2022

Ethiopia FDI Policy Report




Policy Studies Institute

National Graduate Institute for Policy Studies

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Policy Studies Institute (PSI)

National Graduate Institute for Policy Studies (GRIPS)

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Abbreviations and Acronyms

4IR	Fourth Industrial Revolution
AACCSA	Addis Ababa Chamber of Commerce and Sectoral Association
AATCC	American Association of Textile Chemists and Colorists
ADB	Asian Development Bank
AfCFTA	African Continental Free Trade Agreement
AGOA	African Growth and Opportunity Act
AI	Artificial Intelligence
AIP	Apparel Industry Partnership
AKI	Africa Kaizen Initiative
AOTS	Association for Overseas Technical Cooperation and Sustainable Partnership
APO	Asian Productivity Organization
AQL	Acceptance Quality Limit
AR	Augmented Reality
ASEAN	Association of Southeast Asian Nations
ASTM	American Society for Testing and Materials
AUDA-NEPAD	Africa Union Development Agency of New Partnership for Africa's Development
BCI	Better Cotton Initiative
BCP	Business Continuity Planning
BDS	Business Development Services
BGMEA	Bangladesh Garment Manufacturers and Exporters Association
BIDS	Bangladesh Institute of Development Studies
BKMEA	Bangladesh Knitwear Manufacturers and Exporters Association
BKPM	Badan Koordinasi Penanaman Modal (Indonesian Investment Coordinating Board)
BoI (BOI)	Board of Investment
BOP	Balance of Payment
BSCI	Business Social Compliance Initiative
BUILD	BOI Unit for Industrial Linkage Development
CCC	Clean Clothes Campaign
CEOs	Chief Executive Officers
CM	Cut-Make
CMP	Cut-Make-Pack/Cut-Make-Package (Myanmar)

CMT	Cut-Make-Trim
COMESA	Common Market for Eastern and Southern Africa
CPS	Cyber Physical System
CSOs	Civil Society Organizations
CSR	Corporate Social Responsibility
DBE	Development Bank of Ethiopia
DCED	Donor Committee for Enterprise Development
DFID	Department for International Development
DX	Digital Transformation
E&E	Electrical and Electronics (Electronics and Electrical)
EAC	East African Community
EBA	Everything but Arms
ECOWAS	Economic Community of West African States
EEP	Ethiopian Electric Power
EEU	Ethiopian Electric Utility
EIC	Ethiopian Investment Commission
EIPP	Ethiopia Industrial Promotion Project
EIZ	Eastern Industrial Zone
EKI	Ethiopian Kaizen Institute
EPRDF	Ethiopian People's Revolutionary Democratic Front
EPZs	Export Processing Zones
ESG	Environment, Social, Governance
ETGAMA	Ethiopian Textile and Garment Manufacturers' Association
ETI	Ethical Trading Initiative
ETIDI	Ethiopian Textile Industry Development Institute
ETUF/TCL	European Trade Union Federation of Textiles, Clothing and Leather
EU	European Union
FDI	Foreign Direct Investment
FIC	Foreign Investment Committee
FLA	Fair Labor Association
FOB	Free on Board
FTA	Free Trade Agreement
GATT	General Agreement on Tariffs and Trade
GC91	General Corporation 91
GDF	GRIPS Development Forum
GDP	Gross Domestic Product

GIZ	German Corporation for International Cooperation (Deutsche Gesellschaft für Internationale Zusammenarbeit)
GM	General Motors
GNP	Gross National Product
GOTS	Global Organic Textile Standard
GRIPS	National Graduate Institute for Policy Studies
GSCP	Global Social Compliance Programme
GSO	General Statistics Office
GSP	Global Supplier Program (Chapter 4)
GSP	Generalized System of Preferences (Chapter 6/7)
GTP	Growth and Transformation Plan
GTW	Green to Wear
GTZ	German Technical Cooperation Agency (Deutsche Gesellschaft für Technische Zusammenarbeit)
GVCs	Global Value Chains
HGER	Homegrown Economic Reform
ICS	Initiative for Compliance and Sustainability
ICT	Information and Communication Technology
IDI	ICT Development Index
IDS	Industrial Development Strategy
IE	Industrial Engineering
IFC	International Finance Corporation
IGR	Intergovernmental Relations?
ILO	International Labour Organization
ILP	Industrial Linkage Program
IMF	International Monetary Fund
IoT	Internet of Things
IPAs	Investment Promotion Agencies
IPDC	Industrial Parks Development Corporation of Ethiopia
IPRs	Intellectual property rights
ISO	International Organization for Standardization
JAAFSL	Joint Apparel Association Forum Sri Lanka
JETRO	Japan External Trade Organization
JICA	Japan International Cooperation Agency
JIS	Japanese Industrial Standards
JV	Joint Venture
KPIs	Key Performance Indicators

LDC	Least Development Countries
LEED	Leadership in Energy and Environmental Design
LEFASO	Vietnam Leather and Footwear Association
LIBOR	London Interbank Offered Rate
M&A	Merger and Acquisition
M&E	Monitoring and evaluation
METI	Ministry of Economy, Trade and Industry
MFA	Multi Fiber Agreement
MGMA	Myanmar Garment Manufacturers Association
MIDA	Malaysian Investment Development Authority
MIDROC	Mohammed International Development Research and Organization Companies
MInT	Ministry of Innovation and Technology
MJTD	Myanmar Japan Thilawa Development Limited
MNC	Multinational Corporation
MOI	Ministry of Industry
MoTI	Ministry of Trade and Industry
MRSL	Manufacturing Restricted Substances List
NAP	National Action Plans on Business and Human Rights
NBE	National Bank of Ethiopia
NGOs	Non-governmental Organizations
NPOs	Non-profit Organizations
OBM	Original Brand Manufacturing
OCS	Organic Content Standard
ODA	Official Development Assistance
ODM	Original Design Manufacturing
OECD	Organisation for Economic Co-operation and Development
OEM	Original Equipment Manufacturing
OJT	On-the-job Training
OSS	One-stop Services
OSSC	One-Stop Service Center
PAPA	Pan-African Productivity Association
PDC	Planning and Development Commission of Ethiopia
PIC	Productivity Improvement Cell
PIT	Personal Income Tax
POC	Proof of Concept
PPE	Personal Protective Equipment

PPPs	Public-Private Partnerships
PSD	Private Sector Development
PSI	Policy Studies Institute
QCC	Quality Control Circle
QCD	Quality, Cost reduction, on-time Delivery
QCs	Quality Controllers
R&D	Research and Development
RCEP	Regional Comprehensive Economic Partnership Agreement
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
REX	Registered Exporter
RMG	Ready-made Garment
RSC	RMG Sustainability Council
RSL	Restricted Substances List
RTM	Recyclable Textile Management
SAAS	Social Accountability Accreditation Services
SAC	Sustainable Apparel Coalition
SADC	Southern African Development Community
SAI	Social Accountability International
SDGs	Sustainable Development Goals
SEDEX	Supplier Ethical Data Exchange
SEIP	Skills for Employment Investment Program
SEZ	Special Economic Zone
SLITA	Sri Lanka Institute of Textile and Apparel
SMEs	Small- and Medium-Enterprises
SMETA	SEDEX members Ethical Trade Audit
SNNPR	Southern Nations and Nationalities, and People's Region
SOEs	State-owned enterprises
SQC	Statistical Quality Control
STEP	Skills and Training Enhancement Project
TFP	Total Factor Productivity
TIN	Tax Identification Number
TPP	Trans-Pacific Partnership Agreement
TPS	Toyota Production System
TQM	Total Quality Management
TVET	Technical and Vocational Education and Training
UAE	United Arab Emirates
UK	United Kingdom

UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
UNIDO	United Nations Industrial Development Organization
US	United States
USGBC	US Green Building Council
VAT	Value Added Tax
VDF	Vietnam Development Forum
VDP	Vender Development Program
Vinatex	Vietnam National Textile and Garment Group
VITAS	Vietnam Textile and Apparel Association
VJJI	Vietnam-Japan Joint Initiative to Improve Business Environment with a View to Strengthen Vietnam's Competitiveness
VR	Virtual Reality
WDI	World Development Indicators
WRAP	Worldwide Responsible Accredited Production
WRC	Worker Rights Consortium
WTO	World Trade Organization
YPDP	Young Professional Development Programme
ZDHC	Zero Discharge of Hazardous Chemicals
ZLD	Zero Liquid Discharge

Foreword and Acknowledgments

Since 2008, the GRIPS Development Forum (GDF) and the Japan International Cooperation Agency (JICA) have conducted bilateral industrial policy dialogue with the Ethiopian government. The present report is one of its research outputs prepared jointly by the Policy Studies Institute (PSI), the policy research institute of the Ethiopian government, and GDF. It is the second such joint work between PSI and GDF following the Ethiopia Productivity Report of 2020. The two research institutes share the responsibility for analyses and policy proposals contained in this report as well as its writing, editing, publication and financing. The authors greatly appreciate the substantive participation and funding of JICA in producing this report. Dr. Le Ha Thanh of the Vietnam Development Forum, Dr. Monzur Hossain of the Bangladesh Institute of Development Studies and their colleagues conducted valuable surveys in their respective countries that allowed us to compare garment industry performance across Vietnam, Bangladesh and Ethiopia. Their findings enriched two chapters of this report for which we are very grateful. We would also like to thank officials and researchers at the Ethiopian Investment Commission, the Ministry of Trade and Industry, the Planning and Development Commission (listed by names before October 2021) and other organizations who were kind enough to hear and comment on our early results. Ms. Mieko Iizuka provided excellent editorial and administrative support as always. We also acknowledge with gratitude the excellent literature review by Dr. Selamawit G/Egziabher and competent support for the Ethiopian firm survey by Dr. Mebrahtu L. Teklehaimanot and Mr. Yirgalem Nigussie.

There is another shorter paper, FDI Policy for Enhanced Value Creation in Ethiopia: Situation Analysis and Policy Proposals (GDF, October 2021) as a companion volume to this report with overlapping contents but also with additional perspectives. Interested readers are invited to consult it as well. We hope our research will be useful to the Ethiopian government in upgrading FDI and other related policies.

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A Compact Summary of Policy Recommendations

For the convenience of those who are very busy, six key policy recommendations in the first half of this book are concisely presented below. The list is neither comprehensive nor detailed. Readers are encouraged to go to the relevant chapters and sections for more analysis, ideas and instructions.

1. A comprehensive FDI policy document

A new ground-breaking document should be created for renovating Ethiopia's FDI policy. It should clearly state policy philosophy, long-term objectives, issues and areas to be improved, envisaged stages and concrete action plans. The content and structure of this document need not be bound by those of past national development plans, sectoral plans or investment proclamations. Additional policy learning and inputs from experienced foreign advisors should be useful. [Section 1-5; also 1-2 and 4-6]

2. A shift from administrative to proactive FDI policy

The main weight of FDI policy should shift from administrative provisions such as definitions, procedures, obligations and permitted sectors to more substantive promotional issues such as policy goals, targeted sectors, incentives associated with performance criteria, official support and public-private cooperation. Among these, policy goals should include not just export and job creation but also domestic value addition, local procurement, FDI-local firm linkage, the transfer of technology and management know-how and meaningful participation in global value chains. Problems related to macroeconomic instability and poor investment climate should be rectified as a precondition for this policy transition. [Sections 2-6, 3-3 and 4-6; also 1-5, 3-4, 4-2]

3. Inviting high-tech FDI along with large labor-intensive exporters

Ethiopia should invite high-tech FDI along with large labor-intensive light manufacturing operations. Both are needed, for boosting the country's technology level and creating more industrial jobs. High-tech FDI firms are smaller and more varied in their human and physical needs than light manufacturing, and policy should hear and cater to their diverse requirements. The minimum capital requirement for FDI should be amended and eased. The transition from light manufacturing to high-tech FDI should be steady but gradual because Ethiopia still needs many jobs to be created. [Sections 2-6 and 2-8; also 4-6]

4. A three-part strategy to enhance domestic capacity and generate FDI-local linkage

To maximize the benefits of FDI and avoid the creation of foreign enclaves, a three-part strategy is essential: (i) strengthening domestic firms and labor so they are capable of working with and learning from FDI, (ii) proper FDI selection and attraction, and (iii) the creation of FDI-local firm linkage. Each is a formidable policy task demanding serious learning and extensive preparation. Domestic capacity must be raised first to a certain level before FDI-local linkage occurs, not vice versa. [Section 2-7]

5. Industrial park management reform

Ethiopia's industrial park management should be reformed and further upgraded in the following six aspects: (i) revenue diversification; (ii) strategic provision of facilities and services based on cost-benefit analysis; (iii) customer-oriented investor services and park operation; (iv) protection against expectable negative shocks; (v) invitation of FDI from all sectors; and (vi) diverse land and shed choices including small ones. [Section 2-8; also 1-3, 1-5 and 3-3]

6. Policy capacity building

To effectively execute the policy agenda above, Ethiopia needs clear performance criteria and the enhanced capacity of industrial officials to conduct and monitor each policy. Policy capacity building should be a separate policy target in itself. Besides normal visits, training and consultation, Ethiopia's policy learning should be reinforced by more active use of policy benchmarking and mobilization of foreign experts with deep ground knowledge and excellent achievements, especially in the early stages of each policy. [Section 1-2]

Overview and Summary

Ethiopia's policy learning and growth records were exemplary in the last two decades with active industrial promotion measures on the ground, an increased inflow of FDI and continued high growth. Notwithstanding these achievements, structural transformation fell far short of expectation or plan targets. The weight of output or export hardly shifted from traditional agriculture and services to industry. Manufacturing remains stagnant in volume, quality and productivity despite great policy effort expended. More recently, such unfavorable incidents as political instability and the COVID pandemic reduced Ethiopia's growth momentum and worsened macroeconomic imbalances. The slowdown is experienced even before the nation reaches middle income unlike many high-performing latecomer economies in the past where fast growth did not stop until high income was attained. Ethiopia's policy regime needs revamping in light of these circumstances.

The Ethiopian economy is currently facing a difficult time. Despite this—or precisely because of this—a long-term perspective for future development must be established along with short-term crisis management. One of the pillars of national development strategy is how FDI should be attracted and mobilized for the nation's economic development. This report studies this aspect of Ethiopia's development strategy featuring literature review, theoretical analyses, firm surveys and policy considerations with a strong accent on international comparison and global lessons. Many perspectives and arguments in this report are grounded on the past developmental experiences of Japan and Asia, PSI's existing studies, the three phases of Ethiopia-Japan Industrial Policy Dialogue since 2009, and JICA's industrial cooperation in Ethiopia.

Readers should be warned in advance that some topics are repeated across chapters. They include the need for selectivity in FDI attraction and how to guide FDI toward desirable actions such as export, domestic value addition, local procurement, technology transfer, FDI-local firm linkage, and so on. These issues reiterate because they are vital in designing FDI policy reforms regardless of the particular subtopics at hand. Whether these actions should be imposed on FDI as an entry requirement or encouraged through privileges and incentives while leaving the final decision to FDI firms is a recurring theme in this report. Chapters sometimes give different analyses and recommendations depending on the author. This may give the book an impression of slight inconsistency but it must be noted that the issues are not only crucial but also multi-faceted and complex. The authors discussed these issues before finalizing the manuscripts and agreed on many points but different nuances and emphasis remain. We believe it is better to let each reader arrive at his or her conclusion rather than present a simple unvarying policy solution

to all problems.

The report consists of eight chapters. Each of the two consecutive chapters roughly forms an issue group with a total of four groups. Chapters 1 and 2 review Ethiopia's past and current policy stance, compare it with international practices and offer general recommendations on how Ethiopian FDI policy should be upgraded. Chapters 3 and 4 delve into the impact of FDI on the nation's balance of payments and the transfer of technology and management know-how. Chapters 5 and 6 report the findings of our Ethiopian firm survey in four selected manufacturing sub-sectors as well as comparative surveys of garment industry performance in Vietnam, Bangladesh and Ethiopia. Chapters 7 and 8 explore two additional issues relevant to Ethiopia's FDI policy, namely, the dual requirement of high quality and ethical correctness in light manufacturing imposed by foreign buyers and the influence of Industry 4.0 and the COVID pandemic on latecomer economies such as Ethiopia.

The rest of this overview chapter presents the policy highlights extracted from these four issue groups.

FDI policy: current status and future directions (mainly ch.1&2)

A historical review of Ethiopia's FDI policy confirms that this policy has steadily improved and become more open and favorable to FDI. This was achieved by repeated revisions of Investment Proclamations and accompanying Regulations that gave details of each Proclamation. In particular, restrictions on FDI entry have been eased in steps so there remain few significant barriers for FDI as far as sectors permitted for FDI activities are concerned. However, the same review also finds some important shortcomings in the current FDI policy.

First, FDI policy goals are not clearly defined. The role FDI firms should play in national economic development is also not spelled out plainly. This is a consequence of the current policy process where FDI policy is formed cumulatively and additionally by many adjustments without a clear statement of where they are leading to. The minor-repair approach is appropriate if the nation's FDI policy is already high-quality, mature and stable, as in the case of Taiwan's industrial policy which is defined by a law that lasts for a few decades. But in developing countries in the process of rapid economic changes and intensive policy learning, policies still contain many areas that need to be improved. In such a case, an explicit statement of long-term policy goals is highly desirable and necessary even though the current policy is less perfect and constantly evolving[1]. This assures investors who come to Ethiopia for long-term engagement

[1] The Industrial Development Strategy of 2003 was clearer about the role of FDI vis-à-vis domestic investment. It regarded domestic investors as the main irreplaceable driver of industrialization but also highlighted the critical role of FDI in bridging the shortage of capital, technology, marketing knowledge and managerial experience that domestic firms severely lacked. Each sector was thus given a different but equally important function (Chapter 1). Now that the volume of FDI has greatly increased since then, a more concrete statement on what is expected of FDI is needed.

rather than for short-term speculative operations. For this, a new FDI policy document (a strategy, a master plan or others by any name) is needed that clarifies policy goals and explains how they should be attained in concrete steps and policy actions, rather than another revision of the present Proclamation and Regulation.

Second, the current FDI policy is more administrative than promotive. It is passive rather than proactive. The policy is heavy on procedure and approval but quite weak in attracting high-quality foreign firms to Ethiopia and incentivizing them to do the right things such as domestic value addition, exports and technology transfer. Take technology transfer, for example. The current policy defines how investors should register technology transfer contracts and how these contracts are officially classified, but says little about the nation's aspiration to absorb technology, the type of technology which is most welcome, or how FDI is incentivized and how domestic firms are encouraged to teach and learn new technology. It is these latter provisions that are vital in FDI policy rather than the former instructions which are only nominal and administrative. As noted earlier, sectors in which FDI is permitted either by itself or through joint venture have been expanded. But opening up is only the first step in engaging FDI for developmental purposes. India since 1991 has had an FDI policy similar to Ethiopia where the overarching concern was which sectors should be opened to FDI in what steps while the promotion part was largely neglected. By contrast, in Southeast Asia where competition for FDI attraction is intense, policies have moved decisively from mere sector opening to the positive creation of industrial strength. Malaysia has transparent criteria for value-creating and scope-broadening investment with simple and clear incentives. Thailand renovated its FDI policy in 2015 in which the previous general promotion of manufacturing was replaced by far more specific activity- and merit-based incentives. Ethiopia should also define its national goal for FDI policy where the strengthening of labor quality and enterprise capacity should be one of the core objectives.

Third, Ethiopia's FDI policy favors large labor-intensive operations, such as garment and footwear production, that employ many unskilled workers. This is appropriate for a latecomer country like Ethiopia where job creation is a paramount national goal. But it should also strongly welcome bringers of high technology and new product categories from advanced nations. Such investors are usually smaller and more varied in their requirements on location, building design and supporting services than large apparel makers. They are needed for Ethiopia to move from simple manufacturing to more sophisticated production in the future. For this, there are two policy areas that require reconsideration. The first is the minimum capital requirement imposed on FDI. This is supposed to protect domestic SMEs from the invasion of foreign SMEs in simple production and services. But most high-tech foreign SMEs do not directly compete with domestic firms due to differences in technology or market segments. The red carpet should be rolled out for such FDI firms rather than rejecting them as being too small.

The second is the practice of building large, same-size sheds in state-run industrial parks. They are fit for labor-intensive operations but high-tech FDI needs smaller and more varied rental offices and workshops. Such space is widely available with excellent support services at industrial parks in Thailand, Vietnam, Indonesia, etc. Ethiopia should also offer such rental choices.

With these background observations, the key argument of this report, presented mainly in Chapters 1 to 4, is that FDI policy should be more selective and encouraging to those foreign firms that bring new or additional value to the national economy. This can be restated as a movement from quantity-based FDI to quality-based FDI. Here, value or quality refers to such actions as the generation of gross or net export, the transfer of technology and management knowledge, the introduction of products or processes new to Ethiopia, upgrading of workers and engineers, procurement of domestic inputs and services, and assisting domestic firms to actively participate in global value chains.

There are three important caveats in realizing this policy orientation.

The first is that value creation should not be forced but encouraged by privileges, incentives and other favors with the final decision made voluntarily by each FDI firm. Whether or not to adopt recommended actions and receive favors should be up to each firm with no penalty imposed on non-takers other than forgone favors. FDI is a game of double maximization where foreign firms maximize profit under the policy framework defined by the host government. Knowing this, the host government must set policy parameters in such a way to induce the best response of foreign firms from the viewpoint of national welfare. Unlike China, Ethiopia is too small to bargain effectively with powerful multinational corporations. Government should not dictate foreign firms or they will leave Ethiopia for other host countries with fewer constraints. All this requires high policy knowledge and skills.

The second is the question of speed and overlapping in policy transition. Ethiopia currently needs to create many jobs so it must not accept “quality” investors only. It should continue to welcome large firms that hire many workers. Thus the transition from quantity to quality should be a phased one with much overlapping. Both large investors and smaller high-tech investors need to be promoted for many years until Ethiopian surplus labor is exhausted (i.e., the “turning point” is reached in the Lewis dual economy model).

The third is the preparation of performance criteria and policy capacity. Simple, transparent, not-too-many and easily monitorable performance criteria must be created and pre-announced for FDI. The policy must be designed to incentivize the right investors and actions with appropriate amounts of favors (not too much or too little) while avoiding misuse and fraud. The capacity of executing agencies, especially EIC and MoTI but also other related ministries, IPDC, revenue and customs authorities and technical institutes to implement policy and monitor performance must be enhanced. Coordination among these organizations should be

strengthened.

Industrial parks offering good infrastructure and investor support are important policy instruments for receiving FDI. Ethiopia's industrial park management should be improved to speed up the absorption of value-creating and quality-improving FDI. At the same time, industrial parks are a real estate business with inevitable ups and downs. Ethiopian industrial parks must generate profits, improve competitiveness and prepare against unfavorable times. For this purpose, six suggestions are offered: (i) diversify revenue sources; (ii) provide facilities and services strategically based on cost-benefit analysis; (iii) develop customer orientation in investor services and park operation; (iv) protect against negative shocks by building slowly; (v) accept FDI from all sectors; and (vi) offer diverse land and shed choices including small ones (Chapter 2).

The Balance of payments and the transfer of technology and managerial know-how (mainly ch.3&4, also ch.2)

The two positive impacts expected of FDI are an improved balance of payments and accelerated transfer of technology and advanced management practices to domestic enterprises. However, these favorable effects are neither automatic nor easy to obtain.

A review of existing literature and international experiences indicates that the impact of FDI on the balance of payments is ambiguous theoretically and empirically, and much depends on the country and the specific sector under study. Ethiopia's balance-of-payments and current account data in recent years exhibit no apparent correlation with FDI inflow, which corroborates this ambiguity.

