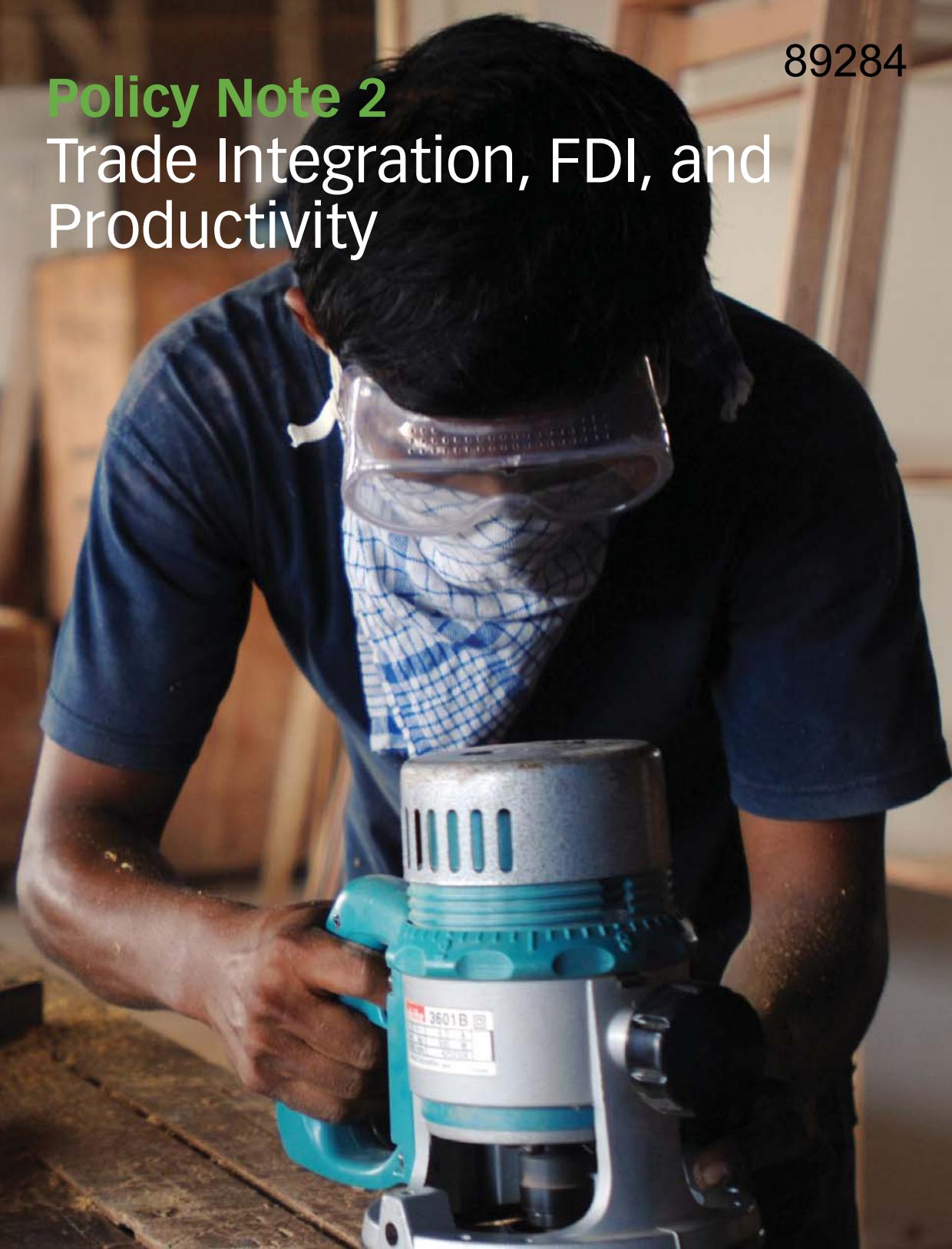


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Policy Note 2

Trade Integration, FDI, and Productivity



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Policy Note 2

Trade Integration, FDI, and Productivity

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Abstract

Policy attitude towards trade integration and foreign direct investment (FDI) is often a controversial yet popular subject. This note presents evidences from recent policy researches that arguing that engaging in an open trade and investment regime have brought productivity gains which is key factor for sustaining increase in income per-capita. Evidence from Indonesia also suggests that foreign owned plants have become increasingly important, generating a significant share of exports and overall output, as well as more productive and more export intensive than domestic plants, and to spend more on R&D and training. FDI also have positive impact on firms in the same sector, through competition and demonstration effects, and in upstream sectors, as suppliers to foreign-owned plants improve the quality of their own products to meet their clients more exacting needs. Evidence also suggests a positive impact from import competition in improving allocative efficiency across manufacturing plants which is a key element in driving productivity in manufacturing sector.

