CAN TRADE FACILITATION DRIVE MANUFACTURING FDI?

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The Global Alliance for Trade Facilitation is a public-private partnership for trade-led growth. Recognising that neither governments nor the private sector can deliver on the full potential of the TFA on their own, the World Economic Forum, the International Chamber of Commerce and the Center for International Private Enterprise have joined forces with the governments of Australia, Canada, Germany, the United Kingdom and the United States to leverage business expertise, leadership and resources to support effective trade facilitation reforms measured by real-world business metrics.

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PREFACE

International investment remains a critical, and often underappreciated, part of the global economy. Nearly 2 million jobs were created directly by foreign direct investment (FDI) in 2015, according to a Financial Times analysis. These employment gains in turn support many more jobs indirectly and, as this paper points out, can lead to productivity improvements throughout the wider economy.

The unbundling of modern production into regional and global value chains provides opportunities for economies to attract investments specialized in specific segments of the manufacturing chain. Morocco, for instance, has attracted over US$ 3 billion in FDI into the manufacturing sector since 2011, about two-thirds of this into automotive components. Sri Lanka, another lower middle income country, attracted over US$ 1 billion in manufacturing FDI over the same period across a number of sectors focused on export markets. During this period, FDI into manufacturing accounted for less than one-third of total investment in Sri Lanka, but more than two-thirds of total jobs created by foreign investment.

Although a number of factors drive these investment decisions, the ability to move goods across borders efficiently and predictably is one of the most vital. If shipments are consistently delayed at ports or if the paperwork needed to clear goods for export are overly cumbersome, investors will turn towards other opportunities. Ambitious implementation of the WTO Trade Facilitation Agreement sends a clear signal to both domestic and international investors that countries are committed to making trade easier and will prove influential in unlocking FDI opportunities—especially in the context of growing south-south trade and investment ties.

The Global Alliance is in a unique position to work closely with both governments and private sector stakeholders to identify and address bottlenecks at the border, including those which deter investment. This paper provides a macro, umbrella view of how trade facilitation interlaces with investment. As the Alliance designs in-country trade facilitation solutions, it will analyse the long term impact it has on FDI by establishing baseline metrics and measure progress over time. We look forward to helping partner governments implement tailored border solutions that accelerate trade and attract inclusive investment.

PHILIPPE ISLER
Director, Global Alliance for Trade Facilitation

KEY MESSAGES

- **Manufacturing, especially for export, is in many countries one of the largest sources of formal employment creation** and hence a priority for many developing country governments. However, foreign investment in this sector remains concentrated largely in Southeast Asia and larger emerging economies. For example, only 5% of Africa's FDI is in the manufacturing sector.
- **Manufacturing FDI is critical for driving productivity and remains the 'most common vehicle' available for economies to integrate into global value chains**. The unbundling of production processes allows for specialization in a specific segment or component of the value chain, allowing a country to focus in on its particular competitive advantage.
- As production becomes more sophisticated and inter-dependent, **the efficiency and predictability of cross-border trade becomes ever more important**. Countries must be able to keep up with the increasing need for speed and predictability, especially if they seek to attract foreign investment.
- Our analysis shows **a strong link between a country's trade facilitation environment—how quickly and predictably goods are cleared across borders—and the level and number of greenfield FDI projects**. Our preliminary estimates find that improving the trade facilitation environment by 1% corresponds with a 3.2% increase of FDI into manufacturing. While this does not imply causation, as investment is driven by many different factors, it points to the importance of the trade facilitation environment in helping to attract and retain investment.
- Similarly, we find **developing economies with stronger trade facilitation environments attract high-value investments**, especially in industries such as auto parts and aerospace manufacturing.
- A number of factors drive the complex foreign investment decision-making process, but **the ability of manufacturers to move goods quickly across borders is critical**, especially for export-oriented production. Investment promotion agencies—a key player in facilitating investment into priority sectors—must make the link between trade and investment. Similarly, customs and border agencies must understand the impact that improving service delivery on productive sectors.

SETTING THE SCENE

Manufacturing, especially for export, has been one of the largest sources of formal employment creation in the developing world over the last three decades and hence a priority for the majority of developing country governments.