FDI inflow to Ethiopia increased strongly during 2013-2017, peaking at $4.17 billion or 5.8% of GDP in 2016/2017, followed by a decline. FDI was expected to ease the balance-of-payments pressure by initially injecting additional capital and generating net export thereafter. During the same period, however, the balance of payments fluctuated between -$1 billion to +$1 billion, or slightly over this range, accompanied by weak export and mounting debt stock. In any year, the import was several times larger than export. Import rose dramatically while export remained stagnant during 2015-2017 when FDI inflow was at its peak.

It is evident that FDI inflow does not improve the balance of payments at least in the short run. Possible reasons for this are the initial need to import construction materials and equipment and a lead time before operation reaches full capacity. But time and full operation may not solve the problem if FDI projects are heavily dependent on imported inputs with little generation of domestic value-added. The net impact on the trade balance is the difference between the project's export and import, which may be small in the early development stage when domestic inputs with acceptable quality and prices are hard to find. However, small domestic value

creation should not be used to criticize or degrade foreign investors. It is the responsibility of the home government and entrepreneurs to strengthen domestic human capital and management capacity for FDI to build backward linkage. It usually takes decades rather than years before a visible result is obtained. Vietnam began to receive FDI in the early 1990s but the country continued to register trade deficits until the balance finally turned to a persistent surplus in 2012.

It should be stressed that the preceding argument applies equally to exporters and import substitutors (firms selling in the domestic market). Exporters contribute little to the net foreign exchange earning if they do not make effort to reduce imported inputs. Meanwhile, import-substituting firms generate net foreign currency if their activities diminish the need to import similar products. The net balance, which is usually small initially, should be examined for any industry or firm. The Ethiopian government has strongly incentivized exporters but paid less attention to import substitutors, but such a policy is difficult to sustain as exporters and import substitutors are theoretically the same in their contribution to the balance of payments.

Turning to technology transfer, Ethiopia's past and present investment proclamations and regulations generally lack a clear strategy and effective incentives for promoting technology transfer unlike such successful countries as China, Singapore and Malaysia. Similarly, Ethiopia has no distinct policy to stimulate FDI-local firm linkage or joint ventures. Empirical studies show that, not surprisingly, technology transfer and the learning of global managerial practices are presently very limited in Ethiopia. Besides the policy problem already mentioned, challenges include the fact that most FDI firms in Ethiopia are market- and resource-seeking and need only unskilled cheap labor; limited local capacity; macroeconomic instability; and political instability.

Since many industries currently import almost all materials and components they use, there is little room for domestic supply linkages. Even in sectors that use domestic raw materials such as leather and brewery industries, the lack of quality, sufficient and stable supply, reasonable price and timely delivery are the main constraints for the development of local suppliers. Among firms competing in the same sectors, our survey finds ambiguity about the learning of domestic firms from FDI competitors. FDI firms say locals do not learn but domestic firms themselves assert to the contrary. About two-thirds of them even complain that foreign firms prevent technology transfer from occurring. However, one exception is the beer industry where domestic competition is severe and local firms must upgrade technology in order to survive the new competition from FDI (Chapter 5).

FDI's contribution to the transfer of technology and advanced management practice does not arise naturally. Domestic conditions must first be created by appropriate policy and private sector readiness before such transfer is effectively realized. Technology transfer occurs through such channels as the demonstration effect, labor migration, increased competition within the same sector (horizontal linkages), and backward and forward purchase linkages among different

processes (vertical linkages). Joint ventures between foreign and domestic partners also provide a potential means for technology transfer. To promote these, there are many required domestic conditions. They include a coherent and predictable policy framework, the capacity building of local firms, effective export promotion, an ample supply of competent workers and engineers, basic infrastructure services, a favorable business climate and political stability, among other things. The list varies depending on the country, sector and even researcher.

Among these, the existence of domestic labor and enterprises with sufficient capacity is particularly crucial. Without this, there will be no absorber of advanced technology even if FDI is willing to teach. A three-part strategy is proposed for countries receiving a large inflow of FDI in general and for Ethiopia in particular (Chapter 2). The first part consists of domestic capacity building by applying many policy instruments practiced in successful latecomer countries. The second part is a selective attraction of value-creating and technology-bringing FDI by proper policy design and incentive schemes. The third part is linkage formation between the two which can be promoted by either direct official support or indirect subsidization of eligible activities conducted by FDI or domestic firms. The content of the three-part strategy is wide-ranging, complex and demanding. Details of each part must also be tuned to fit the unique reality of Ethiopia.

The recurrent question of whether technology transfer should be mandatory or voluntary for FDI comes up again, and our stance is that it should basically be up to each FDI firm to conduct technology transfer or improvement of local partners under the given policy framework. For this to work, the policy framework must be attractive enough for profit-driven FDI to willingly engage in such transfer. Ethiopia's FDI policy does not yet address this issue properly, let alone successfully induce technology transfer from FDI. Policy improvement in this area is urgently required instead of forcing FDI to transfer technology as a condition of entry into the Ethiopian market. Similar principles apply to other "desirable" actions by FDI including joint venture formation with a local partner, procurement of domestic materials and inputs, and divestiture of foreign control after a certain lapse of time.

It may be added that joint ventures between foreign and domestic firms can accelerate technology transfer only if both sides are happy with the marriage. But this is not always the case due to different business cultures, conflict in interest or non-emergence of expected benefits. This fact must be taken into account when joint ventures are promoted. Our firm survey in Ethiopia, reported just below, reveals both similarities and differences between FDI and domestic firms. Differences may lead to the learning of global management practices by domestic firms but they may also cause difficulty in cooperation between the two parties. Some foreign firms, especially those designated for export, are interested in joint ventures to access the domestic market through local partners, not for mutual upgrading through technology transfer.

In sum, Ethiopia needs a comprehensive FDI policy that amends the current shortcomings. Encouragement should be given conditionally with proper incentives to technology transfer, local procurement, forward and backward linkage, joint ventures and other forms of knowledge transfer. Domestic firms should be provided with sufficient information about foreign firms and markets and available government support programs. A host country must also invest in human capital so the nation can smoothly learn and utilize foreign technology. In Ethiopia, a good business environment, basic infrastructures such as power and transport, macroeconomic stability, policy predictability and political stability must additionally be assured to all investors.

Survey findings from Ethiopia, Vietnam and Bangladesh (ch.5&6)

A firm survey was conducted in Ethiopia to study the management style of FDI and local firms in the garment, food processing, automotive and leather sectors. Additionally, two firm surveys focusing on the garment sector were commissioned in Vietnam and Bangladesh, the two leading apparel exporting countries, for comparison with the Ethiopian garment industry. These surveys were conducted from November 2020 to January 2021 with a sample size of about 30 firms in each country. Most questions were related to corporate strategy and management practices but some were directed to the consequence of the COVID pandemic. Most firms were visited but some were interviewed online (some results were already reported in the previous section).

Our Ethiopian survey finds both similarities and differences between FDI and local firms. Incentive structures and promotion criteria for workers—performance, ability, loyalty, family connection, etc.—are largely the same among all firms regardless of nationality. Basic training is given to newly hired workers in all establishments. Meanwhile, well-articulated corporate visions, missions, values and slogans are common among foreign firms but not so among local ones. In internal communication, local firms mostly rely on formal meetings while foreign firms use many channels including informal ones. FDI firms inculcate teamwork and organize social events to motivate workers, but such practices are largely missing in local firms.

A comparison of garment firms in Vietnam, Bangladesh and Ethiopia reveals further commonalities and differences. It should first be recognized that Vietnam and Bangladesh are well-established global suppliers of apparel while Ethiopia is a newcomer. The former two boast an annual apparel export of $30-40 billion each while Ethiopia's export is still tiny at $143 million (UNCTAD data for 2019). Several thousand garment firms operate in Vietnam and Bangladesh while Ethiopia has less than 200. But such size differences are natural and expectable given the different stages of development. For all the three countries, the EU and the US are the main export markets with Bangladesh and Ethiopia depending heavily on the EU market while Vietnam leans more toward the US market.

In Bangladesh, garment production is the country's principal industrial activity accounting

for over 80% of total export. Local firms dominate the industry (98% in number). Industry associations are powerful and play crucial roles in developing the sector and overcoming challenges. The government also supports garment firms effectively. Meanwhile, in Vietnam, garment constitutes only 5.4% of total export. Local and FDI firms coexist. Vietnam is a member of many regional and bilateral trade and investment agreements which gives it an enormous advantage in securing overseas markets. In comparison with these two countries, Ethiopia's achievements are still limited. Garment export is dominated by FDI firms, industry associations are relatively weak, and the country does not have WTO membership or effective trade agreements with its major markets (except trade privileges such as EBA and AGOA).

Labor quality and productivity is not a major problem in Vietnam or Bangladesh. Monthly wages are $344 in Vietnam and $154 in Bangladesh compared with less than $100 in Ethiopia (2020 data including bonuses, overtime and social security) but high labor productivity in the former two more than compensates this wage gap. In Vietnam, minimum wages are annually decided for four different regions according to the distance from major cities while Bangladesh has minimum wage only for garment workers. Vietnam now faces an acute shortage of unskilled labor fit for garment production, and job creation is no longer a top national goal.

Regarding domestic value creation, Vietnam and Bangladesh have common features. With the growth of domestic fabric and accessories suppliers, about 60-70% of garment export value is created domestically in both countries. Despite this, both face similar challenges in securing meaningful positions in the global value chain. Garment manufacturing is at the bottom of the Smile Curve, a diagram that shows the amount of value creation along different production stages. To expand value, they want to expand to upstream processes such as fabric production, design and R&D. For this, they are moving from CMT (manufacturing using materials provided by buyers) to OEM (manufacturing using self-procured materials) with Bangladesh moving faster than Vietnam. But this is only a small step in the upstream direction. On the downstream side (global marketing) where H&M, GAP, Tommy Hilfiger and others dominate, business expansion is almost impossible for Vietnamese and Bangladesh manufacturers. Even for top garment manufacturers, invasion into advanced retail markets where two-thirds of total apparel value is created is difficult.

Both Vietnam and Bangladesh must comply with buyers' demands as a precondition for the export contract. Demands are related to quality, price and on-time delivery (product features) as well as labor rights and welfare and environment-friendliness (ethical compliance). Garment firms in both countries consider themselves technically competent but often feel burdened with multiple and often costly demands of this sort (see next section).

In Ethiopia, garment firms also face constraints in value creation, global value chain participation and buyers' demands. These are universal challenges in garment production regardless of nationality or location. But these problems largely belong to FDI firms in Ethiopia

as few local firms export regularly to the European or American market.

Our surveys found different impacts of the COVID pandemic across three countries. As of late 2020 to early 2021, few Vietnamese garment firms suffered damage and some even enjoyed sales growth due to an increased global demand for casual clothing. This may be thanks to the steady growth of export markets secured by many regional and trade agreements Vietnam has concluded. In contrast, negative effects were reported by a broad segment of this industry in the other two countries. In Bangladesh, one-third of the respondents saw the export decline by 40-80% and most others reported a decline of up to 30%. Half of the firms undertook the production of face masks and PPE to partly cover the lost sale. In Ethiopia, four FDI firms reported no negative effect due to long-term export contracts but two faced difficulties leading to labor discharge and even the risk of bankruptcy. Monthly export from Hawassa Industrial Park, where FDI garment firms concentrate, declined from the pre-Corona peak of $8 million to less than $3 million in April 2020 and only recovered partially thereafter. Prohibition of firing workers during the state of emergency (April-August 2020) was a serious burden to some garment firms. No surveyed FDI firms reported any benefits from the postponement of tax and social security payments offered by the government as a rescue measure. Many respondents said that the shortage of foreign exchange and political instability were greater impediments to garment operation than the pandemic.

Coping with global trends and requirements (ch.7&8)

Ethiopia must develop its industries under the circumstances and requirements imposed by the global economy of the twenty-first century. This report takes up two of such external conditions: the dual demand for product quality and ethical correctness and the rapidly advancing digital society. These add new elements to latecomer industrialization compared with the West or East Asia whose economies developed before these conditions became apparent and dominant.

Global buyers impose product quality. Various upgrading is called for on manufacturers along the Smile Curve that shows value creation processes along the value chain. This includes upgrading in products, processes, functions, chains, channels and supply chains. In more practical language, foreign buyers demand the absence of defects, observance of physical specifications, low cost, prompt delivery, and so on. The quality requirement is particularly strict in the Japanese market. Any irregular but hardly noticeable stitching causes rejection and one delivery delay or slightly deviant products may terminate the contract. Consumers in the West may not be so finicky but they still demand reasonable quality by the standard of advanced markets. For many export products, safety and quality certifications by globally recognized organizations are required. To comply, manufacturing firms and countries must invest in appropriate production technology and equipment, certifications, inspection systems, and the

training of management, engineers and workers.

Buyers also require social accountability and decent conduct. This is especially evident in the garment industry though it affects other sectors as well. The largest markets of light industry consumer products such as apparel, footwear and processed food are the EU and the US where consumers strongly demand that imported goods must be manufactured by ethically correct processes. All along the supply chain of any product, labor rights and welfare must be duly protected and environmentally damaging materials and processes should be avoided. “Decent Work” or “Better Work” is defined, promoted and monitored by many private, national and international organizations including ILO, IFC, OECD and the UN Group. Any indication of a violation of human rights, forced labor, child labor, lack of safety, underpayment or mistreatment of workers, environmental irresponsibility, etc. may lead to the termination of certification and contracts, and purchasing firms dealing with such establishments will be penalized.

The requirements of product quality and ethical conduct are not negotiable. They are preconditions for any order destined to major markets without which no business is possible. One annoying feature, especially of ethical requirements, is the proliferation of many different but overlapping standards and certifications that are required of producers. For example, common ethical standards include IndustriALL, SA 8000, ETI, ICS, SMETA and ISO 26000. Specifically for textile and garment, there are WRAP, GOTS, BCI and SAC (see Chapter 7 for these acronyms and their contents). Different buyers and markets demand different actions and documents which increases the cost of compliance in terms of time, training, document preparation and capital investment. Our surveys in Ethiopia, Vietnam and Bangladesh confirm that this is among the most pestering concerns of garment exporters regardless of nationality or location. How to cope with these mounting demands of both types is the crucial question for garment producers in developing countries with limited human and financial resources, including Ethiopia.

Our surveys also find that some helping hands are available. Foreign buyers sometimes assist manufacturers to improve quality or social conduct though most of them just explain the requirements without extending any support. Donor nations may dispatch experts or arrange training courses so manufacturers in developing countries can start exporting to their markets (especially when a new trade agreement is signed or a new trade preference is offered). Host governments, if they are capable, also provide the necessary support. But most important assistance is the one organized by industry associations of the exporting country to overcome difficulties and develop overseas markets. This is the case in Bangladesh where the two large textile and garment industry associations, BGMEA and BKMEA, actively support their member firms and entice government incentives and programs for this purpose. In Vietnam and Ethiopia, the assistance offered by industry associations is less extensive and effective.

Industry 4.0 is spreading, and Ethiopia will be part of this global trend. It encompasses many elements such as IoT, AI, VR, AR, big data, robotics, 3D printer, cloud computing, blockchain and nanotechnology. How these will affect Ethiopia's development path is difficult to ascertain because this is a quickly evolving phenomenon and because effective use of this technology requires sufficient knowledge backed by advanced human capital and ample financial resource. Ethiopia is not equipped with either. Nonetheless, the existence of FDI may help Ethiopia to benefit from this new trend. The last chapter explores this unknown territory.

Many developing countries incorporate Industrial 4.0 in national development strategies. In Southeast Asia, there are Thailand 4.0 (announced in 2015), Making Indonesia 4.0 (2018) and Malaysia's Industry 4WRD (2018). While these countries clearly recognize the potential benefits of new technology, these documents are similar to past policies with added reference to Industry 4.0. It is not clear whether and how the country can accelerate economic development with such technology or what concrete national conditions are currently available or required for that purpose. Human resources equipped with the latest digital technology are keenly wanted but its supply is very limited in many developing countries.

There are also negative concerns such as job loss due to AI and automation and data security issues. For developing countries, there is a fear of losing job opportunities *en masse* despite new developmental possibilities and the rise of startups armed with new technology. To maximize the benefits and minimize the cost, developing countries must strengthen their domestic capacity. Proper education and training for digital skills are indispensable. Japan's traditional industrial methods, including kaizen, will not become obsolete by Industry 4.0. The hands-on approach, teamwork, creativity and problem-solving capacity inculcated by kaizen will become even more essential in the digital age. But adjustments will be necessary to the new communication and organizational style. Japan must also become a co-creator of new values with developing countries on equal footing rather than a teacher of existing technology in a unilateral direction.

The COVID pandemic of 2020 wreaked havoc on the world economy in the short run, but its long-term effects may contain some positive elements for the developing world. They include an accelerated use of Industry 4.0 just mentioned above, new business opportunities opened by remote contacts, regional economies activated by localized production and consumption, and new types of international cooperation to cope with the changing world.

The role of FDI in a new world may be positive or negative for development. The world has changed significantly, and with it the best allocation of production sites across countries. New FDI flows may occur and existing FDI firms may consider reallocation. FDI will be a supplier of new technology to developing countries that are ready to receive it, but it will also shun countries and firms that are not ready. If AI and robots begin to do complicated tasks which are now done by workers, labor-intensive processes may altogether disappear from the surface

of the earth and factories may relocate to countries where advanced technology and global management can be performed most effectively. The gap between frontrunners and latecomers may thus widen. This points to the increased importance of learning and capacity building for developing countries wishing to catch up.

In Ethiopia, elements of Industry 4.0 are captured in the Ten Years Development Plan and the critical importance of digitalization and ICT is officially recognized. However, concrete strategies are wanting and linkage between Industry 4.0 and the present manufacturing sector is not spelled out. Another disadvantage for Ethiopia is the low quality and reliability of infrastructure services in the telecom and internet sector where liberalization is just beginning. Meanwhile, new technology begins to be used spontaneously by the private sector to create new products and services, albeit on a small scale. Kaizen, which Ethiopia has adopted with vigor, will become an even important tool in the new age because it offers complementary ingredients to Industry 4.0 such as ownership, positive attitude, teamwork, constant alert and improvement, and so on, provided that kaizen itself is modified and augmented to fit the new world.

Chapter 1

Ethiopia's FDI Policy Evolution and Performance

1-1. Introduction

Inward Foreign Direct Investment (FDI) can serve as an initial driver of industrialization and structural transformation in developing countries. It can generate multiple benefits to host developing countries by way of bridging common deficiencies such as capital and technology in the local economy. Empirical evidence shows that in countries with appropriate policies, for example in East and Southeast Asia, FDI has contributed significantly to economic and social transformation.

In recognition of this, Ethiopia has made FDI attraction an integral part of its development policy as early as during the Imperial regime. In the industrial policy of the Imperial regime, as shown in three consecutive development plans covering 1950-74, FDI was envisaged as the main engine of industrial development and given high priority. As a result, FDI presence was high, and about 65% of the medium and large-scale manufacturing firms were owned or operated by foreign nationals by the end of the Imperial regime (Chole 1995).

Promotion of the private sector and particularly foreign investment was interrupted in 1975 with the incoming to power of the Dergue regime. It introduced a socialist and command economic system and nationalized all privately-owned medium and large-scale manufacturing enterprises, banks and insurance companies. In 1983, the military government reverted to the promotion of FDI by introducing joint venture legislation packed with various incentives. However, this limited and belatedly introduced reform failed to attract FDI to the country. Growing political instability and insecurity, as well as the poor state of the economy, further discouraged foreign nationals to invest in the country (Gebreeyesus 2016).

The Ethiopian People's Revolutionary Democratic Front (EPRDF) government that came to power in 1991 adopted various liberalization measures including privatization, trade opening, market deregulation, and revision of investment and labor laws. Investment Proclamation No. 15/1992, which opened the door for private investment, was one of the earlier reforms of the transitional government. The Ethiopian Industrial Development Strategy (IDS) formulated in 2003 set the vision of the government on the roles of the local and foreign investors towards industrialization. The IDS perceived domestic investors as having irreplaceable roles in the economy and being the main base for industrial development. But it also highlighted the critical role FDI could play in bridging the shortage of capital, technology, marketing knowledge and

managerial experience that domestic firms severely lacked.

Attracting FDI is at the core of Ethiopia's industrialization strategy, which is supported at the highest level and in particular by the Prime Minister (Ohno 2013). Ethiopia's investment laws have been revised several times to expedite FDI inflow to Ethiopia. More recently, the government of Ethiopia started to promote industrial park development as a key policy tool to attract foreign investment in the manufacturing sector. As a result, Ethiopia has seen a rapid increase in FDI, making the country one of the top FDI destinations in Africa despite a slowdown in the last couple of years. However, comparing the current level of FDI observed in Ethiopia with those in successful East Asian countries, it is clear that there is an opportunity to further increase FDI and widen economic benefits from its presence.

This chapter aims to examine the evolution of FDI policy and performance in Ethiopia. However, it will not deal deeply with perceived benefits and achievements of FDI as chapters 3 and 4 specifically analyze, among other things, the impact of FDI on the balance of payments and technology transfer. This chapter is organized as follows. The next section reviews the evolution of FDI policy and the overall investment framework of the country. Section three examines the industrial parks development scheme, which has been practiced in the last seven to eight years as one of the key policy instruments to attract investment. Section 1-4 presents the patterns of FDI inflow by sector, regional distribution, and country of origin, and provides a comparative analysis with selected countries in Africa. This section also discusses the performance of industrial parks in terms of investment attraction, employment generation and export earnings. Descriptive analysis is based on secondary data obtained from the Ethiopian Investment Commission (EIC) and UNCTAD databases. The last section discusses FDI-related challenges and a way forward for policymakers.

1-2. Evolution of FDI policy and the investment framework

Ethiopia has so far no unified policy or strategy on FDI but there have been a series of investment proclamations and regulations referring to foreign and national investors. This section highlights the history of the FDI policy of the country by reviewing different investment laws, regulations and incentives introduced in the last 30 years to promote investment.

It is worth noting that the existing FDI investment frameworks including regulations, incentives and support programs appear to be mainly drawn from the Industrial Development Strategy (IDS) adopted in 2003. This strategy perceives domestic investors as having an irreplaceable role in the economy and the main basis for industrial development. But FDI was envisaged to play a significant role in bridging the deficiencies of domestic investors regarding the shortage of capital, technology, networks and knowledge, and enhancing their capacity. The IDS further states that, to attract FDI, the government should work tirelessly to improve the

investment environment including the legal protection of investors, maintaining peace and stability, infrastructure, human resource development and efficiency in public service delivery. Even so, FDI entry into some strategic sectors needs to be carefully evaluated, and FDI should also be restricted from entering into the micro and small enterprises sector in which domestic investors widely participate and entrepreneurship is nurtured. This seems to have been the driving view of most of the investment law revisions in Ethiopia as they revolved around sectors to be opened or restricted for FDI. The opening process has generally been gradual and FDI participation in several areas, particularly the service sector, has been restrictive.

1-2-1. Investment laws and regulations

Investment Proclamation No.15/1992 was the first investment law to be enacted after the downfall of the Derg regime. The basics of this particular proclamation were limiting the role of the state, liberalization of private investment, promoting both exports and resource-based import substitution industries, the lifting of any capital ceiling, and no legal limitation on the share of foreign equity participation (Abraham 2001, 215-220).

The proclamation designated some sectors as strategic such as large-scale power generation, postal services and financial services. Many others were reserved for the government while a few sectors were opened for joint investment with the Ethiopian government. The proclamation provided some incentives and guarantee against nationalization and expropriation.

Since then, several investment code revisions were made including Proclamation No 37/1996, Proclamation No.116/1998, Proclamation No. 280/2002, Proclamation No. 769/2012, Regulation No 270/2012 and Proclamation No. 1180/2020. Most of them further relaxed restrictions on the private sector and particularly foreign investors, and provided more generous incentives.