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As argued in the recent World Bank report on its manufacturing sector, Indonesia may now be at a turning point.¹ On the one hand, rising costs in China create an opportunity for the return of traditional labor intensive activities to Indonesia, thus creating good prospects for job creation and economic growth. On the other hand, it should be recognized that these activities are likely to lead to an increase in Indonesian wages and will thus not be sustainable unless an effort is made to boost productivity and move up the value chain, competing not solely on costs but also on product design and quality. **This note argues that attracting foreign direct investment (FDI) and remaining open to imported inputs will facilitate this process.**

¹ World Bank (2012), Picking up the Pace: Reviving Growth and Productivity in Indonesia's Manufacturing Sector

Introduction

Table 1. Average share of plants with foreign equity in

	Exports	Output
1990-1994	26.6	22.5
1995-1999	37.0	30.8
2000-2004	46.2	35.0
2005-2009	50.0	40.6

Source: World Bank staff calculations based on data from Manufacturing Census.

FDI: A lot done, more to do

The importance of FDI in the Indonesian economy has increased over the past two decades. The share of FDI plants in total output went up from 22.5percent in 1990-94 to 40.6percent in 2005-09. More interestingly, the share of FDI plants in total exports rose from slightly above $\frac{1}{4}$ to $\frac{1}{2}$ of the total over the same time period.

In 2009, plants with foreign equity accounted for over $\frac{3}{4}$ of exports in 8 of 22 manufacturing industries and over $\frac{1}{2}$ of exports in a further 5 industries. In 17 of 22 industries, their share in total exports has increased since 2000. In 4 industries where it has not happened, they already account for the majority of export sales.

Chemical products, food and beverages, electronic components, textiles, rubber and plastic products, paper and paper products, and fabricated metal products are the sectors with the highest volume of exports originating in foreign-owned plants. Paper and paper products, office machines, publishing and printing, chemical products and tobacco were the sectors with the fastest growth of exports by foreign plants between 2000 and 2009.

Foreign plants tend to be more export oriented than their domestic counterparts. They also tend to have a larger volume of exports per product. Although they are responsible for about $\frac{1}{2}$ of exports, they account for only $\frac{1}{4}$ of exported product varieties.²

² Product variety is defined as a 9-digit ISIC product produced by a particular producer. In other words, the number of product varieties is equal to the number of producers multiplied by the number of products produced by each of them.

Table 2. Exports of plants with foreign equity by 2-digit sector

	2009	2000=100
	2009	2000=100
Chemical products	289,201,756	459
Food beverages	172,349,032	257
Electronic components	129,287,247	70
Textiles	94,590,992	148
Rubber and plastics products	71,806,191	149
Paper and paper products	57,047,734	1504
Fabricated metal products	53,546,495	204
Apparel	48,294,384	76
Leather	44,757,739	80
Electrical and electronic apparatus	41,990,859	39
Furniture	38,229,632	172
Motor vehicles	32,410,259	76
Machinery and equipment	30,926,513	241
Basic metals	29,795,290	142
Wood products	27,101,534	116
Other non-metallic mineral products	10,077,500	46
Other transport equipment	7,237,358	49
Medical and optical instruments	3,858,874	91
Tobacco	3,690,923	455
Publishing and printing	3,359,131	853
Office machines*	1,513,788	1094
Mining	342,628	52

Source: World Bank staff calculations based on data from Manufacturing Census.

Notes: * 2001 figure used as baseline, as there were no exports in 2000.

There are several reasons why foreign plants are better positioned to export. First, **foreign plants are more efficient, enjoying a 39 percent higher total factor productivity and 122 percent higher labor productivity than domestic plants in the same industry**. Due to their larger size they are better positioned to reap the benefits of scale economies. They are also more reliant on imported inputs (see Policy Note 3) for a detailed discussion of the role of imported inputs in the Indonesian economy) and use a more capital-intensive production process. Interestingly, they do not seem to employ a much higher proportion of skilled labor. However, they do **spend more on training and R&D, both in absolute and per worker terms**. They are more likely to train workers in production techniques and management, but not in marketing.

Table 3. Performance premium of FDI firms compared to non FDI firms in Indonesia's Manufacturing Sector

TFP	39%
Labor productivity	122%
Output	642%
Employment	214%
Average wage	47%
Capital-labor ratio	136%
White collar workers/Total employment	3%
Export share in production	28%
Imported inputs	57%
Outlays on worker training	227%
R&D spending	32%
R&D spending per worker	25%

Source: World Bank staff calculations based on data from Manufacturing Census.

Notes: The premium has been obtained after controlling for the 4-digit industry affiliation, province where the plant is located and year fixed effects. All variables except for white collar workers/total employment are logged. The sample covers the 1999-2009 period, except for the figures on R&D and worker training which pertain to 2006. All premia are statistically significant at the 1 percent level.