At the same time, the manufacturing landscape has shifted significantly over the last two decades. Manufacturing—from textiles to automobiles—is today dependent on an increasingly complex web of trade in intermediates, sourced in some cases from dozens of countries. According to the WTO, half of world trade in goods and services takes place within global production networks.[1]

However, many of the lowest income countries have not been able to integrate into this ever-more sophisticated and fast-paced global production system. As OECD research points out, there is no indication of the emergence of a 'factory Africa' along the lines of 'factory Asia.'[2]

Whereas foreign direct investment (FDI) has been a key component of East Asia's manufacturing success story in the 1980s and 1990s, FDI into many low-income countries (with some notable exceptions) has largely been concentrated in the resource extraction sector. Only 5% of FDI into Sub-Saharan Africa was directed toward the manufacturing sector.[3] Even with the limited levels of FDI into the sector, this has been an important driver of formal employment in countries such as Ethiopia, Tanzania and Uganda.[4]

Interestingly, these countries also generally have among the highest trade costs and weakest trade facilitation environments. Could improved trade facilitation help to drive FDI into manufacturing and help support the integration of these countries into the global economy?

MANUFACTURING FDI: POLICY PRIORITIES

Vietnam's Industrial Development to 2025 masterplan includes manufacturing as one of the three focus areas and sets a target of FDI to fund at least one third of the plan's implementation.

Rwanda's Poverty Reduction Strategy and Private Sector Development Strategy both set manufacturing as a key priority for the country's development. The PSDS sets a target of attracting FDI inflows of at least 7% of GDP by 2020.

Kenya's Industrial Transformation Strategy—endorsed by President Kenyatta—seeks to double the number of manufacturing jobs and attract 5 times more FDI by 2030.

The **Moroccan** government's *Plan d'Accélération Industrielle 2014-2020* seeks to create 500,000 new manufacturing jobs with increased FDI as a critical driver. Attracting manufacturing FDI was also a key component of the previous *Pacte National pour l'Emergence Industrielle* which helped to significantly diversify the country's economy.

