player entry increased competitive intensity. Similarly in the case of tariff jumping FDI: consumers saw declining prices and improved selection as a result of foreign investments in the protected auto assembly markets in India, Brazil, and China, as well as in Indian and Brazilian consumer electronics cases. This price impact was very large in some cases: for example, Chinese consumers saw passenger car prices drop by more than 30 percent between 1995 and 2001, while consumer prices more broadly grew by 10 percent during the same time period (Exhibit 20). And sector output and penetration of sector products (consumer durables in these cases) increased with declining prices, with the exception of Brazilian auto, where macroeconomic downturn caused the domestic market to collapse during our analysis period.

¶ **As we would expect, we found efficiency-seeking FDI cases to have a more limited impact on host country consumers as most production is for export and benefits global consumers.** Furthermore, many countries have imposed policy barriers that prohibit export-oriented FDI players from participating in the domestic market, e.g., tax incentives tied to exports kept some consumer electronics companies in Mexico (prior to NAFTA) or kept Indian IT/BPO companies from supplying their host country markets. But even in these conditions, we found the presence of foreign players benefits domestic consumers – either in the form of broader selection enabled by local production, or as in the case of Mexican auto sector, by FDI players introducing innovative financing options in the Mexican market that they probably would not have done without having local production facilities.

FOREIGN INVESTMENTS BRING CAPITAL, TECHNOLOGY, AND SKILLS

We attribute the positive impact of foreign direct investments in developing countries to the combination of three things that foreign players bring in tandem to the domestic markets: capital, technology, and skills. In many cases, the three are closely integrated – as in automotive plant investments that combine the capital, technology, and operational and managerial skills needed. In most successful cases however, these MNC global capabilities were complemented

---

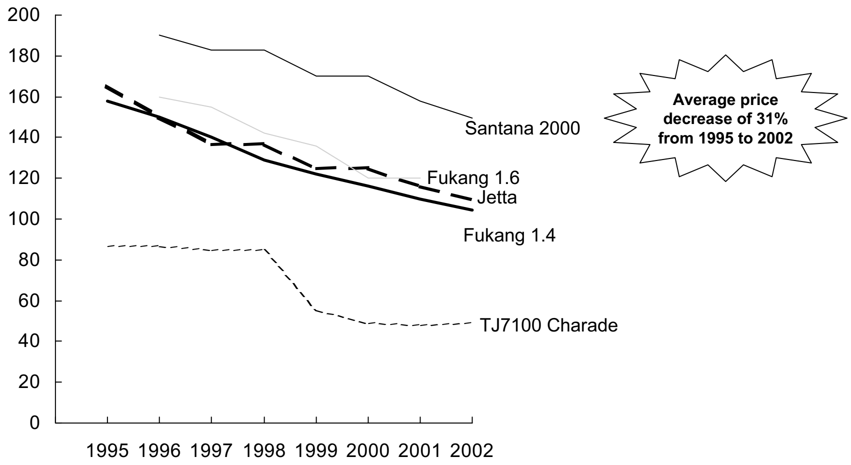
[6] Outside the case of retail banking discussed above, there were two market-seeking cases where we did not attribute lower prices to consumers as the impact of FDI. First is the case of China consumer electronics, where cut-throat competition has led to rapid price declines not only to Chinese but also global consumers. However, given that the competitive dynamics were driven largely by Chinese domestic players, we have not attributed that as FDI impact. The second case is food retail in Brazil, where the benefits of productivity improvements were passed on to the government in higher taxes rather than to consumers. This occurred because the MNCs paid high value-added taxes whereas the domestic informal players did not. But even in this case consumers benefited from broadened product selection.

Exhibit 20

Auto China

PRICE EVOLUTION FOR DIFFERENT MODELS IN CHINA

Thousand RMB (nominal values)



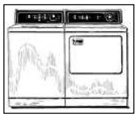
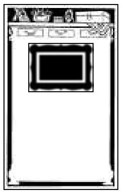
Note: List price does not necessarily reflect transaction price; incentives have to be investigated further; other possible methodological issues include change in car quality

Source: Access Asia; Press Search

Exhibit 21

Consumer electronics

UNIQUE WHITE GOODS CHARACTERISTICS DRIVEN BY TOTAL NEEDS

Local need/condition		Product characteristics
India Scarcity of water, with high-cost water supply	→ 	“Double basin” clothes washer, which allows for reuse of water
Europe Heightened environmental concern and more frequent trips for food shopping	→ 	Smaller, more efficient refrigerators than American counterparts
China Because many families live in one-room apartments, refrigerators are often in the living room; they are often given as wedding gifts	→ 	Refrigerators styled towards living room decor; picture frame integrated for wedding picture

Source: McKinsey Analysis

with deep local market expertise provided either by local partners or locally hired managers.

¶ **Capital.** Capital inflow from foreign investors was critical for sector performance in four of our cases. In Brazil food retail, formal domestic players were cash constrained and needed foreign capital for the productivity-improvements that would enable them to be more competitive against the low cost informal players; In Mexican banking, domestic banks had been severely undercapitalized after the financial crisis of 1997, and foreign capital infusion was critical for capitalizing and maintaining the stability of the Mexican financial system; in Indian auto and IT/BPO cases, foreign capital was needed to finance the investments required for sector growth. In addition, supplier spillover effect in many cases was driven by foreign player financing: auto OEMs are a main source of financing for local parts suppliers in all country cases, and in China consumer electronics, financing from Taiwanese entrepreneurs were a significant source for Chinese companies supplying to or competing with other foreign investors. Yet the need for capital (either for investments or operations) was not a necessary condition for foreign player entry – there were cases like Wal-Mart's Cifra acquisition in Mexico food retail that were pure transfer of equity from a domestic owner to a foreign one.

¶ **Technology.** Access to proprietary or foreign technologies and design capabilities was a key factor that foreign OEMs provided in all auto and consumer electronics cases. The more complex and rapidly evolving the technology required, the more difficult it is for domestic companies to acquire without foreign investments. So within consumer electronics, access to foreign technology was most important in mobile phones and least important in white goods like refrigerators and stoves.

¶ **Skills.** Foreign investors brought a broad range of skills that enabled them to improve domestic sector productivity and grow output. We have grouped these skills into four categories:

- Operations/organization of functions and tasks (OFT). Large foreign players coming from more competitive home markets brought with them global capabilities in operations in most of our sectors: examples include supply chain processes and inventory management in food retail; plant operations and distribution in auto; business operations in BPO; and credit work-out skills in retail banking in Mexico.
- Marketing and product tailoring. Foreign players also introduced improvements in marketing: for example, in food retail, foreign players introduced competitive pricing practices in Mexico and improved in-store marketing and merchandizing in Brazil; in consumer electronics China and India, some MNCs tailored products to suit the domestic market (Exhibit 21).

  Interestingly, the most successful examples combined the global capabilities of foreign players with deep local knowledge provided by their domestic partners (e.g., Cifra management in Mexican food retail, Maruti in Indian auto), and where we saw some failures among foreign players as a result of insufficient local knowledge (e.g., OEMs targeting high-end segments in India auto, or attempts of foreign retailers to sell ski boots in São Paulo or sit-on lawn-mowers in Mexico).

Exhibit 22

Retail banking Mexico

MNCS ADOPTED BROAD RANGE OF MANAGEMENT APPROACHES IN THEIR MEXICAN OPERATIONS

	Execution focus	Performance pressure	Mentoring approach
Example	**BBVA – Bancomer**	**Santander – Serfin**	**Citigroup – Banamex**
Description	• Local management executes decisions made by parent company • Little focus on independent thinking and initiative by local management	• Local management is given performance targets based on group benchmarks • Up to local management to decide how to meet top-down targets	• Local management is given autonomy under guidance of parent company executives • Local management encouraged to adopt best practice developed in other parts of the organization
Internal organization	• Top management in subsidiary replaced by senior managers from parent company • Key management decisions taken by parent company	• Subsidiary run by a combination of local and parent company executives • Operational control by parent company with clear line authority over local management	• Subsidiary run mostly by local executives • Multiple reporting lines within matrix-like structure
Skill transfer	• Clear and direct transfer of best practice through central line of command • Approach favours best practice over local content	• Model emphasizes local content rather than best practice • Santander fosters best practice transfer through internal consulting unit	• Mentoring approach tries to strike balance between local content and best practice

Source: Interviews

- Managerial and organizational skills. In all our cases, foreign players brought new organizational and managerial skills to the domestic market. These ranged from introducing more professionalism in company culture and increasing accountability, to more specific management tools like performance measurement or wage structures and other incentives. Again, we saw examples of MNCs benefiting from local knowledge through employment of local managers and supervisors particularly on the customer service segments of Indian BPO.