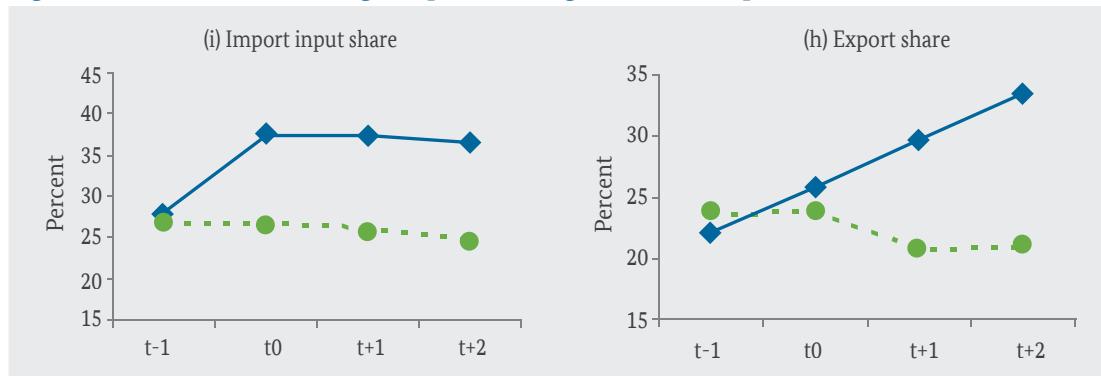
Foreign producers are less likely than Indonesian producers to report problems with access to capital, raw materials and marketing products. This is not surprising because they may be benefitting from the help of their parent company in these areas. However, they are more likely to complain about the lack of skilled labor force and bureaucracy.

The above figures summarize the data but are silent on the direction of causality. It could be that the superior performance of foreign affiliates is due to the intrinsic advantages of a foreign parent company, but it is also possible that foreign investors are simply good at picking the best performing local plants as acquisition targets.

Fortunately, a recent study of foreign acquisitions in Indonesia taking place during the 1985-1999 period (Arnold and Javorcik 2009) was able to establish a causal effect of foreign ownership. It did so by pairing up each Indonesian plant that was going to receive FDI in the subsequent period with a domestic plant with very similar observable characteristics operating in the same sector and year, where similarity was determined on the basis of those plant characteristics that had explanatory power in the acquisition decisions. This pairing, called propensity score matching, was combined with a difference-in-differences approach. The causal effect of foreign ownership was then inferred from the average divergence in the productivity paths between each acquired plant and its 'matched control plant, starting from the pre-acquisition year.

The study found that **foreign ownership leads to significant productivity improvements in the acquired plants**. The improvements become visible in the acquisition year and continue in subsequent periods. After three years, the acquired plants exhibit 13.5 percent higher productivity than the control group. The rise in productivity is a result of restructuring, as acquired plants increase investment outlays, employment and wages. There is no evidence of acquired plants increasing capital or skill intensity. Foreign ownership also appears to enhance the integration of plants into the global economy through increased exports and imports (see Policy Note 4 for a detailed discussion on Indonesia's integration into global value chains).

Figure 1. Performance of foreign acquisition targets vs. control plants in Indonesia



Source: World Bank staff calculations based on data from Manufacturing Census.

Note: red dotted lines capture the performance of the control group, while blue solid lines depict acquired plants.

Not all foreign acquisitions have the same impact. Recent evidence (Alquist, Mukherjee and Tesar 2011) suggests that developing country firms acquired by financial firms from industrialized countries during financial crises tend to be resold by their new owners faster than firms acquired by foreign parents from the same manufacturing industry. The incentives of these two types of acquirers are likely to differ, thus leading to different effects on the target companies.

FDI: Upstream, downstream and horizontal benefits

The productivity benefits of foreign ownership are not restricted to foreign-owned plants. Blalock and Gertler (2008) find that **the presence of FDI leads to improved performance of Indonesian manufacturing establishments in upstream sectors (i.e., sectors supplying inputs to industries where FDI is located)**. In a number of industries, the realized productivity gain is more than 2 percent. Indonesia is not unique in this respect as similar effects have been documented in other countries (Javorcik 2004).

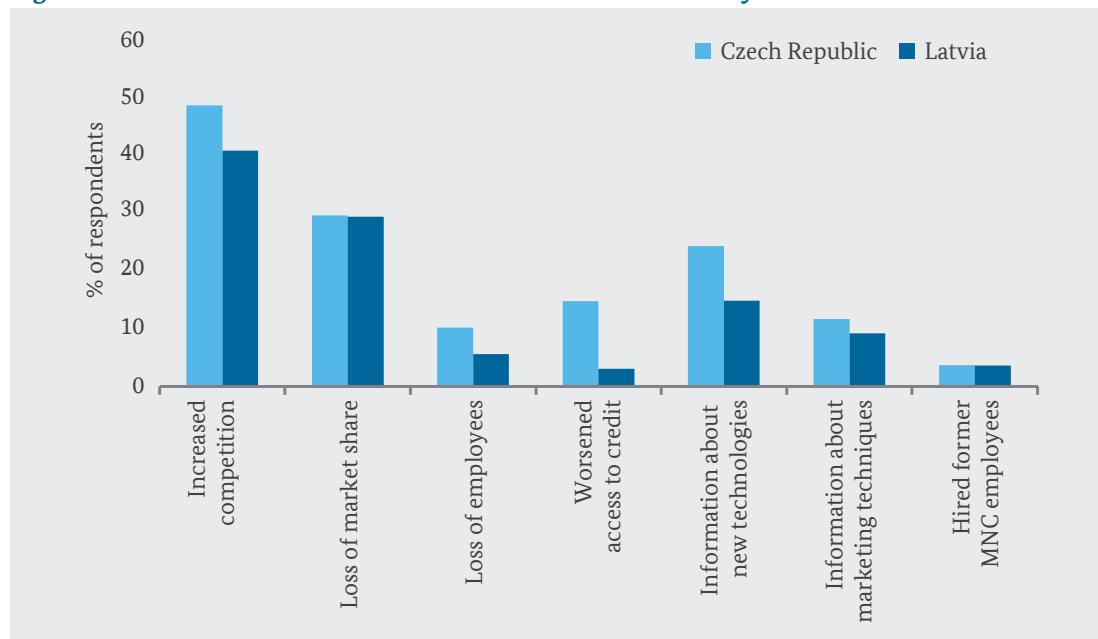
International evidence suggests that the presence of FDI also affects firms operating in the same sector. As illustrated by Figure 2, based on surveys of managers in the Czech Republic and Latvia, this happens mainly through increasing the level of competition in the industry and through demonstration effects.