One area of amendment in the subsequent investment rules was regarding the required minimum capital for FDI. The 1992 proclamation put $300,000 and $100,000 as minimum capital when investing alone and joint venture with locals, respectively. The minimum required capital has not changed significantly despite repeated revisions. For example, in the recent 2020 revision, required capital by FDI is $200,000 when investing alone and $150,000 when in a joint venture with locals (Table 1-1).

Another critical element driving the revisions of the investment laws has been the designation of sectors allowed or prohibited for FDI. For example, Amendment Proclamation No.116/1998 and Regulation No. 36/1998 introduced essential changes to the areas FDI could invest in. The law opened power generation to the private sector but kept the exclusive right of supply and transmission to the government. Joint venture with the government in telecommunications and the defense industry, unlike preceding laws, was also allowed.

Table 1-1. FDI Minimum Capital Requirements in Ethiopia

Proclamation	Minimum capital in USD	Criterion
Proclamation No. 15/1992	300,000	If investment is made on his/her own.
	100,000	Foreign investment in joint investment with domestic investor.
Proclamation No. 1180/2020	200,000	If investment is made on his/her own.
	150,000	Foreign investment in joint investment with domestic investor.
	100,000	When investing in architectural or engineering works or related technical consultancy services, technical testing and analysis or in publishing—on his/her own.
	50,000	When investing in architectural or engineering works or related technical consultancy services, technical testing, and analysis or in publishing—jointly with a domestic investor.

Source: Proclamations No. 15/1992 and No. 1180/2020.

Proclamation No. 116/1998 also offered an option for foreign nationals of Ethiopian origin to invest either as domestic investors or foreign investors, which was left to their own choice. Those who choose to be treated as domestic investors have the right to invest in areas exclusively reserved for domestic investors under Regulation No. 35/1998, but lose the right of being treated as foreign investors. They are not allowed to repatriate their profits and capital outside Ethiopia as this is the right to be given only to foreign investors.

Proclamation No. 769/2012 made major revisions in areas of investment reserved for nationals and government. The law indicated that the list of areas of investment allowed for domestic investors must be specified by a regulation of the Council of Ministers. Accordingly, Regulation No. 270/2012 identified the transmission and distribution of electric energy, postal service with the exception of courier services, and air transport with a seating capacity of more than fifty passengers to be exclusively reserved for the government, whereas manufacturing of weapons and ammunition and telecom services were allowed for a joint venture but only with the government. The 2012 regulation carried a long list of sectors restricted for FDI participation, most of which were in the service sector such as banking and insurance, wholesale and retail trade, transport and logistics, construction, utilities and small-scale activities. The manufacturing sector was relatively open except for a few sub-sectors.

According to Gebreeyesus et al. (2017), continued restriction of foreign investment in service sectors stifled competition and led to inefficiency in these sectors with negative effects on other sectors including manufacturing. For example, according to the UN International Telecommunication Union's 2017 ICT Development Index (IDI), Ethiopia's telecom service was ranked 170th out of 176 countries. The logistic performance index also put Ethiopia at 126th out of 166 countries. The present severe inefficiency in the Ethiopian banking, energy,

telecom and transport sectors, all of which are reserved for domestic investors, has led to high trading costs and low global competitiveness.

In a stark deviation from its predecessors, Investment Proclamation No. 1180/2020 and Investment Regulation No. 474/2020 introduced substantial revisions although they did not negate or reverse the fundamental policy and practice that had been in place for the past two decades. They were rooted in the wave of economic and legal reforms that have been underway since 2018.

Regulation No. 474/2020 shifted from the "positive list" approach (listing of areas that are allowed for foreign investors) to the "negative list" approach (listing of areas that are not allowed for foreign investors). This is the most significant aspect of the new investment law because foreign investors are now allowed to invest in any areas except those that are expressly reserved for domestic investors. The Regulation provides a list of investment sectors that are prohibited or restricted for foreign investment in three categories: five sectors reserved for joint investment with the government, 32 sectors exclusively reserved for domestic investors, and seven sectors for joint ventures with domestic investors. All sectors that are not listed in these categories are open for foreign investment. See Table 1-2 for the extended list of sectors under each category.

Transport service is one sector where a notable opening has taken place under this new regulation. The 2020 regulation allows foreign investors to invest in railway transport, cable car transport, cold-chain transport and freight transport which were restricted in the previous laws. The Regulation lists seven sectors where foreign investment is permissible up to 49% ownership, most of which are related to transport services. These are (i) freight forwarding and shipping agency services, (ii) domestic air transport services, (iii) cross-country public transport service using buses with a seating capacity of more than 45 passengers, (iv) urban mass transport service with a large carrying capacity, (v) advertisement and promotion services, (vi) audiovisual services, motion picture, and video recording and distribution, and (vii) accounting and auditing services—see Table 1-2.

Restriction on foreign investment in previous regulations such as cement manufacturing, health, education, management consultancy, and other services have been removed under the new regulation. Furthermore, the regulation relaxes rules on wholesale trade, retail trade and electronic commerce. Under the previous law, foreign investors engaged in the manufacturing sector were permitted only to wholesale their own products. Retail sales of own products were not permitted and could only be carried out through local intermediaries. The new regulation allows foreign investors to engage in both wholesale and retail trade provided that they are carried out via electronic commerce.

Table 1-2. Sectors Prohibited or Restricted for Foreign Investment in Regulation No. 474/2020

Areas of investment exclusively reserved for domestic investors:

1. Banking, insurance, and microfinance businesses, excluding capital goods finance business;
2. Transmission and distribution of electrical power through an integrated national grid system;
3. Primary and middle-level health services;
4. Wholesale trade, excluding wholesale of petroleum and petroleum products and wholesale of own products produced in Ethiopia, electronic commerce;
5. Retail trade, excluding retail of and electronic commerce as provided under appropriate law, of own products produced in Ethiopia;
6. Import trade, excluding liquefied petroleum gas and bitumen;
7. export trade of raw coffee, khat, oilseeds, pulses, minerals, hides and skins, products of natural forest, chicken, and livestock including pack animals bought on the market;
8. Construction and drilling services below Grade I;
9. Hotel, lodge, resort, motel, guesthouse, and pension services, excluding those that are star-designated;
10. Restaurant, tearoom, coffee shops, bars, nightclubs, and catering services, excluding star-designated national cuisine restaurant service;
11. Travel agency, travel ticket sales, and trade auxiliary services;
12. Tour operation;
13. Operating lease of equipment's, machinery and vehicles, excluding industry-specific heavy equipment, machinery and specialized vehicles;
14. Making indigenous traditional medicines;
15. Producing bakery products and pastries for domestic market;
16. Grinding mills;
17. Barbershop and beauty salon services, smothery, and tailoring except by garment factories;
18. Maintenance and repair services, including aircraft maintenance repair and overhaul (MRO), but excluding repair and maintenance of heavy industry machinery and medical equipment;
19. Aircraft ground handling and related services.
20. Sawmilling, timber manufacturing, and assembling of semi-finished wood products;
21. Media services;
22. Customs clearance service;
23. Brick and block manufacturing;
24. Quarrying;
25. Lottery and sports betting;
26. Laundry services, excluding those provided on industrial scale;
27. Translation and secretarial services;
28. Security services;
29. Brokerage services;
30. Attorney and legal consultancy services; and
31. Private employment agency services, excluding such services for the employment of seafarers and other similar professionals that require high expertise and international experience and network.
32. Transport services, excluding the following areas:
    (a) Railway transport services;
    (b) Cable-car transport services;
    (c) Cold-chain transport services;
    (d) Freight transport services having a capacity of more than 25 tones;
    (e) Transport services reserved for joint investment with the Government or domestic investors.

Areas allowed for foreign investors to jointly invest with the government:

1. Manufacturing of weapons, ammunition, and explosives used as weapons or to make weapons;
2. Import and export of electricity;
3. International air transport services;
4. Bus rapid transit; and
5. Postal services excluding courier services

Areas of investment in which foreign investor/s can own up to a maximum of 49% of share capital:

1. Freight forwarding and shipping agency services;
2. Domestic air transport service;
3. Cross country passenger transport service using buses with a seating capacity of more than 45 passengers;
4. Urban mass transport service with large carrying capacity;
5. Advertisement and promotion services;
6. Audiovisual services; motion picture and video recording and distribution; and
7. Accounting and auditing services.

1-2-2. Privatization

The administration of Prime Minister Abiy Ahmed began economic reforms centered on liberalization, privatization and financial sector reform. In 2019, the Homegrown Economic Reform (HGER) program was developed to rebalance the sources of growth from pubic investment-led to private investment-led and from demand-driven to supply-driven. It envisages boosting the private sector's contribution to the overall economy through partial equity sales in four strategic sectors—Ethiopian Airlines, Ethio telecom, Ethiopian Electric Power Corporation and Ethiopian Shipping and Logistics Services Enterprises—and full privatization of several other state-owned enterprises (SOEs) including sugar plants, railways and industrial parks.

While the privatization of Ethiopian Airlines has been retracted at least for the moment due to popular discontent, partial privatization of Ethio telecom is underway. This has attracted bids from several renowned telecom companies. Ethiopia is one of the last countries to have a monopoly national telecommunications operator.

1-2-3. Investment incentives

Ethiopia has provided incentives to encourage both domestic and foreign investment. These incentives include exemption from corporate income tax for specified years, exemptions on import duties and non-fiscal incentives. Table 1-3 summarizes the present investment incentives in Ethiopia. Corporate income tax exemption is activity- and location-specific but non-discriminatory between domestic and foreign investors operating in areas that are eligible for incentives. Investment in the manufacturing sector as a whole and some selected agricultural products are given income tax exemption for 1-6 years depending on the location and type of activity. In terms of geographical location, income tax exemption makes a distinction between Addis Ababa and surrounding towns and other parts of the country. Investors receive additional 1-2 years of tax exemption if they invest outside Addis Ababa and its surrounding towns. Besides this, a special privilege is available for investors operating in some remote and arid parts of the country such as Gambella, Benshangul Gumuz, Somali, Guji, Borena Zone, parts of Afar, and some remote areas of the Southern Nations and Nationalities, and People's Region (SNNPR). Income tax exemption also has a provision linked with export performance.

Both foreign and domestic investors are also provided with customs duty exemption or reduction. These include 100% exemption from customs duties and other taxes imposed on imports of capital goods and spare parts with a limit of 15% of the total value of imported capital goods. In addition, firms that export at least 60% of their products are given additional incentives such as duty drawbacks on imported inputs, vouchers, bonded warehouses, export

Table 1-3. Summary of the Present Investment Incentives in Ethiopia

Business income tax exemption (depending on sub-sector and location) in	Exemption of duties and other taxes (VAT, surtax, withholding and excise tax) on imports of	Non-fiscal incentives
· Manufacturing sector (up to 6 years) · Agriculture sector (up to 10 years) · ICT development (up to 5 years) · Electricity generation, transmission, and distribution (up to 5 years) · Hotel and tour service providers in non-traditional tourism destinations (up to 5 years) · Industrial park development /developers (10 to 15 years) · Additional 2 years for at least 60% export or supply to exporter (export-linked exemption) · Additional 2 to 4 years for industrial park enterprises with 100% export plan and achieving at least 80% export · Pharmaceutical sector in industrial parks (7 to 14 years) · Loss carry forward for up to 5 years · Personal Income Tax (PIT) exemption for expatriate employees in industrial parks (up to 5 years)	· Capital goods · Construction materials · Spare parts · Vehicles · Raw materials and accessories including packaging materials, used for export processing · Raw materials needed for test-run production (sample production for issuance of business license) · Personal effects by industrial park residents · Raw materials by import-substituting local manufacturers	· One-stop shop service · Customs facilitation · Expedited visa procedure · Guarantee against expropriation · The right to own immovable property · Guarantee for remittance of funds · The right to open and operate foreign currency accounts and retention of export earnings · Export credit guarantee · Access to foreign loan (with debt-equity ratio of 60:40 for foreign investors) · Soft/subsidized project loan · Franco valuta import of capital goods, raw materials, spare parts, and other accessories

Source: EIC and author's compilation[2].

credit guarantee schemes and additional two-year income tax exemption. Furthermore, the government provides additional incentives to industrial park developers and enterprises located in the parks. This is discussed in detail in section 1-3.

Gebreeyesus et al. (2017) argues that investment incentives in Ethiopia are not selective enough. They do not sufficiently differentiate between FDI and local firms, the scale of operation or the country of origin of FDI. Incentives give less attention to re-investment and expansion. Besides this, incentives are often not conditional on meeting specific performance goals such as technology transfer, minimum local content of inputs, value addition and employment. Caution is, however, needed as some of the incentives may not align with the World Trade Organization (WTO) rules although the country has not yet joined WTO and there is some preferential treatment or exemptions for countries whose Gross National Products (GNP) per capita is below $1,000. Even when incentives are associated with performance,

[2] http://www.investethiopia.gov.et/index.php/investment-process/incentive-package.html accessed 15 May 2021.

capacity and systems are lacking to monitor whether agreed targets are achieved. This has given a way for some firms to exploit the system without meeting the basic conditions that motivated the introduction of such incentives. On the other hand, both FDI and local firms often complain that they are not sufficiently benefiting from the present incentives due to implementation problems and bureaucratic inefficiency. The effectiveness of incentives relies on the presence of capable and transparent bureaucracy, which is currently lacking in Ethiopia.

1-2-4. Technology and knowledge transfer

The most plausible argument promoting FDI is that it can bring new technology and know-how to the host country. However, Ethiopia's investment framework has been passive with regard to technology transfer. All of the previous investment laws focused on approving technology transfer agreements between FDI and local enterprises but not actively promoting them. For example, Proclamation No. 37/1996 stated that whenever the authority received a technology transfer agreement that went with Sub-Article (1) of the proclamation, it would give its decision thereon subsequent to the necessary evaluation in accordance with the law. Sections on technology transfer under Proclamation No. 280/2002 and Proclamation No. 769/2012 remain the same as in Proclamation No. 37/1996. Article 15 of recent Proclamation No. 1180/2020 similarly stipulates an approval process of technology through EIC. None of the previous investment laws had an explicit mechanism to facilitate and encourage technology transfer between FDI and local firms, such as a linkage program or promotion of joint venture arrangements.

Technology transfer is one area where coordination among different government agencies has been precarious. The perception of EIC seems to be that it is not mandated to work on technology transfer as it is the territory of the Ministry of Trade and Industry (MoTI) and/or the Ministry of Innovation and Technology (MInT). MoTI, through its industry development institutes, seems to engage in some form of technology transfer activities. However, there is a capacity and orientation problem in these institutions that hinder them from actively promoting technology transfer. Meanwhile, MInT is not closely attached to industrial actors despite its explicit mandate to work on technology transfer issues (Gebreeyesus et al. 2017).

1-2-5. Investment guarantees, protection and remittance of funds

Proclamation No. 15/1992 guaranteed the absence of nationalization and expropriation. According to this proclamation, no assets of a domestic or foreign investor might be expropriated or nationalized wholly or partially except by the due process of law. This was a critical declaration to attract investment given the damages inflicted on foreign investors by the

previous regime through nationalization. Articles 2 and 3 of Proclamation No. 37/1996 further secured the right of foreign investors and granted more protection. According to this proclamation, adequate compensation corresponding to the prevailing market value would be paid without delay in case of expropriation or nationalization of an investment for the public interest. The law also stated that any foreign investor might remit compensation paid to him out of Ethiopia in convertible foreign currency pursuant to the law.

Investment guarantee and protection remained the same under Proclamation No. 280/2002 and No. 769/2012 except for a change in terminology where "nationalization" and "expropriation" were now used interchangeably. Article 19 of the most recent Proclamation No. 1180/2020 came up with a major change by stating "the government may expropriate any investment undertaken under this Proclamation for a public interest, in conformity with requirements of the law, and on a non-discriminatory basis". The proclamation has also added that, in case of expropriation of an investment effected under Sub-article 1 of Article 19, adequate compensation corresponding to the existing market value will be paid in advance.

An open foreign exchange regime, with no restriction on converting and transferring currency abroad, is an attractive aspect of the foreign investment climate. The Ethiopian government has been reviewing its investment rules to improve remittance practices. Proclamation No. 37/1996 stated that any foreign investor had the right, in respect of an approved investment, to make remittances out of Ethiopia in convertible foreign currency at the prevailing rate of exchange on the date of remittance. Such remittances include profits and dividends accruing from investment, principal and interest payments on external loans, payments related to a technology transfer agreement registered under this proclamation, proceeds from the sale or liquidation of an enterprise, and proceeds from the transfer of shares or conferring partial ownership of an enterprise to a domestic investor.

No change was made under the investment laws of Proclamation No. 280/2002 and Proclamation No. 769/2012 concerning the remittance of funds. But under Proclamation No. 1180/2020, privileges were added regarding payments related to registered collaboration agreements, proceeds from a transfer of shares or conferral of partial or total ownership of an enterprise to another investor, proceeds from the sale, capital reduction or liquidation of an enterprise, and compensation paid to an investor.

Despite these rules, foreign investors are in practice facing increasingly long delays in remitting funds due to the shortage of foreign currency and inefficient bureaucracy. Several anecdotal pieces of evidence suggest that foreign exchange shortage and delay in remittances have become a significant obstacle not only for new investors intending to invest in Ethiopia but also existing ones who are forced to reconsider their future investment and even survival.

1-2-6. Access to foreign loan and foreign exchange

Ethiopia has also gradually relaxed the rules regarding access to external loans and foreign exchange. In 2017, the National Bank of Ethiopia (NBE) issued a new directive, External Loan and Supplier's Credit Directives No. FXD/47/2017, which replaced the Registration of External Loan and Suppliers' or Foreign Partners' Credit Directives No. REL/005/2002. The 2002 directive allowed only partners or suppliers credit but procedures for formal loan agreement were not explicitly stated. The 2017 directive explicitly allows both external loans and suppliers' credit.

In the old directive, eligible borrowers were only exporters. In the new directive, eligible borrowers are not only exporters but all foreign investors including non-exporters. When it comes to domestic investors, eligible borrowers for external loans are only those engaged in projects that generate foreign currency.

According to the new NBE directive, borrowers have to get approval from NBE before entering external loans or suppliers' credit, and guaranteed external loans must be registered at NBE. The new NBE directive also requires that the debt-to-equity ratio shall not exceed 60:40 in foreign capital (equity from shareholders).

The Directive on Retention and Utilization of Export Earnings and Inward Remittances was also amended in 2017 by No. FXD/48/2017. Any investor may operate a foreign currency account in banks in Ethiopia for the purpose of its investment as per an applicable Directive of NBE. Two types of foreign exchange retention accounts (Account A and Account B) are normally allowed for this purpose. Account A can be used indefinitely but any balance remaining in Account B shall be converted to Birr after certain days (usually within one month). The proportion of money to be put under each account has been a subject of debate and repeated changes. For example, the 2017 NBE directive increased the proportion of foreign exchange that can be retained in Account A from only 10% to 30%. There were some more changes in recent years.

The 2020 new investment law reiterates the two relaxed rules above: (i) any foreign investor may incur external indebtedness for their investment, and (ii) any foreign investor may open and operate a foreign currency account in banks in Ethiopia for the purpose of its investment. Both are subjected to applicable NBE directives.

1-2-7. Institutional framework

The Ethiopian Investment Office, an autonomous government institution responsible for most aspects of investment including FDI in Ethiopia, was established in 1992. It has since undergone various restructuring. Under Proclamation No. 37/1996, the investment organ was

renamed the Ethiopian Investment Authority.

Proclamation No. 769/2012 brought additional structural changes by establishing the Federal Investment Board, which was entrusted with important powers and responsibilities on investment matters in Ethiopia, including FDI. This gave the power to the Board in allowing additional incentives, opening certain hitherto prohibited sectors for foreign investors, and deciding on appeals against the decision of Investment Authority without forwarding recommendations to the Council of Ministers as rectified in the law. The proclamation was also amended to give the Addis Ababa and Dire Dawa Administrative Councils the power similar to other regional states.

The next major institutional amendment was Proclamation No. 849/2014, which re-established the Ethiopian Investment Agency as a Commission (Ethiopian Investment Commission: EIC) accountable to the Prime Minister and governed by a Board of Investment (BOI). EIC used to be under the Ministry of Trade and Industry with a limited mandate. But the new proclamation granted EIC more power and roles including promotion of investment and exports as well as direct support and regulation of industrial parks.

EIC has since then gone through major internal restructuring and reforms to improve its services and attract more FDI. The reforms included improving one-stop services (OSS) and initiating aftercare service. According to Gebreeyesus et al. (2017), the OSS reform brought documentation requirements "in-house" with 27 of 29 requirements fully delegated to EIC. The aftercare service on the other hand requires the appointment of a single named contact official for each firm, an initial visit to establish relations, and subsequent regular visits or phone conversations. Thus, EIC has developed an investor tracking system where the largest 400 FDI projects are weekly tracked by seven sectoral teams.

According to EIC (2019), EIC in 2016 introduced a donor-supported Young Professional Development Programme (YPDP) to solve the problem of the lack of qualified personnel. The program objective was to recruit fresh university graduates for training within the EIC through mentoring by senior officials, training by instruction, learning by doing and observing, and exposure to the day-to-day investment promotion and facilitation activities that took place at the EIC. In the short run, the initiative seems to have provided a solution to skill-related constraints on policy implementation and institutional mandates. However, this donor-funded capacity development was not sustainable.

Another important change made in the mid-2010s was in investment promotion. The new investment promotion direction included identification of priority sectors and potential country targets, moving from generic campaigns towards attracting anchor investors and using industrial park development for promotion. The labor-intensive and export-oriented light manufacturing was the prioritized sector for promotion, which was in line with the industrial development strategy. Moreover, emerging middle-income countries such as China, India and

Turkey were identified as focus countries for investment promotion. The rationale was that these countries were facing increasing labor costs and therefore a deteriorating comparative advantage in light manufacturing, which provided a big potential for less developed countries such as Ethiopia to attract FDI from them (Gebreeyesus et al. 2017).

The investment code revision in 2020 (Proclamation No. 1180/2020) re-established EIC as an autonomous Federal Government Agency having legal personality and being accountable to the Prime Minister. It further strengthened the role of EIC to lead proactive investment promotion, aftercare service, investment climate improvement and an investor feedback loop.

Ethiopia's rank in the World Bank Ease of Doing Business has been lower than many Sub-Saharan African Countries and deteriorating through time. A special Steering Committee chaired by the Prime Minister was established in 2018 to improve Ethiopia's investment and doing business environment. The Committee vowed to spearhead the reforms in all of the ten indicators used to measure the ease of doing business. It has been meeting regularly, once a month and under the chairmanship of the Prime Minister (EIC 2019).

The lack of coordination between federal and regional investment agencies has long been criticized. To address this concern, the 2020 investment proclamation re-established the Federal Government and Regional State Administrations Investment Council. The main purpose of this organ is to facilitate cooperative and coordinated administration of investment between the Federal Government and Regional State Administrations. An Intergovernmental Relations Forum (IGR Forum) was established between the central government and sub-regional governments for joint vision and strategy setting and high-level problem solving (EIC 2019). The IGR Forum is composed of the Prime Minister and the Presidents of sub-regional governments including the Addis Ababa and Dire Dawa City Administrations.

Decentralization of FDI management can help ease complicated procedures associated with FDI projects and improve efficiency. It can also spur creativity and competition among local governments, which attracts more investment. However, in Ethiopia FDI is still administered by the federal investment agency. The regional investment agencies are passive facilitators, for example, making land available for investors although the federal arrangement gives more autonomy to regions to make decisions on investments in their jurisdiction. The lack of capacity of regions is often cited as a pretext for the concentration of power in federal agencies regarding foreign direct investment. Gebreeyesus et al. (2017) argues that, in the absence of power, motivation and competition among the regional governments, project implementation is delayed and regional distribution of FDI is highly skewed to few areas. For example, Addis Ababa and Oromia region alone account for about 80% of the total FDI stock and 50% of permanent jobs created by FDI in the country.