WHY FDI MATTERS

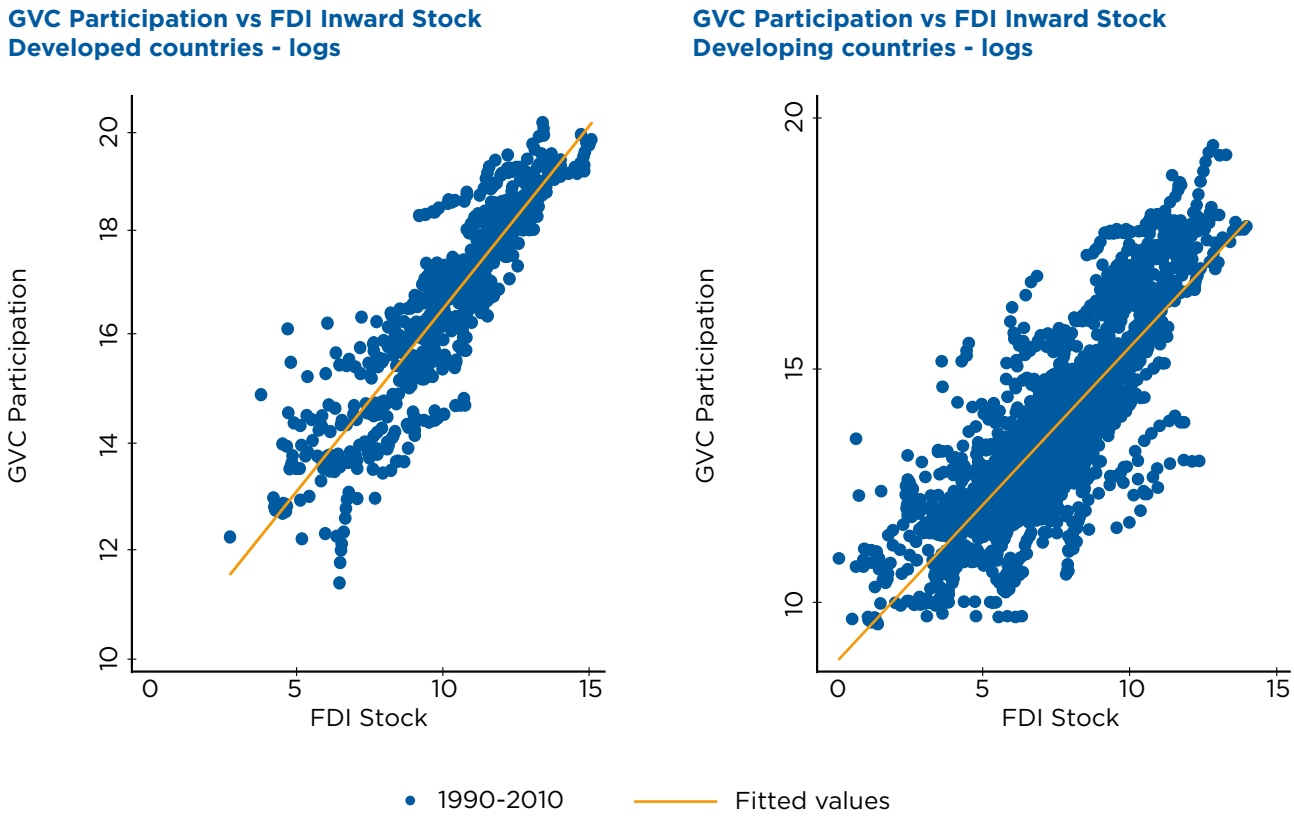
Foreign direct investment is critical for driving productivity and output growth in both developed and developing economies. Investment in capital goods and machinery, for instance, can increase output per worker and allow for the production of high-value goods. Wages tend to move in tandem, with higher value goods providing employment opportunities with higher pay. Low income countries generally have low domestic capital stocks, making FDI a key source of private investment capital. Domestic credit to the private sector was less than 20% of GDP in low income countries compared to around 100% for upper middle income countries in 2014.[5]

FDI—especially into the manufacturing sector—has the potential to generate significant spill-over effects. In a comprehensive meta-analysis of over 3,600 estimates across 47 countries, Havranek and Irsova (2011) find robust evidence of knowledge spill-overs from backward linkages (i.e. links to domestic suppliers). The study concludes that the best estimate points to a 10 percentage point increase in foreign presence in the manufacturing sector is associated with a 9% increase in the productivity of domestic supplier sectors. Moreover, the authors find that

economies which are more open to international trade tend to benefit from greater spill-overs and that the manufacturing sector benefits significantly more than other sectors, such as services.[6]

FDI is the 'most common vehicle' available for economies to integrate into global value chains (GVCs).[7] The establishment of foreign affiliates—whether through greenfield projects or acquisitions—is a key driver affecting the share of imported content of exports, again the proxy for GVC participation.[8] As highlighted in the graphs below, there is a strong relationship between the level of inward FDI and GVC participation.

FIGURE 1
CORRELATION BETWEEN LEVELS OF INWARD FDI STOCK AND GVC PARTICIPATION



Source: 2013 UNCTAD World Investment Report

TRADE FACILITATION: UNLOCKING THE BENEFITS OF TRADE

Reducing the red tape associated with border clearance significantly reduces trade costs and strengthens the competitiveness of exports. The OECD estimates that full implementation of the WTO Trade Facilitation Agreement (TFA) would lower trade costs by an average of 14% for developing countries, with lower middle income countries standing to see the biggest reductions in trade costs.[9] In terms of export diversification, Beverelli, Neumueller and Teh (2015) estimate that the implementation of the TFA would increase the number of products exported by Sub-Saharan Africa and Latin America and the Caribbean by 16% and 12% respectively, while increasing the number of export destinations by 28% and 22%.[10]