  We found broad variance in the specific management approaches, as we do among high-performing companies within any developed economy, and did not find a correlation between, say, level of de-centralization and MNC performance. The example of Mexican retail banking illustrates the case: after acquiring domestic banks, MNCs have chosen a broad range of management approaches ranging from Banco Bilbao Vizcaya Argentaria's (BBVA) strictly top-down approach to Citigroup's decentralized approach through management mentoring (Exhibit 22).
- Global market access. In efficiency-seeking cases, foreign players provided access to the export market through their global distribution networks, market position, and brands. This was the case for all consumer electronics export segments in Mexico, China, and Brazil, as well as in automotive in Mexico and Brazil, where foreign OEMs were able to increase exports to compensate declining domestic sales during economic crises. This can often be a major barrier for domestic players – yet they can potentially benefit from FDI entry as well: in Indian IT/BPO case, the example of leading global players like IBM locating their off-shoring operations to India established the credibility of the Indian sector, opening the door for India companies to follow suit.

ADDITIONAL IMPACT COMES THROUGH COMPETITION

We found competition within the host country sector to be a critical driver of improvements in sector performance as a result of FDI. The impact mechanism, therefore, was not very different from any domestic economy. However, FDI's potential for impact can be greater because of the combination of scale, capital, and global capabilities that allowed MNCs more aggressively to close existing large productivity gaps. And this potential of FDI impact was demonstrated in three ways:

¶ **FDI can be a powerful catalyst to spur competition in industries characterized by low competition and poor productivity**. Examples include the cases of consumer electronics in Brazil and India, food retail in Mexico, and auto in China, India, and Brazil.

¶ **Competition is also key to diffusing FDI-introduced innovation across an industry**. In Brazilian food retail, high competitive intensity caused by informal players forced all modern retailers to rapidly increase productivity; in Mexican and Brazilian auto cases, increasing competition from imports induced foreign players themselves to increase their productivity.

¶ **And last, competition is critical for ensuring that the economic benefits from improved productivity are passed on to consumers through lower prices**. The best example of this is the case of consumer electronics in China, where aggressive competition has kept supplier margins razor thin and brought rapidly declining prices to both Chinese and global consumers.

* * *

Increasingly, foreign direct investment are integrating developing countries into the global economy, creating large economic benefits to both the global economy and to the developing countries themselves. Industry restructuring enables global growth as companies reduce production costs and create new markets. For the large developing countries, integrating into the global economy through foreign direct investments improves standards of living by improving productivity and creating output growth. The biggest beneficiaries from this transition are consumers - both global consumers that reap the benefits from global industry restructuring, and consumers in the host countries that see their purchasing power and standards of living improve. The more competitive the environment, the more benefits FDI can bring - and the more benefits that are passed directly on to consumers.

Exhibit 23

FDI IMPACT IN HOST COUNTRY

▒ Overall positive impact
□ Mixed
▓ Negative

++ Very positive
\+ Positive
0 Neutral

– Negative
– – Very negative
[ ] Estimate

	Auto				Consumer electronics				Food retail		Retail banking			
	Brazil	Mexico	China	India	Brazil	Mexico	China	India	Brazil	Mexico	Brazil	Mexico	IT	BPO
Level of FDI relative to sector*	52%	6.5%	33%	n/a	30%	15%	29%	35%	4.2%	2.4%	n/a	7.5%	←2.2%→	
Economic impact														
• Sector productivity	+	++	+	++	+	+	+	[+]	+	[+]	0/+	+	[+]	[++]
• Sector output	0	++	+	++	+	++	++	+	[0]	[+]	0	[+]	[+]	[++]
• Sector employment	0	+	+	0	[–]	++	+	[0]	0	[–]	–	–	[+]	[++]
• Suppliers	0	+	+	++	[0]	0	++	[0]	[0]	[+]	n/a	n/a	+	+
Impact on competitive intensity	+	+	+	++	+	[+]	+	+	+	++	0	0	[+]	[+]
Distributional impact														
• Companies														
– Companies with FDI	–	[+]	++	– –	[+/–]	[+]	+/–	+/–	+/–	++/–	+	++	[0]	[0]
– Companies without FDI	n/a	n/a	0	–	–	[0/ –]	+	0/–	[0/–]	–	0	0	[–]	[++]
• Employees														
– Level	0	+	+	0	[0]	++	+	[+]	0	[–]	–	–	[+]	[++]
– Wages	+	++	+	+	[0]	[0]	[0]	[0]	[0]	[0]	[0]	0	[+]	[++]
• Consumers														
– Reduced prices	++	+	+	+	+	[0]	0	+	[0]	++	0	0	n/a	n/a
– Selection	+	+	+	++	[+]	[+]	+	[+]	[0/+]	[+]	0	0	n/a	n/a
• Government														
– Taxes/other	–	+	+	++	[0]	[0]	[+]	[0]	++	[0]	[0]	+	0	[+]
Overall assessment	**+**	**++**	**+**	**++**	**+**	**++**	**++**	**+**	**+**	**+**	**0**	**+**	**+**	**++**

* Average annual FDI/sector value added in last year of focus period

Policy Implications

We did not find evidence that policies targeted at foreign direct investment (FDI), such as incentives, import barriers, and trade-related investment measures, are useful tools for economic value creation. In many cases, these policies did not achieve their objective and they often incurred significant costs. Our case evidence suggests that governments can increase the value of FDI not by focusing on targeted FDI policies, but by strengthening the foundations of economic development, including a competitive environment, an even enforcement of laws and regulations, and a strong physical and legal infrastructure.

Government policies affect both FDI flow and impact of a given level of FDI. The goal of targeted FDI policies is to increase FDI flows, but in our sample of cases, these policies often did not achieve their objective. Rather, FDI flows were driven by sector market size potential and macroeconomic stability. In addition, targeted FDI policies reduced the impact of a given level of FDI. By contrast, the main effect of foundation-strengthening policies is to increase the impact of a given level of FDI. In our sample of cases, these policies did not have a negative effect on FDI flows. Rather, because they strengthen the foundations for economic development, they contributed to creating an attractive environment for FDI.

TARGETED FDI POLICIES DO NOT CREATE ECONOMIC VALUE

In our sample of large developing countries, direct incentives to FDI did not have a major impact on FDI flows. These incentives did, however, come with significant costs, including a negative impact on productivity and "race-to-the-bottom" dynamics. Import barriers reduced FDI impact by limiting competition and protecting subscale local operations. Trade-related investment measures likewise failed to create economic value: local content requirements created significant costs by protecting low productivity players, but they were not necessary for the development of strong supplier industries. Finally, we found no compelling evidence in favor of joint-venture (JV) requirements. Where JVs provided benefits, they tended to emerge naturally rather than through JV requirements.

Direct incentives are not justified as a tool to attract FDI

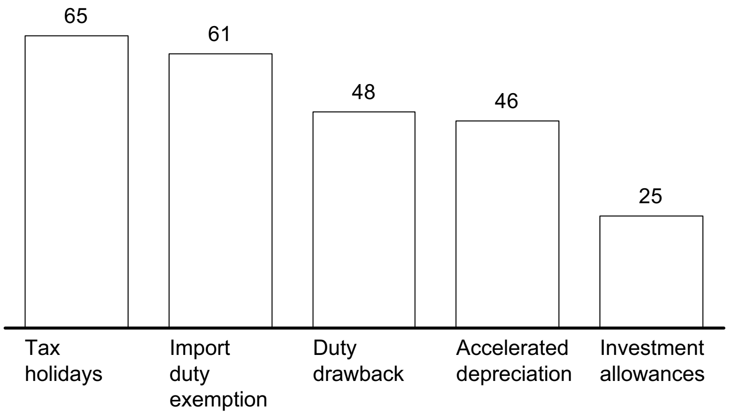
Incentives, such as tax holidays, import duty exemptions, and investment allowances are popular tools for attracting FDI (Exhibit 1). However, our case evidence suggests that their popularity is not justified. They were not the primary drivers of FDI flow and have significant costs that are often ignored by policy makers.