1-3. The industrial park development scheme

Ethiopia has significant potential in the light manufacturing sector but faces binding constraints related to access to land, infrastructure, trade logistics, customs regulations and a skills gap. Industrial parks are vital in helping easy provision of infrastructure service for industries, economical use of land, protection of the environment and human wellbeing, and expanding and establishing new urban centers (World Bank 2012). This section focuses on the industrial park development scheme which has been emphasized by Ethiopian policymakers since the mid-2010s as a major policy instrument to significantly boost Ethiopia's attractiveness for foreign and domestic investment.

The concept of industrial park (or zone) was introduced earlier in Ethiopia but with a loose sense. For example, Article 19 of Proclamation No. 769/2012 allowed for the establishment of *Industrial Development Zones* with distinct boundaries designated by an appropriate organ to develop similar and interrelated industries together. The law also allowed the development of multi-faceted industries provided that a plan was drafted to prepare infrastructures such as roads, electricity and water as well as incentive schemes to contain industrial areas, mitigate environmental pollution, and administer urban development with proper planning and systems.

But the bold move to promote industrial parks came in 2014 with the establishment of the Industrial Parks Development Corporation of Ethiopia (IPDC), a publicly owned corporation with the mandate of developing and operating a wide range of industrial parks in the country, by Council of Ministers Regulation No. 326/20. Main industrial groups eligible to be hosted in these industrial parks included textile and apparel, leather and leather products, agro-industries including food processing, furniture, chemicals, pharmaceuticals, and metals and engineering.

Industrial Parks Proclamation 886/2015 allowed private sector participation in the development of industrial parks. It stated that industrial parks could be developed by three mechanisms: (a) fully developed by the federal or regional government, (b) developed by Public-Private Partnerships (PPPs) with the IPDC, and (c) by private developers only.

IPDC was given a wide range of mandates as a regulator, land bank, park developer and operator. As per Regulation No. 326/2014, the mandates of IPDC are to:

- Develop and administer Industrial Parks, lease developed land and lease and transfer, through sale, constructions thereon;
- Prepare detailed national Industrial Parks Master plan based on the national special Master plan, and serve as the industrial park landbank per the agreements concluded with regional governments;
- In collaboration with the concerned bodies, ensure that necessary infrastructure is accessible to Industrial Park developers;

- Outsource, through management contracts, when it is deemed necessary, the management of Industrial Parks;
- Promote extensively the benefits of Industrial Parks and thereby attract investors to the parks;
- In line with directives and policy guidelines issued by the Ministry of Finance and Economic Development, sell and pledge bonds and negotiate and sign loan agreements with local and international financial sources; and
- Engage in other related activities necessary for the attainment of its purposes.

The fact that IPDC is given the regulatory role in addition to being a park developer and operator has become a source of criticism for potential conflict of interest. Besides, the role of local governments in managing the parks as well as ensuring the benefits to local people and administration seems to be blurred again, which may lead to disputes (Woldeselassie et al. 2017).

The Ethiopian investment law provides a wide-ranging special incentive package to industrial park developers and enterprises in the park. This includes comprehensive financial incentives and efficiency-enhancing non-financial support measures. See Table 1-3 for the summary of the incentives.[3]

The government of Ethiopia offers fiscal incentives along the different stages of investment within industrial parks from construction to operation and marketing. Industrial park developers and enterprises benefit from the following corporate income tax exemption incentive package.

- *Industrial park developer*: 10-15 years income tax exemption depending on the location of industrial park;
- *Industrial park enterprise*: up to 6 years exemption depending on the sector of engagement and additional 2-4 years exemption for industrial park enterprises with at least 80% export;
- *Expatriate employees of industrial park enterprises*: up to five years personal income tax exemption after issuance of business license for the investment.

Similar to enterprises outside parks, enterprises located in industrial parks and park developers are provided with various duty-free import incentives. For example, capital goods and accessories, construction materials, and spare parts up to 15% of the total value of capital goods can be imported duty-free by manufacturing industries. There are also certain benefits regarding duty-free importation of motor vehicles related to investment to both industrial park developers and enterprises located in parks. In addition, all raw materials needed for the production of export commodities can be imported duty-free.

Industrial park developers enjoy a land sub-lease period of 60-80 years depending on the

[3] More information on the industrial parks and enterprises incentives schemes can be found at: http://www.investethiopia.gov.et/images/pdf/Industial%20Parks%20Incentives%20FINAL%20VERSION.pdf

location. They can import construction materials and equipment necessary for industrial park construction. Industrial park enterprises have an option to rent or buy factory sheds, or sublease developed land at a promotional rate to construct their production facility.

Investors are also provided with various non-fiscal incentives including simplified procedures for investment establishment and operation as well as strong property protection and guarantees. One-stop shop service is being provided by the EIC at the head office that includes the issuance of investment permits, business licenses, commercial registration certificates and work permits; notarizing memorandums and articles of association, registration of trade or firm names and technology transfer agreements as well as the issuance of tax identification numbers (TIN). One-stop shop service is also provided at industrial park branches that includes renewal of all licenses issued at the head office; visa and work permit renewal; duty-free grant for capital goods, construction materials, spare parts, accessories and different types of vehicles; customs clearance; and banking services.

Post-establishment investment facilitation (aftercare) service is also provided by the EIC. The government makes available fully developed infrastructure up to the perimeter of the park and guarantees access to utilities including a dedicated power station. Further, an expedited procedure for entry, work permit and certificate of residency is provided for expatriate personnel working in industrial parks and their dependents. Better visa terms are provided for investors in industrial parks including multiple-entry visas of up to five years. Concerning customs facilitation, imported raw materials can be transported straight from a customs post to the factory through the bonded warehouse or voucher scheme.

The government also offers a guarantee against expropriation or nationalization. Once expropriation happens, payment of compensation will be made corresponding to the prevailing market value of investment property in case of expropriation or nationalization for the public interest. The right to own immovable property is also available for foreign investors, giving them the right to own a dwelling house and other immovable property required for the investment. Subsidized utility rates are also offered, including electricity which is sold at an estimated rate of 3 US cents/kWh. The government prepares dedicated power stations for parks to ensure reliable access to electricity within industrial parks.

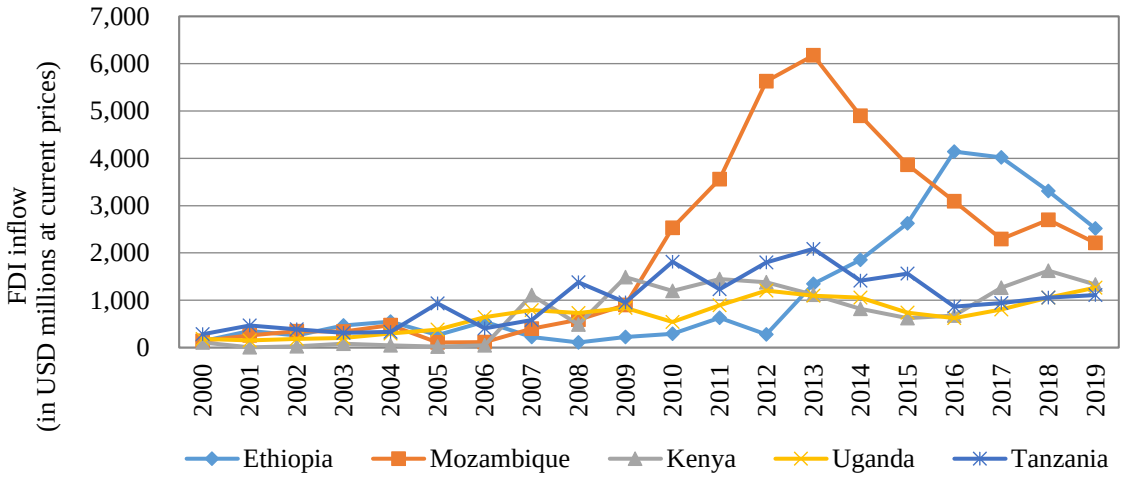
Foreign investors can freely repatriate in convertible foreign currency profits and dividends, principals and interest payments on external loans, proceeds from the sale or liquidation of an enterprise as well as compensation paid. A foreign investor also has the right to open and operate foreign currency accounts in authorized local banks. The performance achieved so far and challenges facing the industrial parks will be discussed in the remaining sections.

1-4. FDI inflow and composition in Ethiopia

1-4-1. Trends in FDI inflow

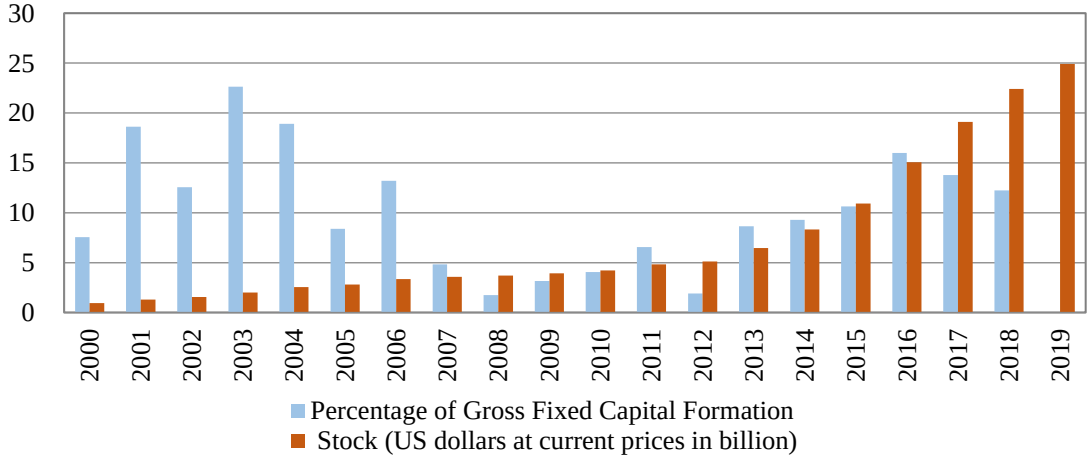
Figure 1-1 presents the FDI inflow of five top East African FDI destination countries including Ethiopia. Prior to 2010, FDI inflow to Ethiopia showed little progress. However, the country saw tremendous growth in FDI inflow in the early 2010s and became the largest recipient of FDI in Africa. FDI inflow to Ethiopia reached a peak in 2016 with an annual flow of $4.14 billion. The fast growth was driven by sustained high economic growth that the country achieved and also by the commitment and promotion efforts of the government to attract foreign investment and develop industrial parks. However, FDI inflow started to decline in 2017 largely due to domestic political instability and global economic slowdown.

Figure 1-1. Top Destinations of FDI in Eastern Africa



Source: UNCTAD database.

Figure 1-2. FDI Stock and Percentage of Gross Fixed Capital Formation



Source: UNCTAD database.

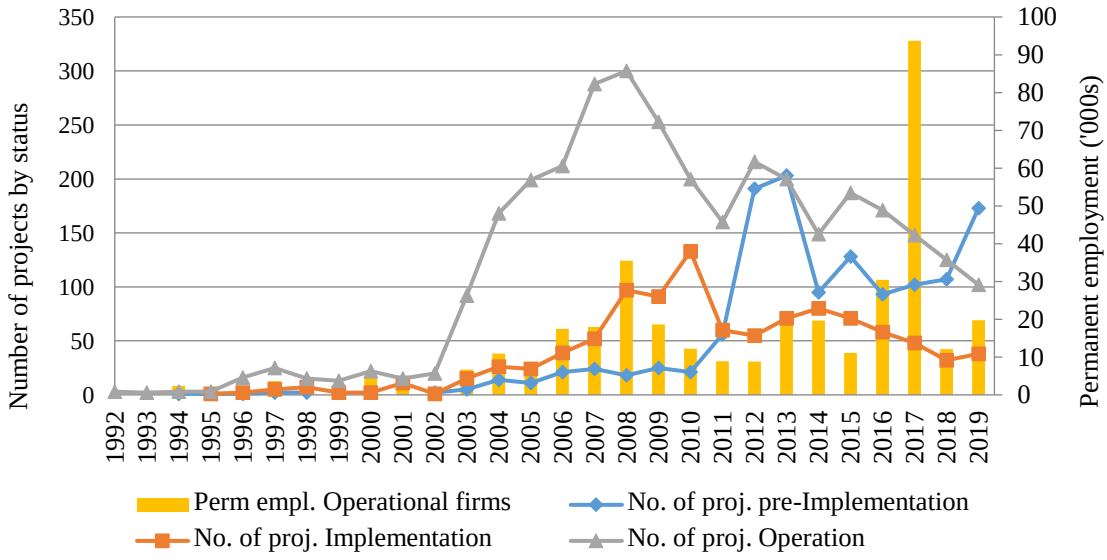
According to the UNCTAD database, capital stock from foreign investment in Ethiopia rose rapidly in the 2010s and reached nearly $25 billion in 2019 (Figure 1-2). Similarly, FDI capital as a percentage of gross fixed capital formation increased significantly during 2013-16. The high level of this ratio during this period can be explained by the fact that total fixed capital formation was low then.

Relying on the EIC database, Figure 1-3 reports the number of foreign investment projects at different stages. The EIC classifies investment projects into three stages: pre-implementation, implementation and operational. *Pre-implementation* refers to licensed investment projects that have not yet started production of goods or provision of services, i.e., they have only obtained investment licenses. *Implementation* refers to investment projects in which practical undertakings such as the construction of civil works and provision of machinery and equipment are underway but production of goods or provision of services has not yet started. *Operational projects* are investment projects which have either partially or fully begun production of goods or provision of service.

Overall, during 1992-2019, investment licenses were issued for a total of 5,262 FDI projects out of which 3,307 have so far become operational. As of 2019, operational FDI projects had created 373,025 permanent jobs.

Starting from 2002, however, a noticeable gap emerged between the three investment stages. The number of operational projects increased significantly in six consecutive years from 2002 to 2008 while it has been on a declining trend since then. The great rise in operational projects in the earlier period might have different explanations. One such explanation is that this period

Figure 1-3. Number of Projects by Status and Employment Created by Operational Projects



Source: Ethiopian Investment Commission (1992-2020).

coincided with the increased global interest to grab land and invest in food production in many developing countries. Ethiopia was one of the developing countries that aroused the attention of foreign investors as it was richly endowed with fertile land and had a very investor-friendly environment for that purpose. Especially for the agricultural sector, investment regulations were relaxed significantly (Weissleder 2009). This was also the period when Ethiopia's flower sector attracted huge investment and several Turkish and Indian investors started operations in Ethiopia particularly in the manufacturing sector.

1-4-2. The sectoral composition of FDI

FDI in Ethiopia has been concentrated on the manufacturing sector (Table 1-4). The manufacturing sector accounts for the majority (51.5%) of the total FDI operational investment projects and about three-quarters (73.3%) of capital invested in the country over the period 1992-2020. The agriculture sector accounts for about 12% of operational projects but a third (33%) of total permanent employment created. This suggests the labor-intensive nature of this sector. On the other hand, real estate and machinery and equipment rental and consultancy services, and construction contracting in sum account for 26% of total operational projects, 13% of capital and 26% permanent employment created.

Table 1-4. FDI Projects by Sector and Status (1992-2020)

Sector	Total number of licensed projects	Operational projects					
		Projects		Capital		Permanent employment	
		Number	Share (%)	Million Birr	Share (%)	Number	Share (%)
Agriculture	636	333	12.0	12,752.2	8.9	53,819	33.0
Manufacturing	2,932	1,676	51.5	105,219.2	73.3	190,448	37.9
Mining	22	14	0.2	451.4	0.3	591	0.1
Electricity	2	1	0.1	1.0	0.0	10	0.0
Education	113	63	1.4	393.1	0.3	2,121	0.6
Health	111	60	1.1	795.0	0.6	2,046	0.1
Hotels and restaurants	241	149	3.9	1,966.3	1.4	5,475	0.8
Tour operation, transport, and communication	130	76	2.0	288.0	0.2	1,005	0.2
Real estate, Machinery & Equipment rental, construction contracting, etc.	1480	881	26.0	19,153.0	13.0	117,105	26.0
Others	116	70	1.8	2597.9	1.8	1,755	1.8
Grand Total	5,783	3,323	100.0	143617.5	100.0	374,375	100.0

Source: EIC.

A high concentration of foreign investment in the manufacturing sector is uncommon in Africa where FDI mostly comes to extractive sectors and services. This is partly driven by Ethiopia's aggressive manufacturing-focused promotion including the development of industrial parks. The sharp rise in manufacturing investment in Ethiopia since 2012 supports this argument. The fact that a large part of the service and construction sectors is restricted for foreign investors might have additionally contributed to the increasing concentration in the manufacturing sector.

1-4-3. FDI country of origin

Table 1-5 reports the top 20 countries of origin among operational FDI projects in Ethiopia in the last three decades. The top 20 countries collectively account for 79% of the total number of operational projects, 72% of capital and 81% of permanent employment created. China, India, the US, Turkey and Sudan, in descending order, are the top five investors in terms of the number of projects. In terms of capital, China, Turkey, India, the Netherlands and the US are the top five sources. The Netherlands, Italy, Saudi Arabia, France, Egypt and UAE conduct more than half of their investment projects in the form of joint ventures with Ethiopians.

China, India and Turkey not only are the leading investors in Ethiopia but also focus on manufacturing in their investment projects. These countries are losing comparative advantage in light manufacturing due to rising labor costs. They are thus significant sources of FDI outflow in light manufacturing. In recognition of this, Ethiopia has identified them as priority target countries for attracting FDI in manufacturing.

1-4-4. Performance of industrial parks

This sub-section discusses the performance of industrial parks in terms of investment, employment and exports. Table 1-6 lists industrial parks in Ethiopia by sector, ownership and status. IPDC, which is currently accountable to EIC, has built 13 public industrial parks in different parts of the country. In terms of sectors, most of the publicly-owned parks focus on textile and apparel with a few exceptions such as Kilinto Industrial Park designated for pharmaceuticals and Adama Industrial Park which hosts machinery production as well as textile and apparel. There are also five foreign-owned private industrial parks. The largest and oldest private park is the Chinese-owned Eastern Industrial Zone (EIZ), which hosts a mixture of export-oriented and import-substituting manufacturing enterprises including textile, leather, agro-processing, metallurgy, building materials, cement, basic iron and steel, and electrical equipment.

Table 1-5. Top 20 Countries of Origin for Operational FDI Projects (1992-2020)

	Country of origin	No. of operational projects	% of JV share with Ethiopians	Capital investment (million Birr)	Permanent employment
1	China	1005	12.2	45,372.6	172,789
2	India	287	25.4	6,405.4	27,750
3	United States	202	35.1	2,294.7	5,990
4	Turkey	133	24.8	12,113.6	17,442
5	Sudan	131	20.6	1,360.6	4,632
6	Netherlands	125	52.8	3,880.2	8,364
7	Britain	114	39.5	1,500.5	4,938
8	Italy	101	51.5	1,109.2	14,729
9	Saudi Arabia	98	51.0	19,056.0	22,970
10	France	60	53.3	3,498.7	2,562
11	Germany	59	47.5	950.4	2,697
12	Israel	52	36.5	779.9	6,679
13	South Korea	45	0.0	675.7	3,353
14	Canada	38	39.5	320.5	887
15	Yemen	38	26.3	247.4	1,182
16	Egypt	35	51.4	1,401.3	2,166
17	Kenya	30	0.0	476.9	1,260
18	Pakistan	30	0.0	1,124.7	2,356
19	UAE	30	53.3	761.1	1,084
20	Sweden	28	46.4	218.2	894
Sum (top 20)		2641		103,547.6	304,724
Share of top 20 (%)		79.5		72.1	81.4
Sum (other countries)		682		40,069.95	69,650.7
Grand Total		3,323		143,617.5	374,374.7

Source: EIC.

The establishment of industrial parks has helped to put Ethiopia on the radar screen of foreign companies, which increased FDI inflow. There are currently nine operational parks—five public parks: Bole Lemi I, Hawassa I, Mekelle, Kombolcha, Adama, and four privately owned parks: Eastern Industrial Zone, Vogue, DBL and George Shoe. As of the end of 2018, the private parks collectively attracted 179 enterprises out of which more than half of them (91) are located in one private industrial park, the Eastern Industrial Zone. The private parks are estimated to have generated employment for above 21,500 people as of 2018. The largest public parks are Hawassa and Bole Lemi, respectively hosting 22 and 11 manufacturing enterprises most of which are producing apparel as of the end of 2020. The overall occupancy rate of the public parks in terms of occupied sheds relative to available sheds is as high as above 90%. However, caution is warranted here. The number of enterprises located in the public industrial

Table 1-6. Public and Private Industrial Parks in Ethiopia

	Name	Location	Owner-ship	Eligible sectors	Status	Avail-able factory sheds	Occu-pation rate (%)	No. of enter-prises	Employ-ment
1	Bole Lemi I	Addis Ababa	Public	Apparel & textile	Operational	21	95	11	18,000
2	Bole Lemi II	Addis Ababa	Public	Apparel & textile	Ready for sublease	3	100	3	
3	Kilinto	Addis Ababa	Public	Pharmaceu-tical hub	Ready for sublease				
4	Hawassa Phase I, Cycle I	Hawassa	Public	Apparel & textile	Operational	52	100	22	32,000
5	Hawassa Phase I, Cycle II	Hawassa	Public	Apparel & textile	Operational				
6	Adama	Adama	Public	Machinery, apparel & garment	Operational	15		6	5,000
7	Dire Dawa	Dire Dawa	Public	Apparel, & textile	Operational	15	20	4	
8	Mekelle	Mekelle	Public	Apparel & textile	Operational	15	93	9	3,000
9	Kombol-cha	Kombol-cha	Public	Apparel & textile	Operational	9	100	6	2,000
10	Jimma	Jimma	Public	Apparel & textile	Operational	9	100	1	
11	Bahir Dar	Bahir Dar	Public	Apparel & garment	Operational	9	100	1	
12	Debre Birhan	Debre Berhan	Public	Apparel & garment	Operational	8	100	2	
13	ICT	Addis Ababa	Public	IT manufacturing and business services	Operational			2	
14	Eastern Industrial Zone	Dukem, Oromia	Private (foreign)	Mix	Operational			91	14,906
15	Huajian Industrial park	Lebu, Addis Ababa	Private (foreign)	Leather	Partially operational	8		5	4,600
16	Vogue	Mekelle, Tigray	Private (foreign)	Textile and garment	Partially operational	2		1	1,700
17	George Shoe	Mojo, Oromia	Private (foreign)	Leather	Partially operational	33		1	353
18	DBL	Mekelle, Tigray	Private (foreign)	Textile and garment	Partially operational	5		1	
							Total	179	81,559

Source: IPDC, EIC and author's compilation. Note that figures for the private parks refer to the year 2018 while for the public parks is as recent as the end of 2020.

parks is not equal to the number of occupied sheds. This is because some enterprises lease more than one shed, sometimes even using sheds as storage space. It is estimated that the five operational public industrial parks have created above 60,000 jobs as of 2020.

Table 1-7 reports the investment cost and source of funds of public industrial parks. The overall investment cost of building 11 industrial parks listed below is estimated to be $819 million. Note that these investment costs are converted from figures in Birr, which are available to us, to USD on the average exchange rate of the year of each Industrial Park (IP) establishment. This may cause some discrepancies. Hawassa Industrial Park accounts for above a quarter of the total sum of investment cost. The main source of investment funds is Eurobond. For the first time in 2014, Ethiopia issued Eurobond and raised $1 billion. Part of this Eurobond is used to finance the construction of public industrial parks as shown in Table 1-7 below.