Turning to the role of trade facilitation in supporting integration into global value chains, research shows that trade in intermediates is generally more sensitive to time and cost than trade in final products. Saslavsky and Shepherd (2012) find that machinery parts and components are 50% more sensitive to logistics performance (as measured by the World Bank's LPI) than other goods.[11] The authors find the effect to be especially significant for economies in the Asia-Pacific region, where integration into modern global production networks is strongest. Similarly, the World Bank finds a correlation between the share of intermediate imports (i.e. which are used as inputs for exports) and the reliability of logistics performance.[12]

FIGURE 2
THE IMPACT OF TRADE FACILITATION

The WTO estimates that the global economy could be as much as US$ 9 trillion bigger by 2030 with full implementation of the TFA-roughly equivalent to the combined GDP of Germany, the UK and France.[13] Developing countries would see significant gains—both in absolute and relative terms—from more the ambitious scenario given that these countries generally have weaker trade facilitation environments and are therefore further from the global frontier. Moreover, the WTO estimates that the ambitious implementation scenario would push the 'cross-over' point—where developing countries' trade overtakes that of developed countries—forward to 2018.

Hufbauer and Schott (2013) estimate that moving all countries to at least halfway towards the region's top performer in the World Bank's Trading Across Borders indicator would increase global GDP by approximately US$ 1 trillion annually, with total trade seeing a slightly larger boost.

On the cost side, the OECD estimates that TFA implementation would require between US$4 to 20 million per country[14], highlighting the overwhelmingly positive rate of return of trade facilitation reform.

Improving the transparency and efficiency of cross border trade can also strengthen government revenue collection. Although tariffs have fallen over the last several decades, many developing country governments still depend heavily on duties and taxes collected at the border to fund public spending. In economies with large informal sectors and weak tax systems, taxing goods at the border can be prove to be particularly attractive given goods typically enter the country through a small number of major ports or border crossings. In least developed countries, 45% of government tax revenue is collected at the border.[15]

The World Customs Organization (WCO) points out that customs modernization, a core tenant of trade facilitation reform, can help to improve revenue collection by increasing compliance

rates and reducing corruption. Using tools such as electronic single window platforms for border clearance procedures can reduce the opportunities for discretion and hence provide less room for corruption. Moreover, trade facilitation generally leads to increased trade volumes, thus providing a larger base for revenue collection.

Indeed, the evidence from Ghana and Singapore, two early movers in single window implementation, seem to bear this out. In the five years following the 2003 launch of the single window project in Ghana, total revenue collected increased by an average of over 30% annually[16] (well before the start of oil production in 2011).

Turning to the inclusive growth perspective, improving trade facilitation can enable both job creation and help reduce poverty. The WTO estimates that implementation of the TFA could create 20 million new jobs globally.[17] Looking more broadly, reducing the barriers to markets faced by rural communities can help to tackle poverty and spread the gains from national level trade facilitation improvements. Although urban poverty rates are on the rise in many countries, the majority of the world's poor still live in rural areas and are largely engaged in small-holder farming. Improving the internal market and logistics environment (e.g. through warehouses, cold chain) can help connect small-holder farmers and their communities to national and international markets, increasing their farm gate prices and incomes. In Cambodia, where 90% of the poor reside in rural areas, increased access to markets and improvement in access to farm inputs (including imported fertilizers) saw increased rice production and farm gate prices, driving the dramatic fall in the national poverty rate from 52% in 2004 to 20% in 2011.[18]

TRADE FACILITATION: CAN IT HELP DRIVE (MANUFACTURING) FDI AS WELL?

Moving goods efficiently and predictably across borders is vital for economies looking to transition to higher value, GVC-oriented manufacturing that can unlock the economic and employment opportunities for inclusive growth. At the same time, FDI remains the quickest stepping stone available for developing economies to tap into the GVC ecosystem. So, what is the evidence of trade facilitation being able to attract more and better FDI?