Incentives are not the primary drivers of FDI flows. In 7 of 14 cases, governments used incentives to attract FDI. In only 3 cases did the incentives have a positive effect on the level of FDI (Auto Brazil and India, Business Process Offshoring (BPO)); in 4 cases they did not influence FDI levels (Auto China, Consumer Electronics Brazil and China, Banking Brazil; Exhibit 2). But even where incentives did have a positive effect on the level of FDI, they were not the most

Exhibit 1

INCENTIVES ARE A POPULAR MECHANISM FOR ATTRACTING FDI

Type of incentive used, 1995
Percent of 103 countries surveyed



Source: UNCTAD 1995; McKinsey Global Institute

Exhibit 2

INCENTIVES INCREASED LEVEL OF FDI IN THREE OUT OF SEVEN CASES

++ Highly positive
\+ Positive
○ Neutral
– Negative
– – Highly negative

		Incentive	Effect on level of FDI	Effect on FDI impact	Comment
Auto	**Brazil**	Significant tax incentives, financing and free land offered by state governments in competition for auto plants	++	– –	Incentives induced overinvestment leading to reduced sector productivity Brazilian states bid away enormous value in competing for FDI
	China	Tax holidays offered for FDI players	0	0	Incentives not necessary to attract FDI to China
	India	Government incentives at state levels included subsidies of power roads, sales tax deferrals	+	–	States bid away enormous value in competing for FDI
Consumer Electronics	**Brazil**	Several tax rebates/reductions on tariffs and indirect taxes for locating production in Manaus Tariff/indirect tax rebates/reductions in certain products in other states (e.g., mobile phones in São Paulo)	0	–	Inefficient industry structure with expensive production in Manaus Expensive bureaucracy associated with recovery rebates
	China	For standard CE companies, 2 year tax free, 3 years half tax after first profitable year Long-term half-tax (15%) for “high-tech” companies	0	0	Given China’s very attractive market, labor costs, agglomeration economics, incentives not necessary to attract FDI
Retail Banking	**Brazil**	Tax subsidies to FDI players	0	0	Incentives not necessary to attract FDI
IT/BPO	**India**	Tax holidays and zero import tariff on imported equipment from federal government Subsidies on power, land, cash payment for job creation, stamp tax reduction from state government	+	–	Incentives not a key driver of decision to locate in India Interviews show that CEOs prefer that the government withdraw incentives and invest in upgrading infrastructure

Note: No incentives were offered in Auto Mexico, Consumer Electronics India and Mexico, Food Retail Brazil and Mexico, and Retail Banking Mexico
Source: McKinsey Global Institute

important factors driving location decisions of multinational companies (MNCs), suggesting that most of the FDI would have been attracted without the incentives. For example, in both Auto India and BPO, MNCs ranked quality of infrastructure and availability of skilled labor as more important than government incentives (exhibits 3 and 4).

Incentives have significant costs that are often ignored by policy makers. In addition to direct fiscal and administrative costs, incentives had large indirect costs that rendered them ineffective as tools for economic value creation in the cases we studied (Exhibit 5).

¶ **Direct costs** include both fiscal and administrative costs. The fiscal costs of incentives vary by type of FDI. For efficiency-seeking FDI, incentives constitute economic costs only if the FDI player would have invested in the country even without the incentive. For market-seeking FDI, fiscal costs occur whenever an entrant receives incentives for an investment that would have otherwise been made by a domestic player. Administrative costs are generated because bureaucracies are created to administer the incentive programs.

¶ **Indirect costs** include a negative impact on productivity, "race-to-the-bottom" dynamics, and the possibility of corruption.

- Negative impact on productivity. Incentives may encourage overinvestment, inefficient production, or crowding out of more efficient producers, all of which reduce sector productivity. For example, government incentives encouraged overinvestment by foreign original equipment manufacturers (OEMs) in Brazil's automotive industry, which contributed to overcapacity and significantly reduced sector productivity (exhibits 6 and 7). Tax incentives encouraged foreign consumer electronics manufacturers to locate production in remote Manaus region of Brazil, which increased costs and reduced productivity (Exhibit 8).
- "Race-to-the-bottom" dynamics. National or subnational governments may engage in bidding wars that transfer large amounts of value to FDI companies. For example, Brazilian state governments competed vigorously for the location of foreign automotive plants by offering large incentive packages, which transferred significant value from the Brazilian state to FDI companies (Exhibit 9). Likewise, Indian states bid away enormous value in competing for the location of foreign automobile plants. For efficiency-seeking FDI, similar bidding dynamics operate on the global level.
- Corruption. While we did not find evidence of widespread corruption impacting economic outcomes, the discretionary disbursement of incentives does create the risk of corrupt behavior.

Import barriers reduce FDI impact

Our case evidence shows that import barriers reduce FDI impact by limiting competition and by protecting subscale local operations. Import barriers include measures such as import tariffs, quotas, and products standards. 7 out of 8 cases in tradable goods sectors had some form of import protection during the period of our study. In all 7 cases, FDI had a positive impact, but our case evidence shows that FDI impact would have been even greater in the absence of import barriers.

Exhibit 3

Auto India

INCENTIVES WERE NOT AMONG TOP THREE FACTORS DRIVING FORD'S LOCATION DECISION IN INDIA

Ford was offered a host of incentives to locate its plant in Tamil Nadu

Cheap land	• Government offered Ford 300 acres of freehold land at a subsidized cost of Rs. 300 million
Infrastructure assistance	• Guaranteed power supply – plant will get power from 2 separate stations (one being a 230kV) • Ford to get 40% discount on power tariff in Year 1 although this was gradually eliminated by Year 5 • Adequate piped water supply assured
Fiscal incentives	• 14-year holiday on sales tax (now 12%) on cars sold within Tamil Nadu (~9% of total production) • Holiday on 4% CST on all cars sold outside Tamil Nadu • Concession on sales tax levied on bought-out components in production process • No import duty on capital goods (~30% at that time) as long as Ford made a commitment to export 5 times the value of the duty (subsequently changed)

However, incentives were not the most important factor driving their location decision

Rankings of factors affecting location decision
10=highest, 1=lowest

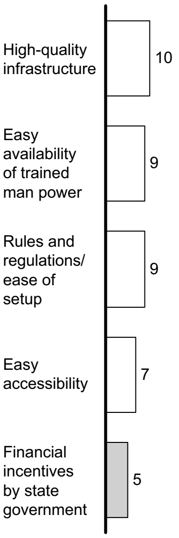
	Rank
Distance from international airport	3
Proximity to target market	3
Availability of cheap land	4
Proximity to port/inland container terminal	7
Incentives	**7**
Availability of infrastructure	8
Availability of skilled labor	9
Availability of supplier base (ancillary unit)	9

Note: Taken from "Study on policy competition among states in India for attracting direct investment" by R. Venkatesan et al.
Source: Interviews; NCAER

Exhibit 4

BPO

BPO COMPANIES RANK INCENTIVES LOW WHEN EVALUATING LOCATION ATTRACTIVENESS



	Mean rank by companies*	Description
High-quality infrastructure	10	• Reliable, cost-effective telecom infrastructure with multiple levels of built-in redundancy • Ready-to-move-in office space • Reliable, economically priced power with multiple levels of built-in redundancy • Reliable public and private transport for rapid movement of employees • Developed certified/recommended vendor-base
Easy availability of trained man power	9	• Sufficient high quality people trained and certified by leading institutions • Existence of institutions of learning catering specifically to offshoring industry to develop company- specific courses/modules
Rules and regulations/ ease of setup	9	• Supportive and progressive regulatory environment apart from vary attractive financial incentives • Single-window interface for facilitating the setting up and running offshoring centers
Easy accessibility	7	• World-class accessibility with good connections by air
Financial incentives by state government	5	• Attractive financial incentives by state government to companies for setting-up and running off-shoring centers • Financial incentives are low on the list of criteria firms use for location decisions; however, they can be a significant determinant when all others factors are equal

* Based on a survey of 30 MNC and Indian offshored services companies. Ranking on a scale of 1-10 where 1 denotes lowest and 10 denotes highest importance
Source: McKinsey Global Institute

Exhibit 5

DIRECT AND INDIRECT COSTS OF INCENTIVES

		Description	Case evidence
Direct cost	**Fiscal cost**	• Incentives erode tax base when "free-riders" who would have invested anyways receive tax breaks • Often tax breaks may be extended to local players to preserve level playing field	• Brazil Auto • India Auto • China Auto • India IT/BPO • Brazil banking
	Administrative costs	• Because there are many discretionary tax breaks, large bureaucracies to monitor qualification are created • Enforcement can be expensive as well, as there are plenty of ways to misrepresent	• Brazil Consumer Electronics • India IT/BPO
Indirect cost	**Impact on productivity**	• Reduced productivity can occur as a result of – Overinvestment – Inefficient production – Crowding out of more efficient domestic producers	• Brazil Auto • Brazil Consumer Electronics
	"Race to the bottom"	• Especially within regions with integrated market value destroying "incentive wars" can develop • Operates both at the national and sub-national levels	• Brazil Auto • India Auto
	Corruption	• Discretionary disbursement of incentives creates opportunities for corruption	• India IT/BPO