Starting with the competition effect, entry of multinationals increases the level of competition within the industry as long as some share of their output is sold on the host country market. In the long run, increased competition provides incentives for indigenous producers to improve their performance and leads to the exit of the worst performers and an increase in the average productivity level in the industry. In the short- to medium-run, however, weaker firms may experience a decline in observed performance as their market share shrinks. Between 41 and 48 percent of surveyed managers reported that foreign entry increased the level of competition in their industry, and a smaller percentage (29 percent), reported losing market share to foreign entrants.

Turning to the demonstration effect, as local firms observe the actions of their foreign competitors, they learn about new technologies (some of which can be embodied in machinery or inputs which are relatively easily available for purchase), new marketing techniques and new types of products. Local firms can also hire workers trained by multinationals and in this way find out about new management strategies and benefit from the training multinationals provided to their former employees. This diffusion of knowledge should have an unambiguously positive effect on the performance of local firms.

As illustrated in Figure 1, firms in both countries reported learning from multinationals about new technologies, marketing techniques and benefiting from the knowledge of workers who had been previously employed by multinationals. It is interesting to note that in the Czech Republic, local firms seemed to benefit equally from their direct competitors as well as from multinationals operating in their sector with whom they were not competing. Moreover, firms experiencing a loss of market share as well as those unaffected by foreign entry reported positive knowledge externalities associated with FDI (Javorcik 2008).

Figure 2. Perceived effects of FDI inflows into the same industry

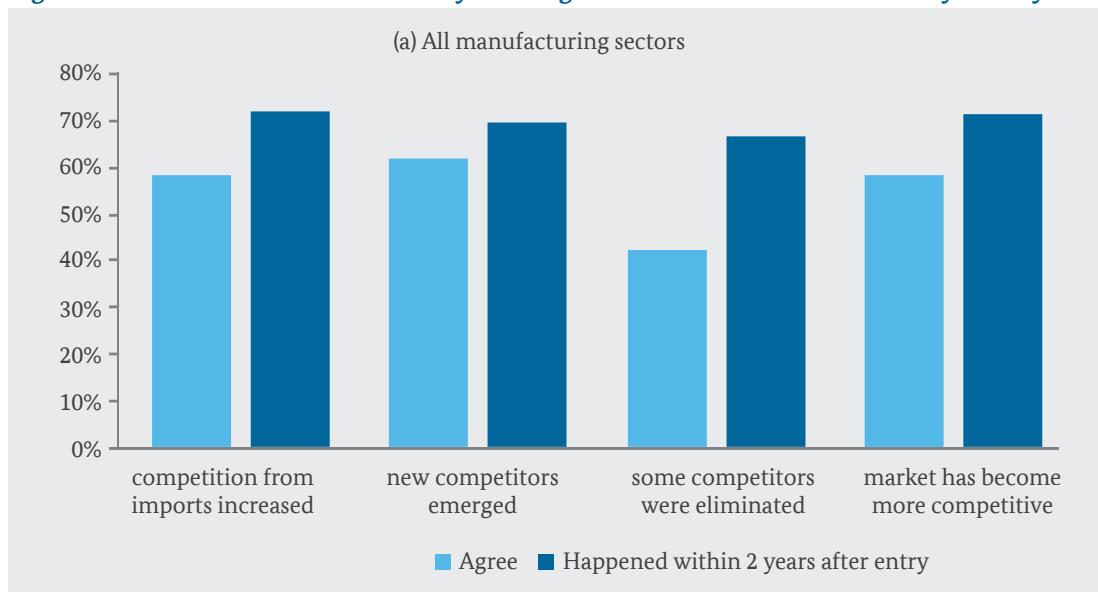


Source: World Bank staff calculations based on data from Manufacturing Census.

Empirical evidence suggests that foreign presence in services industries may boost productivity in manufacturing (Arnold, Javorcik and Mattoo 2011). Services are an essential input into all manufacturing activities, and their tradability across international borders is limited. Thus the quality of local services is an important determinant of the performance of downstream manufacturers. (see Policy Note 5 for a detailed discussion of this phenomenon in an Indonesian context).

The results of a World Bank survey conducted in the Czech Republic in 2004 portrayed a generally positive view held by managers of liberalization in the services sector. The share of positive perceptions ranged from 55 percent of respondents, when asked about the impact of services reform on the quality of accounting and auditing services, to 82 percent for telecoms. The corresponding figures for the effect on service availability ranged from 47 percent in accounting and auditing to 80 percent in telecoms (Arnold, Javorcik and Mattoo 2011).

