

Export Competitiveness in Indonesia's Manufacturing Sector



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Policy Note 2

Export Competitiveness in Indonesia's Manufacturing Sector

Abstract

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The Indonesian manufacturing sector experienced a "lost decade" in the aftermath of the Asian financial crisis. While many believe that the sector is now in inexorable decline, this note argues that there may be a "second chance" for export manufacturing, given Indonesia's relative cost competitiveness, the rapidly growing domestic market, and the opportunities of integrating into value chains facilitated by new regional growth poles. Simply relying on these factors, however, may result in short-term growth but will ultimately lead back to stagnation. Instead, Indonesia must use this opportunity to make an aggressive effort to improve manufacturing sector competitiveness, including addressing traditional investment climate issues, but most importantly, weaknesses in the quality and innovation environment. It is through this that the Indonesian manufacturing sector will begin to move up the value chain, build deep and competitive domestic value chains, and deliver quality and sustainable job opportunities.



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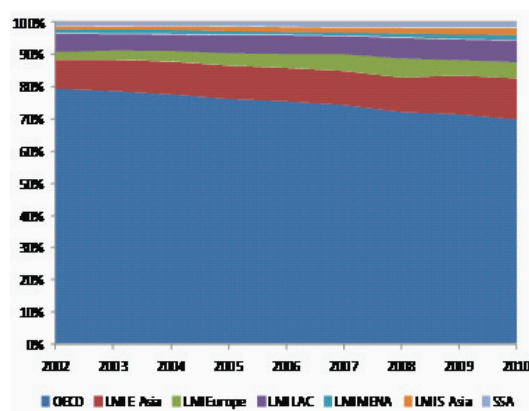
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1. A “second chance” for export manufacturing?

Indonesia’s manufacturing sector may not be in a process of inevitable decline, as perceived by some observers. In fact, Indonesia has two important comparative advantages. This note analyzes export performance in three different manufacturing sub-sectors, including two traditional labor-intensive sub-sectors — apparel and wood furniture — and the medium-technology-intensive automotive components sub-sector, as a lens through which to assess Indonesia’s manufacturing competitiveness more generally. We argue that the conventional wisdom that Indonesia’s manufacturing sector is in the midst of an inevitable process of stagnation and decline may actually be an incorrect starting point, at least looked at from the context of 2012. Two major sources of advantage are driving the potential revival of the traditional manufacturing sector: (i) a large labor force and growing wage gap relative to China and other producers; and (ii) the potential for market access of production-scale economies based on Indonesia’s large and growing domestic market and the increasingly integrated regional market.

Figure 1: Developing country share of manufacturing imports declining, but still dominant.

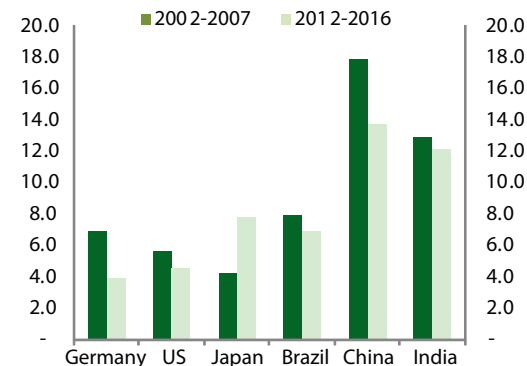
Share of global manufacturing imports by regional-income group (2002-10)



Source: World Bank staff calculations based on data from Comtrade (HS 2002).

Figure 2: Growth of imports will slow, even in the new “growth pole” economies.

Average annual growth of imports (actual 2002-07; forecast 2012-16) in select economies



Source: World Bank staff calculations based on data from IMF World Economic Outlook, 2011.

If used to advantage, Indonesia could grow its global market share in manufacturing and create millions of new jobs. Together these two sources of competitive advantage have the potential to deliver substantial growth in investment, output, exports, and jobs in the coming years, re-establishing Indonesia as a major global manufacturing location. In fact, expanding Indonesia’s global market share in manufacturing by just 0.5 of a percentage point, from around 0.75 percent to 1.25 percent, by 2020 (comparable to growth that Indonesia achieved during the 1990s, and a level that would still leave Indonesia with a global market share only one-seventh that of China’s) would result in almost a tripling of Indonesia’s manufacturing exports from where they are today, and would create up to 2.5 million new jobs by 2020.¹

But to achieve this will require concerted efforts to improve international competitiveness in the manufacturing sector. Taking advantage of this opportunity, however, will require the Government of Indonesia and the private sector to redouble their efforts to improve the international competitiveness of the manufacturing sector. This is for two principle reasons. First, wage pressures

¹ This assumes that employment elasticities in Indonesia remain as per their 1990-2009 levels, and that these elasticities are the same for the export manufacturing sector as for the manufacturing sector overall.

are already growing strongly, making it unlikely that Indonesia will be able to maintain or extend the current wage gap. Thus, competitiveness in labor-intensive manufacturing will require reversing the post-crisis trend of stagnating productivity. Second, the context of global demand in the coming decade is likely to be far more unfavorable to supporting export-led growth than it has been in the recent past. As Figure 1 and Figure 2 show, while the relative importance of OECD economies is declining, they continue to account for the vast majority of the market for manufacturing exports. In fact, in some of the key labor-intensive sub-sectors, such as apparel and furniture, OECD countries are responsible for 90 percent of global imports. Imports of most OECD countries are expected to decline in the coming years. New growth poles are emerging and, promisingly for Indonesia, East Asia is by far the leading region. On the other hand, import demand is expected to decline even in these new growth poles.

Riding on the back of global demand will not be enough; Indonesian exports need to grow their global market share. Thus, to achieve significant growth in the manufacturing sector it will not be sufficient to simply ride global demand. Instead, Indonesian exporters will need to grow their share in global markets. In this context, a number of policy options to improve competitiveness and quality upgrading are outlined in this note. The remainder of the note is structured as follows: Section II identifies the existing export performance and competitiveness challenges of the three manufacturing subsectors; Section III focuses on the sources of advantage that are driving the potential revival of the manufacturing sector; Section IV examines main constraints that need to be addressed to take advantage of these opportunities; and, finally, Section V discusses policies that could be considered to address the opportunities and competitiveness gaps identified.

2. Performance and competitiveness challenges in the manufacturing sector

Competitiveness issues are consistent across manufacturing sub-sectors, in particular, quality. The three sub-sectors discussed in this section face quite different global dynamics and have performed very differently in the face of them. However, there are some competitiveness issues that are consistent across them. On the one hand, these sub-sectors appear to have very much been buoyed by the rising tide of Asian production. On the other hand, all three sub-sectors appear to have significant challenges in terms of quality, and with secondary issues related to export participation and survival, particularly for smaller, domestically-owned firms.

a. Struggling to compete with “factory Asia”

In the apparel sub-sector, Indonesia has benefited on the back of a global shift towards Asian manufacturers. While there has been much talk of the apparel sub-sector as a “sunset industry”, apparel exports are continuing to grow; indeed, during the period 2003-08 they grew at almost 10 percent annually compared with a global growth of 8 percent (i.e. Indonesian gained world market share). But while Indonesia is gaining global market share, an important question is how sustainable is this trend. Indonesia has been part of the shift of the apparel sector to “factory Asia”, which has decimated traditional sourcing markets for the US and EU, particularly since the end of the Multi-Fibre Arrangement in 2005.² For example, in the US market (which accounts for 25 percent of global apparel imports), Mexico saw its market share decline from 14 percent to 5 percent in just a decade

² The Multi-Fibre Arrangement, in effect between 1974 and 2004, imposed quotas on the amount of textiles and garments developing countries were allowed to export to industrialized countries.