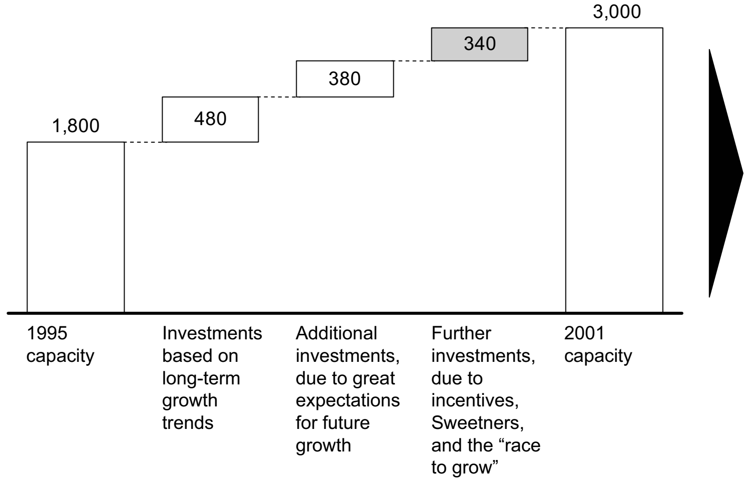
Source: McKinsey Global Institute

Exhibit 6

Auto Brazil

INCENTIVES CONTRIBUTED TO CAPACITY BUILD-UP IN BRAZIL'S AUTO SECTOR

Capacity in Brazil Auto sector, 1995-2001
Thousand units per year



Collectively, the industry built **more than double** what would have been expected under long-term trends

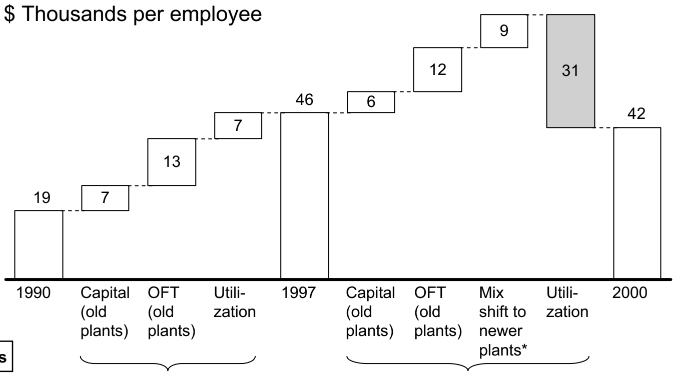
Source: McKinsey Global Institute

Exhibit 7

Auto Brazil

OVERCAPACITY SIGNIFICANTLY REDUCED SECTOR PRODUCTIVITY

2001 U.S. $ Thousands per employee



- Existing plants made steady improvements throughout the decade
- New plants were superior in every way, but the additional capacity created a drag on productivity for old and new plants alike

Key changes		
Capital	• Increased automation and machine upgrades	• New plants had more automation and superior equipment, but old plants continued to improve as well
OFT	• Outsourcing, de-bottlenecking, and continuous improvement programs	• New plants had better facility lay-out and external logistics; also younger workers – but old plants also improved their operations
Utilization	• Rising demand outpaced increases in capacity	• Capacity increased rapidly as demand capsized. Overcapacity was especially high at some new plants

Note: "Old plants" are those built before 1990

* Additional productivity due to new plants is weighted by the fraction of capacity in 2000 that is new

Source: Interviews; plant visits; team analysis

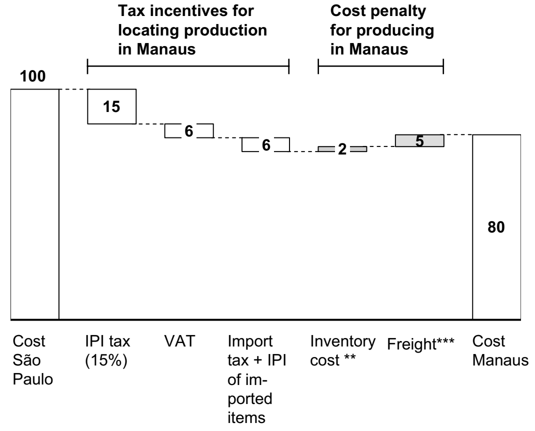
Exhibit 8

Consumer Electronics Brazil

TAX INCENTIVES ENCOURAGE PRODUCTION IN MANAUS REGION DESPITE SIGNIFICANT COST DISADVANTAGE

Cost advantage*

Percent



Location

- Manaus is located in the middle of the Amazon forest, around 2,500 miles from São Paulo, the main consumer market
- Trucks proceed to Belém by river (5 days) then by road, taking 10-20 days to get to São Paulo
- Freight cost between 3% and 7% for CE products (except white line)

* Assuming a consumer electronics product with 25% of cost as imported components and 20% margin. Labor cost differences not assumed

** Assume 2 month component stock and 18 days delivery to south-east

*** Assume only extra freight cost compared to São Paulo

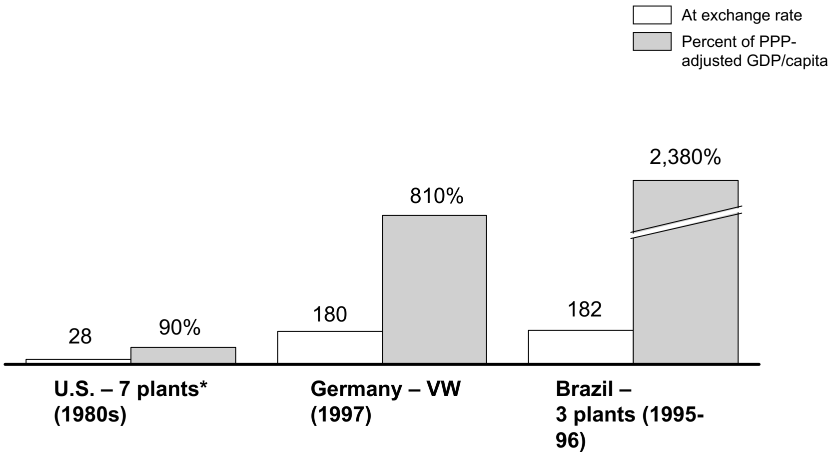
Source: Interview, McKinsey analysis

Exhibit 9

Auto Brazil

GOVERNMENT INCENTIVES TRANSFERRED LARGE AMOUNT OF VALUE TO FDI COMPANIES

NPV in $ thousands/job, percent of GDP/capita



* Excludes a single U.S. Mercedes Benz plant with incentives of $168,000 per job in 1994

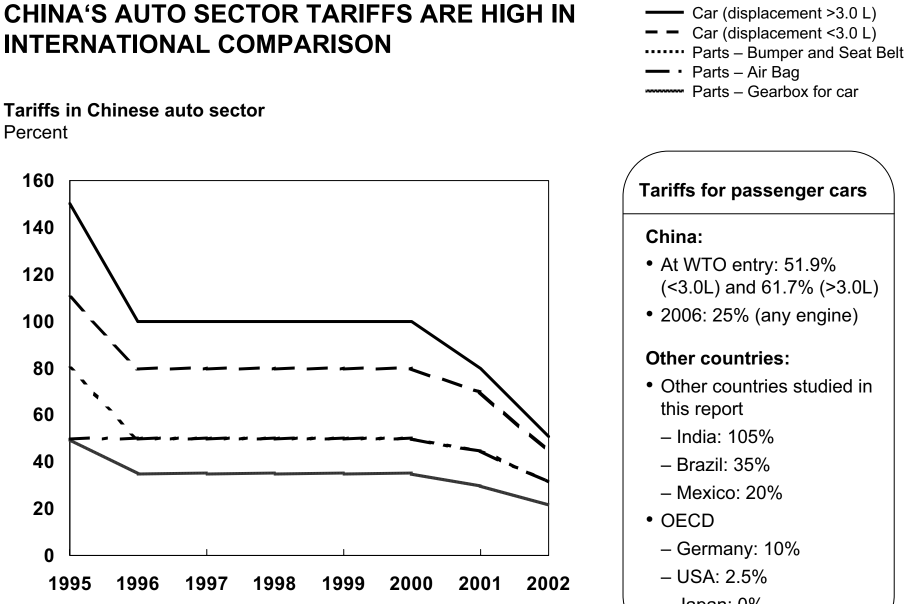
Source: Cited in Donahue (U.S.); Bachtler et. al. (Europe); Da Mota Veiga and Iglesias (Brazil), and Venkatesan et.al. (India); McKinsey Global Institute

Exhibit 10

Auto China

CHINA'S AUTO SECTOR TARIFFS ARE HIGH IN INTERNATIONAL COMPARISON

Tariffs in Chinese auto sector
Percent



Tariffs for passenger cars

China:

- At WTO entry: 51.9% (<3.0L) and 61.7% (>3.0L)
- 2006: 25% (any engine)

Other countries:

- Other countries studied in this report
  - India: 105%
  - Brazil: 35%
  - Mexico: 20%
- OECD
  - Germany: 10%
  - USA: 2.5%
  - Japan: 0%