Figure 3. What were the effects of entry of foreign retail chains on the market in your city?



Source: World Bank staff calculations based on data from Manufacturing Census.

If FDI inflows into the Indonesian wholesale and retail sectors continue, there may be profound implications for industries producing consumer goods. For instance, a survey of Romanian manufacturers showed that **entry of global retail chains has increased competition in the market** (see Figure 3). It also led to a **magnifying of differences between producers supplying foreign retailers and those unable to do so**. While 71 percent of suppliers reported an increase in their market share, 73 percent of non-suppliers reported stagnant market shares. Similarly, while 71-72 percent of suppliers reported increasing the diversity of their products, an increase in the frequency of product innovation and an improvement in the quality of packaging, the corresponding figures for non-suppliers were 31 percent, 41 percent and 37 percent, respectively (Javorcik and Li, 2013). Similar patterns have been documented after the entry of Wal-Mart into Mexico (Javorcik, Keller and Tybout 2008; Iacovone, Javorcik, Keller and Tybout 2011).

International evidence based on a sample of 105 countries over the period 1984-2000 suggests that **FDI may help developing countries upgrade their export basket**. A study by Harding and Javorcik (2012) shows that the presence of FDI leads to an 11 percent increase in the unit value of exports in the recipient industry of the host country. Interestingly, there is no evidence that this is achieved through making the export structure of developing countries more similar to the export structure of developed economies (referred to in the literature as export sophistication).

Harding and Javorcik's study establishes a causal effect but is unable to pinpoint the exact channel through which FDI contributes to upgrading the host country's exports structure. There are several ways in which this could be happening. First, products exported by multinationals may have higher unit values due to multinationals' superior technology and marketing techniques. Second, local firms in the same industry may learn by observing what multinationals produce and export and in this way upgrade the quality of their own exports. Third, productivity spillovers to supplying firms may result in suppliers exporting higher-value products. Fourth, availability of higher-quality inputs resulting from FDI spillovers accruing to the supplying industries may benefit indigenous producers of final goods and allow them to upgrade their exports.

FDI: Maximizing its potential

The above observations have two policy implications. First, **Indonesia may benefit from increasing its investment promotion efforts**. International experience suggests that investment promotion is a cost effective way of increasing FDI inflows. Using newly collected data on investment promotion efforts in 124 countries and their effects on inflows of US FDI, Harding and Javorcik (2011a) find that **investment promotion leads to a doubling of FDI inflows**. Investment promotion appears to be particularly effective in countries where obtaining information is more difficult and countries with more cumbersome bureaucratic procedures. These findings suggest that image building and information provision, as well as assistance with red tape, are the key aspects of investment promotion. There is no evidence that offering fiscal or financial incentives is effective in attracting FDI.

However, it is not enough to set up an investment promotion agency (IPA) and expect a huge boom in FDI inflows. **Successful investment promotion requires professionalism, effort and commitment to customer service**. It requires maintaining an up-to-date, attractive and user-friendly website

which includes relevant and useful information that potential investors require during the site selection process. Providing the necessary data to support this decision process makes a difference. As shown by Harding and Javorcik (2011b), better quality IPAs translate into higher FDI inflows. **A country with an IPA quality score of 60percent (as assessed by the Global Investment Promotion Benchmarking initiative of the World Bank Group) received on average 25percent higher FDI inflows than a country with an IPA receiving a score of 45percent** (controlling for country-specific characteristics).

Indonesia's national and regional investment promotion agencies (IPAs) would need to strengthen their performance in facilitating investment. Recent MIGA report ranked the performance of Indonesia's Investment Coordinating Board as weak, while the performance of the Malaysian and Singapore IPAs have been ranked as good (top category) and the Philippines and Thailand have been ranked as average.