(1999-2009); in Europe, Italy's share declined from 9 percent to below 4 percent. Similarly, suppliers from Central America and Sub-Saharan Africa (US) and from East Europe and North Africa (EU) have lost out to Asian producers in recent years.

But even where Indonesian manufacturing has been growing, few of its products gained share relative to China. In order to gain a better sense of the dynamics of Indonesia's competitive position, Figure 3 analyzes competitiveness at the product level, taking China as the most relevant comparator. Two things become clear: first, there is large variation in performance across products; and second, even where Indonesia has been growing, there were few products in which it actually gained share relative to China over the decade 2000-10. In fact, while Indonesia maintained or gained share over the period in 132 apparel product lines in the US (while losing share in 100 products), in only nine of them did they outperform China (see Box 1 for one such example). In every single case of the other 123 products in which Indonesia grew its market share in the US during this decade, China gained market share at an even faster rate. In the EU, the overall situation is worse, with Indonesia having lost share in 201 of 276 apparel product lines. In the 75 lines in which Indonesia gained share, they only outperformed China in nine cases. The same trend broadly holds in Japan, where Indonesian apparel exporters lost share in 60 percent of their product lines over the decade.

Indonesian furniture manufacturers did particularly badly, losing market share in all markets.

Even more so than in the apparel sub-sector, Indonesia's furniture sub-sector failed to benefit from a global shift toward Asian manufacturers, and as a result has experienced steadily declining global market share, from 4.9 percent in 1999 to 4.4 percent in 2009. Furniture is one of the few manufacturing sub-sectors in which Indonesia's growth trailed the global average both in the immediate post-crisis years and the period 2005-10. At the same time, China's share in world markets grew from 12 percent to 29 percent in one decade, while Vietnam grew from less than 1 percent in 1999 to 7 percent by

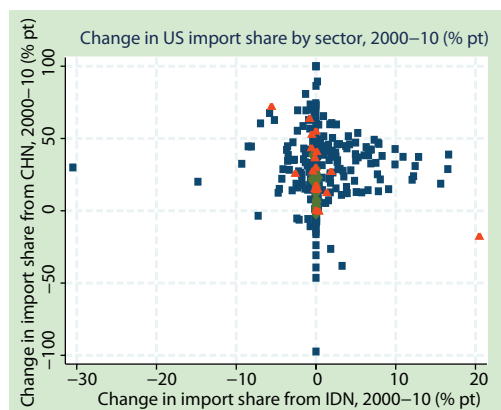
Box 1: Cotton trousers: an Indonesian apparel success story?

"Women's' and girls' trousers, overalls, breeches and shorts, cotton, knit" — corresponding to the harmonized system code 610462 and better known as cotton trousers — was Indonesia's fiftieth most important clothing export to the US in 2002, accounting for only US\$7 million in total exports. Only six years later exports had risen almost 20-fold to US\$137 million, making it Indonesia's eighth most important apparel export product to the US. Perhaps more telling, of Indonesia's top 10 exports to the US it is the only one in which Indonesia had a higher market share than China in 2008.

The downside of this story is the nature of the product. Of Indonesia's top 10 apparel export products, cotton trousers have the lowest unit value and have experienced the lowest growth in unit value over this period. Thus, Indonesia's exporters are becoming competitive in a product where the margins are likely to be low and coming increasingly under pressure. On the other hand, it argues against the conventional wisdom that Indonesia can no longer compete with "low cost" producers at the low end of the market.

Figure 3: Indonesian exports have performed well in many products, but have failed to compete effectively with Chinese exports

(Analysis of market share growth by product in US market – Indonesia vs. China)³



Source: Calculations based on Comtrade data.

Note: Apparel products are represented as blue squares, furniture products as red triangles, and automotive components as green diamonds. All products are at 6-digit level based on HS1988-92 classification.

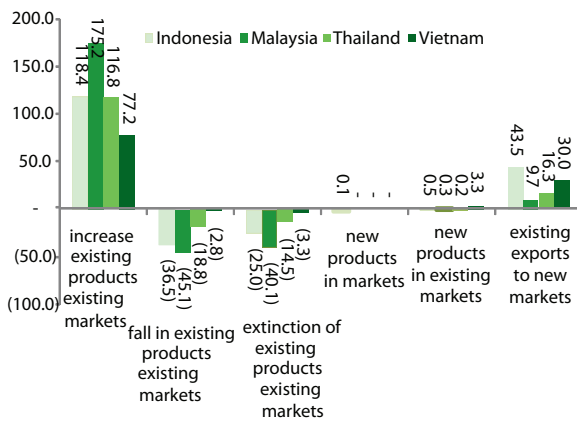
³ Only products that fall to the right of "0" line in the x-axis and below the angled line represent actual gains for Indonesia relative to China (note that due to different scales used for China and Indonesia, the line is not on a 45 degree line but rather an 18 degree angle).

2009. Indonesia lost modest share in all major markets over this period. Relative to China, Indonesia has only gained market share in two product lines in the US (rattan and wooden bedroom furniture) and Japan (rattan and wooden kitchen furniture), and it has lost share to China in all product lines in the EU.

In contrast, automotive exports did well, although they still failed to outperform China. In contrast, exports in the automotive sub-sector have grown dramatically over the past two decades. To put the scale of the sub-sector’s growth into perspective, in 1996 exports of automotive products were only one-sixth that of furniture and only one-sixteenth that of apparel. By 2008, automotive exports were nearly twice as much as apparel and three times as much as furniture. Indonesia is gaining market share in just over half of automotive component products in which it competes, across its main markets (which in this case includes ASEAN and Japan, and to a lesser degree the US). However, as is the case in apparel and furniture, performance relative to China is weak. For example, in Japan — the market in which Indonesia is most competitive — it is growing share relative to China in only 5 of 27 product lines in which they compete; similarly in ASEAN Indonesia outcompetes China in only 6 of 27 product lines.

Figure 4: Indonesian manufacturing exports are facing competitive challenges in traditional markets and products, but show a robust pattern of “cross-selling” existing products to new markets

(Decomposition of manufacturing export growth: 1990-2010)



Source: Calculations based on data from Comtrade.