Duval and Utoktham (2014) compare the effects of reduced trade costs, shipping connectivity and the overall Doing Business environment on FDI into the Asia and Pacific region. The authors calculate that a 1% reduction in non-tariff trade costs and shipping connectivity is associated with an increase of FDI of 0.8% and 0.6% respectively, while moving 1% closer to the overall business climate frontier is linked with a 4.3% increase. In other words, improving in the overall business environment appears to be the key driver of FDI.[19]

The WTO finds that at higher levels of market size (GDP), there was a positive and statistically significant relationship between trade facilitation indicators (documents needed and time to import) and total FDI inflows.[20] In a draft working paper, Olofsdotter and Persson (2013) find that the time to export is a significant predictor of European FDI into developing countries.[21] They find that the effect of reducing export times becomes larger for smaller economies, supporting the overall hypothesis that supply-chain (or vertical) efficiency-seeking FDI is more sensitive to trade facilitation than market-seeking investment.

WHY PREDICTABILITY MATTERS FOR MANUFACTURING FDI

As manufacturing is unbundled across geographies, and costs in China increase, opportunities are opening up for new players to enter global supply chains. This unbundling allows for specialization in a specific segment or component of the value chain, allowing a country to focus in on its particular competitive advantage.

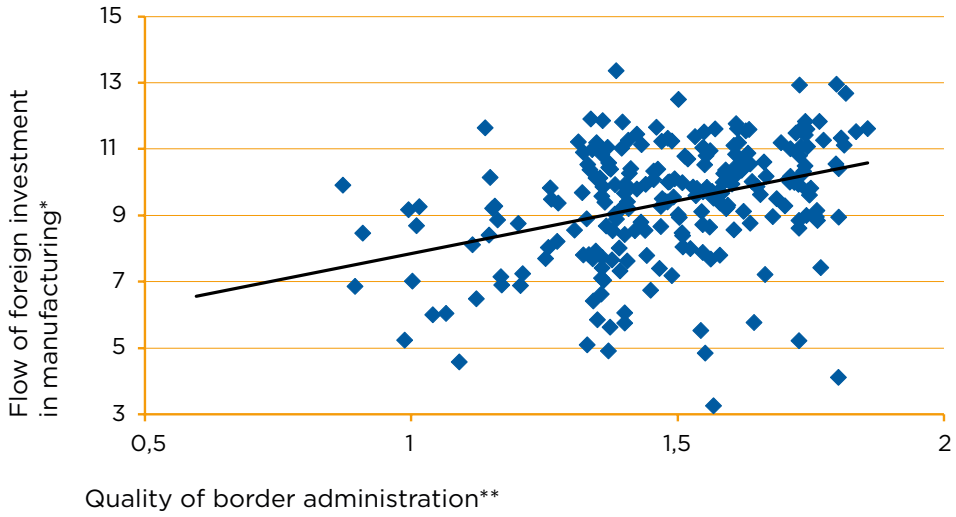
However, as production becomes more sophisticated and inter-dependent, the efficiency and predictability of cross-border trade becomes ever more important. Countries must be able to keep up with the increasing need for speed and predictability, especially if they seek to attract foreign investment from lead firms.

The above studies have used the total FDI flows in their analyses, looking at foreign investment in natural resource extraction, real estate, services and all other sectors of the economy. What is the evidence for the link to manufacturing FDI?

Our analysis finds a positive relationship between FDI into manufacturing and the trade facilitation environment in developing countries. Whereas previous research has focused on aggregate level FDI across all sectors, our analysis taps into data broken down by sector. As noted earlier, manufacturing investment is a priority for governments given its potential for significant employment creation and the positive productivity spill-overs that can drive economic transformation.

FIGURE 3
MANUFACTURING FDI INFLOWS AND TRADE FACILITATION

FDI capex (manufacturing) and ETI Border Administration, 2013-2015



Source: FDI Markets Database; Global Enabling Trade Report 2016
2013 and 2015 ETI figures are taken from the 2014 and 2016 edition of the index. 2014 figures were obtained interpolating the 2013 and 2015 data.
*Natural logarithmic value of FDI capex per billion population
**Natural logarithmic value of Enabling Trade Index pillar 3 score ("Border Administration")

Figure 3 shows the relationship between the Border Administration sub-index of the World Economic Forum's Enabling Trade Index (ETI) and the capital expenditure of FDI projects in manufacturing (normalized per million inhabitants) between 2013 and 2015 for a number of developing and emerging economies. Put simply, improving the trade facilitation environment by 1% as measured by the ETI sub-index is associated with a 3.2% increase in FDI into manufacturing. While this does not imply causation, as investment is driven by many different factors, it still points to the importance of the trade facilitation environment in helping to attract and retain investment. Looking at the number of new (greenfield) projects, we see an even stronger relationship, with a 1% increase in the ETI sub-index being associated with a 3.8% increase in the number of projects (see Figure 4).