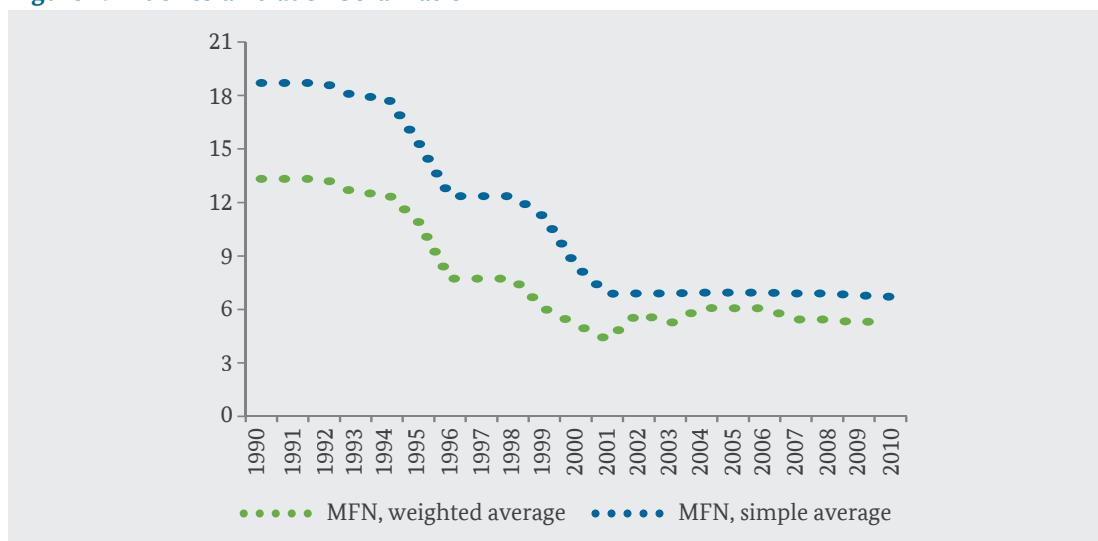
Second, the authorities may wish to maximize the productivity benefits brought by FDI by assisting Indonesian firms in becoming suppliers to foreign plants. Econometric and survey evidence from the Czech Republic suggests that less credit constrained firms are more likely to become suppliers to FDI firms (Javorcik and Spatareanu 2009a). This is consistent with the survey evidence indicating that foreign firms often require their prospective suppliers to make improvements prior to signing a contract. The GoI may consider **extending subsidized credit to prospective suppliers of foreign firms** or to engage in **supplier development programs**. Given the evidence that only high performers manage to become suppliers (Javorcik and Spatareanu 2009b) such programs are effective only if they focus on already successful firms. Public intervention in this area can be justified by the presence of knowledge externalities from FDI benefitting supplying sectors, as documented by Blalock and Gertler (2008) in Indonesia and Javorcik (2004) in Lithuania.

Box 1. Lessons from the Supplier Development Program in the Czech Republic

- Conduct selection of program participants in a transparent manner.
- Strike a balance between selecting the best performing companies and companies with the highest potential for improvement.
- Commitment of the participant's management to the program should be a key selection criterion. Management should understand that the program will require a heavy time commitment on their part.
- Avoid selecting weak companies as they are unlikely to become suppliers to multinationals, even after graduating from the program.
- Focus on selected sectors. The benefits of the program are likely to be lower in industries with lower profit margins and well developed supplier relationships.
- Create a Steering Committee involving multinationals' purchasing managers to assure interest and active participation on the part of multinationals.
- Engage in a publicity campaign by, for instance, instituting a 'Supplier of the Year' award. The award can make the business community aware of the program's existence and contribute to an increase in the number of applicants and thus higher quality of participants. As a result of the publicity campaign, less advanced companies may become aware of the adjustments they need to make in order to become suppliers.
- Organize 'Meet the Buyer' events where multinationals' purchasing managers speak of their expectations vis-à-vis suppliers. This is a powerful pedagogical tool. Moreover, while many program participants realize that they will not receive orders on the spot, exchanging business cards with representatives of multinationals 'helps them get their foot in a door' and may help their getting attention of prospective customers.
- Involve business practitioners (rather than academics) in the program.
- Assist participants in obtaining financing. If it is not possible to do so directly, teach them the practical skills necessary for applying for financing, such as the preparation of a business plan.
- Draw on experiences of local companies that have been successful in becoming suppliers to multinationals
- Share with program participants information on multinationals planning to set up operations in the country.
- Manage expectations of both program participants and the public. The program is unlikely to result in sustainable supply contracts between multinationals and local companies in the short run. The true benefits of the program are most likely to be visible after a few years, and the extent of such benefits will be a direct result of the effort exerted by the participants
- Evaluate the program's performance (taking into account the above point).
- Draw on experiences of local companies that have been successful in becoming suppliers to multinationals
- Share with program participants information on multinationals planning to set up operations in the country.
- Manage expectations of both program participants and the public. The program is unlikely to result in sustainable supply contracts between multinationals and local companies in the short run. The true benefits of the program are most likely to be visible after a few years, and the extent of such benefits will be a direct result of the effort exerted by the participants
- Evaluate the program's performance (taking into account the above point).

Attracting Chinese FDI to Indonesia has been one of the themes in the recent debate on the ACFTA. It is worth noting that the estimates of the benefits brought by FDI mentioned above are based on FDI flows originating mainly in developed countries. **It is unclear whether entry of Chinese multinationals will have the same effects.** There is little analysis to date devoted to the impact of Southern multinationals on their host countries. On the one hand, Southern FDI may be characterized by lower technological sophistication and fewer intangible assets, which would mean a lower productivity advantage and less potential for knowledge externalities. On the other hand, Southern FDI may be very helpful in reaching out to consumers in developing countries and increasing Indonesian exports to these economies.

Figure 4. Indonesian trade liberalization



Source: World Bank staff calculations based on data from Manufacturing Census.

Imported Inputs: important productivity drivers

In the 1990s, Indonesia engaged in very substantial trade liberalization and reaped its benefits in terms of increased productivity. According to Amiti and Konings (2007), who analyzed Indonesian manufacturing census data from 1991 to 2001, a 10 percentage point fall in input tariffs led to a productivity gain of 12 percent for firms that import their inputs, at least twice as high as any gains from reducing output tariffs.