Indonesia is doing well at selling existing products in new markets, which should insulate it from declining demand in OECD countries. The competitive challenges in Indonesia’s traditional markets and products seem to be part of a more general trend. Figure 4 decomposes manufacturing export growth of Indonesia relative to Malaysia, Thailand and Vietnam over the past two decades. It suggests that, similar to Malaysia and Thailand, Indonesia is facing significant losses in the intensive margin, i.e. the fall and extinction of traditional product-market relationships. On the other hand, while Malaysia and Thailand’s pattern of growth reflects that of “mature” exporters, Indonesia shows relatively high growth in the extensive margin — in selling existing products to new markets. While Indonesia was already

exporting to most markets at the beginning of this period, this extensive margin growth suggests a robust pattern of “cross-selling” products from one market to the next, which puts Indonesia in a better position to face declining demand from OECD countries.

b. Lower export entry and higher death rates since the crisis

Indonesia’s apparel sub-sector has undergone a significant transformation over the past decade, with fewer firms starting to export and many pulling out of export markets, merging, or closing down. In the period 1990-96, 13 of domestically-focused apparel firms began exporting. However, this collapsed to 5 firms in the crisis years and fell even further in the 2000-08 period. Meanwhile, export deaths (firms that exported at the beginning of the period and stopped exporting during the period) rose substantially throughout, suggesting an increasingly risky export market (Figure 5). Overall, fewer than 15 of all apparel firms were exporting in 2008; this is down 40 since the pre-crisis

period. Output remains above pre-crisis levels, however, which suggests substantial consolidation in the export sector, i.e. there are now fewer, larger exporters, reflecting actual mergers and/or growth of productive firms and the exit of unproductive ones. The driver of this consolidation appears to be a major expansion in foreign-owned firms, which increasingly dominate the export sector.

Figure 5: In the apparel sector, higher export death and lower export entry deepened even after the crisis

(Average share of exporters that exit export markets and average share of firms that enter export markets)

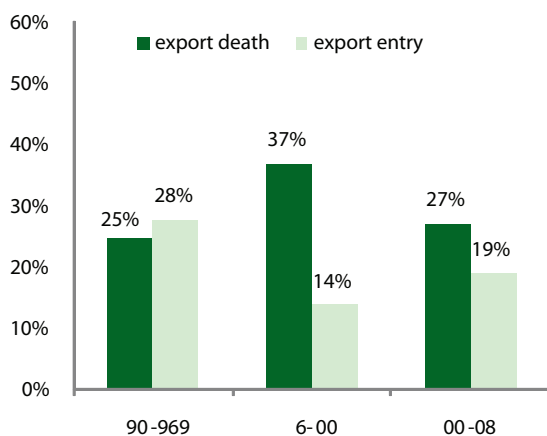
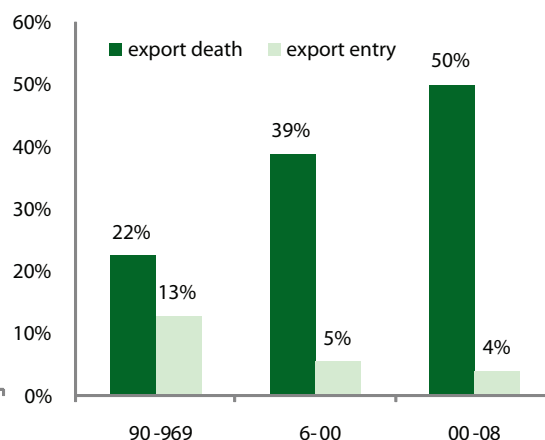


Figure 6: While in the furniture sector, entry and survival recovered in the post-crisis period

(Average share of exporters that exit export markets and average share of firms that enter export markets)



Source: Calculations based on Manufacturing Census.

The furniture sub-sector's structural response to the crisis differed significantly from the apparel sub-sector. Prior to the crisis, export entry and propensity (outside the small and micro end of the sector) was even greater than in the apparel sub-sector. And while export death rates increased significantly during the crisis, they never reached the levels experienced in the apparel sub-sector, nor was export entry as significantly constrained. Moreover, export entry appears to have returned relatively quickly. This pattern is supported by data from the Manufacturing Census, which show that few exporters exited during the crisis (although most stopped exporting in 1998) (Figure 6). In fact, the share of firms exporting declined only to just below 40 in 2000, from 45 in 1996. However, output per firm declined substantially and has not since recovered.

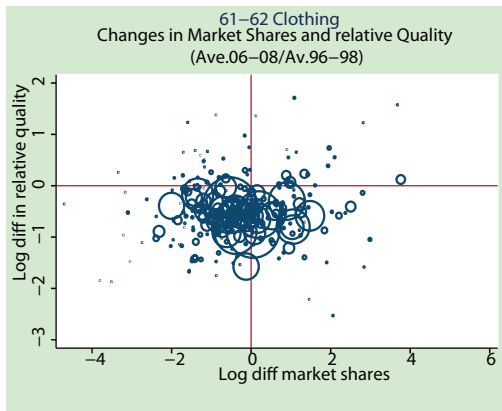
c. Challenges to improve product quality

Indonesian apparel and furniture exports may be getting caught between low cost and high quality. One of the big questions for Indonesian apparel and furniture exports is whether they are getting caught in the middle, between low cost and high quality (i.e. higher value per unit), unable to compete effectively in either domain. Evidence from growth in unit value of apparel exports to the EU⁴ suggests this may be the case.

⁴ Note that a robust unit value database is available for the EU market only based on a database recently developed by the World Bank's International Trade Department; while a similar database exists for imports to the US market, the data run only up to 1990 and is thus insufficient for this analysis.

Figure 7: Declining quality relative to competitors in the apparel sector

(Changes in market share and relative quality of apparel exports to the EU)



Source: Calculations based on data from PRMTR unit price database.

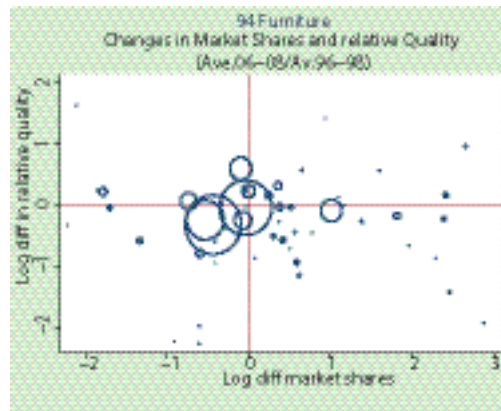
In all the largest export products, Indonesia experienced declining relative quality over the past decade. Figure 7 assesses changes in relative quality along with changes in market share performance in apparel exports to the EU. Each bubble represents a product.⁵ The x-axis shows the growth rate of market share (log difference of market shares) between 1996-08 and 2006-08. The y-axis represents the growth rate of the average quality measure between the same periods of time. The size of each bubble is the importance of each product within Indonesia's apparel exports. It shows that in most products (and in all the largest export products), Indonesia experienced declining relative quality over the decade. For the majority of them, declining quality also came with declining market share, although in a number of important products' market shares increased over this period.

Indonesian exporters may be getting squeezed between regional competitors that are out-competing them on either price or quality. The furniture sub-sector has experienced a decade of declining unit value, driven by the growth of the mechanized, lower quality sub-sector. In this context, Indonesian exporters may be getting squeezed between regional competitors that are out-competing them on either price or quality. Figure 8 plots the quality and market share performance of Indonesia's wood furniture exports to the EU. Performance here is mixed, but both unit value and market share have declined slightly for several of the most important export products. Relative to specific competitors, Vietnam, the main low-price competitor in the market, has gained significant market share, underlining the increasing importance of price competitiveness in the mass market. On the other hand, Malaysia has extended its quality premium over Indonesia, without the loss of market share. In fact, Malaysian producers are said to buy a significant volume of semi-finished Indonesian furniture, finish it in Malaysia and sell it to Europe at a significant premium as Malaysian product.