Source: China customs yearbook

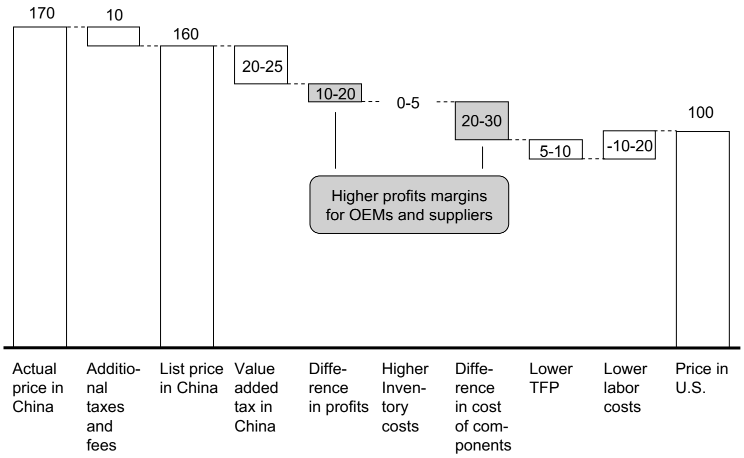
Exhibit 11

Auto China

CAR PRICES ARE HIGHER IN CHINA THAN IN THE U.S. MAINLY DUE TO HIGHER PROFIT MARGINS FOR OEMS AND SUPPLIERS

ESTIMATE

Comparison of China and U.S. passenger vehicle prices
Percent



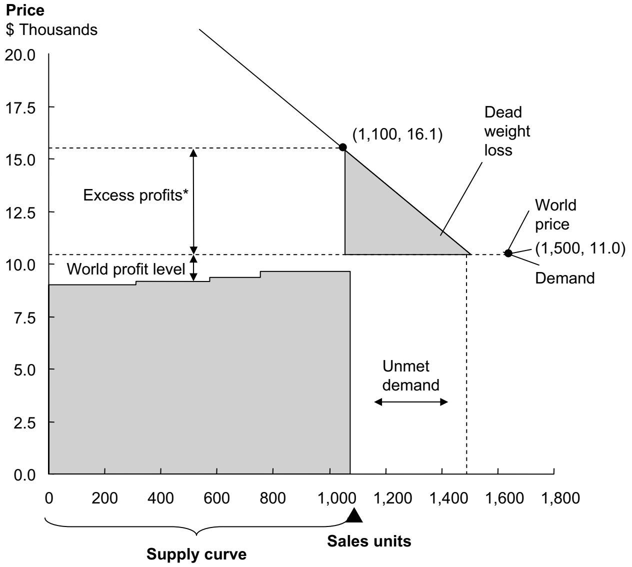
Source: Interviews; McKinsey Global Institute

Exhibit 12

Auto China

SUPPLY AND DEMAND IN CHINA AUTO SECTOR, 2001

ESTIMATE



- Due to constrained supply and tariff protection unmet demand is ~400,000 units (not including income effects in future)
- Deadweight loss is approximately $900 million
- Excess profits* are $3 billion

* Includes excess profits of parts makers

Source: UBS Warburg; McKinsey analysis

- **Auto China**: Import barriers have been a key inhibitor of greater FDI impact. A combination of high import tariffs and quotas has limited competition in both auto assembly and parts, causing prices to remain nearly 70 percent above U.S. levels (exhibits 10-12).
- **Consumer Electronics India**: Import tariffs average about 30 to 40 percent for goods such as TVs, PCs, and refrigerators. The protection of domestic players has limited competition and increased prices by significantly compared to international best practice levels (exhibits 13 and 14).
- **Auto India**: High import tariffs have forced OEMs selling very small volumes (e.g., Daimler-Chrysler) to set up plants in India. Due to the small scale of these plants, OEMs produce with a significant cost-disadvantage, reducing productivity (exhibits 15-16).
- **Consumer Electronics Brazil**: Brazil-specific standards (such as the unique PAL-M TV standard) encourage low productivity, subscale local production.

Trade-related investment measures do not create economic value

We did not find compelling evidence in favor of trade-related investment measures (TRIMs). TRIMs tend to impose requirements or restrictions on company operations, which can limit their flexibility to compete effectively. Thus they should not be put in place except in the rare cases where there is strong evidence of positive outcomes from doing so. In our sample of cases, local content requirements (LCRs) created significant economic costs by protecting low-productivity players, but they were not necessary for the development of strong supplier industries. We found no compelling evidence in favor of joint-venture (JV) requirements. Where JVs provide benefits, such as access to markets or governments, they tend to emerge naturally rather than through JV requirements.

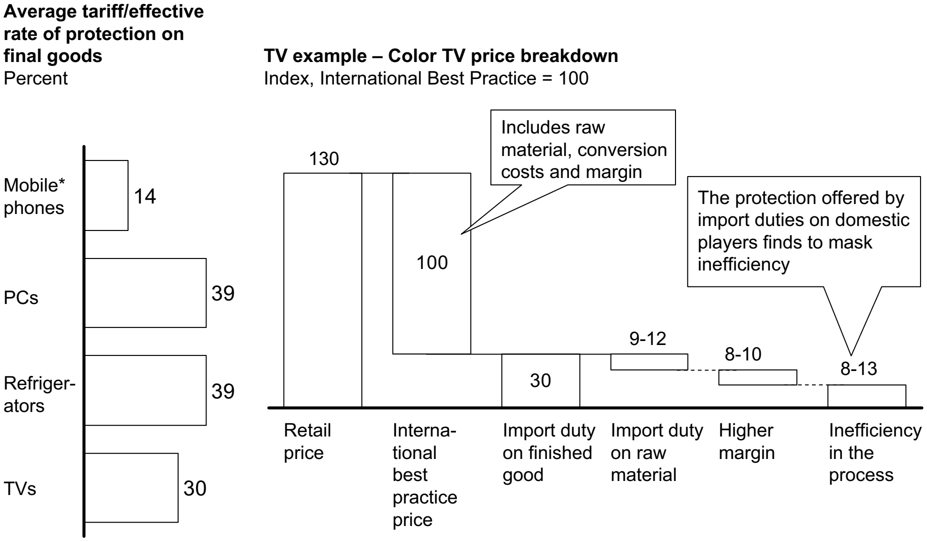
Local content requirements create significant economic costs by protecting low productivity players, but they are not necessary for the development of strong supplier industries. The primary purpose of LCRs is the development of local supplier industries. LCRs were present in 3 of 14 cases (Auto China and India and Consumer Electronics Brazil).

- **LCRs create significant costs by protecting low productivity players**. In Auto China and Consumer Electronics Brazil, most locally sourced parts are more expensive than imports due to the small scale of local operations. In Auto India, local parts were initially more expensive than imports, but, over time, the Indian parts industry developed an export platform, which reduced its scale disadvantage. LCRs may have provided a short-term catalyst for the development of a domestic supplier industry, but interviews suggest that long-term growth has been driven by sector characteristics (low-cost/high-skill labor and high competitive intensity) rather than LCRs.
- **Our case evidence suggests that LCRs are not necessary for the development of strong supplier industries**. In Auto China and India, export-oriented supplier industries have developed in the presence of LCRs, but sectors without LCRs, such as Auto Mexico and Consumer Electronics China have even more developed supplier industries. Given spillover effects from