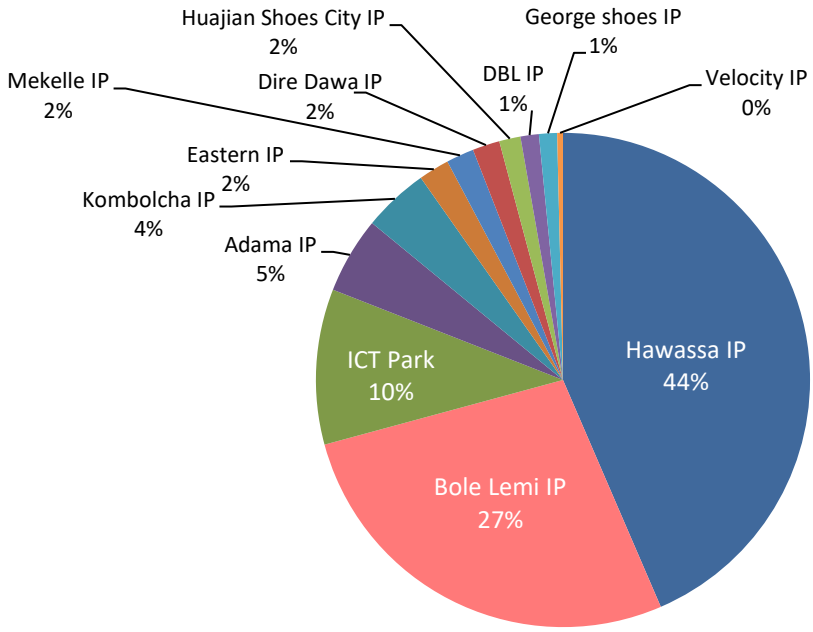
Although not at the scale expected, the industrial parks have started to generate export revenue. Export revenue from the parks showed a sudden jump from $50 million in 2017/8 to above $110 million in 2018/19. The government reported that export revenue for the year 2020/21 from both private and public industrial parks reached about $150 million. Figure 1-4 displays the export share of industrial parks in 2020/21. Hawassa and Bole Lemi, both of which are public industrial parks, respectively accounted for 44% and 27% of the export revenue generated from all industrial parks. The ICT Park, another public park, ranks third with 10% of export. In contrast, the export contribution of private parks is much lower despite generating significant employment. The private parks collectively account for only 6% of exports in the reference year suggesting their orientation towards the domestic market. This low export

Table 1-7. Investment Cost and Source of Fund of Public Industrial Parks

Industrial park		Investment cost (USD million)	Source of finance
1	Hawassa IP Phase I	240.92	Eurobond
2	Bole Lemi IP Phase I	82.63	Industry Development Fund (Ethiopia Ministry of Finance)
3	Kombolcha IP	62.69	Eurobond
4	Mekele IP	66.80	Eurobond
5	Adama IP	101.39	Eurobond
6	Jimma IP	53.14	Treasury
7	ICT Park	29.51	Data unavailable
8	Dire Dawa IP	106.44	Eurobond
9	Debre Birhan IP	33.92	Treasury + Eurobond
10	Bahir Dar IP	41.04	Treasury
11	Kilinto IP	N/A	World Bank
Total		818.79	

Source: IPDC.

Figure 1-4. Industrial Park Export Share in 2020/21



performance might be because some of the fully export designated private parks are at their initial stage and not fully operational.

1-5. Challenges and a way forward

The above sections reviewed Ethiopia's history of FDI policy and the present investment framework and examined the country's performance in attracting foreign investment and generating expected economic and social benefits. The present section highlights the remaining challenges and a way forward to enhance FDI inflow and maximize the advantages and opportunities from the presence of foreign firms in the economy.

1-5-1. The need for a unified FDI policy

Investment laws have been progressively liberalized, which is expressed in the sectors opened up for private investment, requirements for admission and other approvals, removal of limits on foreign shareholding in local companies, and so on. Liberalization accelerated in recent years which now allowed foreign investors in previously restricted sectors such as transport, logistics, construction, education, health and other services. Besides this, the government started to invite foreigners in partial privatization of large state companies including Ethio Telecom.

However, the country has yet to develop a comprehensive and unified FDI policy. The absence of a unified FDI strategy has led to various problems that include divergent understanding of the importance and management of FDI, inconsistency between different initiatives and incentives, lack of coordination among different institutions, lack of monitoring and evaluation (M&E) capacity, and poor performance in terms of exploiting envisaged benefits from FDI (Gebreeyesus et al. 2017).

1-5-2. Managing investment incentives

Ethiopia provides extensive fiscal and non-fiscal investment incentives to FDI and local firms. In this chapter, we have shown that incentives are not selective enough and not attached to meeting specific performance goals. When incentives are associated with performance, there is a lack of capacity and system to monitor agreed targets and whether provided incentives are fetching the intended benefits. Moreover, both FDI and local firms often complain that they are not sufficiently benefiting from the incentives provided to them due to implementation problems and bureaucratic inefficiency. As a result, the incentives are largely ineffective in meeting their objectives and are sometimes manipulated by various actors involved. Hence, the government has to give high priority to managing incentives properly. Incentives need to be selective, conditional on the achievement of some performance indicators such as employment, export or technology, and revised when necessary. Because effective management of incentives relies on the presence of capable and transparent bureaucracy, there is a need to strengthen the capacity of civil service for investment policy and management.

EIC needs to take M&E as an integral part of its investment promotion. M&E is essential for ensuring that objectives are achieved in the most efficient way possible. In this regard, EIC must introduce key performance indicators (KPIs) into its activities that track outputs and outcomes through time. Such tracking indicators help assess, for example, whether the investment incentives and supports are bringing appropriate results and outcomes.

1-5-3. Improving business environment

It is a widely established notion that, in attracting investors, improving the business environment is more important than offering incentives. Ethiopia's rank in the World Bank's Ease of Doing Business report is still among the lowest (159th in 2020) despite the recent initiative to improve it through the newly established Steering Committee chaired by the Prime Minister. Foreign and local investors often complain about, among other things, poor infrastructure particularly access to power, poor tax administration, the slow pace of customs clearance and inefficient trading logistics. Foreign investors are also facing increasingly long

delays to remit their profits and other payments due to the shortage of foreign currency and bureaucratic hurdles.

Providing an excellent investment climate needs to be the priority of the government. This requires addressing the binding constraints identified above and building the capacity and aligned rewards of civil servants. The formation of meritocratic and well-motivated civil service is critical not only for attracting FDI but also for maximizing benefits that can be gained from the presence of FDI.

1-5-4. Enhancing institutional capacity and coordination

EIC is the leading institution with regard to FDI policy in Ethiopia. It has been given extended responsibilities including promotion of investment and exports, improving the investment climate as well as direct support and regulation of industrial parks. EIC has made significant achievements to improve its services and investment promotion activities. However, its institutional capacity is still not sufficient to meet the added responsibilities and ambitious targets. EIC has still limited capacity to design the right regulation, directives, and policy incentives for effective implementation, monitor the process of implementation, and forecast current and future developments. Thus, it is essential to further strengthen the capacity of EIC in terms of the number of qualified people, motivation of staff, organizational structure and funding.

FDI promotion and implementation suffer from coordination problems among relevant agencies. For example, there remain areas of overlapping responsibilities and disputes between EIC, MoTI and MInT. Moreover, there is poor coordination between the tax administration and the customs office as well as with utility providers, particularly power. Though federal agencies have opened satellite offices at the EIC, one-stop service is not fully functional due to limited authority delegation and lack of digital services. There is also a lack of coordination between federal and local governments as well as regional agencies regarding land administration and other services to investors.

Hence, concrete steps need to be taken to make the responsibilities of different agencies clearer and strengthen vertical and horizontal coordination. For example, regions need to be given more autonomy in managing FDI. Instituting productive competition among regions towards attracting FDI can help not only in correcting the skewed geographical distribution but also in increasing the country's overall FDI inflow. In this regard, China can provide useful lessons. Chinese local authorities enjoy a considerable degree of autonomy; they engage in intensive law-making to attract foreign investments including all administrative matters such as resource regulation, approval and licensing, as well as business services and coordination with related government departments or agencies at various levels (Zhao and Farole 2011).

However, caution is warranted that too much and unmanaged competition among regions can lead to wastage of resources and hurt the country at large as experienced in Vietnam (Au Thi Tam Minh 2019).

1-5-5. Improving the effectiveness of industrial parks

Industrial park development is relatively a new concept for Ethiopia. The country lacks experienced and qualified people in managing and administering industrial parks. IPDC is given the regulatory role and serves as a land bank for industrial park development in the country. IPDC is also a developer and operator of industrial parks. As a park developer, it is tasked to provide serviced industrial land, pre-built sheds equipped with all-encompassing utilities, and infrastructure facilities. IPDC cannot effectively deliver all its responsibilities given the limited capacity it has. It often outsources park development to foreign contractors, which makes it expensive and subject to rent-seeking practices. More importantly, the fact that IPDC is given the regulatory role in addition to being a park developer and operator may cause a potential conflict of interest.

It is recommended that IPDC have a "business model" rather than a mix of a business model and a regulatory role. It has to refrain from the roles of regulator and land bank but focus on the role of industrial park developer and administrator. Moreover, IPDC has to compete with the private parks on equal footing. As a business model, it should be market-oriented and able to attract tenant enterprises, provide efficient and effective services to them, and sustain its sound operation (Woldeselassie et al. 2017).

1-5-6. Enhancing technology transfer and spillover

The development of industrial parks and promotion of foreign investment in Ethiopia has been perceived as the creator of business linkages and promoter of technology transfer and spillover to the local economy. However, Ethiopia's investment framework has been passive with regard to technology transfer. Furthermore, with the limited presence of local enterprises, industrial parks have become enclaves of foreign investors. The prospect for industrial parks to build backward linkages (local sourcing) with domestic suppliers is also weak due to the lack of raw materials and intermediates in the local market and poor capacity thereof (Zhang et al. 2018).

Hence, Ethiopia needs to ensure potential benefits of FDI be realized through an innovative institutional arrangement to create domestic linkages such as co-location, performance-based and targeted policy incentives, and support programs. The technology transfer issue will be dealt with in detail in Chapter 4.

We end by repeating the recommendations by Gebreeyesus et al. (2017) for maximizing technology transfer and gains from FDI, which also nicely summarize this chapter. First, attraction, evaluation and selection of FDI should be based on their contribution to technology transfer to domestic firms. Second, FDI should be continuously measured and monitored in terms of technology transfer performance. Third, a proactive policy to encourage the formation of joint ventures should be designed. Fourth, domestic firms should be supported to improve their technology absorptive capacity. Fifth, business linkage programs need to be introduced to improve technology transfer from FDI to local firms.

Chapter 2
FDI Policy for Industrialization: From Quantitative Accumulation to Value Creation

2-1. Introduction

FDI policy must change with the diverse and evolving circumstances of each economy. There are many international good practices in FDI attraction and investor support, but not all practices are appropriate for Ethiopia. There are common success factors as well as different methods suitable for individual host countries and particular sectors. There is no one-size-fits-all solution for all to follow. In learning global lessons, each government should create the right model that best fits the reality of the home country by combining and adjusting foreign models. Improper selection of FDI strategy will not work, and may even harm the fiscal and developmental prospects of the nation.

Specifically, FDI policy should be customized in two dimensions. First, it must respond to the unique conditions each nation possesses such as history, cultural and ethnic factors, population size and location, resource endowment, developmental stage, the dynamism of the private sector or lack thereof, policy capability of the government, and external relations and the geopolitical situation. Second, over time, the FDI policy of any nation must change as development proceeds and new challenges emerge, from general attraction to selective invitation, and from incentivizing all investments to supporting true value creation only.

This chapter discusses six related aspects of FDI policy: (i) FDI policy as a double maximization problem; (ii) the pursuit of win-win solutions for investors and the host country with concrete and diverse examples of automotive assembly in Asia; (iii) distinction of irresistible attractions and non-essential conveniences for FDI; (iv) how to use available policy instruments and remove impediments; (v) moving from general quantitative accumulation to domestic value creation with selectivity; and (vi) improving industrial park management from the Asian perspective. Background information for this chapter was collected from industrial policy research and dialogue conducted by the National Graduate Institute for Policy Studies (GRIPS) Development Forum and its precursors over the last three decades. Many concrete cases are drawn from Northeast and Southeast Asia, while some observations come from Africa. Many countries cited here performed well in FDI policy but some less successful cases are also presented. Our method is the extraction of relevant lessons from many case studies. It is hoped that the discussions below will inform the policymakers of Ethiopia, a country in the early stage

of FDI-led industrialization, to identify critical issues and upgrade its FDI policy to the next stage.

2-2. FDI motive versus policy objective

Firms maximize profits. They also want to expand their businesses. Their primary objective is not charity or the development of the host country. The global trends of human rights, corporate social responsibility (CSR), Sustainable Development Goals (SDGs), and Environment, Social, Governance (ESG) add responsibility elements to corporate behavior, but they do not dislodge the original profit motive. This is true across all ages and nationalities, and FDI firms are no exception. However, firms adopt different strategies to pursue these objectives, which leads to diverse corporate behaviors (Section 2-6).

FDI policy should be regarded as a double maximization problem in which government promotes national development knowing well that FDI firms pursue their own private purposes under all circumstances. Technically put, it is the maximization of the objective function of government subject to the constraint that foreign firms maximize profit. Good FDI policy is the one that entices FDI firms to willingly take actions that are conducive to the development of the host country, leading to a win-win solution for both sides.

The idea of double maximization makes clear two mistakes often committed by uninformed governments. The first is to assume that, once FDI firms arrive, they automatically contribute to national development regardless of the type of FDI and without any policy effort to make this happen. However, such optimism is unwarranted. The second is to regard FDI firms merely as a policy instrument that government can use to achieve national goals, without recognizing their private motives (i.e., forcing them to do something against their will). Some governments are well aware of the nature of this game while others fall into one of these traps. Host governments should not preach to FDI firms to change their corporate objectives or behavior against their will. The key question is how to set policy parameters to produce good results for both the host country and FDI firms, taking the latter's motives as given.

Regarding the first mistake, Todo (2008), backed by vast theoretical and empirical literature review, concludes that technology transfer from FDI to local firms does not occur automatically but accrues only to those countries that (i) select the right types of FDI that contribute to development instead of doing simple production, and (ii) prepare necessary domestic conditions in terms of policy support, business climate, and sufficient absorptive capacity in technology and human resource. FDI improves the technology level of a host country through technology spillover (from FDI to local firms belonging to the same sector) as well as backward linkage (from FDI to local firms that supply materials or components in the upstream of supply chains). However, there is also the risk of FDI crowding out domestic firms by invading their domestic

turfs or export markets as well as by poaching best managers and engineers and increasing their hiring costs.

Various empirical studies demonstrate that technology transfer from FDI is conditional and calculated rather than universal and automatic. However, domestic conditions needed to maximize FDI's contribution vary among different studies. Using international datasets, Balasubramanyam et al. (1996) shows that FDI stimulates growth only when export promotion policy is in place instead of import substitution. Borensztein et al. (1998) finds that FDI accelerates growth in countries with sufficient human capital but not in others. Alfaro et al. (2004) and Durham (2004) additionally reveal that the maturity of financial markets and the quality of economic institutions (especially the absence of corruption) also matter in generating positive FDI impact. Studies on East Asia by Kim and Ma (1997) and Lall (2000) report that domestic workers may easily learn factory operation and maintenance, but not fundamental technology that is the source of global competitiveness.

The model of Glass and Saggi (1998, 1999) suggests that FDI inflow may discourage true technology learning by domestic firms when they can learn by easy "imitation" (haphazard copying). Literature is unclear on whether the size of the technology gap between foreign and domestic firms encourages technology transfer or deters it. When the gap is too wide, local firms may not be able to digest much from the knowledge offered. This points to the need to acquire minimum technology competency before learning higher technology.

Using firm-level data, Kokko (1994), Chuang and Lin (1999) and Blömstrom and Sjöholm (1999) find a positive effect of FDI on domestic production in Mexico, Taiwan and Indonesia, respectively. However, Haddad and Harrison (1993), Kinoshita (2001), Aitken and Harrison (1999) and Le Quoc Hoi (2008) find little or even negative impact in Morocco, the Czech Republic, Venezuela and Vietnam, respectively. These contradictory results may partly come from statistical or data problems, but they may also reflect national differences in readiness to mobilize FDI effectively.

Concerning backward linkage, Rodriguez-Clare (1996) argues that FDI prefers to use domestic components over imported ones when the logistic cost of imports is high and when the quality of domestic components is also high (or at least the same) compared to that of imports. Empirically, Javorcik (2004), Blalock and Gertler (2008) and Liu (2008) find that the presence of FDI increases the output of local suppliers (i.e., backward linkage) but does not improve Total Factor Productivity (TFP) within the same sector (i.e., technology spillover) for Lithuania, Indonesia and China, respectively[4].

[4] Kinoshita (2001) and Todo (2008) additionally argue that R&D activity conducted by FDI firms in host countries is a significant promoting factor of technology spillover from FDI. Although Todo (2008) insists that this effect is present even in low-income countries, it must be admitted that FDI firms usually consider doing serious R&D (beyond adjusting products for local tastes) only after a host economy achieves middle or higher income, with a sufficient domestic supply of scientists and engineers.

2-3. Win-win solutions and failures: automotive cases in Asia

Regarding the second mistake, attempts to force FDI firms to manufacture advanced products, transfer high technology or train engineer to high competency usually fail when these demands are not accompanied by necessary domestic conditions and when the government does not strive to generate such conditions. Many industrial sectors need large sales volume before they can invest in the latest equipment and diversify product mixes. Factories using sensitive machinery require solid ground and absolute stability in power supply. Firms competing globally in swift customer response cannot operate unless logistics is efficient and free of any bureaucratic delay or interference. Specific requirements vary from industry to industry, and even from firm to firm. Nevertheless, one universal demand is the supply of domestic managers, technicians and workers in sufficient quality and quantity—and at the right price—for the chosen process. Many governments do not understand these business requirements and force FDI firms to contribute to national development without trying to supply the required conditions. This one-sided demand frustrates FDI firms operating in the country and reduces their operational efficiency, and keeps others away. There are many examples of such cases in Asia. Let us take automotive assembly as an example.

Vietnam, after opening its economy to the capitalist world in 1992-93, attracted many foreign manufacturing firms. Japanese automotive firms began to assemble cars in Vietnam in 1995, spearheaded by Toyota and followed by Honda, Mitsubishi, Mazda and others. Japanese carmakers insisted that market growth and selection of priority models were key to car industry development in Vietnam where domestic new car sales were still small. However, the Vietnamese government routinely suppressed domestic market growth with high vehicle levies and registration restrictions for various reasons such as tax collection and traffic control, while accusing Japanese carmakers of not transferring technology, not purchasing enough domestic components and keeping car prices high. The Japanese side complained that necessary policy measures were not in place, but the Vietnamese side continued to criticize carmakers. This policy stalemate continues even today. After a quarter-century, Vietnamese car production remains relatively small at 300,000 vehicles per year for a country of about 100 million people, with high production costs and little export. Assembly remains inefficient due to the small volume.

In Thailand, government and Japanese investors maintain a far more constructive relationship. Japanese carmakers began to arrive in Thailand in the 1960s. Production jumped in the late 1980s as the Japanese yen appreciated which made Japanese production costs high. Many Japanese manufacturers left home to build new production bases in Southeast Asia. Initially, one-ton pickup trucks were the main model in Thailand. The Board of Investment (BOI), the Ministry of Industry (MOI) and the Thailand Automotive Institute all understood

what foreign automakers needed to compete globally and grow. The automotive policy was liberalized and localization requirement was eased in the 1990s. Supporting industries (domestic component suppliers), FDI-local firm linkage, automotive engineer training and eco-car production were promoted with a joint effort between Thailand and Japan. Japanese component suppliers came in great numbers to Eastern Seaboard where large industrial parks, ports and highways were built with Japanese official development assistance (ODA). Car production traced an upward trend albeit with large fluctuations. Although the population of Thailand is 70 million, which is less than Vietnam, it produces far more automobiles than Vietnam. It reached one million in 2005, peaked at 2.5 million in 2012-13, and hovered around 2 million in 2014-19. Half of the finished vehicles, as well as high-quality automotive components, are exported. In 2019, Thailand was the eleventh largest car-producing country in the world. One high official of BOI noted that "investors don't like being forced." One Japanese large automotive parts maker said it was happy with the Thai business environment and policy support. Toyota Thailand easily beats Toyota Vietnam in terms of car prices because the former enjoys much larger domestic and export markets that permit cost reduction.

Malaysia also developed the automotive industry but with a stronger hand of the state than Thailand. Instead of opening and liberalizing, the government established Proton, a state-owned national car company, in 1983 with heavy support and protection. Technology was initially borrowed from Mitsubishi Motors of Japan, but the partnership was later dissolved as Proton tried to internally develop core capability in design, platform, engine, sales logistics and marketing. Proton enjoyed many privileges including high import protection, tax and tariff incentives, and local parts supplier promotion (the Vendor Development Program). By early 2000, Proton had more than 50% of the domestic car market, with 286 local parts suppliers. However, it got into trouble when global and regional free trade deepened and automotive tariffs began to be reduced toward zero. Proton's domestic share plummeted to 27% by 2011 while those of FDI brands expanded to 44%. Losses were incurred year after year. Several foreign automotive giants were approached for a new partnership but without success. Finally, Geely Automobile of China came to the rescue in 2017 by buying up 49.9% of Proton's shares. After four decades of operation, the company remains a small player producing 500,000 vehicles per year mostly for domestic customers. Malaysia's effort to foster homegrown capacity was laudable, but the halfway technology it acquired was not good enough to survive in the global car market where Japanese, European, American and Korean multinationals compete fiercely.

Indonesia, with a population of 271 million and a per capita income of $4,050 (World Bank data, 2019), has a large and growing domestic automotive market. Attracted by this large market, many foreign automakers assemble cars in Indonesia even though government offers little

incentive or support[5]. Both domestic and foreign firms bitterly complain that policies are unpredictable, ambiguous, arbitrary and uncoordinated, and that ministerial regulations are issued suddenly without stakeholder consultation (GRIPS Development Forum 2016). Technical training, die-and-mold technology and industrial parks are promoted by private firms and business NPOs without government support. Indonesia's manufactured goods are bound mostly for domestic use. Unlike Thailand, multinational corporations do not regard Indonesia as a global export base. The Indonesian case proves that large domestic demand is a powerful magnet for foreign manufacturers even if other business conditions and incentives are missing (Section 2-4). If policies were more proactive and supportive, Indonesia would achieve far more qualitative growth driven by productivity and global competitiveness rather than the current one driven by volume only.

In a similar vein, but far more drastically, China, boasting 1.4 billion people, is a huge market few FDI can resist. When China opened up in the 1990s, its large surplus labor and low wage were a major attraction, but this supply-side advantage has all but disappeared as income and wage rose rapidly and labor shortage emerged. But Chinese attraction on the demand side remains enormous and grows bigger year after year. Chinese leaders are well aware of this and use it for strategic purposes. They impose additional rules on FDI which are hardly acceptable in other host countries such as disclosure and transfer of frontline technology as well as compliance with China's political requirements and sensitivity. Foreign firms are faced with the tough choice of bowing to these unreasonable rules or quitting this lucrative market. The issue has caused a head-on collision with the United States over human rights, cybersecurity and technology theft in competition for world hegemony. It should be stressed that such coercive actions on FDI are unique to China and not advisable in other developing countries that are neither a superpower nor with colossal domestic demand. That would only make the host country less attractive to FDI.