Long-term competitiveness of Indonesia's manufacturing sector will depend on moving up value chains and contributing higher value-added. Product quality in the manufacturing sector is highly dependent on access to imported inputs, which makes it critical that Indonesia has an efficient process for importing. Most Indonesian manufacturing firms operate in low positions of regional and global value chains, mainly providing basic processing activities (i.e. "cut-make-trim"

Figure 8: Most of the important furniture export products experiencing both declining quality and loss of market share

(Changes in market share and relative quality of wood furniture exports to the EU)



⁵ Defined by an 8-digit Combined Nomenclature code.

in apparel and assembly in automotive). As a result, raw-material-sourcing decisions are usually taken not by Indonesian manufacturers but by their customers. The domestic apparel sub-sector has experienced significant growth in the use of imported materials, from around 20 percent before the Asian financial crisis to around 30 percent now. The motor vehicle sub-sector experienced a major rise in outsourced share (up to 80 percent) by exporters leading into the crisis but has since declined significantly to below 30 percent. This partly reflects the development of greater local supply. Despite many complaints by exporters over the procedures and processes involved in importing, few seem to feel there are significant benefits from accessing suppliers locally.⁶ This obviously has implications for wider economic spillovers from the export sector. Clearly, long-term competitiveness of Indonesia's manufacturing sector will depend on moving up these value chains and contributing higher value-added in the country (see discussion later in this note). In the short and medium term, however, competitiveness of Indonesian firms will benefit significantly from being able to access quality international inputs at world prices.

3. Opportunities to re-establish competitiveness

Indonesia's cheap labor force, huge domestic market and the power of regional integration offer the possibility for a resurgence in Indonesia's export sector. The potential for significant further growth in FDI from China and other countries has opened up the possibility for a resurgence of Indonesia's export sector. The recent upswing in the prospects of the traditional manufacturing sector can be attributed to one of Indonesia's primary sources of comparative advantage: its deep and cheap labor force. At the same time, the success of the automotive components sub-sector over the past decade points to two other critical sources of competitive advantage for Indonesia that could be leveraged for growth in some manufacturing sectors — specifically, the huge domestic market and the power of regional integration,⁷ both of which offer potential to take advantage of home market effects and scale economies in production.

FDI has significantly increased the level of foreign participation in manufacturing firms, particularly in the export sector. Recent research on the Indonesian manufacturing sector⁸ highlights that growth in exports and employment has been overwhelmingly driven by foreign direct investment (FDI). Indeed, while realized FDI in the manufacturing sector overall was weak during and after the crisis, it has grown considerably since the mid-2000s, particularly in key sub-sectors such as automotive and textiles. This has significantly increased the level of foreign participation in manufacturing firms, particularly in the export sector where foreign-investment now accounts for an average of almost 25 percent of firms.

a. Growing wage gap

The Indonesian manufacturing sector has an important potential source of competitive advantage in the large pool of labor available at low wages. Despite major increases in the minimum wage in the initial post-crisis years, wage growth has been restrained since, with real wages in decline since 2003. In fact, hourly labor costs in the manufacturing sector are now less than one-third those in Malaysia and Thailand, two-thirds those in the Philippines, and on a par with Vietnam. Figure 9 highlights the extent of the wage gap that has now opened up between Indonesia and China. In 2003, China's wages were around 50 percent higher than Indonesia's; they have since risen to reach more than three times the Indonesian level, with most of this rise taking place only since 2006.

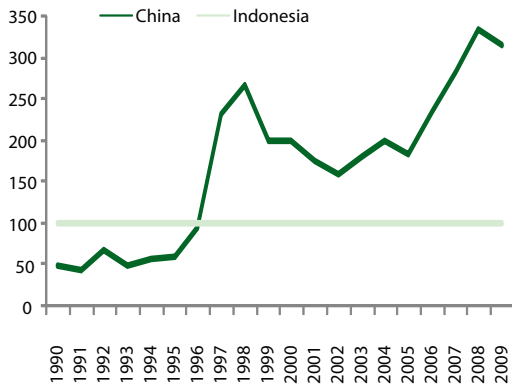
⁶ This is not to say that they would not prefer to buy locally if price and quality matched what was available internationally.

⁷ In this context, Indonesia's open trade policies can be seen as an important source of competitiveness.

⁸ See Lipsey and Sjöholm (2010) and Lipsey, Sjöholm, and Sun (2010).

Figure 9: A growing wage gap with China. Indonesia vs. China manufacturing wages

(Index of China Hourly Wages (Indonesia=100))



Source: Calculations based on Economist Intelligence Unit data.

Anecdotal evidence from Indonesia's exporters, particularly in the apparel and footwear sub-sectors, indicates that this wage gap is beginning to result in a shift of orders from international buyers towards Indonesia over China, as well as a rise in investment from Chinese companies looking at Indonesia as a site for offshoring.

While Indonesia's huge labor force — each year more than 3.3 million youths leave the formal education system to enter the labor market — is likely to continue to restrain wage growth, inflationary pressures are already beginning to force up wages, so relying on the wage gap beyond the short term is ill-advised. But it does offer the potential to catalyze greater investment in the manufacturing sector.

b. Leveraging scale of domestic and regional markets

Indonesia's large and growing consumer market, fostered by a rapidly growing middle class, is an important contributor to Indonesia's growth potential. Over the period 2003-10, Indonesia's middle class, defined as the percentage of people spending between US\$2 and US\$20 per day, increased from 38 to 56 percent. At the same time, the percentage of people spending less than US\$2 per day fell from 62 to 43 percent. With 56 percent of the population being younger than 30 years of age, Indonesia's consumer market is also very young, which further contributes to the growth potential of the domestic market.⁹ This will eventually facilitate the competitiveness of all manufacturing sub-sectors. In the short term, the sub-sectors that benefit the most will be those that rely on economies of scale. Indeed, the rapid growth of the automotive sub-sector is a function of the huge domestic market combined with the importance of scale production in the sub-sector and, critically, the emergence of an integrated ASEAN automotive value chain.

Indonesia needs to be able to integrate more effectively into Chinese manufacturing value chains in order to make the most of the opportunities in regional markets. The opportunities in regional markets certainly go beyond the automotive sub-sector. Between 2002 and 2010, manufacturing sector imports in developing East Asia experienced a three-fold increase, to reach almost US\$1.2 trillion. The key to this expansion has been the integration of regional manufacturing value chains, driven by the emergence of China as a major regional growth pole. One of Indonesia's biggest failures over the past decade has been its inability to integrate effectively into the Chinese manufacturing value chains to the same extent as have countries such as Vietnam and Thailand. As Indonesia's domestic market becomes increasingly attractive, the potential exists for scale economies to help offset some of the barriers, for example higher transport costs, that have prevented Indonesian manufacturers from integrating more closely into regional supply chains.

⁹ Based on BPS data for 2005.