Exhibit 13

Consumer Electronics India

HIGH TARIFFS LIMIT COMPETITION AND INCREASE PRICES IN INDIA'S CONSUMER ELECTRONICS SECTOR

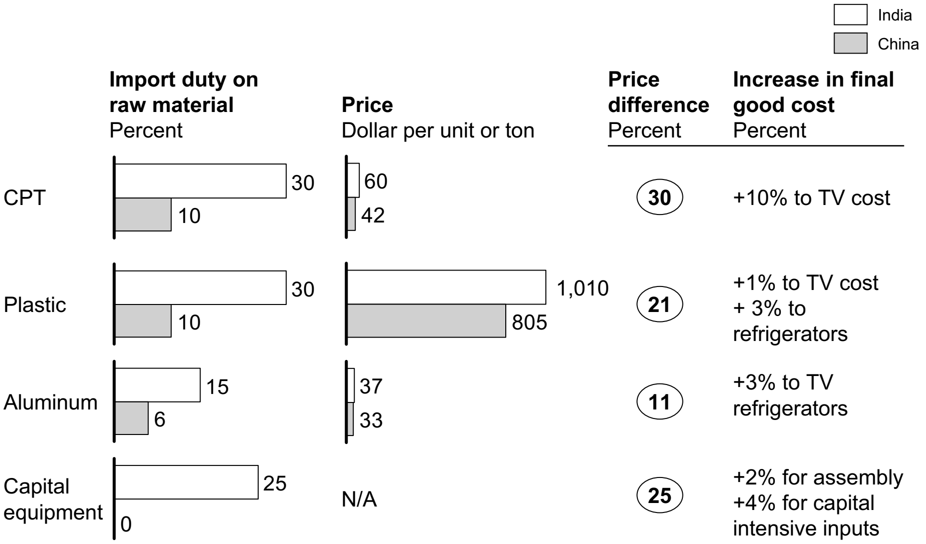


Source: McKinsey CII report

Exhibit 14

Consumer Electronics India

IMPORT DUTIES INCREASE PRICES OF INPUTS FOR INDIA'S CONSUMER ELECTRONICS INDUSTRY BY UP TO 30 PERCENT COMPARED TO CHINA

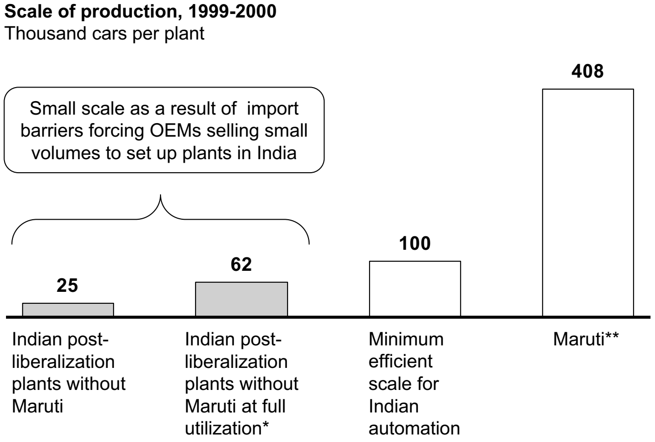


Source: McKinsey CII report; McKinsey Global Institute

Exhibit 15

Auto India

IMPORT BARRIERS FORCE SUBSCALE OEM OPERATIONS IN INDIA



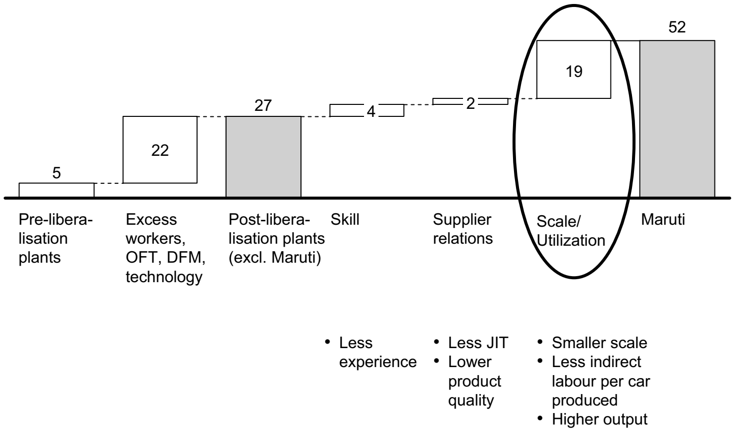
* With two shifts
** Including MUV
Source: Interviews, SIAM, Harbour report

Exhibit 16

Auto India

LOWER PRODUCTIVITY OF MNCS LARGELY DRIVEN BY LACK OF SCALE AND LOW UTILIZATION

Equivalent cars per employee*, indexed to U.S. average



* Excluding sales, R&D, powertrain, etc., and adjusted for hours worked per year
Source: Interviews, SIAM, INFAC; McKinsey Global Institute

OEMs and the inherent attractiveness of the economics, a strong supplier base would have likely developed in Auto China and India without the help of LCRs. In Consumer Electronics Brazil, by contrast, in the absence of the right economics, LCRs did not create a viable components industry. As soon as tariffs were reduced, the industry was decimated by lower price imports.

We found no compelling evidence in favor of JV requirements. Where JVs provide benefits they tend to emerge naturally, rather than through JV requirements. Governments impose JV requirements for a variety of reasons, including the desire for greater technology transfer, access to global markets, and the transfer of management know-how. JV requirements were present in 3 of 14 cases (Auto China and India and Consumer Electronics China).

¶ **Auto China and India**: JVs in Auto China provided FDI players with access to government purchasing and facilitated government relations more broadly. However, these JVs would likely have emerged naturally given the strong role of the state in the Chinese economy and the need for a local partner in managing that relationship. A negative consequence of JV requirements in Auto China was that they significantly reduced the total amount of FDI during the period of our study because of lengthy delays in negotiations with the government (Honda and GM spent over 4 years negotiating with the Chinese government to set up JVs). In Auto India, when the government relaxed a 50/50 JV requirement, the share of domestic partners declined to under 10 percent.

¶ **Consumer Electronics China**: Local companies gained technology from FDI players, either through JVs or through other forms of collaboration, particularly in mobile phones. Interviews suggest that FDI players would have entered the Chinese market through JVs even in the absence of JV requirements, given the strong role of state in the Chinese economy and the need for access to local distribution networks and market knowledge.

¶ **Food retail Brazil and Mexico**: In Brazil, Sonae and Ahold successfully used JVs as entry vehicles that led to acquisitions. In Mexico, Wal-Mart used a 50/50 JV with an option to acquire its domestic partner as a successful entry vehicle. There were no JV requirements in either Mexico or Brazil.

GOVERNMENTS CAN INCREASE FDI IMPACT BY PROMOTING A COMPETITIVE ENVIRONMENT, ENFORCING LAWS AND REGULATIONS, AND BUILDING A STRONG INFRASTRUCTURE

With competition in the host country sector being the most powerful factor driving FDI impact, the key policy implication for host country governments is to promote a competitive environment. Governments can further increase FDI impact by enforcing laws and regulations and by building a strong physical and legal infrastructure.

Promoting a competitive environment

Our case evidence shows that governments can increase the impact from FDI by promoting a competitive environment. Specific policies that enhance competitive intensity include:

¶ **Removal of FDI barriers.** Competitive intensity in the Indian auto sector increased dramatically following the removal of FDI barriers. Sector productivity increased significantly because of the entry of more productive foreign players and because incumbents were forced to adapt or exit (Exhibit 17). In Auto China, FDI barriers markedly reduced FDI inflow (each player had to negotiate a specific entry agreement with the government), which reduced competition and allowed prices to remain nearly 70 percent above U.S. levels (exhibits 11 and 12). FDI barriers were gradually reduced in the late 1990s/early 2000s, which prompted an increase in competition and a decline in prices.

¶ **Reduction of import barriers.** In Auto Brazil, a two-tiered tariff encouraged OEMs to build local plants. When tariffs were reduced, competitive intensity increased, resulting in higher productivity and better quality vehicles at lower prices (Exhibit 18). In Auto Mexico, reductions in import tariffs following NAFTA led to an increase in competition as Mexico-based producers were increasingly exposed to the superior quality and productivity of vehicles made in the U.S.

¶ **Elimination of local content requirements.** LCRs in Auto China and Consumer Electronics Brazil have limited competition from more efficient foreign suppliers, which has increased input prices for manufacturers. In Auto China, LCRs have been removed in the course of the WTO entry and industry experts expect an increase in competitive intensity as a result.

¶ **Promotion of new entrants.** Competition in the Mexican retail banking sector has been limited in part because of the small presence of non-bank players in core banking markets.[1] The Mexican government recently streamlined the regulation of mutual funds to increase their appeal as investment products and to increase competition with banks on the deposit side (Exhibit 19). In the U.S., growth of mutual funds in the 1980s led to a dramatic increase in banking sector competition.

Enforcing laws and regulations

Unequal enforcement of laws and regulations can have a major impact on sector performance and FDI impact. Informality – the failure of business activities to meet key legal and tax requirements – was a significant problem in many sectors, reducing productivity growth and formal player performance. Corruption, by contrast, did not surface as a main issue or barrier to FDI impact.

In countries with high taxes and low tax enforcement, informality has reduced sector performance and FDI impact. We found some form of informality in 9 of our 14 cases (Exhibit 20). Informal players reduce sector performance in three

---

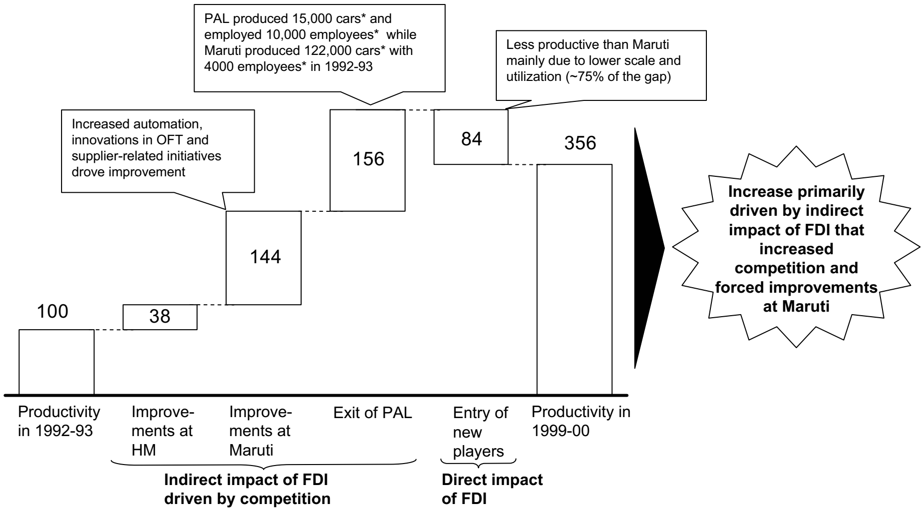
1. Non-bank financial institutions play an important role in the Mexican financial sector. However, most of these institutions focus on lower-income segments of the population that are not served by commercial banks. The role of non-bank financial institutions in core banking segments is limited.