Uzbekistan, a Central Asian republic that attained independence in 1991 after the dissolution of the Soviet Union, with a population of 33 million, offers an interesting case in automotive development. It long suffered declining output and high inflation, lingering state control and doubly landlocked location with long logistic lines (sea access requires passing at least two countries). The place hardly seems fit for automobile assembly, and it produced no cars before 1992. Yet, with partnership first with Daewoo of Korea, and now with General Motors (GM) of America, Isuzu of Japan and MAN of Germany, Uzbekistan produces roughly 200,000 vehicles per year some of which are exported to Russia and neighboring Central Asian

[5] Tax holiday exists on paper, but very few firms receive it due to high hurdles. They include strict sector eligibility, the requirement of large investment and employment, contribution to socio-economic infrastructure, and buying local inputs. This virtually shuts out all small firms and even many large ones. When Japanese businesses requested broader and more meaningful investment incentives, the chairman of the BKPM (a local acronym for the Indonesian Investment Coordinating Board) replied that a large population was Indonesia's investment incentive.

republics. GM built a huge state-of-art engine factory in Tashkent, a feat that no country in Southeast Asia has achieved. Isuzu has a joint venture for truck and bus assembly in Samarkand with high quality and efficiency. Both plants are run by local managers and engineers with no expats directing the daily operation. There are three success factors for Uzbekistan's automotive achievement. First, the country had a good supply of well-trained automotive engineers from the Soviet era with a university dedicated to this technology. Second, after overcoming collapsing output, high inflation, foreign currency shortage and dual exchange rates, policy to promote the automotive sector became reasonable with standard tax and tariff incentives and adequate subsidies. Third, given the small domestic and regional market, only one passenger car maker (GM) and two commercial vehicle makers (Isuzu and MAN) were allowed to enter, which increased volume per model and realized efficiency and low cost.

2-4. Irresistible attractions versus non-essential conveniences

Almost all nations, both developing and developed, compete for FDI attraction. It is a global game to bring as many foreign firms as possible, preferably of high quality, to the home country to accelerate national development[6]. We therefore need to know what specific national features strongly attract FDI and what policy instruments are available to generate and sustain such features. These policy instruments must be mobilized to simultaneously support high-quality FDI and fulfill national purposes, without imposing unilateral demand from one side to the other. This is a task that requires deep industrial knowledge, policy experience and political judgment.

There are many national features that attract FDI. They can be classified into those that are irresistible and sufficient and those that are desirable but non-essential (Table 2-1). The first type is genuine sources of business profit or expansion, and the presence of any one of them is sufficient to draw the attention of FDI even in the absence of other conditions. The second type is those that please FDI firms and facilitate their activities *provided that* business advantage(s) of the first type is present in the host country and the firms are seriously interested in investment and operation. The presence of national features of the second type alone, without the first type, does not stimulate FDI very much. In other words, any advantage of the first type constitutes a sufficient condition for FDI entry while advantages of the second type are neither necessary nor sufficient.

[6] There are historical exceptions where development occurred without FDI. Nations with sufficiently high initial capability did not adopt FDI-led industrialization. Korea borrowed funds actively from international sources but did not accept FDI. Japan received some foreign firms in the first quarter of the twentieth century but did not permit them during the rest of its catch-up process. Both preferred domestic firms to build the nation's industrial base, and were able to do so. In the 1970s, Southeast Asian countries protested against Japanese FDI as economic imperialism. But such a hostile attitude is rare today as virtually all developing countries eagerly court FDI.

Table 2-1. Compelling versus Non-essential Advantages for FDI Attraction

Type of national features	Type I Compelling core advantages	Type II Desirable but non-essential advantages
Description	• Factors that directly create value and enhance business profit and/or expansion • Presence of any one of these draws FDI's attention even without other conditions • Constituting a sufficient condition for FDI attraction	• Factors that remove difficulties and facilitate business activities. • These accelerate incoming FDI *provided that* firms are seriously interested in investment. • Presence of these features alone does not greatly stimulate FDI.
Concrete contents	1. Large and/or growing domestic market 2. Natural resource endowment 3. Labor advantage 3-1. Unskilled labor but low wage 3-2. Highly competent labor with high wage 4.Trade privilege such as AGOA and EBA	✓ Political and social stability ✓ Clean and accountable government ✓ Stable and predictable policies ✓ Smooth administrative procedures (featured in the World Bank Ease of Doing Business scores) ✓ Ethical and environmental correctness ✓ Efficient and reliable infrastructure services, especially power and logistics ✓ A level playing field for all enterprises, etc.

Source: author's research.

Through extensive interviews and research in 25 economies in Asia and Africa over the last three decades, the GRIPS Development Forum has identified four compelling reasons for FDI to rush in (Ohno 2013; GRIPS Development Forum 2016). They are large domestic demand, natural resources, labor advantage and trade privilege.

Firms go to places where customers are. If demand is large and growing, they are compelled to enter that market in order to survive and/or prosper. Some special products which are highly valuable and portable may be exported (think smartphones), but most others that are bulky, costly to transport and often protected by import barriers must be produced near the market (think automobiles, metal components and processed food). Other reasons to produce at the market include shorter lead-time and less cost in product delivery and parts procurement, as well as the need to adjust product design to different national tastes.

The existence or discovery of natural resources—oil, gas, coal, copper, rare metals, diamond and others—is another irrefutable reason for multinational corporations in the extractive sector to come to particular countries and regions, be it a remote desert or beneath the ocean. There is little freedom in selecting mining locations even if living and social conditions are harsh. One thing that the host government should beware of is the fact that the type of ownership, participation or concession provided to extractive foreign firms differs greatly from meager to very generous, depending on the political and technical capacity of the host country relative to those of multinationals. In mining, foreign commercial interest and national welfare must be

balanced properly.

Labor advantage is another powerful lure for FDI firms. This has a great consequence on national development, and host countries therefore promote it very eagerly. There are two very different types of labor advantage. The one is the availability of an abundant supply of unskilled but cheap and trainable workers, which attracts FDI that does large-scale labor-intensive export-oriented production such as garment, footwear, food processing and electronic component assembly. However, even if the wage is low, productivity must exceed a certain minimum level for this advantage to work; FDI will incur losses if labor productivity is lower than the wage. The other is the availability of outstanding professionals in management, engineering, production, research, marketing, procurement, finance, accounting, customer relations and other business functions at prices that may be very high but are justified by their high capabilities. Again, the balance between productivity and wage is critical. Singapore is an example of a country with such labor advantage for multinational corporations wanting to establish a regional hub office. India has a large pool of competent ICT engineers who can compete with those in advanced countries at a reasonable cost.

Additionally, trade privileges for developing economies such as the African Growth and Opportunity Act (AGOA) of the United States, Everything But Arms (EBA) of the European Union, regional and bilateral free trade agreements, and global preferential mechanisms under the World Trade Organization (WTO) are artificially created reasons to relocate factories to countries enjoying such privileges from places without them. Ethiopia has been a beneficiary of this advantage, and many garment FDI firms cite this as one of the reasons why Ethiopia was chosen.

These are four irresistible reasons for FDI entry because they directly contribute to the creation of business profit and/or expansion, and the existence of even one of them makes foreign firms excited and restless. They often come even if the country is beset with fragile security, political disorder, natural disasters, chronic recession or a horrible business climate. If two or more such advantages are offered, attraction is unstoppable. China used to offer a low-wage labor advantage but no more. But its huge domestic demand has made it the most popular destination for FDI in the world. Thailand and Vietnam followed a similar path where initial low-wage labor advantage was gradually superseded by domestic demand advantage as industrialization continued and the middle mass with strong spending appetite emerged. Foreign firms flock to India and Indonesia for the same reason, drawn by a large population and rising consumption, even though other advantages are largely missing and the investment climate is poor. Meanwhile, Nigeria, Zambia, Angola and Mozambique are attractive because of their underground resources. Morocco, now economically integrated with the EU, is growing to become an automotive hub in North Africa thanks to its double advantages of low wages and trade privilege.

We now turn to the second group of advantages which are useful and even crucial for investors for business operation but do not necessarily ensure a large inflow of high-quality FDI. These are commonly called good business climate or eco-system and include political and social stability, clean and accountable government, stable and predictable policies, smooth administrative procedures (which the World Bank's Doing Business scores and ranking capture—see below), ethical and environmental correctness, efficient and reliable infrastructure services, level playing fields for all enterprises, and so on. There is no denying that such conditions are desirable and must be pursued as an integral part of the modern business environment. They do accelerate business operation by removing various obstacles *if* FDI decides to invest. Yet, they are only auxiliary facilitators of business profit or expansion, and they alone are incapable of bringing high-quality FDI[7]. Political stability and reliable power and logistics are essential for business, but not all countries with these conditions are popular with FDI. Quick licensing and visa issuance means little when the country does not offer profit opportunities. Business-friendly procedures do not guarantee commercial success if wages are too high relative to labor productivity.

Many countries, including Ethiopia, try to improve the World Bank's Doing Business score as one of the strategies to activate domestic investors and absorb more FDI. This score is based on ten areas of business regulation—starting a business, dealing with construction permits, getting electricity, registering property, getting credit, protecting minority investors, paying taxes, trading across borders, enforcing contracts and resolving insolvency—where the speed and simplicity of these business-related procedures are evaluated (World Bank 2020). But they are not the core FDI motives of the first type. Providing a comfortable business environment is a worthy project that should be implemented with strong resolve. However, that alone may not greatly increase FDI inflow unless the country already has compelling attractiveness as defined above.

Figure 2-1 shows the correlation between the World Bank's Doing Business 2020 score (based on the survey result of 2019) and average annual per capita FDI inflow (in logarithm) during 2014-2019 for 175 countries and territories. Correlation is 0.561 and statistically significant, confirming that FDI inflow is positively correlated with the Doing Business score[8].

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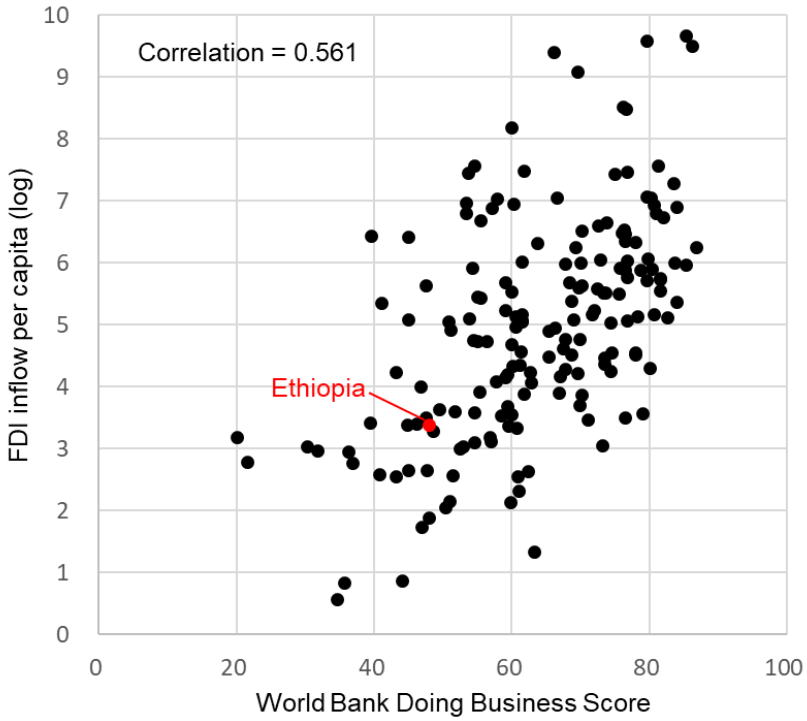
[7] After the breakup of the Soviet Union in 1991, Kyrgyzstan became an independent state in Central Asia. It immediately liberalized and opened up its economy, accepted World Bank advice, implemented IMF conditionalities and joined WTO which made it the freest economy in the region. It also created a free trade zone with ample incentives and efficient service for foreign investors. But few foreign firms came because the country, a tiny republic with nomadic tradition and limited natural resources, did not have any of the irresistible advantages for FDI attraction. The opposite example is offered by Indonesia (Section 2-3) where a large and growing domestic demand attracts many automotive assemblers despite a lot of red tapes and little policy support.

[8] In this calculation, countries and territories for which data are missing or incomplete as well as tax havens are excluded. Replacing the UNCTAD data for per capita FDI inflow with similar World Bank data on 167 countries and territories for 2014-2018 (World Bank data for 2019 is mostly missing as of this writing), we get a correlation of 0.581, which is slightly higher than reported above.

Figure 2-1. FDI Inflow versus Doing Business Score



Sources: World Bank, *Doing Business 2020*, October 2019; United Nations Conference on Trade and Development, FDI Statistics, accessed on October 6, 2020.
Note: for 175 countries and territories for which data is complete in both sources.

However, the R-squared of 0.315 means that more than two-thirds of FDI dynamics remains unexplained. Scanning Figure 2-1 vertically, we find that countries having the same Doing Business score may show very different FDI performance from very little to massive. Moreover, a positive correlation does not necessarily imply causality from the Doing Business score to FDI performance. Both may be the results of a third, more fundamental cause such as income growth and the government's general policy capacity.

In Ethiopia at present, low-wage labor advantage is the most compelling FDI attraction, an advantage that should be further developed in the coming years. Yet this advantage remains only potential unless the labor productivity-wage nexus is set right, making sure that labor productivity grows strongly and the fruits of efficiency are equitably distributed to workers (PSI and GRIPS 2020). This is realized when wages rise at about the same rate as labor productivity rather than above or below it. This in turn requires a sustained strong national productivity drive coupled with a (minimum) wage-setting mechanism that is scientific and fair rather than political and arbitrary.

Another irresistible advantage Ethiopia and many other African countries already enjoy is

various tariff privileges, especially AGOA[9] and EBA but also other bilateral, regional and global mechanisms such as the African Continental Free Trade Agreement (AfCFTA), the East African Community (EAC), the Common Market for Eastern and Southern Africa (COMESA), the Economic Community of West African States (ECOWAS), the Southern African Development Community (SADC) and the WTO's Generalized System of Preferences. The other two irresistible advantages—domestic demand size and natural resource endowment—are currently modest to insignificant in Ethiopia relative to its population size and in comparison with other African countries. For a small number of products such as nutrition food supply, beer, and construction equipment and materials, Ethiopian domestic demand is not so small. But the same cannot be said for broader categories of goods and services. When Ethiopia reaches lower middle income and proceeds strongly to upper middle income, and when a middle mass with high spending propensity emerges, Ethiopia's large domestic demand will surely become an additional magnet for FDI.

2-5. Policy instruments and removal of impediments

The government's objective in inviting FDI—unless it is a corrupt or incompetent government—is developmental. This includes job creation, domestic value creation, upgrading skills and technology, adoption of global practices and standards, expanding export markets, active and meaningful participation in global value chains, or a combination thereof, for the ultimate purpose of raising citizens' living standards and welfare.

In the early stage when poverty and unemployment are widespread, job creation, especially for the youth, often becomes an overarching national goal as seen in Ethiopia, India and Myanmar. But not all countries strive for this policy objective. If the country industrializes vigorously and passes the "turning point,"[10] A massive migration of rural labor to urban industries eliminates labor surplus and begins to generate labor shortage and upward wage pressure. For such economies as China, Thailand and the urban areas of Vietnam, improvement of the quality, productivity and innovativeness of labor, rather than the sheer volume of job creation, is critical for moving up to the next stage. This policy transition is not sudden but an overlapping one in which job creation and improvement of labor quality must be pursued simultaneously for a substantial period. Education of good scientists, engineers and workers

[9] The US suspended Ethiopia's AGOA privilege in January 2022. It is hoped that this situation is only temporary and Ethiopia's status will be reinstated in the near future.

[10] The dual economy model of Arthur Lewis postulates that industrialization of a labor-abundant traditional society proceeds with an expansion of modern industry which absorbs agricultural surplus labor through rural-urban migration (Lewis 1954). If this process goes successfully and sufficiently, idle or underemployed workers will eventually be eliminated. This is Lewis' "turning point" at which labor surplus turns to a labor shortage in the national economy. Beyond this point, wages start to rise and the total wage bill increases, which tends to generate income distribution in favor of labor.

takes a long time for which supporting policies and institutions must be prepared from an early stage.

Table 2-2 lists standard policy instruments available for inviting FDI to realize the above aims. These incentives must be given selectively and conditionally based on product, sector, location, value creation, employment, training, technology transfer, export performance, R&D expenditure, or any other objective the nation intends to promote. The question is how to use these policy tools to satisfy the business needs of FDI and pursue national development simultaneously in the double maximization problem discussed earlier. Moreover, it is important to avoid being too generous or too mean. Governments sometimes compete too fiercely against other nations or regions to attract FDI and end up offering excessive incentives. On the other

Table 2-2. Policy Instruments for FDI Attraction

	Policy instrument	Remark
1	Policy announcement	An announcement of policy direction as well as prioritized (or permitted) products and activities which receive official attention and favor, together with incentives.
2	Tax incentives	Time-bound or permanent exemption or reduction of corporate income tax, import duties, and other taxes and charges (value-added tax (VAT), sales tax, special consumption tax, luxury tax, capital allowance to offset tax liability, etc.)
3	Subsidies and loans	Subsidies and soft loans given to designated activities such as export, investment, training, technology transfer, industrial linkage formation, marketing, ICT, etc.
4	Non-financial privileges	Non-financial privileges concerning land acquisition and use; preferential access to industrial infrastructure and facilities; performance-based allocation of export, import or investment quotas (if any); guarantee of stable power, water supply, security and other services; and access to industrial information and labor pool.
5	Procedural convenience	Exempted, simplified or fast-track administrative procedure for customs clearance, tax filing, visas, residence permit and others.
6	Consultation	Intensive public-private consultation as well as informal contacts where government and FDI firms share information, make requests or solve problems.
7	Participation in policy design	Private sector participation in the formulation of a sectoral development strategy in which firms with serious intention of investing and value creation are listened to and their requests are accepted if reasonable and responsible.
8	Foreign currency allocation (if applicable)	Prioritized allocation of foreign currency when there is an acute foreign currency shortage.

Source: author's research.

hand, incentives are sometimes too restrictive in terms of eligibility, amounts and duration, which fails to influence the behavior of FDI. Both mistakes must be avoided.

Not all incentives in the above list need to be offered. Many governments provide one or a few key incentives competently to attract high-quality FDI. Because policy capacity and financial resources are limited, each country must prioritize policies where improvement and incentivization are most keenly needed. Copying other countries' policies with little regard to national differences hardly works. Let us look at the examples of two Asian governments.

In Malaysia, the Malaysian Investment Development Authority (MIDA) has since 1967 provided highly efficient one-stop FDI marketing, project approval, and facilitating services in the manufacturing and service sectors. It offers customer-oriented professionalism. Belonging to the Ministry of International Trade and Industry, MIDA also plays policy functions in revising and improving the nation's investment policy. Malaysia's investment incentives are simple and transparent (corresponding to item 2 above). For manufacturing, they consist of Pioneer Status which offers corporate income tax exemption of 100% of the statutory income for a period of up to ten years, or Investment Tax Allowance of 100% on the qualifying capital expenditure incurred within five years of initial investment, offset against 100% of the statutory income for each year of assessment. Firms must choose between Pioneer Status and Investment Tax Allowance. Some carryovers of unused incentives to other years are permitted. Manufacturing firms also enjoy import duty and sales tax exemptions for imported materials, components and equipment. MIDA's sectoral divisions and weekly Action Committee screen incentive applicants by using the frequently updated eligibility list supplemented by case-by-case organizational judgment. MIDA prioritizes true manufacturing (not just trading), value addition, technology transfer and industrial linkage. MIDA works closely with other ministries and agencies, including the Ministry of Finance. The approval process is quick, taking two weeks at most. Japanese firms report no trouble in Malaysia's investment approval procedure.

Compared with Malaysia, Vietnam's investment policy and procedure are far more complex, ambiguous and inconsistent. Nevertheless, there is a bilateral official forum to eliminate concrete problems one by one (item 6 above). In 2003, Japan proposed, and Vietnam agreed to, the establishment of the Vietnam-Japan Joint Initiative to Improve Business Environment with a View to Strengthen Vietnam's Competitiveness (VJJI for short). Under this initiative, Japanese FDI firms report problems, then two-year action plans are bilaterally agreed and rigorously implemented and monitored. On the Vietnamese side, the Ministry of Planning and Investment is the hub organization that invites other ministries to participate in VJJI. On the Japanese side, the Keidanren (Japan Business Federation) and the Ministry of Trade, Economy and Industry (METI) strongly support this initiative. The Japanese embassy in Hanoi is in charge of operation and logistics. Many Japanese firms in Vietnam, split into several working teams, actively contribute to VJJI. By the end of 2019, VJJI completed seven phases of VJJI in

which 385 concrete issues were selected for correction. Results are classified into four ranks (Done, On track, Delayed, Not implemented). The success rate (Done or On track) ranges from 78% to 94% depending on the phase, which is extremely high for this type of official exercise. In early phases, business impediments related to taxes, visas, permits, procedures and legal inconsistencies were mostly dealt with. In later phases, the focus shifted to industrial policy improvements and the strengthening of Vietnamese partner firms and workers. The benefits of VJJI are open not only to Japanese FDI but to all firms including domestic firms and non-Japanese foreign firms operating in Vietnam. The latter can enjoy achieved conveniences without participating in the initiative or incurring any cost.

In Ethiopia, the general business climate is still unfavorable as shown in the World Bank's Doing Business ranking (159th among 190 economies, or 16% from the bottom, in the 2020 ranking). Investors encounter numerous problems which are not thinkable in Malaysia or even Vietnam. To remedy this situation, the Ethiopian government should adopt a two-part strategy in which broad-based improvements are made steadily and continuously—as the government is already doing with the Doing Business score—and, at the same time, improvements are also made on sharply targeted areas that matter greatly to national development. As one of the candidates of targeted areas, the GRIPS Development Forum studied the prospects of attracting automotive assembly to Ethiopia during 2017-19, interviewing Japanese carmakers potentially interested in Ethiopia, in Tokyo as well as at their overseas offices in Kenya and Myanmar—because these are the two countries at similar automotive development stages as Ethiopia but where Japanese firms already assemble cars[11].

Interviews with Japanese automotive makers have revealed that four policy areas are critical in inviting them to Ethiopia (Ohno 2020). First, the foreign currency shortage needs to be ameliorated, at least for priority sectors that should include automotive assembly. Second, used car import should be curbed as a precondition for encouraging domestic car production. Third, the incentive structure should be simpler and more conducive to domestic assembly. Fourth, long-term automotive demand forecasts, together with car model selection and supporting policies, should be officially announced. Kenya, where Isuzu and Toyota already assemble vehicles, satisfies most of these conditions, especially by offering a simple and conducive incentive structure. Myanmar, whose policies are still primitive and Doing Business ranking (165th in 2020) is lower than Ethiopia, has already attracted assembly plants of Suzuki, Toyota and others mainly because it succeeded in dramatically reducing used car imports. Ethiopia is also making effort in these four areas. In 2019, it began to revise the automotive tariff structure

[11] For the countries discussed here, the 2020 World Bank Doing Business rankings are as follows: Malaysia (12th), Kenya (56th), Vietnam (70th) and Myanmar (165th). It is noteworthy that Myanmar, scoring below Ethiopia in Doing Business, attracted many foreign automotive assemblers spearheaded by Suzuki with the domestic production of 15,496 vehicles in 2019. However, Myanmar's business perspective after the 2021 military coup remains uncertain.

and restrain used car imports, and this has already produced a dramatic shift in import demand from used cars to new cars. When Ethiopia's automotive policy fully embraces the four critical issues, it should attract more automotive assembly because domestic vehicle demand is potentially large and should be growing.

Last but not the least, foreign currency shortage mentioned above is an additional, outdated and unnecessary business obstacle unique to Ethiopia which discourages not only the automotive sector but all others. It constitutes the single most serious impediment to investment in Ethiopia. The Ethiopian government is well aware of this problem and vigorously working to solve it in cooperation with foreign governments and international organizations. This enormous disadvantage of Ethiopia, which nullifies all other policy efforts to attract high-quality FDI, must be removed as soon as possible.