4. The constraints to be addressed

Indonesia's manufacturing sector needs to improve its competitiveness. While the wage gap and a growing domestic market offer potential catalysts for Indonesia to re-emerge as a manufacturing powerhouse, there is no getting away from the need for the Indonesian manufacturing sector to improve its competitiveness. Simply relying on lower wages and the possibility to attract FDI in enclave manufacturing is likely to result in simply a repeat of the country's experience in the sector over the past 20 years. It may create some (needed) employment in the short term, but it will be neither sustainable nor value-adding. In the new global production environment, reliance on foreign capital and expertise, imported technology, and low-skilled local labor, is precarious at best, as there will always be a lower cost location emerging (e.g. Cambodia, Bangladesh, Sub-Saharan Africa). Manufacturing value chains offer opportunities for rapid integration into regional and global markets, but if Indonesian firms are unable to move beyond the bottom rungs of the value chain, the benefits to the Indonesian economy will be limited.

Indonesia needs to unlock local entrepreneurship, raise skills and productivity of the workforce, and improve the innovation and quality environment. Thus, while leveraging these sources of advantage in the short term, Indonesia must, in parallel and aggressively, address the constraints to competitiveness that prevent firms from moving up the value chain. This means improving the domestic business environment to unlock the potential for local entrepreneurship, raising the skills and productivity of the workforce, and perhaps most critically addressing the weak innovation and quality environment that prevents the development of deep and competitive domestic value chains. The remainder of this section outlines these constraints.

a. Regulatory environment

The business regulatory environment rates as one of the biggest constraints to exporters and firms overall in Indonesia. The business regulatory environment was the second most commonly cited constraint (after infrastructure) in interviews with companies in the three target sub-sectors. As is clear from Table 1, Indonesia has one of the worst investment climates in the region across virtually all measures (the one exception being protection of investors, where it ranks in the middle of the peer countries). Malaysia and Thailand — increasingly important competitors as Indonesia seeks to move its manufacturing sector into higher quality territory — rank in the top fifth of economies worldwide for “ease of doing business”, while Indonesia ranks in the bottom third. Even relative to its main low-cost rivals for manufacturing trade investment, Indonesia compares unfavorably.

Investors highlight in particular the lack of transparency in the regulatory regime as being the biggest constraint they face. This appears to have become worse in recent years and is attributed to the process of decentralization, which has led to problems of overlapping and often contradictory national and local regulations. A representative of the footwear industry association pointed to some 2,000 regional regulations that were not in line with national regulations. Investors point to the preponderance of “nuisance” regulations at the local level — examples of special charges for employing foreigners, taxes on street lighting for firms that use generators, and fees for parking within a firm's own plant area.¹⁰ The main impact on firms is in predictability, which may prevent firms from investing for growth, particularly in SME sectors.

¹⁰ IFC (2006).

Table 1: Ease of Doing Business rankings, 2011

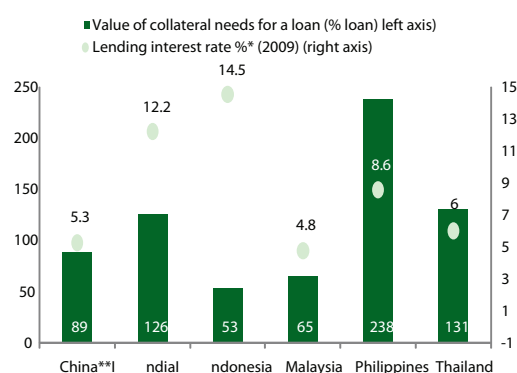
	IDN	MYS	THA	CHN	PHL	VNM	BGD
Starting a business	155	113	95	151	156	100	79
Registering a property	98	60	19	38	102	43	172
Getting credit	116	1	72	65	128	15	72
Protecting investors	44	4	12	93	132	173	20
Paying taxes	130	23	91	114	124	124	93
Enforcing contracts	154	59	25	15	118	31	179
Closing a business	142	55	46	68	153	124	101
Best two							
Worst two							

Source: World Bank Doing Business Indicators.

Corruption is also a major factor in raising the cost of doing business in Indonesia, especially for foreign investors. While the World Bank's Enterprise Surveys in Indonesia suggest that few firms view corruption as a main constraint to doing business, anecdotal evidence from interviews indicates the problem is perhaps more serious. This is supported by data from the MICI¹¹ survey of manufacturers, which marked "corruption in local government" as the third biggest obstacle to doing business in 2007 (after macroeconomic instability and transportation). Most firms indicate that the processes involved in complying with government regulations, whether through licensing regimes or customs, give rise to corruption. At this level, however, it is considered a general "cost of doing business". It hurts firm competitiveness by raising costs, but on the whole it is considered predictable. Where firms, particularly foreign investors, appear to face more unpredictable problems is in relation to the legal system, where there is a sense that personal connections and corrupt relationships determine the results of legal disputes. This not only makes contract enforcement difficult (confirmed by Indonesia's ranking of 154 in the Doing Business Indicator for "Enforcing Contracts"), but opens firms up to serious risks of abuse by suppliers, business partners, and in some cases even employees.

b. Access to finance

Figure 10: Comparison of interest rates and collateral requirements



Source: Calculated based on World Bank Enterprise Surveys (China from 2003) and Economist Intelligence Unit data.

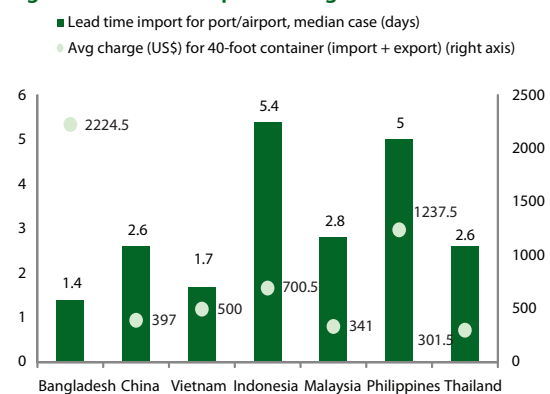
Indonesian manufacturers make significantly less use of formal, bank-intermediated financing. Whether or not firms take the decision to invest depends in part of course on access to finance. As in most countries, Indonesian manufacturers perceive access to finance as being one of the biggest constraints they face. Evidence from international surveys suggests that Indonesian manufacturers on the whole make significantly less use of formal, bank-intermediated financing than regional peers, with only 18 percent of firms having a line of credit or loan with banks.

¹¹ Monitoring the Investment Climate in Indonesia.

The Indonesian banking sector's lending to the manufacturing sector has remained restrained since the Asian financial crisis. It is well known that, despite the banking sector returning to health after post-crisis restructuring, its lending to the manufacturing sector has remained considerably restrained. This reflects in part a general view of the traditional labor-intensive manufacturing sectors as a “sunset industry”, with limited long-term prospects and relatively high firm-level risk. Thus, firms in the apparel and furniture sector, particularly small firms, face interest rates and collateral requirements considerably higher than the average reported in Figure 10. For example, exporters in the Jepara furniture cluster report facing interest rates of 16 percent for loans, and as high as 5 percent per month for working capital financing. Again, large exporters, particularly foreign-owned, are often able to avoid these constraints by accessing loans and credit lines in US dollars or by accessing credit abroad, which is critical to allowing them to compete in international markets against firms in China, for example, who can access capital at less than 5 percent annually.

c. Transport and trade facilitation

Figure 11: Cost and speed of logistics



Source: World Bank Logistics Performance Index.