Cheaper imported inputs can raise productivity via quality and variety effects. Although a fall in tariffs on inputs such as compressors may force the domestic compressor industry to become more competitive, it has quite different effects on users of these inputs, such as producers of refrigerators. Their **productivity can increase due to the foreign technology embodied in imported inputs.** Higher quality compressors facilitate production of higher quality refrigerators. Moreover, access to a wider range of compressors may allow producers to reduce their costs by choosing the most appropriate, and potentially cheaper, type of compressor which was not previously available.

Goldberg et al. (2010) show that a quarter of India's manufacturing output growth during the 1990s stemmed from products that were not manufactured prior to the reforms and that this expansion of new products was driven in large part by access of Indian firms to previously unavailable imported inputs.

Box 2. Allocative Efficiency – What is it and why does it matter?

What is it?

Allocative efficiency can be defined as the extent to which the economy is able to channel resources towards the most efficient firms.

Why it matters

If all firms had the same productivity level, allocative efficiency would not matter at all. However, increasingly, micro-level studies have pointed towards a substantial persistence of productivity differences (heterogeneity) between firms that manufacture similar products. In such a context, the extent to which the market is able to shift resources towards more productive companies is a crucial determinant of the overall productivity level as well as productivity growth.

How to measure it?

The common way to measure allocative efficiency is by answering a simple question: are resources allocated efficiently in a sector? To answer this question researchers rely on a cross-sectional decomposition proposed by Olley and Pakes (1996). Aggregate sectoral productivity is decomposed into two components: (a) average (unweighted) sectoral productivity, (b) cross-term reflecting the cross-sectional efficiency of allocation of activity. Where P_s is the sectoral productivity, N_s the number of firms in sector "s", P_i is the productivity of firm "i" belonging to sector "s", $P_{\bar{s}}$ is unweighted sectoral productivity, w_s is the average number of workers in the sector, w_i the number of workers of firm "i".

$$P_s = \frac{1}{N_s} \sum_{i \in s} p_i + \sum_{i \in s} (p_i - \bar{p}_s) (w_i - \bar{w}_s)$$

The cross-term captures the allocative efficiency and its contribution to overall sectoral productivity. The measure is positive and larger if firms with above average productivity tend to employ more workers than the average firm. If, instead, less efficient firms tend to employ more workers than more efficient ones, the term is smaller or even negative.

Sources: Arnold, Nicoletti and Scarpetta (2008), Bartelsman, Haltiwanger and Scarpetta (2007), Olley and Pakes (1996),

Analysis of the period 1990-2009 suggests that increasing import competition, including competition from Chinese imports, positively influenced allocative efficiency in Indonesia (see Box 2 for a definition of the term). Table 4 below presents regression results of allocative efficiency with import values from the world and from China. The results suggest that, controlling for industry characteristics and time effects, there is a positive correlation between import values and allocative efficiency in manufacturing sectors in Indonesia. In other words, in manufacturing sectors experiencing an increase in total imports or in Chinese imports, more productive producers were more likely to increase their market shares.

Table 4. Imports and allocative efficiency in Indonesia's manufacturing sector: evidence from medium and large manufacturing plant census (1990 – 2009)

	(1)	(2)	(3)
Log World Import	0.053** (0.022)		0.025 (0.029)
Log China Import		0.028*** (0.009)	0.022** (0.011)
N	2025	1961	1961
R2	0.318	0.317	0.317

Source: World Bank staff calculations based on data from Manufacturing Census.

Note: Dependent variable is allocative efficiency component from Olley-Pakes decomposition calculated at 4-digit level. Each specification includes 4-digit industry fixed effects and year fixed effects. Robust standard errors are reported in parentheses. ***, ** denote statistical significance at the 1 and 5% level, respectively.

The ACFTA is likely to bring more productivity gains, a larger share of which will take place through the reallocation of market shares (and thus labor) from weaker to more productive plants. Such a process unleashes productivity gains that would otherwise be trapped in inefficient and low performing firms. Such reallocation and its contribution to productivity gains has been documented in the aftermath of Chilean and Indian trade liberalizations (Pavcnik 2002; Harrison, Martin and Nataraj 2011, respectively).

The predicted increase in imports from China will lead to calls for protection for domestic producers. These calls should be resisted as introduction of arbitrary protectionist measures in response to lobbying efforts will lead to more calls for further protection. Recently introduced protectionist measures have set a worrying precedent (see the table below). Such measures can also shift attention from addressing the underlying causes (i.e. lack of skills, deficiency in infrastructure, regulatory barriers, risks in doing business) towards implementing a quick fix that can have an adverse impact (e.g. inefficiency, governance issues, rent seeking).

The necessary reallocation process will be aided by simplifying business registration procedures. Indonesia compares unfavorably in this respect with its regional neighbors. Similarly, registering property, obtaining a construction permit and accessing credit are more burdensome in Indonesia. Improvement in those processes will significantly improve Indonesia's competitiveness in attracting investment, both foreign and domestic.

Table 5. Example of “protection” measures

Date	Measure
December 2012	Restrictions on imports of electronic gadgets, smartphones, laptop computers
September 2012	Restrictions on imports of horticulture through letter for import recommendation
June 2010	Increased import tariffs on medicines, cosmetics and energy efficient lights
October 2009	New import tariffs for processed milk products
July 2009	Import tariff increases on certain products that compete with locally manufactured products

Source: World Bank staff calculations based on data from Manufacturing Census.