2-6. Moving from quantitative accumulation to domestic value creation

Because FDI firms are all different, and because the developmental needs of a latecomer country evolve over time, FDI policy must be adjusted significantly and dynamically, at least every few decades, to maximize national gains obtained from the presence of foreign investors.

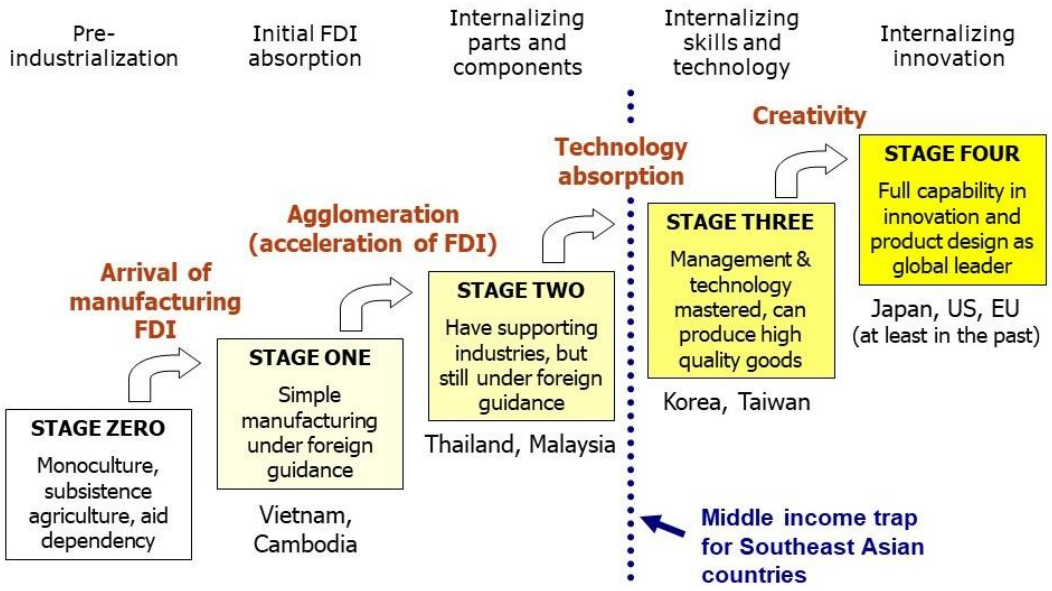
2-6-1. Moving from the initial labor-intensive stage to the next

FDI-led industrialization normally starts with the arrival of large-scale, labor-intensive and export-oriented manufacturing firms which generate many new jobs for unskilled workers. Host countries initially welcome such investors as they help the nation to tackle the problem of pervasive unemployment and underemployment, even though wages and technology are low and surging exports are mostly offset by imports of materials and intermediate inputs. That is the first stage of FDI-led industrialization.

When this process proceeds successfully and sufficiently long, a "turning point" will be reached when surplus labor is eliminated in the national economy, labor shortage emerges and wages begin to rise (Section 2-5). The national economy must now shift from simple processing to more sophisticated production that requires professional management and engineering. Policy focus should also shift from creating as many jobs as possible (of whatever kind) to upgrading industrial human resources for domestic value creation, meaningful participation in global value chains and competing effectively in the world market. Foreign managers and engineers should be replaced, in proper speed and steps, by domestic ones.

The transition from the first stage of FDI-led industrialization to the next is not sudden but a gradual, overlapping process. For a considerable time, old-type manufacturers doing simple production in large standardized sheds co-exist with those engaged in precision, specialized or

Figure 2-2. Stages of Catching-up Industrialization: the East Asian Pattern



Source: author.

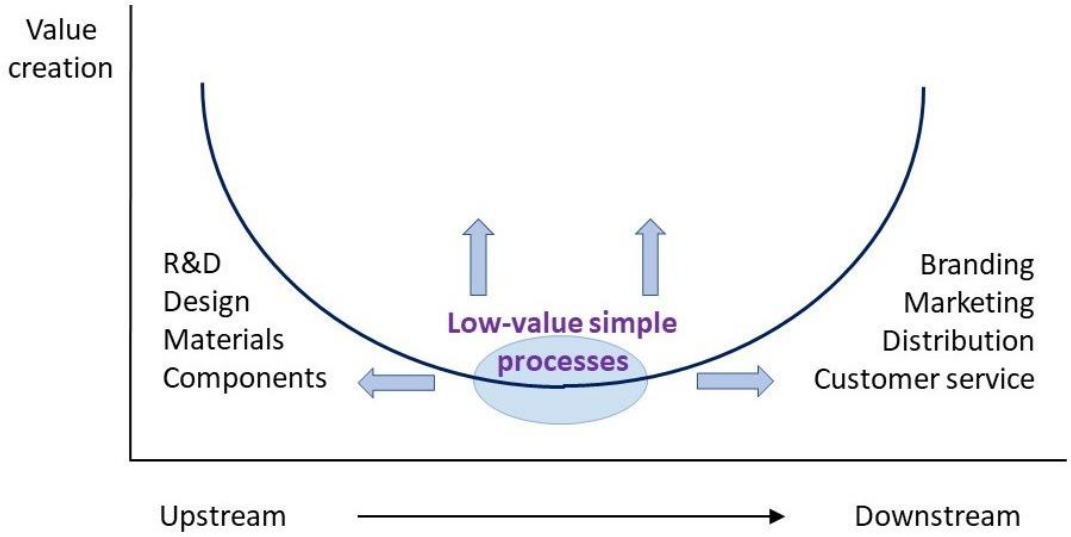
Note: some economies cannot be placed neatly in this diagram. China is a huge country that encompasses many types of production simultaneously, from simple assembly to frontline technology. Singapore is a small island state that began with labor-intensive manufacturing in the 1960s but later deviated from the manufacturing path to develop logistics, finance, high-tech services, and regional business hub functions as its main industries.

otherwise high-tech production in customized, equipment-heavy and usually much smaller workspaces. Figure 2-2 illustrates a typical pattern in catching-up industrialization as frequently observed in East Asia. The transition that Ethiopia must make in the future is from Stage One to Stage Two (and later, Three). This is a process that usually takes many decades to complete. Furthermore, not all latecomer economies can accomplish this; many slow down halfway and fall into middle income traps. Leapfrogging is theoretically possible and probably feasible in limited products and services[12], but harder to attain in broad sectors for visible growth impact when the home country is plagued with inactive management, under-skilled workers, and less-than-reliable power, logistics, and other infrastructure services.

Another way to state the same problem graphically is by way of the famous Smile Curve (Figure 2-3). Plotting the value chain (production stages) on the horizontal axis and value creation on the vertical axis, the graph shows that the largest value is created in upstream and downstream processes where foreigners dominate, while latecomer countries are often given

[12] Two types of targeting high-technology, as a user and a creator, should be distinguished. The one is the introduction of things developed in other countries purchased at commercial costs, such as adopting IoT at factories and using 5G technology in telecom, which may indirectly support socio-economic development. The other is R&D and commercialization of such technology and becoming a leading supplier under severe global competition, which requires high technical competency and large expenditure and risk but may bring huge value and profit if the project is successful.

Figure 2-3. The Smile Curve and Manufacturing++



Source: author, based on the idea contained in Malaysia's Second Industrial Master Plan 1996-2005.
Note: Manufacturing++ means two simultaneous efforts to create more value by raising the productivity of existing processes (moving upward) and capturing additional upstream and downstream processes (moving horizontally), starting from the bottom of the Smile Curve.

middle-stream activities—simple assembly, sewing, cutting, packing, etc.—where value creation is small. The idea is not to condemn FDI for imposing this configuration but for latecomer countries to devise a strategy to move out of this bind. Malaysia's Second Industrial Master Plan 1996-2005 proposed the "Manufacturing Plus Plus (Manufacturing++)" strategy where, starting from low-value processes, domestic industries were required to simultaneously improve the productivity of existing processes (upward arrows) and take up additional upstream and downstream processes (horizontal arrows) (Ohno 2006). This two-dimensional (or Plus Plus) approach should be seriously studied by any latecomer countries in the process of FDI-led industrialization.

2-6-2. Selective FDI promotion

Some firms are after short-term gains, and they quickly leave a host country when the objective is attained or difficulty is encountered. Others aim at long-term business engagement and do not depart even in hard times or with initial losses. Some firms make business decisions swiftly while others are slow in deciding to invest or expand. Some are willing to take great risks while others wait until a favorable business environment is realized. Some are seriously concerned about the welfare of workers, the local community and the country in which they operate, while others do not care much about these things. Foreign investors are a mixture of these different types, even though they are ultimately after profit and business success.

To successfully climb the industrial ladder (or embrace Manufacturing++) in the process of FDI-led industrialization, FDI policy must shift, when the initial phase is over, from "all are welcome" to selective attraction and incentivization of genuine value creators. For this, a distinction must be made regarding the types of foreign investors. Different FDI firms contribute differently to the development of a host country in such aspects as training of managers, engineers and workers; capacity building of local partner firms; transfer of skills and technology; development of domestic supplier networks; adoption of global standards and business codes; and meaningful participation of local firms in global value chains. Corporate behavior varies greatly with sectors, firm size, the strategy of each firm and even the idea of each foreign manager. But one source of difference which is highly noticeable and worthy of policy attention is the nationality of FDI firms. The average behavior of Japanese firms is quite different from those of Chinese, Korean, Indian, German or American firms which are themselves mutually dissimilar. Moreover, FDI firms of the same nationality often exchange information and act together in a host country. National differences provide rough but useful information on how to mobilize FDI for national development in the most effective way.

For example, Japanese FDI firms anywhere in the world tend to exhibit the following properties: (i) strong manufacturing orientation (with relatively less weight on mining, property development and services); (ii) *monozukuri* spirit (manufacturing as a *way* to seriously pursue quality and customer satisfaction); (iii) pursuit of consistent quality, cost reduction and on-time delivery (QCD) as well as safety; (iv) slow decision making but long-stay orientation once an investment is made;[13] (v) willingness to train local workers, engineers and partner firms beyond simple operation and maintenance, which comes from long-stay orientation; (vi) high legal compliance[14]; and (vii) relative lack of foreign language and intercultural skills. This makes Japanese FDI less visible in short-term presence but more conducive to the long-term capacity enhancement and network building in host countries, especially in manufacturing.

Meanwhile, Chinese firms offer low cost and high speed in decision making and project implementation with strong province-based linkage (firms and organizations from the same

[13] Thailand was hit by severe floods which damaged many industrial parks in 2011. Political instability ensued, and a military coup in 2014 replaced a civilian government with a military regime that stays in power until today. At the time of the coup, American investors became highly alarmed and jittery. Meanwhile, Japanese firms in Thailand, numbering over 1,600, did not leave or even think of leaving. New Japanese firms continued to arrive even after the coup. Natural disasters and political instability are part of the Thai business climate, and Japanese investors are not deterred by such expectable shocks. As a general rule, Japanese FDI comes slowly but stays longer.

[14] In industrial parks where most tenant firms are Japanese, it is customary to stipulate an internal code of conduct which includes a strict prohibition of bribe giving and other forms of illegal payment. Thus Japanese firms collectively resist corruption. In Thilawa SEZ in Myanmar, tenant firms are not permitted to meet local officials or central ministries individually, and surveillance cameras are installed in rooms where such contact may occur. In Ha Nam Province of Vietnam, a Korean aid agency asked JICA why Japanese firms could reject bribery demands of local officials and still operate normally in industrial parks. Korean firms deal with local officials individually and often succumb to their monetary requests.

province in China cooperate). Korean firms, especially chaebols (large corporate groups) such as Samsung and LG, can make huge investments boldly and quickly as they are governed by top-down decision-making and supported by competent and hardworking staff. European and American investors, besides demanding efficiency and punctuality, are keenly interested in the ethical correctness of production processes—labor protection and environmental soundness—more than product quality per se[15], and impose strict rules of conduct on light manufacturing establishments such as garment, footwear, processed food and personal accessories as a precondition for a business transaction (Chapter 6).

In the future, when a sufficient mass of light manufacturing FDI has been accumulated, Ethiopia should modify FDI policy to give more weight to the *quality* of FDI in terms of how much value and skill it brings to the national economy rather than how many (unskilled) jobs it creates. Eligible firms should be given more policy attention and incentives, and this policy should be administered clearly and transparently instead of secretly and case-by-case. To do this in the context of the double maximization problem discussed in Section 2-2, one must fully understand that not all FDI firms are the same, as they pursue business goals differently and require different support and conditions. This policy shift can start even now, in preparation for upgraded industrial policy in the future.

2-6-3. Four principles for revising FDI policy

Ethiopia is aiming to graduate from low-income to lower middle-income status. Industrialization is in an early stage with limited technology, worker skills, global competitiveness and rural-urban labor migration. Economic transformation is not yet visible in macroeconomic data. There is a large pool of unemployed and underemployed agricultural labor that needs to be trained and put to more productive tasks. At this stage, job creation remains the most important national goal. However, Ethiopia will in the future enter a stage where the quality, not just quantity, of labor and business operation matters most to continue growing. FDI policy should pursue both goals—quantitative accumulation and quality upgrading—with the latter's weight gradually increasing over time. Currently, effective policy for the latter is largely missing.

How can Ethiopia reform its FDI policy? Four mutually-related principles should guide policy re-targeting.

[15] Japanese quality standards are very high, perhaps excessively so, because Japanese consumers demand it. Japanese industrial experts say that many garment and footwear items exported to the EU and US markets will be rejected by Japanese quality inspectors. In Yangon, the Myanmar Garment Manufacturers Association reports that some domestic garment firms switch from the Japanese to EU market because complying with European quality and ethical standards, which are mostly document-based, is easier than producing with Japanese quality (GRIPS Development Forum 2020).

First, FDI marketing, policy support and investment incentives must be re-directed to value-creating projects rather than sheer investment size or number of employees. The latter criteria need not be abandoned but more weight should gradually be given to value creation. For this, there must be concrete criteria on what constitutes value creation. R&D, the introduction of new products and methods, high-level staff training, adoption of ICT, linkage creation, environment-friendly and energy-saving technology and development of remote regions are some of the globally common eligible actions. However, not all host countries offer incentives the right way. South Africa incentivized the *volume* of car production, which attracted global carmakers to assemble and export cars to advanced markets but with little value addition and without developing the *quality* of domestic workers or component suppliers. Thailand initially incentivized broad manufacturing but in 2015 switched, when a sufficient industrial base was formed, to activity- and merit-based incentives with detailed lists of eligible subsectors and actions (see below). Designation of value-creating projects is a delicate task which requires deep knowledge of global trends in management, technology and value chains of each sector.

Second, foreign investors of all sizes, not just large ones, should be invited. Large standard rental sheds are useful and even necessary in the early stage when labor-intensive production of simple consumer goods is dominant. But high-tech firms and firms that bring new technology and products do not go to such sheds. They hire professional managers and competent engineers in relatively small numbers, not a large number of unskilled workers. The workshop must have the right location, size, facilities, support services and amenities to accommodate such staff. In Malaysia and Thailand, the government discourages labor-intensive processes and asks them to leave the country. They target smaller investors from advanced countries, where manufacturing small and medium-sized enterprises (SMEs) from Japan are particularly welcome. Many ready-made and built-to-order rental factories of small size are available in industrial parks all over Southeast Asia. At OTA Techno Park in Thailand, the average rental factory size is 327m^2. At Kizuna Ready Service Factory in Vietnam, factory size starts from 240m^2. Both are very popular among Japanese manufacturing SMEs. In Ethiopia, Japanese firms are often told that their investment is too small. Instead of rejection, a red carpet should be rolled out for foreign high-tech SMEs.

Third, not only physical facilities but also support services must respond to the needs of value-creating FDI firms. Because FDI needs are highly varied, this requires a mechanism to listen to their individual needs carefully and implement solutions promptly. One-size-fits-all services supplied by ill-informed authorities, such as low-quality housing that no one wants to rent or expensive waste treatment which tenant firms consider unnecessary, must be avoided. Besides regular formal meetings, frequent and informal interaction with key investors is

desirable[16]. Investors' concerns may range from safety, security and life amenities to problems related to workers, logistics, power, ICT and administrative procedure. A telephone hotline where investors can call at any time to report any problem is useful, which is faster and more cost-effective than a row of one-stop service counters that operate during normal working hours only[17]. It is also customary for an investment promotion agency to establish country-specific "desks" for important source countries where a person well-versed in the language and business culture of each country is assigned. In Southeast Asia, Japan Desk, Korea Desk and China Desk are common. In Ethiopia, the Ethiopian Investment Commission (EIC) may consider China, India, EU and Japan Desks[18].

Fourth, FDI policy must be not only congenial but also stable and predictable for the foreseeable future. An unstable policy may not be an obstacle for speculators or firms interested in short-term gains, but it is critical for non-adventurous firms that want to stay longer and invest in domestic capacity. Even though policy must sometimes be revised, the change should be announced well in advance, the opinions of stakeholders must be heard, and sufficient lead-time should be given for businesses to adapt to the change. When Thailand's FDI policy was drastically revised in 2015, the Thai Board of Investment (BOI) took more than a year to explain it to investors in advance at home and abroad. By contrast, in Indonesia, domestic and foreign investors bitterly complain about ministerial regulations that abruptly change rules without explanation or lead-time. At present, the FDI policy in Ethiopia is highly changeable. Ethiopia adopts the trial-and-error approach in which policies are drafted relatively quickly and any problems arising from them are dealt with through subsequent revisions. This speed-first approach is understandable, but it should be balanced with investors' need to be assured of a stable business environment before making a strategic investment. Many Japanese firms are interested in Ethiopia and investment seminars in Tokyo are always full. However, very few actually invest. Foreign currency shortage in Ethiopia and inherently slow decision-making of Japanese FDI are two likely reasons. But another reason is disenchantment and the lack of trust

[16] In countries where corruption is rampant, government officials may hesitate to contact firms individually for fear of being accused of illegal deals. In Asia's high-performing economies where such suspicion is largely absent, officials are positively required to visit and assist individual firms, both large and small, to understand their special needs and differences in business orientation. Without such ground information, it is difficult to design policies effectively.

[17] In Ha Nam Province of Vietnam, where provincial leaders strongly welcome Japanese SMEs, a 24-hour 365-day hotline was created as one of the Ten Commitments. Japanese investors can report any problem in the Japanese language for the immediate attention of the provincial top leader. Apart from the hotline, the Ten Commitments include (i) stable power, (ii) rapid procedure, (iii) infrastructure up to park fence, (iv) high-quality labor with a subsidy for labor training, (v) free land for dormitory construction, (vi) same privilege for new FDI and expansion, (vii) quality service for expats, (viii) factory security and worker safety, and (ix) prevention of strikes (Ohno 2017).

[18] Another question is whether the government should give extra privileges beyond the investment law to VIP customers. This may be unfair or legally questionable, but such treatment is normally offered in reality. To invite Samsung's smartphone assembly factories, the Vietnamese government provided additional privilege which was not disclosed, to the chagrin of other FDI firms. As a result, Vietnam became the largest global supplier of Samsung phones.

caused by many recent incidents of policy instability. Besides Japanese FDI, German firms also hesitate to invest in Ethiopia for similar reasons.

We always hear in Africa that Japan is too slow to enter this expanding market and thus losing big opportunities. But we do not hear such admonition in Asia. Policymakers in Asia also want to attract Japanese FDI, but they understand why Japanese firms do not come to them. Thailand and the Philippines are alarmed that they are losing FDI to Vietnam. The attraction of value-creating and long-staying FDI requires efforts on the receiving side to provide necessary conditions for them—right incentives, facilities, support services and policy stability.

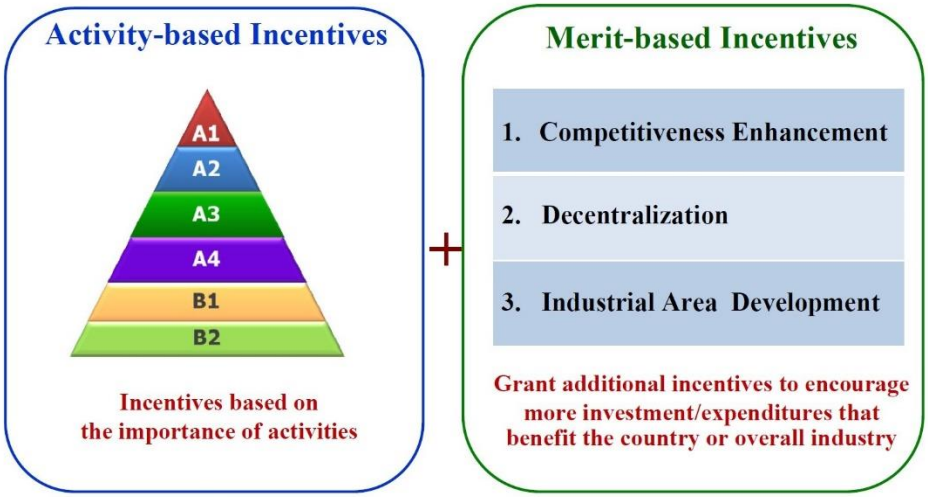
2-6-4. The case of Thailand

Thailand rose rapidly, albeit with significant gyration and temporary shocks, from low income to upper middle income (per capita income of $7,260 in 2019, World Bank data). Its economic structure diversified from rice monoculture in the 1960s to food processing, automobiles, and electronics and electrical (E&E) appliances. The Thai automotive sector is the largest in Southeast Asia and ranks eleventh globally, producing roughly 2 million cars per year, half of which are exported. To climb further to high income, the Thai government launched a new industrial strategy in 2015 called Thailand 4.0, where the revision of FDI policy was an important pillar. Other pillars included innovation, productivity, service trade and development of the Eastern Economic Corridor.

Prior to 2015, Thai FDI policy prioritized several subsectors including agro-products, fashion, automotive, E&E, ICT, long-stay tourism, and energy and renewable energy (the list shifted slightly over time and depending on ministries). Manufacturing was broadly favored, even labor-intensive ones such as garment and toy manufacturing. Incentives consisted of tax components (exemption or reduction of corporate income tax and import duties on equipment and inputs) and non-tax components (permission to hire expatriates, own land, and bring or remit foreign currency). These incentives were administered under the zonal system where investment projects in Zone 1 (Bangkok and vicinity) received less, Zone 2 (12 provinces) received more and Zone 3 (rural and remote provinces) received the most incentives. The Board of Investment centrally approved all investment projects and incentives.

In 2015, the FDI policy was upgraded in order “to enhance Thailand’s competitiveness, to overcome the ‘Middle Income Trap’ and to achieve sustainable growth” (BOI 2015). The following six issues were targeted as goals: (i) national competitiveness—R&D, innovation, value creation, SMEs, fair competition and inclusive growth; (ii) environment-friendly activities; (iii) cluster formation; (iv) development of border provinces; (v) special economic zones (SEZs) in border areas for connectivity with neighboring countries; and (vi) Thai overseas investment.

Figure 2-4. Thailand: Incentivizing Value-adding Activities and Merits



Source: Board of Investment of Thailand (2015).

Instead of promoting many broad sectors generally, the new policy features two new criteria for offering incentives (Figure 2-4). The first is *Activity-based Incentives* which are classified into A1, A2, A3, A4, B1 and B2 with the descending amount of privilege consisting of corporate income tax, import duties and non-tax incentives. Type A categories are activities that bring high technology to Thailand and Type B categories are those that do not use high technology but strengthen value chains. Each category further specifies eligible actions and subsectors. For example, A1 includes power generation from waste, creative product design, electronics design, R&D, and so on. Meanwhile, the second incentive is *Merit-based Incentives* for any project in any sector that performs recommended deeds (for this, only corporate income tax reduction is given). Eligible merits are (i) competitiveness enhancement, (ii) decentralization (projects in remote and poor regions), and (iii) industrial park development. Under competitive enhancement, there are six eligible merits—R&D (Thailand must be the core location), donation for technology and human resource upgrading, purchase of Thai made intellectual property, advanced technology training, high-level support for Thai suppliers, and product and packaging design (prior approval is needed for this). Firms may obtain both incentives if they qualify.