Surveys point consistently to transport and trade facilitation issues as one of the biggest constraints to exporters in Indonesia, and interviews conducted for this report confirmed this. Given Indonesia's relatively peripheral location and its unique geography, it is not surprising that logistics costs are high. A recent study estimated logistics costs are as high as 14 percent in Indonesia, versus only 5 percent in Japan. In fact, Indonesia compares poorly in the region on measures and transport and logistics cost, efficiency, and quality (Figure 11). Among regional peers, Indonesia ranks worse (with the exception of Bangladesh) on all key measures of the World

Bank's Logistics Performance Index, including infrastructure, customs, and the competence of the logistics industry. For exporters, this is reflected in higher costs, longer lead times, and greater uncertainty.

Maritime transport costs and shipping times are uncompetitive. Moreover, the lack of direct shipping lines to Indonesia (most go via Singapore) adds significant time and moderate cost to exports. According to a recent study, maritime transport costs for a 20-foot container from Tanjung Priok to Yokohoma, Japan are almost 50 percent higher than those from Manila, 20 percent higher than those from Malaysia, and 10 percent higher than those from Singapore. Shipping time to Europe or US time is normally 50 percent longer than from Malaysia, Singapore, and Vietnam and double that from South China or the Philippines.¹² Perhaps more importantly, this raises the risks for exporters. As an apparel exporter pointed out, if they miss a planned shipping date for any reason, they may have to wait three to five days to pick up the next connection. This has serious implications in sub-sectors such as apparel and automotive components that operate with tight delivery schedules, whether to international buyers or in production networks.

This competitiveness gap is compounded by weaknesses in infrastructure, policy, and practice. Underinvestment in ports and roads infrastructure has contributed to serious congestion problems. On the ports side, this is also linked to the historical state monopoly in port operations. Exporters

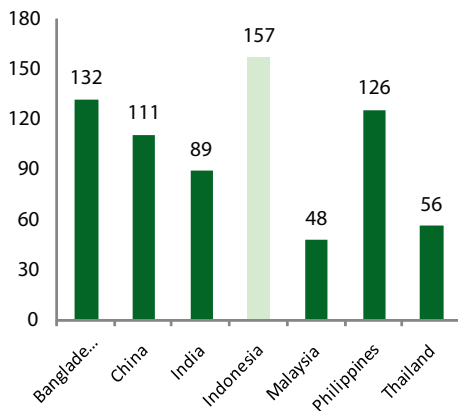
¹² USAID (2009).

acknowledge that the introduction of the Indonesia National Single Window (INSW) has improved the situation in many respects. On the other hand, many exporters indicate that despite the INSW they are often forced to work with a paper-based system in parallel. This appears to be particularly prevalent in ports outside Tanjung Priok, and so may impact the furniture sector most acutely. As another example, according to one apparel company, it is required to present the master import license to customs in order to deduct the import quantities from the quota denoted in the import license. However, it is often importing from Tanjung Priok and Semarang at the same time, causing delays in the clearance of its goods at one of the ports.

d. Labor regulations

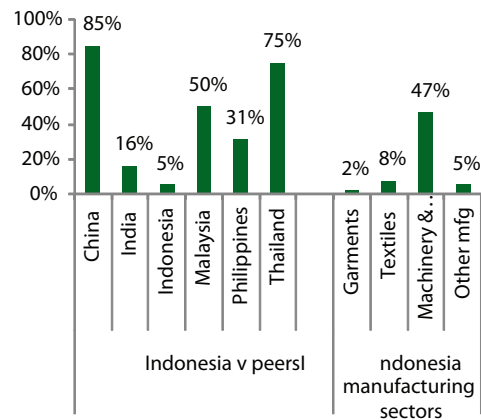
Indonesia has the most rigid labor market among its regional peers. According to the Doing Business rankings, Indonesia is ranked as having the most rigid labor market among its regional peers (Figure 12). Law No. 13/2003, also known as the 2003 Manpower Law, has long been a source of consternation for manufacturers. Among the components of the law are provisions for a 40-hour working week and statutory overtime pay proportional to the extra hours worked. According to the apparel sub-sector, Indonesia is the only country among the main Asian textile industry producers to require these labor provisions. Moreover, manufacturers complain of large rises in minimum wages unrelated to productivity. But the biggest source of concern for manufacturers is the provisions on severance payments, which are among the highest worldwide. Under the provisions of the law, workers are entitled to a minimum of 23 months of severance (increasing based on service) if they are dismissed for any reason; this severance requirement comes into effect as soon as workers have been with a firm for 9 months. One study found that the severance costs resulting from the law are equivalent to a “hiring tax” of about 4.1 monthly wages per employee or 34 percent of a worker’s annual wage. Firms have responded to the labor regulations by hiring labor on a contract basis, avoiding taking on workers who can make severance claims. In labor intensive sub-sectors such as apparel and furniture, virtually no new workers are brought in on permanent contracts and up to 40 percent of workers are now on temporary contracts. It is also reported that many firms fail to comply with the regulations.

Figure 12: Rigidity of employment index



Source: World Bank Doing Business Indicators.

Figure 13: Share of firms offering formal training



Source: Calculations based on World Bank Enterprise Surveys.

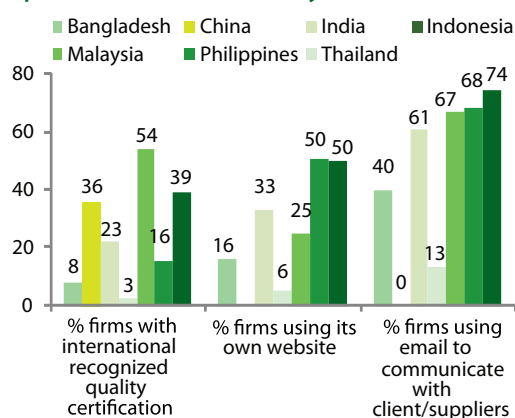
The regulations, and firms’ responses to them, create a number of distortions that contribute to negatively impacting productivity and competitiveness in the manufacturing sector. These include (i) lowering productivity by reducing the incentives to train; (ii) discouraging firms from growing beyond small stage; (iii) raising the cost of financing and discouraging investment; and (iv)

making labor markets rigid and constraining knowledge flow across firms. In fact, the evidence from Enterprise Surveys shows that Indonesian manufacturers invest far less in training their workforce than regional peers (Figure 13). While the labor regulations may contribute to this gap, they are unlikely to be the only factor. One factor is clearly the nature of firms in the manufacturing sector. Relative to peers such as Malaysia and Thailand, Indonesia's firms tend to operate in labor-intensive, low-technology activities. In sub-sectors such as apparel and furniture, for example, it is common in many firms to train workers on machinery when they first begin the job, but not again during their career.

e. Firm sophistication, innovation, and standards

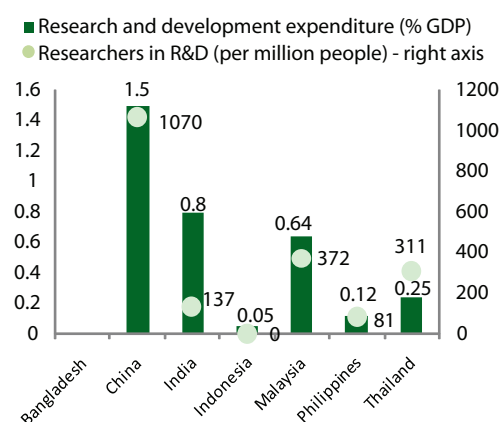
Low levels of sophistication of Indonesian manufacturing firms may also be a constraint on competitiveness. While we do not have any direct evidence of the link between firms' capabilities and productivity, anecdotal evidence from interviews, as well as data from the World Bank's Enterprise Surveys, indicates that low levels of sophistication of Indonesian manufacturing firms may well be a constraint on competitiveness. As Figure 14 illustrates starkly, Indonesian manufacturers score lower than all regional peers on basic measures of firm sophistication, such as having international quality certification and the use of ICT. This may contribute to their struggling to compete on any basis beyond cost. It may also contribute to relatively inefficient production, and thus low levels of productivity. The lack of sophistication at the firm-level might have been compounded by major gaps in Indonesia's innovation capacity, both nationally and at the firm level, as highlighted in Figure 15.