MEASURING TRADE FACILITATION: THE ENABLING TRADE INDEX

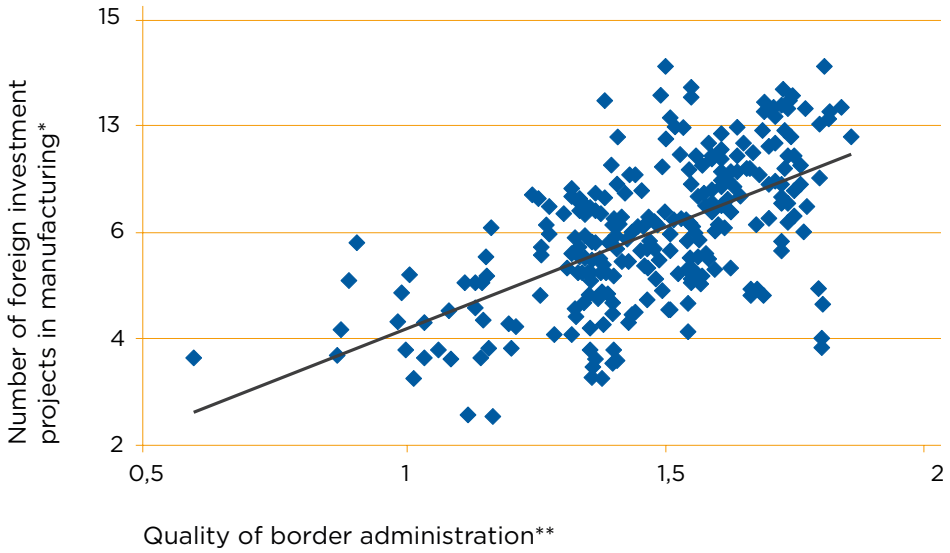
The Enabling Trade Index (ETI) evaluates 136 economies based on their capacity to facilitate the flow of goods over borders and to their destination. Developed by the World Economic Forum, the 2016 edition of the index was co-published by the Global Alliance for Trade Facilitation as part of the Global Enabling Trade Report.

The index is the aggregation of the scores of seven pillars, each one on a scale from 1 (worst) to 7 (best), assessing countries' market access (both domestic and foreign), border administration, infrastructure and operating environment. The border administration pillar combines indicators on the transparency and efficiency of customs administration 'based on data from the World Economic Forum, Global Express Assosciation and the World Bank.