Table 6. Business registration procedures

	Ease of Doing Business Rank	Starting a Business	Dealing with Construction Permits	Registering Property	Getting Credit
Singapore	1	1	2	1	3
Hong Kong	2	2	1	10	2
Thailand	3	11	5	2	7
Malaysia	4	17	18	11	1
Mongolia	10	8	17	4	7
Vietnam	11	12	13	8	4
Indonesia	19	21	12	14	15
Philippines	22	22	23	15	19

Source: World Bank staff calculations based on data from Manufacturing Census.

Notes: ranking within 24 economies of East Asia and Pacific.

Conclusion

Indonesia has benefitted significantly to the extent that it has integrated with the global economy, but it has more to gain. Evidence from Indonesia and elsewhere suggests that FDI can improve productivity and boost both the quantity and quality of exports. Unfettered access to more, better and cheaper inputs, including imports, help maximize the productivity of domestic and foreign-owned firms alike. Ultimately, openness to trade and FDI can be mutually reinforcing drivers of national competitiveness. Encouraging FDI through beefed-up investment promotion, introducing supplier development programs to help domestic firms supply multinationals, and maintaining an open stance towards imported inputs can help Indonesia move up the value chain and secure sustainable, long-term economic development.

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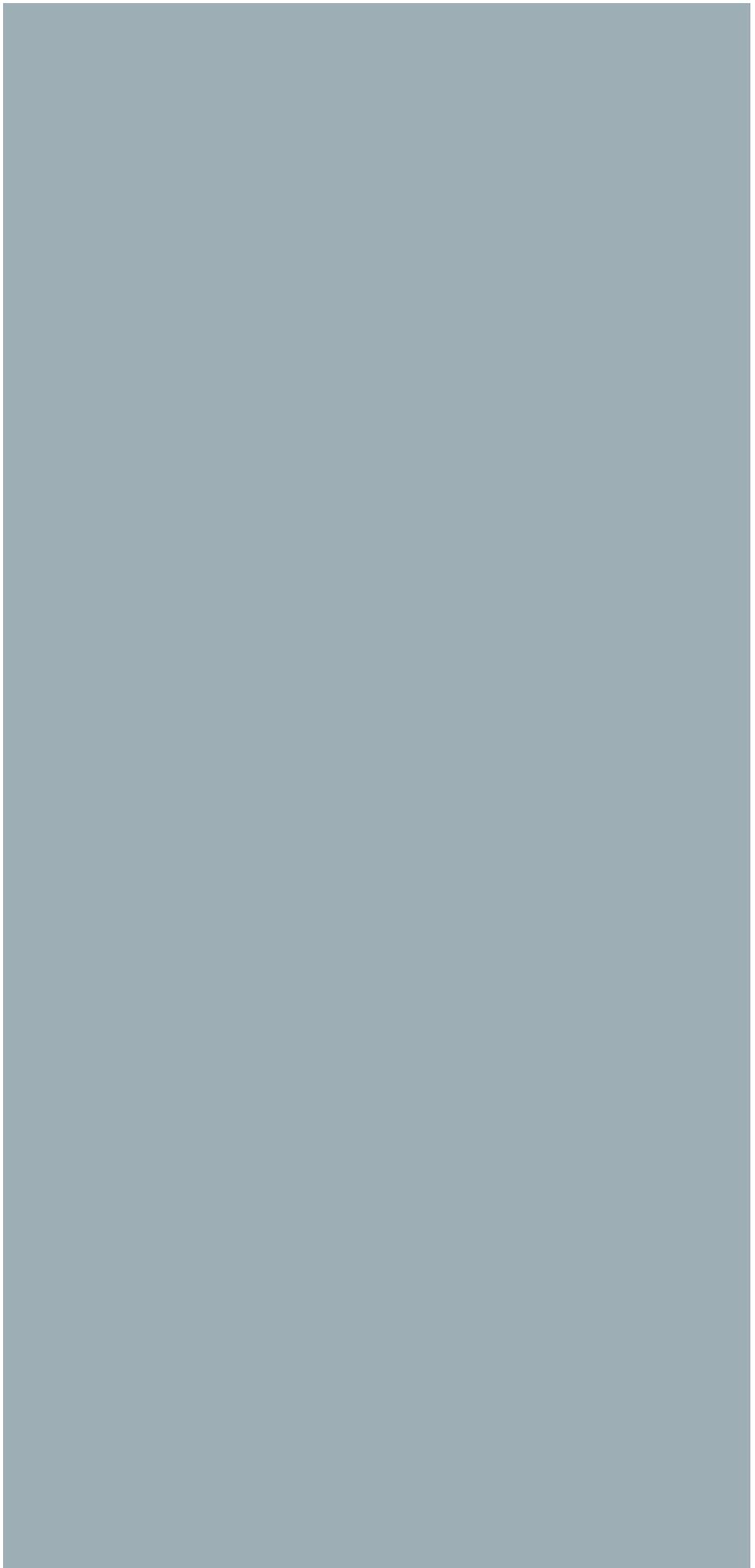
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