Exhibit 17

Auto India

FDI'S MOST CRUCIAL IMPACT IN INDIA WAS TO INDUCE COMPETITION

Labor productivity
Equivalent cars per equivalent employee; indexed to 1992-93 (100)



Increased automation, innovations in OFT and supplier-related initiatives drove improvement

PAL produced 15,000 cars* and employed 10,000 employees* while Maruti produced 122,000 cars* with 4000 employees* in 1992-93

Less productive than Maruti mainly due to lower scale and utilization (~75% of the gap)

Increase primarily driven by indirect impact of FDI that increased competition and forced improvements at Maruti

* Actual cars and employment (not adjusted)

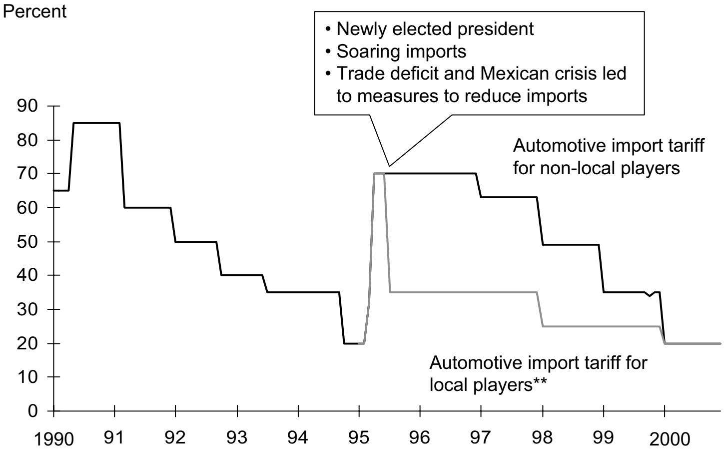
Source: MGI; McKinsey Global Institute; team analysis

Exhibit 18

Auto Brazil

IN BRAZIL A TWO-TIERED TARIFF ENCOURAGED OEMS TO BUILD LOCAL PLANTS

Import tariffs for vehicles*
Percent



- Newly elected president
- Soaring imports
- Trade deficit and Mexican crisis led to measures to reduce imports

* Published schedule of tariff reductions

** Only companies with confirmed investments (either expansions or new facilities). Local players have to maintain a zero or positive company trade balance to benefit from the lower tariffs. Newcomers will have to export enough to make up for those benefits within 3 years

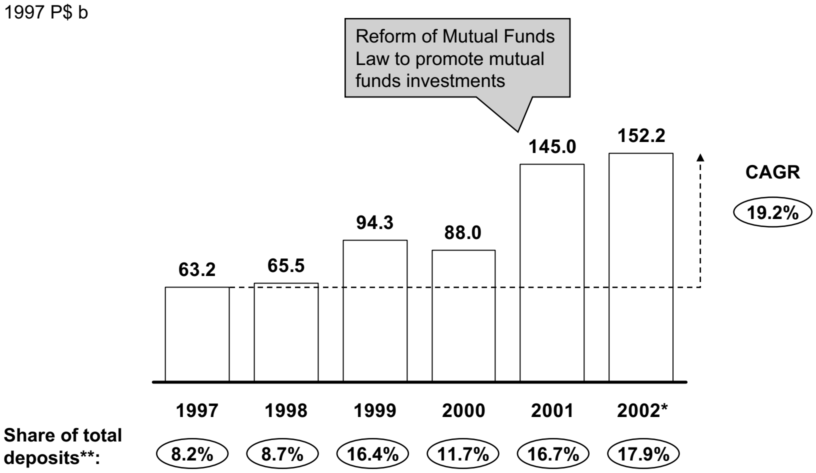
Source: Anfavea; Banco Central do Brasil; Conjuntura Econômica; Suma Econômica; Dinheiro Vivo; press clippings

Exhibit 19

Retail Banking Mexico

IN MEXICO MUTUAL FUNDS INCREASINGLY COMPETE WITH BANKS FOR RETAIL DEPOSITS

Total deposit volume of retail mutual funds, 1997-2002
1997 P$ b



* September 2002

** Commercial banks, savings-and-loans, credit unions and retail mutual funds

Source: CNBV

Exhibit 20

PRESENCE OF INFORMALITY ACROSS SECTORS

▨ MGI definition of informality

		Characteristics of the business activity		
		Full reporting of **all business revenues** and employment	Registered as a **business entity but partial reporting** of business revenues and employment	Not registered as a business entity
Type of companies	Modern	• **All sectors**	• **Food retail:** Significant in Brazil but not in Mexico • **Auto parts**	
	Traditional	• **Food retail:** Exists in Mexico	• **Food retail:** Significant in Mexico but not Brazil • **Consumer Electronics:** Significant in mobile handset retail in India	• **Consumer Electronics:** Significant in PC assembly in Brazil, China, and India

Source: Interviews; McKinsey

ways: first, they retain a higher market share because of cost advantages from tax evasion, limiting the growth of higher productivity players; second, they avoid scale build-up and close relationships with financiers, reducing productivity and limiting the diffusion of best practice; finally, they distort factor costs (i.e., labor vs. capital), reducing the incentives to invest in productivity improvements.

¶ **Food Retail**: In Food Retail Brazil, high VAT on food and high indirect taxes create a significant cost advantage to modern informal players who can reduce costs both directly by avoiding taxes and indirectly by purchasing from informal suppliers (Exhibit 21). While informal players have increased competition in the food retail sector, their productivity lags significantly behind formal players. FDI players tried to eliminate some of their informal competitors by acquiring them, but these acquisitions were largely unprofitable due to the cost of full tax compliance (exhibits 22 and 23). In Mexico, by contrast, the tax burden on food retailers is much lower, giving firms in the sector minimal incentives to evade taxes. As a result, while informality remains the rule among small-scale traditional players, it has not been a factor in the competitive dynamics among modern retailers.

¶ **Consumer electronics**: Informality in PC assembly was present in Brazil, China, and India. High tax rates and ease of avoidance encourage informality to develop in this sector (Exhibit 24). Informality provided a significant advantage in selling highly price-sensitive products in low-income countries, making MNCs less competitive.

¶ **Auto**: In the fragmented auto parts sector, tax evasion is pervasive. There is considerable informality, particularly in secondary auto parts across all of our countries in the form of contraband, robbery, and piracy. In some cases, OEMs have taken measures to respond to this threat. For example, Honda in Mexico promises to replace stolen parts free of charge, reducing the incentives for trade in stolen Honda parts.

Corruption did not surface as a main issue or barrier to FDI impact. Brazil, Mexico, China, and particularly India rank in the bottom half of the 91 countries ranked for corruption by Transparency International (Exhibit 25). Yet in our sector cases, the foreign players who entered did not perceive corruption to be a key factor limiting their chances of success, nor did we find it to explain differences in economic outcomes across sectors or countries.

Building a strong infrastructure

Our case evidence shows that a strong physical and legal infrastructure is an important enabling condition for FDI impact. A high-quality infrastructure was most important for efficiency-seeking FDI, where companies base location decisions on the potential to achieve significant efficiency gains. But the quality of a country's infrastructure was likewise important in determining the impact of market-seeking FDI.