FIGURE 4

MANUFACTURING FDI PROJECTS AND TRADE FACILITATION

FDI capex (manufacturing) and ETI Border Administration, 2013-2015



Source: FDI Markets Database; Global Enabling Trade Report 2016

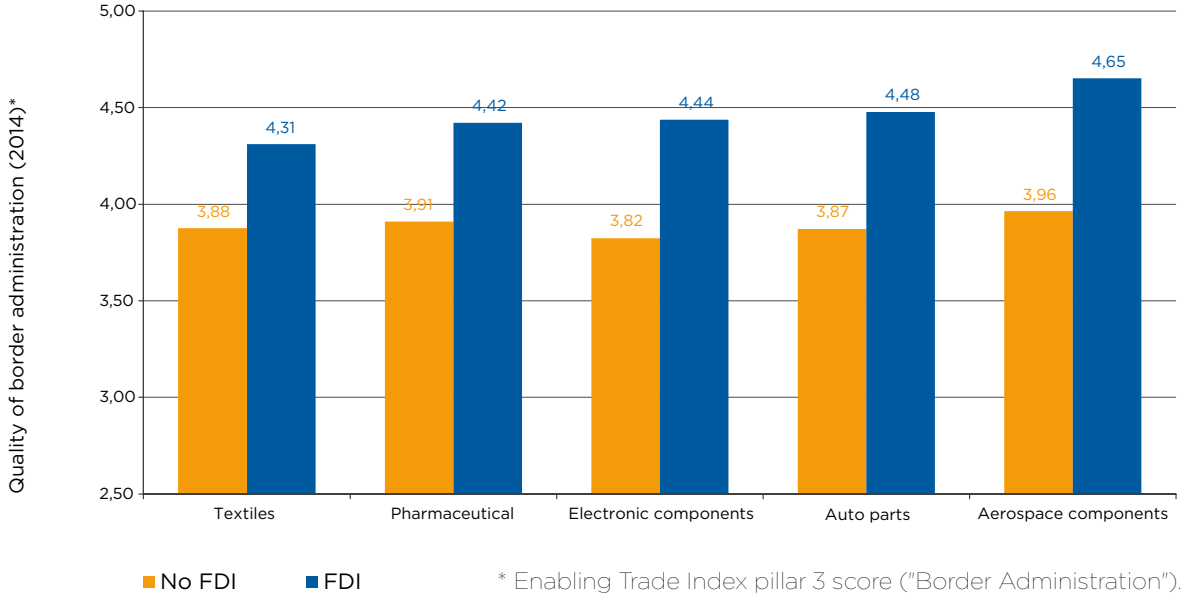
2013 and 2015 ETI figures are taken from the 2014 and 2016 edition of the index. 2014 figures were obtained interpolating the 2013 and 2015 data.

*Natural logarithmic value of FDI capex per billion population

** Natural logarithmic value of Enabling Trade Index pillar 3 score ("Border Administration")

Analyzing the cumulative number of projects in 2012-2014 we can resort to a more granular breakdown of sectors. Figure 5 compares the 2014 ETI Border Administration score of those countries that received at least one FDI project in 2012-2014 vis-à-vis the score of those that received none. Once again, this exercise shows the positive relationship between manufacturing FDI and trade facilitation, with the strength of the relationship growing as we move to higher value-added sectors such as and auto parts and aerospace components.

FIGURE 5
AVERAGE TRADE FACILITATION ENVIRONMENT AND FDI



FACILITATING INVESTMENT: INVESTING IN (TRADE) FACILITATION

Foreign investment decisions are driven by a myriad of factors, ranging from the quality of infrastructure to the availability of skills and workers. Our analysis shows that the trade facilitation environment is an equally important component, especially for sectors with higher sophistication and value addition linked to global value chains.

1. **Attracting manufacturing FDI remains a key to unlocking GVC opportunities:** As manufacturing shifts from China, opportunities arise for new players to enter global production networks. FDI remains the most important avenue for entering these networks and delivering their employment opportunities. Policymakers must act decisively to seize this once-in-a-generation opportunity.

2. **Trade facilitation can contribute to attracting more and better FDI:** Investment into manufacturing is driven by a number of factors—from proximity to markets and cost of labor, to tax incentives and the overall market size—and trade facilitation reform alone cannot attract FDI. However, it is clear that if countries want to break into higher value-add manufacturing and seize the opportunities arising from participation in regional and global value chains, improving the logistics environment and reducing red tape is vital. Governments must be ambitious in driving reforms, including full and ambitious implementation of the WTO Trade Facilitation Agreement.

3. **Breaking out of silos:** Investment promotion agencies—a key player in facilitating investment into priority sectors—must make the link between facilitation of cross-border trade and investment. Similarly, customs and border agencies must understand the impact of improved service delivery on productive sectors. The National Trade Facilitation Committees should not only track trade performance, but also look at the investment angle. Perhaps most importantly, these two bodies should work more closely together, with overall support at the political level.

GOING FOR GOLD: BUSINESS PRIORITIES FOR TFA IMPACT

Businesses—both big and small—will only benefit from the Trade Facilitation Agreement if governments are as ambitious as possible in its implementation. Many TFA provisions are best endeavor clauses, but adopting international best practices in areas such as advanced rulings and electronic single windows could have the biggest impact on the ability of manufacturing firms to compete.

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