Figure 14: Comparative measures of firm sophistication based on surveys of manufacturers



Source: Calculated based on World Bank Enterprise Surveys.

Figure 15: Measures of national innovation capacity



Source: Source: World Development Indicators.

The competitiveness of Indonesian exporters is also impacted by the national standards regime. In both the furniture and apparel sub-sectors, it has been argued that a weak standards regime, along with poor monitoring and enforcement, has contributed to low quality competition in the domestic market. Certainly there is evidence that poor enforcement of logging bans and lack of control of cross-border movement of illegally obtained wood have resulted in a situation in which Indonesian furniture manufacturers often face higher costs to obtain (legal) wood than their international competitors, thus undermining the country's comparative advantage in forestry resources. Beyond this, lack of industry standardization in the production of parts restricts the scope of subcontracting in the sector and contributes to lower quality output.

f. Market access

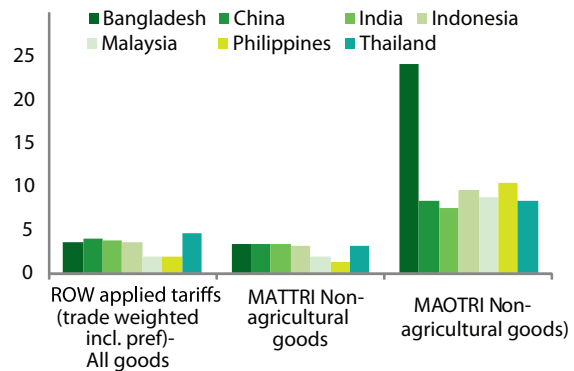
At a macro level, market access is not a major problem for Indonesian exporters. Figure 16 shows that Indonesia faces relatively similar levels of market access as its regional peers, with weighted average applied tariffs faced by exporters below 4 percent (only the Philippines and Malaysia face lower applied tariffs).

Tariffs have a significant impact on competitiveness across many product ranges. At a sub-sector level, however, the picture varies considerably. Where duties matter most is in the apparel sub-sector, where Indonesia still faces higher tariffs than

key competitors in its most important export markets. For example, Bangladesh has duty-free access to the EU, while African and Latin American exporters have duty-free access to the US. Meanwhile, Indonesia faces duties of 10-14 percent in these markets. Given the price sensitivity of the apparel sub-sector and Indonesia's already high cost of reaching markets (due to its location and transport costs), such tariffs have a significant impact on competitiveness across many product ranges. The furniture sub-sector by contrast faces low tariff barriers to enter most global markets, while in automotive components, where the market is more regional, the ASEAN FTA ensures duty-free access to key markets.

Exporters face challenges to market access from non-tariff barriers. Indonesian exporters face bigger challenges to market access in the form of non-tariff barriers, which is reflected in its relatively worse competitive position in the MA-OTRI versus the MA-TTRI¹³ in Figure 16. In the apparel sub-sector, for example, exporters complain of the strict requirements for chemical certification in the EU, which forces them either to undertake certification processes or to shift to already-certified EU-based suppliers for key inputs — either way raising costs. The furniture sub-sector is increasingly facing significant technical barriers in the form of requirements to certify that wood comes from legal and sustainable sources, allowing buyers to put downward pressure on prices in the absence of certification. In an effort to meet stricter standards and to maintain the sustainability of Indonesia's forest resources, the Indonesian Ministry of Forestry recently implemented the Sistem Verifikasi Legalitas Kayu (SVLK), which is considered a major challenge for market access of smaller furniture and handicraft producers (see Box 2).

Figure 16: Comparative measures of market access



Source: World Trade Indicators.

¹³ MA-OTRI is the Market Access Overall Trade Restrictiveness Index; MA-TTRI is the Market Access Tariff Trade Restrictiveness Index.

Box 2: Sistem Verifikasi Legalitas Kayu (Timber Legality Assurance System)

Illegal logging practices and timber products, as well as unsustainable deforestation, affect the competitiveness of Indonesia's timber industry, as main buyers have started to implement standards ensuring the legality and sustainability of timber and timber products entering their markets (e.g., an amendment of the Lacey Act for Timber and Timber Products in the US, the new Timber Regulation No. 995/2010 in the EU which will become effective in March 2013, or the Green Konyuho in Japan).

In an effort to meet these stricter standards and to maintain the sustainability of Indonesia's forest resources, the Indonesian Ministry of Forestry implemented the Sistem Verifikasi Legalitas Kayu (SVLK), the Timber Legality Assurance System, in 2009. The SVLK is part of Ministerial Forestry Regulation No. 38/2009, which consists of standards and guidelines for exporters of timber, such as the sustainable forest management standard and timber legality verification. As of 2012, the Government will impose these standards not only on firms in upstream timber industries, but also on furniture and handicraft exporters.

The Association of Indonesian Furniture and Handicraft Industry (Asmindo) rejects the mandatory implementation of the SVLK for furniture exporters. A major concern being voiced is that certification is costly and hampers export competitiveness of small- and medium-sized furniture producers, especially if international buyers are not willing to pay a premium price or question the credibility of the SVLK. Average certification costs can reach up to Rp 70 million. More importantly, certification costs make up only a small portion of the costs that firms are facing. The highest portion of additional costs is incurred when firms are trying to meet the certification requirements. Small producers do not possess the necessary skills or human resources to prepare the required documents, whereas hiring a consultant results in additional costs.

According to Asmindo, the SVLK should not be mandatory for downstream furniture or handicraft exporters, if they use timber from upstream firms that have already implemented the SVLK standards. Moreover, if main buyers in key markets, such as the EU, continue to purchase illegal timber products, the competitiveness of Indonesia's certified producers is endangered. In addition, there is concern whether the SVLK is enough to prevent illegal logging and there is demand for more effort outside the SVLK. Furthermore, some critics question the intent of the Government and argue that the SVLK is only a form of trade protectionism in disguise.

An effective implementation of the SVLK is key and requires a long-term commitment from various stakeholders, including the private sector, policy-makers, and non-government organizations, to support this initiative. In particular, the Government should ensure that the implementation of the SVLK does not impede export competitiveness of small furniture producers. Instead, the Government should provide assistance to small firms, for example, with the preparation of the required documents or grants to cover the additional costs. One could also envisage collective arrangements whereby small furniture firms benefit from economies of scale, e.g. by processing SVLK certificates collectively.