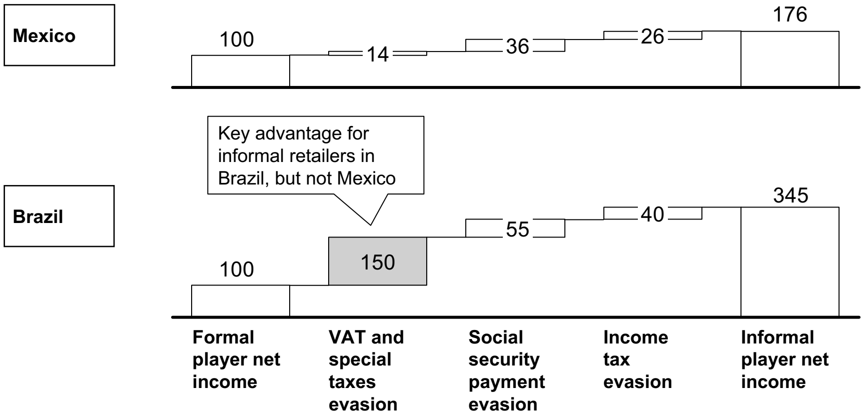
Exhibit 21

Food Retail Brazil and Mexico

IN BRAZIL HIGH TAXES PROVIDE A SIGNIFICANT COST ADVANTAGE TO INFORMAL RETAILERS

Indexed to formal sector net margin = 100

ROUGH ESTIMATE



Key advantage for informal retailers in Brazil, but not Mexico

Note: Analysis modeled for a representative supermarket – informal sector assumption is that 30% net sales and employee costs go unreported

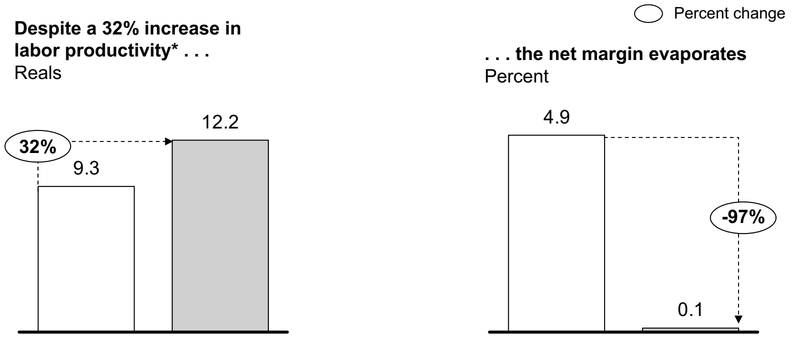
Source: McKinsey analysis

Exhibit 22

Food Retail Brazil

CHANGE IN PRODUCTIVITY AND PROFITABILITY WHEN AN INFORMAL RETAILER IS ACQUIRED BY A LARGE FORMAL RETAILER

ACTUAL EXAMPLE



Despite a 32% increase in labor productivity* . . .
Reals

. . . the net margin evaporates
Percent

Acquisition	Pre	Post	
Number of employees	1,460	1,095	-25%
Hours worked/year/ employee	2,328	2,328	0%

	Pre	Post	
Gross sales R$ millions	180	144	-20%
Net sales R$ millions	163	125	-24%
Gross margin Percent	19	25	29%

Note: 1) See next page for more detail on causes for observed changes. 2) Margins based on net sales.
* Gross margin per employee hour

Source: ABRAS; PNAD; store visits; interviews; McKinsey

Exhibit 23

Food Retail Brazil

DETAIL OF CHANGE IN PRODUCTIVITY AND PROFITABILITY WHEN AN INFORMAL RETAILER IS ACQUIRED BY A LARGE FORMAL RETAILER

ACTUAL EXAMPLE

		Pre acquisition		Post acquisition	Explanation
Despite a 32% increase in labor productivity . . .	**Number of employees***	1,460	-25%	1,095	Centralization and reduction of customer service employees, but small increase in employees at HQ
	Hours worked/year/ employee	2,328	No change	2,328	Remaining employees work the same number of hours on average**
	Labor productivity Gross margin/hour	9.3	+32%	12.2	
. . . sales decline and net margin evaporates	**Gross sales** R $ Millions	180	-20%	144	Higher prices/less pricing flexibility, lower volume Decrease in service level Decrease in product customization
	Net sales R $ Millions	163	-24%	125	Full tax compliance
	Gross margin*** Percent	19	+32%	25	Decreased COGS (inclusion in centralized purchasing/distribution and elimination of wholesaler) Higher prices
	Net margin*** Percent	4.9	-97%	0.1	Much higher centralized and store costs (7.5%) and full tax compliance (5%); but improved COGS/deals from centralized distribution (8%)

* Estimate. Actual data not available.
** Undocumented "informal" hours become documented, legal overtime
*** Based on net sales
Note: Figures are rounded.
Source: ABRAS; PNAD; store visits; interviews; McKinsey

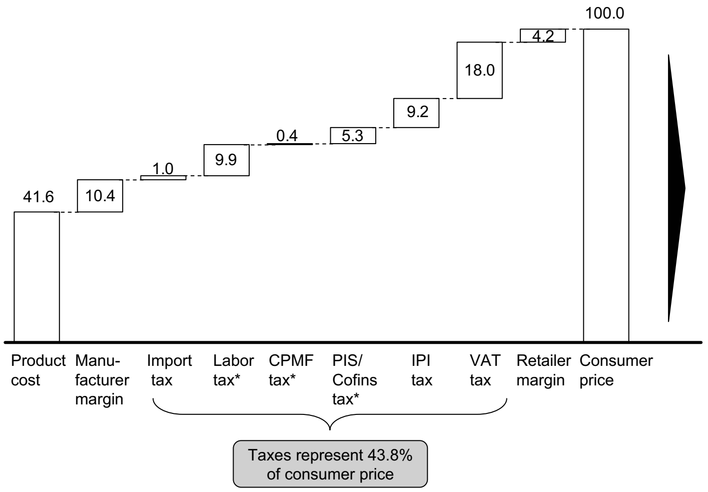
Exhibit 24

Consumer Electronics Brazil

HIGH TAX RATES ENCOURAGE INFORMALITY IN BRAZIL'S CONSUMER ELECTRONICS SECTOR

EXAMPLE

Price breakdown for a consumer electronics product in Brazil assuming full tax payment
Percent



Taxes represent 43.8% of consumer price

- Almost half of the consumer price are taxes
- Some taxes are added up in all step of the chain, as CPMF and PIS/Cofins

* Consider taxes paid by both manufacturer and retailer
Source: Interviews; McKinsey analysis

Exhibit 25

CORRUPTION PERCEIVED TO BE PREVALENT IN COUNTRIES EXAMINED, BUT NOT A MAJOR FACTOR IN OUR CASES

⬚ Country examined in our case studies

Corruption Perception Index*, 2002

Country	**Score**
1. Finland	9.7
2. Denmark New Zealand	9.5
:	
44. Greece	4.2
45. Brazil, Bulgaria, Jamaica, Peru, Poland	4.0
50. Ghana	3.9
51. Croatia	3.8
52. Czech Republic, Latvia, Morocco, Slovakia, Sri Lanka	3.7
57. Colombia, Mexico	3.6
59. China, Dominican Republic, Ethiopia	3.5
:	
70. Argentina	2.8
71. Cote d'Ivoire, Honduras, India, Russia, Tanzania, Zimbabwe	2.7
77. Pakistan, Philippines, Romania, Zambia	2.6

Brazil, Mexico, China, and India rank in the bottom half of the 91 countries ranked for corruption; however, corruption did not surface as a main issue or barrier to FDI impact

* Based on surveys from business people, academics, and country analysts

Source: Transparency International; MGI

A high-quality infrastructure is of critical important for efficiency-seeking FDI, where companies base location decisions on the potential to achieve significant efficiency gains.

¶ **IT/BPO India**: The absence of a reliable power and telecom infrastructure has been a big deterrent for companies to make investments in India. The government's liberalization of these two sectors led to a significant upgrading of infrastructure quality and was an important pre-condition for many FDI players to locate in India.

¶ **Consumer Electronics Mexico**: Security issues and the poor quality of the transportation infrastructure have limited FDI impact. Because roadways are insecure in Mexico, one percent is added to costs to pay for security. Mexican freight prices are generally much higher than U.S. prices for similar distances.

¶ **Consumer Electronics China**: High-quality infrastructure was provided in business-friendly special economic zones (SEZs), which provided good access to important inputs such as electricity and telephony.

Infrastructure quality likewise influences the impact of market-seeking FDI.

¶ **Consumer Electronics India**: The underdeveloped export infrastructure limits opportunities for FDI-driven exports, which market seekers may otherwise pursue as a complement to their strategy.

¶ **Retail banking Mexico**: The underdeveloped legal infrastructure (particularly the difficulty for banks to repossess collateral assets due to enforcement problems) limits the ability of banks to develop core banking segments, such as mortgage lending.

¶ **Consumer Electronics Brazil**: A large share of Brazil's consumer electronics production is located in the remote region of Manaus, which incurs a 5 percent freight penalty and 2 percent inventory penalty as parts from Asia take up to 2 months to arrive, due to poor transport links (Exhibit 8).

SUMMARY

We did not find evidence that policies targeted at FDI, such as incentives, import barriers, and trade-related investment measures, are useful tools for economic value creation. In many cases, these policies did not achieve their objective and they often incurred significant costs. Rather than focusing on targeted FDI policies, our case evidence suggests that governments can increase the value from FDI by strengthening the foundations of economic development, including a competitive environment, an even enforcement of laws and regulations, and a strong physical and legal infrastructure.