5. Conclusions and Policy Implications

Indonesia may be facing a "second chance" in the manufacturing sector. The first manufacturing sector boom collapsed with the Asian crisis, but the seeds of its rebirth may have borne fruit as a consequence of the latest global financial crisis and the resulting pressures for rebalancing. Structural economic change tends to move in only one direction, and so few countries are fortunate to have such an opportunity to revive a critical labor-absorbing and technology-producing sector like manufacturing. Of course, this opening will not last forever. It is therefore critical that Indonesia takes policy actions now to take advantage of this opportunity.

There are a number of priority policy issues to address constraints in the manufacturing sector. Based on the discussion above, a number of priority policy issues are proposed to address the key constraints in the manufacturing sector. Several of these have long been part of the discourse in analysis of the Indonesian economy, while others have perhaps had less attention in recent years.

- **Addressing constraints in the transport and logistics environment:** Significant attention is already being focused on transport infrastructure, including both hard infrastructure such as road and port development, and soft infrastructure including the implementation of the Indonesia National Single Window (INSW) and the 24/7 port initiative. Despite this, problems remain both in terms of the physical infrastructure and the management of the trade facilitation process. For exporters in sub-sectors that require tight delivery schedules (such as garments and automotive components) the trade facilitation environment is critical. Many exporters are already benefiting from customs bonded zones. This successful tool could perhaps be expanded, taking

advantage of the new SEZ law, to focus on developing export-oriented zones that leverage key trade gateway infrastructure (ports and airports). Ongoing implementation of the INSW should improve the facilitation environment more broadly for manufacturers, but greater attention to reform of border processes would help maximize the benefits of the INSW. Beyond this, there is clearly a need to prioritize critical infrastructure investments at the main ports and along key transport corridors.

- **Facilitating access to finance to support investment in the manufacturing sector:** The emphasis here should be on supporting SME manufacturers and first-time exporters; established exporters, particularly those operating within regional and global value chains, typically have better access to finance extended through supply chains. Improving the situation on financial access can partly be achieved by policy statements by the Government supporting the development of the manufacturing sector and explicitly removing the label of “sunset industry”. The formal establishment of Eximbank provides a channel for giving targeted support for financial access in export-oriented sectors. Given that many of the labor-intensive manufacturing firms have limited assets, promoting the use of factoring and other instruments that can reduce the collateral requirements to obtain loans may be explored.
- **Freeing up labor markets and incentivizing training:** The direct impacts of current labor regulations are well understood; their distorting effects on skills development, investment, and productivity are perhaps less discussed but probably more debilitating for competitiveness in the manufacturing sector. Clearly, there is a need to address the current regulations around severance — what is required is political will. As part of the compromise to achieve this, the Government should consider what additional incentives might be provided to facilitate greater on-the-job and formal vocational training. This will not only contribute to improving productivity, but will also provide workers with portable skills.
- **Innovation and firm-level sophistication:** The lack of investment in innovation by Indonesia firms is a function of a number of factors, but a critical one is the low levels of sophistication of Indonesian firms. Improving management quality and practices, and promoting the adoption of international standards (e.g. ISO) should be a critical priority for the manufacturing sector, both for improving quality and productivity. In addition, government and industry-level interventions to support the development and operation of design and engineering capacity (vocational training programs, research, and testing facilities, etc.) should be a priority.
- **Improving the standards regime:** The failure to meet international standards is a significant barrier to exporting in some manufacturing sub-sectors. Significant work is already underway, for example through the EU Trade Support program, to improve the national standards and certification regime. Among the main priorities here should be gaining international recognition for domestic certification processes and laboratories. This issue is particularly important for exports that are subject to increasing consumer demand for certifications and standards. However, the Government and the private sector need to consider alternative ways of certification, since high preparation and certification costs may substantially hamper export competitiveness of smaller firms (see Box 2).
- **Promoting greater collective action and coordination by industry:** The small size of many Indonesian manufacturers is aggravated by relatively poor inter-firm cooperation. While industry associations are active, they have had limited impact in promoting collective action. There may be some deeper issues of trust and social capital at play, but international experience (for example, Fundacion Chile and the Malaysian Palm Oil Board) shows that governments can play a role in facilitating collective action (through industry associations and clusters). This often requires funding and projects around which industry can coordinate. Government co-funding

with well-established and capacitated industry bodies can be used to target many of the policy issues noted above, including improving vocational training, management skills, and standards, as well as facilitating research and innovation.

- ***Improving transparency and predictability in the governance and policy environment:*** Many of the problems discussed in this report (from lack of investment for growth, to low levels of sophistication in the domestic market to poor inter-firm cooperation, and much in between) can be traced back to a regulatory environment that lacks predictability. In an environment where firms cannot predict how macro policy will look in two years time or who face a legal environment with little certainty over contract enforcement, it is difficult to expect investment in growth, in exporting, in quality and innovation, and in training of workers. Perhaps the biggest concern here for investors relates to the impact of the “big bang” decentralization on the policy environment. While there are no simple policy solutions to this, efforts can be made to improve coordination between national and local agencies, and to promote positive competition with respect to the business regulatory environment across provinces (for example, using the World Bank’s Subnational Doing Business indicators as a basis). On the latter issue, the League of Cities of the Philippines conducts an annual benchmarking of the business climate across its members cities, and this has become a powerful source of highlighting good practices and stimulating reforms.
- ***Using the SEZs as “bridgeheads to reform”:*** Internationally, the SEZ programs that are held up as the most remarkable success stories — most notably China but also in Mauritius — used their economic zones expressly as a vehicle for broader economic reform, rather than simply as tools to attract. Indonesia’s new SEZ Law offers the prospect of addressing some of the competitiveness constraints identified in this report in a more politically palatable environment. A province that wishes to be seen as a progressive reformer may decide to use the development of an SEZ as an opportunity to test reforms, for example freeing up labor markets and reducing regulatory burdens as was done in the economic zones in China and Vietnam. It may also look to promote externalities within the zones, for example by facilitating collective goods (public or club goods) such as vocational training, engineering and design centers. This is an innovative approach that has been adopted in Ghana’s free zone program.

References

- IFC (2006) Improving Indonesia’s Competitiveness – Case Study of Textile and Farmed Shrimp Industries, September 2006.
- Lipsey, R.E. and Sjöholm, F. (2010) FDI and Growth in East Asia: Lessons for Indonesia, IFN Working Paper Number 852, Research Institute of Industrial Economics, Stockholm, Sweden.
- Lipsey, R.E., Sjöholm, F., and Sun, J. (2010) Foreign Ownership and Employment Growth in Indonesian Manufacturing, NBER Working Paper 15936, Cambridge, MA: National Bureau of Economic Research.
- OECD (2008) Indonesia: Economic Assessment, Paris: OECD Economic Surveys.
- USAID (2004), Indonesia’s Employment Protection Legislation: Swimming Against the Tide?, GIAT project, November 29, 2004.
- USAID (2009) Export-oriented Investment in Indonesia, Indonesia Trade Assistance Project, August 2009
- World Bank (2010) Education, Training, and Labor Market Outcomes for Youth in Indonesia, August, 2010.