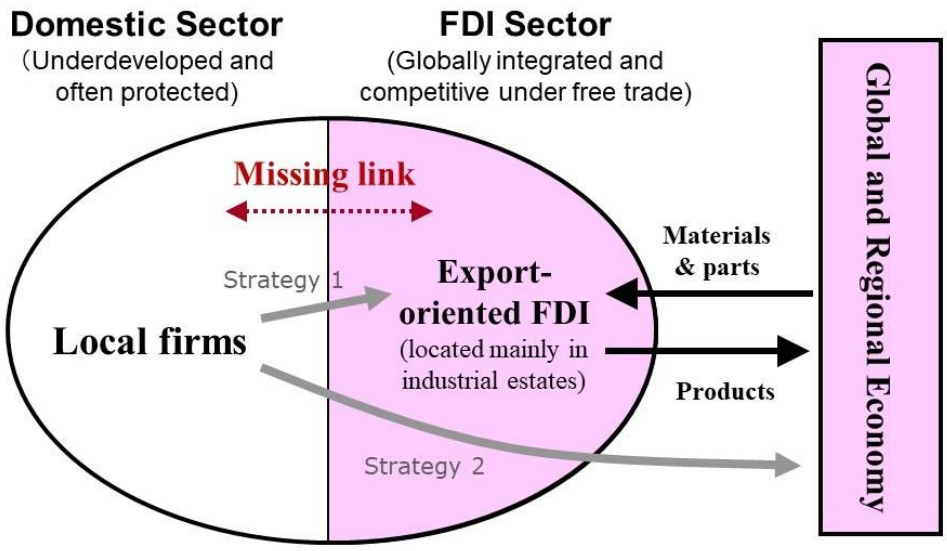
The 2015 revision of Thai FDI incentives was a natural yet necessary step for a middle-income country graduating from the simple production stage and wishing to climb onto the high-tech stage. Such upgrading of FDI strategy, with increased specificity and selectivity, is necessary for all other economies going through a similar stage shift in the process of industrialization.

2-7. Strengthening domestic firms and building linkage

FDI policy should be accompanied by another set of policies to enhance domestic firms so business linkage and technology transfer will occur between FDI and domestic firms (Chapter 4). One of the common problems associated with FDI-led industrialization is that domestic firms generally lack the capacity to capture and internalize foreign technology or management method. Without solving this problem, economic activities will be split into two segments: the one which is driven by FDI firms integrated with global value chains to produce competitive products using cheap domestic labor, and the other which is dominated by local firms with informal management and low technology selling to local markets. With little interaction between these segments, the FDI sector often becomes an enclave. Establishing various industrial estates may even encourage this separation. Figure 2-5 illustrates this dual economic structure observed in many developing countries.

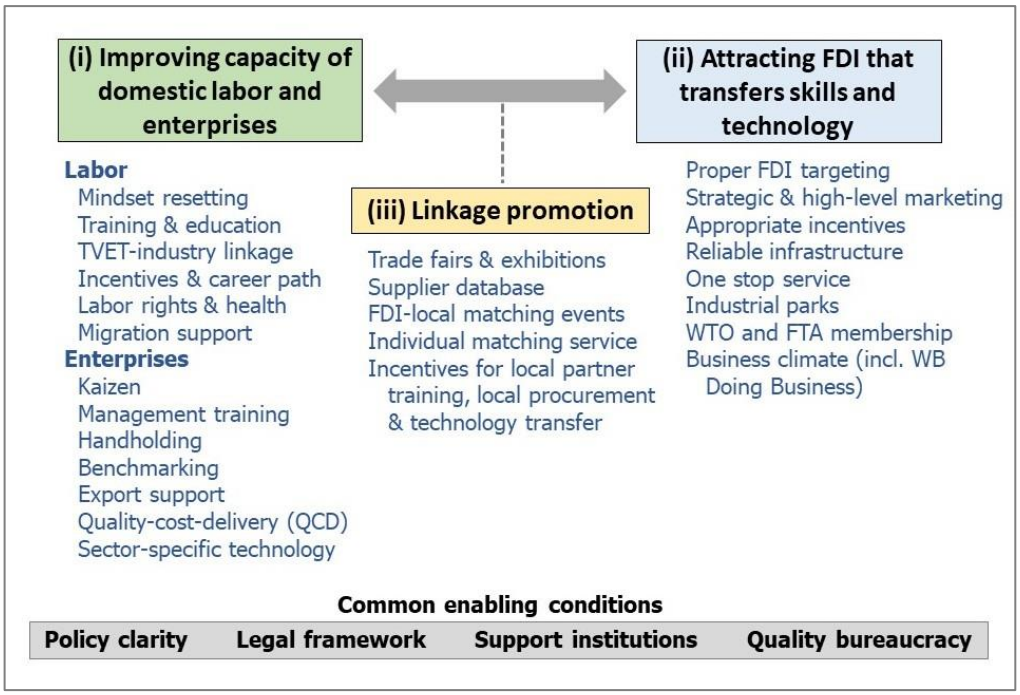
To overcome this duality, policy to strengthen the absorptive capacity of domestic firms must be executed in parallel with the policy to attract value-creating firms. In addition, the government should facilitate linkage creation between the two parties. These three policy components—capacity building of domestic firms, FDI attraction, and FDI-local linkage creation—must be seen as one integrated set. Figure 2-6 shows the typical policy pattern for this purpose, which is adapted from the author's lecture to the Vietnamese government officials in 2013, with adjustments to fit more closely to Ethiopia's reality.

Figure 2-5. Dual Economic Structure



Source: the author's lecture series for Vietnam's Ministry of Industry officials delivered in 2013, with minor modifications.

Figure 2-6. Three-part Strategy for Ethiopia



Source: the author's lecture series for Vietnam's Ministry of Industry officials delivered in 2013, with deletion of Vietnam-specific comments and adjustments for the reality of Ethiopia.

SME promotion is a crucial component of industrial policy not only for creating competent partners for FDI but also for broader welfare purposes such as job and income creation. For the former purpose (creation of competence), however, targeted firms are narrower and fewer than the case of general job and income creation. They must be SMEs that have a high potential to acquire competitiveness and become part of global value chains. Policy measures for them are more demanding and aim at improving the quality and productivity of domestic firms to a level required by global markets and standards.

There are two strategies to push domestic firms into the global arena (Figure 2-5). The first is to work with FDI (or foreign buyers) at home to supply high-quality materials, components and/or services needed by them. This indirect approach to participate in global value chains, via FDI, is widely adopted. In Southeast Asia, firms supplying components to large assemblers of mechanical products such as electronics, machinery and automobiles operating in a host country are called supporting industries (*susono sangyo* in Japanese). The promotion of supporting industries has been a major policy pillar for domestic value creation in Thailand, Indonesia, the Philippines and Vietnam. The second is to create and foster strong domestic firms that can directly compete in the global market without FDI's help. Naturally, this approach is more difficult than the first, and only a handful of latecomer countries with initially high absorptive capacity such as Japan, Taiwan, Korea and China have succeeded in this approach. Malaysia,

which switched from the first approach to the second about two decades ago, is struggling because indigenous firms in Malaysia can hardly compete with foreign multinationals that dominate the global market. In any country, a few domestic firms may succeed globally but the impact is usually too small to visibly transform the economic structure of that country.

If the first approach is taken, the government must facilitate linkage formation between FDI and domestic SMEs. FDI-local firm linkage can take two forms. The one is for one-time procurement or service, and the other is for establishing long-term partnerships through a joint venture, production cooperation, and so on. Needless to say, the second matching is more difficult and more time-consuming than the first.

Government can promote linkage in three ways. First, it can require FDI firms to find, support and transfer technology to local partners as a condition for granting an investment license or an incentive. Second, it can directly sponsor official matching services through trade fairs, reverse trade fairs, matching events and seminars, a domestic supplier database, responding to individual inquiries, and so on. Third, it can indirectly subsidize, reduce tax or otherwise incentivize FDI firms that train and work substantively with local firms. The first method is sometimes used, for example in China and past Malaysia, but forcing foreign firms to work with local firms (especially when the latter's capacity is low) generates discontent and refusal from FDI, and usually fails. Thus, official matching should be done in the second (direct support) or third (indirect support) way so linkage occurs willingly rather than coercively.

Thailand offers relatively developed—but not perfect—linkage promotion programs with many active partners. The Board of Investment (BOI) and the Ministry of Industry (MOI), with their affiliated agencies, work closely and flexibly with private bodies such as the Alliance for Supporting Industries Association consisting of 12 industrial associations, as well as foreign businesses, NPOs, development partners and Japan Desks. Within BOI, the BOI Unit for Industrial Linkage Development (BUILD) specializes in matching between FDI and Thai firms. It operates a matching service for component sourcing, a large annual subcontracting exhibition, a regional supporting industry database, and a subsidy for Thai firms to join international trade fairs (VESS 2021).

2-8. Industrial park management

Industrial park policy constitutes an important part of FDI policy, and it should evolve as FDI policy progresses. As discussed above, FDI attraction must shift from large-scale simple processing to more targeted value-creating activities in proper scope, timing and steps. This transition should also change various aspects of industrial park operation such as the park's business model, facilities and infrastructure provided, one-stop service, FDI marketing, and land and shed rental policy.

Industrial park management is a customer-oriented real estate business whether it is private-

run or state-run. Host countries and park developers must compete with each other domestically, regionally and globally to attract good client firms in sufficient numbers. They must offer conditions FDI firms desire in terms of location; rental, operational and service cost; quality and availability of labor; infrastructure services; investor support; incentives; business freedom, etc. This is a broader requirement than just raising the World Bank Ease of Doing Business ranking which concentrates on fast and smooth administrative procedures (Section 2-4). Ethiopia needs to study, compare and benchmark global practices to introduce the key ingredients of industrial space competition[19].

As with any business, industrial parks must be profitable. Ethiopia is in the early stage of setting up industrial parks where the government is currently the main builder and operator. This is fine until experience is gained and operations become normal and stable. In many latecomer economies, temporary official guidance and support are provided for industrial park development. Ultimately, however, industrial parks must be self-financing and profitable. The state should not cover their losses forever as this will become a serious burden on the national budget. Ethiopia's state-owned industrial parks were partly funded by the proceeds of the Eurobond issue, which makes it even more imperative that they generate sufficient earnings to pay back this foreign currency-denominated debt with high interest rates.

Six ideas are offered below to produce vibrant and profitable industrial parks in Ethiopia.

2-8-1. Diversification of revenue sources

To recover initial investment costs and achieve profitability, it is crucial to have multiple revenue sources, not just land rent. If land rent (which includes rental shed charges) were the only revenue, it had to be set sufficiently high to recoup the cost of park development, which would reduce the price competitiveness of the park. Even if the land rent were initially set low to attract customers, it must later be raised to recover the cost which would certainly cause resentment among tenant firms.

There are different ways to generate additional revenues in industrial parks which are widely practiced in Japanese industrial parks in Asia.

One way is to provide business-related services that tenant firms appreciate. An industrial park management company can offer a mixture of free and fee-based services. They include business consultation, investment procedure support, accounting service by certified public accountants, tax filing and related services, environmental documentation, labor recruitment and management, finding buyers or supplier companies, ICT installation and maintenance, rental offices and meeting rooms, equipment and vehicle rental, and incubation space. The park management can raise additional revenue from these services, which allows reduction of rental

[19] As part of JICA's support of EIC and IPDC, officials from these organizations were invited in 2018 and 2019 to Thailand, Cambodia, Myanmar and Japan to learn good industrial park management practices. Separately, Dr. Arkebe Oqubay co-edited a handbook on the theories and practices of industrial parks (Oqubay and Lin 2020).

fees of land and sheds, while offering convenience to tenant firms. BTD Japan, a Japanese consultant firm that supports several local industrial parks in Northern Vietnam, provides accounting, tax and labor support for a fee while all other services it provides are free. Kizuna, a Vietnamese developer of full-service rental factory parks for Japanese SMEs in Southern Vietnam, also offers fee-based high-quality support in all dimensions by Japanese or Japanese-speaking staff. However, support for doing the initial investment procedure is free.

Another way to raise additional revenue is to provide basic infrastructure services reliably but with additional charges. Industrial parks may guarantee a stable supply of power, water, natural gas (where available) or other infrastructure services by investing in additional equipment such as a substation, generator, power lines, pipelines, etc. when supply from utility companies is unavailable, unstable or low quality. By doing so, the park can charge higher tariffs which tenants are usually happy to pay. Meanwhile, park-wide wastewater treatment is a standard facility that must be installed in every industrial park.

Regarding power supply, electricity situations in Ethiopia are currently unstable but should improve when planned dams, especially the Grand Ethiopian Renaissance Dam, come into full operation. However, power distribution networks at the retail level must be upgraded in parallel to the construction of generation capacity and main transmission lines. Until that happens, provisional methods to stabilize the industrial power supply will be required. Japanese experts suggest three ways to do this[20]. First, as power transmission and distribution are to be privatized in Ethiopia, the Industrial Parks Development Corporation (IPDC) may form a joint venture with a private investor to supply power from the national grid to the industrial parks it manages (and nearby areas) guaranteeing power stability, high-quality maintenance and troubleshooting services, but charging higher fees for this. This has the additional advantage of broadening revenue sources for IPDC. Second, even without a joint venture, each industrial park can at least invest in a substation and a direct line from the national grid to ensure a stable power supply to the park (power at the national grid is more stable than at the retail distribution level). Third, the Ethiopian Electric Power (EEP) and the Ethiopian Electric Utility (EEU) should be obligated to prioritize and safeguard industrial power supply when they invest in, renew or maintain transmission lines and related equipment.

2-8-2. Strategic provision of facilities and services

State-owned industrial parks should pursue developmental goals within the bounds of financial soundness. Provision of frontline technology and generous services should not be done at any cost. In providing on-site facilities and services, an industrial park operator must do a

[20] Interviews with JICA officials and Japanese experts specializing in industrial park management and/or assisting IPDC during 2018-2019.

serious cost-benefit analysis to decide which facilities and services are worth offering. The cost here includes not just an initial investment but also future operation, maintenance and replacement. The state budget and the balance of payments must be protected against a runaway cost of loss-making projects.

The standard practice at Japanese industrial parks in Southeast Asia is to offer basic services—safety, security, reliable power, water supply, standard wastewater treatment, internal roads, etc.—with high quality and consistency but not frills and add-ons that tenant firms do not strongly want or for which they are unwilling to pay extra. Japanese developers do not usually lay power lines underground because that does not add much value to investors[21]. They rarely install sprinklers in factories[22]. Apartments and dormitories are not built *unless* they are keenly wanted by expatriates or workers, and desired location and specs of dwelling are known precisely so constructed housing will surely be taken rather than remain empty. Similar logic is applied in providing on-site restaurants, shops, schools, clinics, banks, golf courses, and other amenities and facilities. Moreover, these services are often outsourced to private firms rather than provided by park management itself.

The minimum-cost approach is dictated by severe competition industrial parks face in attracting customers. They cannot survive financially unless keenly wanted facilities and services are supplied at reasonable costs. Beautiful landscaping and high-tech equipment are nice, but most investors are unwilling to pay extra for such luxuries. If only one customer wants a specific service such as special water treatment, super solid ground or extremely stable power, park management should persuade the firm to install necessary equipment at its own cost or choose to invest in another park. An industrial park should not invest in an expensive facility just for one customer.

Industrial park management buildings should be small and efficient rather than grandiose because the size of management buildings does not add much value to investors. At Thang Long Industrial Park (in Vietnam, by Sumitomo Corporation) and Phnom Penh Special Economic Zone (in Cambodia, by a local developer) where Japanese multinational corporations such as Canon, Denso, Panasonic, Yamaha and Minebea operate, park management is housed in a simple two-story building which is much smaller than the ones in Hawassa, Bole Lemi, Kilinto or Mekelle.

IPDC should re-examine all facilities and services it offers to tenant firms to see if their scope, specs and costs are appropriate and contribute to IPDC's long-term profitability. For

[21] One exception is Phu My 3 Specialized Industrial Park in Southern Vietnam which is located near the sea. To prevent salt damage, power lines for this park are laid underground. Unless such special reasons exist, power within parks is normally distributed via open-air transmission.

[22] European investors usually require sprinklers in factory sheds. In Asia, a common way to prevent and control fire consists of a fire station with fire engines and well-trained firefighters on 24-hour duty, fire extinguishers in every factory, placement of hydrants or ponds throughout the park, annual park-wide fire drills and regular inspection of firefighting equipment.

instance, the desirability and lifetime cost of the centralized Zero Liquid Discharge (ZLD) system should be revisited. The Japan International Cooperation Agency (JICA) experts recommend the standard two-step wastewater treatment plan where heavy water users, such as a dyeing factory or a paint shop, are required to treat (chemical) wastewater inside their premises before discharging it to the communal (biological) water treatment plant, as done widely in Southeast Asia, instead of adopting centralized ZLD for the entire park. Otherwise, the construction, operation and maintenance costs of wastewater treatment will be enormous (IPDC-EIPP 2018, p.74).

2-8-3. Investor support and park operation

One-stop service should be introduced functionally rather than physically. The existence of one trusted official at the end of a telephone hotline, who can connect client firms to any offices and services to solve any problem, is more valuable than installing many desks manned with seconded officials. Dong Van Industrial Park operated by Ha Nam Province, Vietnam, ensures that any problem reported by a Japanese tenant firm will be quickly transmitted to the top provincial leader and industrial park management for immediate attention 24 hours a day, 365 days a year. Japanese investors highly appreciate the speed and quality of provincial response. At Thilawa SEZ, Myanmar, Mr. Yoichi Matsui, head of the One Stop Service Center, takes care of any issue immediately and professionally, which is greatly appreciated by the tenant firms and increases the value of the SEZ.

The matter is more of a soft support mechanism than a physical arrangement of desks and counters. Allocating many officials at each industrial park, who may or may not receive clients on any particular day, will be very costly in terms of both time and budget. Most government ministries are short of hand, and officials so assigned may become unproductive and dispirited.

Despite great effort so far, investment procedures at EIC and IPDC still lack simplicity and transparency. Information on investment rules, eligibility, incentives, and so on, should be easily accessible and understandable to anyone via an official document and the internet. Standard operation procedures must be established and strictly followed by all EIC and non-EIC officials. Applications of various permits should be standardized and digitized. In Ethiopia, some investment-related services are slow, irregular or entirely missing such as visa and work permits, certificate of country origin, residence permit, post-investment services and follow-up, and claim and complaint procedure by an investing firm.

It is frequently reported in Ethiopia that different officials apply rules differently, approval processes take long, and investors must visit many offices to obtain any business-related permission, be it for export, import, hiring or expansion. In Kenya, Japanese firms report no such difficulties, customs rules are clear, and all officials say the same thing regardless of

ministry or position. In Malaysia, the Managing Director of the Japan External Trade Organization (JETRO) Kuala Lumpur once said he could not think of any problem for Japanese investors as far as the Malaysian government was concerned.

Another important point is avoidance of micromanagement by the state. Government should not intervene in industrial park operations excessively. It should not impose rental and service fees, tenant policies, meticulous operational rules or numerical customer targets. Such operational parameters should be set by IPDC under the general guidance of the national development plan. Park operators should have the power to quickly and flexibly cope with shifting customer needs and global situations. At Thilawa SEZ in Myanmar mentioned above, a national committee delegates all operational matters to Myanmar Japan Thilawa Development Limited (MJTD), a private firm that operates Thilawa SEZ, and the One Stop Service Center under it. The operational autonomy of MJTD and OSSC is protected by the political commitment of high-level officials of the Myanmar government.

2-8-4. Protection against negative shocks

One important aspect of the industrial park business is coping with inevitable ups and downs. The speed of tenant firm arrival (and departure) depends on many factors, most of which are beyond the control of a host country or a park developer. They include global business cycles, gyration of prices and interest rates, the situation in source countries, financial crises, war and political instability, and the spread of terrorism or infectious diseases. A large negative shock tends to occur every decade or so. Moreover, not all registered investors actually invest. Japanese park developers are happy if a newly developed industrial park becomes full in five years.

Sumitomo Corporation is a Japanese trading house with active industrial park businesses in Indonesia, the Philippines, Vietnam, India, Bangladesh and Myanmar. A Sumitomo park director states that an industrial park in Asia on average sells (rents out) 20ha per year even with high-quality infrastructure and services because there are many industrial parks fiercely competing for good tenant firms (GRIPS Development Forum 2020). In Northern Vietnam, Japanese industrial parks built separately by Sumitomo and Nomura each took more than a decade to be fully occupied because their opening coincided with the outbreak of the Asian financial crisis of 1997. By contrast, a Sumitomo-operated SEZ in Myanmar, which began construction in 2014, became full after six years, a speed which was considered fast. As Zone A (405 ha) became almost full within six years, the construction of Zone B had begun. With equally good location and services, the performance of industrial parks diverges due to many uncontrollable factors. It is customary that Japanese park developers build industrial parks step by step, starting with the first phase and going to the second and later phases only when the previous phase becomes 70-80% full. This is to avoid over-investment and the risk of financial losses.

Property business has both good times and bad times, and good times never last forever. Host countries should be prepared for this and have a contingency plan for hard times.

Ethiopia's state-owned industrial parks were initially very popular among foreign investors, but the COVID-19 pandemic, global demand collapse and political instability in Ethiopia are taking a toll on investor arrival. Future demand for industrial park space is very difficult to forecast. Construction of the remaining industrial parks must be paced judiciously.

2-8-5. Sector selectivity versus indifference

In Asia, most industrial parks welcome investors of any sector as long as they comply with national laws and park regulations on environment, labor, intellectual property rights, and so on; pay fees and charges on time; and have a good reputation at home and in other countries. Sector indifference is a natural consequence of severe competition among industrial parks to attract as many good tenants as possible. If any firm violates a rule, it must be expelled from the park regardless of sector.

Some industrial parks do attract investors of the same kind, such as Hsinchu Science Park in Taiwan (ICT), Vietnam Singapore Industrial Park in Vietnam (electronics) and Amata Nakorn Industrial Park in Thailand (automotive and electronics components). This is a result of market forces rather than park policy as these parks in no way preclude firms in other sectors. For example, Taiwan's Hsinchu Science Park requires tenant firms to do R&D above certain levels but welcomes any sector as long as this condition is met. There are parks dedicated to software firms only, but this is a special case as software programming requires a completely different work environment—relatively small space, highly educated people, urban amenities and good internet connection—instead of large sheds, heavy equipment or wastewater treatment. Software parks look like modern office complexes rather than normal industrial parks.

The Ethiopian government designates sectors to each industrial park rather than leaving the matter to the spontaneous choice of investors. The wisdom of this approach needs to be examined. Ethiopia is in an early stage of industrialization with a high concentration on light manufacturing and construction materials. Countries having hundreds of industrial parks and receiving tens of thousands of FDI projects may seek some degree of specialization. Meanwhile, Ethiopia has less than ten fully operational parks, and a large FDI inflow began only recently. Some argue that the geographical concentration of firms of the same sector creates synergy and sharing of resources such as skilled engineers and specialized waste treatment. This is theoretically plausible but does not always happen in reality. Firms in the same sector are often rivals who are wary of labor poaching and information leaks to others. This tendency is stronger in high-tech industries than in light manufacturing. It is better to let firms decide where to invest, including whether they prefer concentration or dispersion, rather than the government herding them to any specific industrial park. Mixed-sector industrial parks are more suitable for countries on the way to attaining middle income in the near future.

2-8-6. Provision of diverse land and rental choices

Ethiopia has built many same-size, large-capacity rental sheds. These standardized sheds are suitable for labor-intensive export-oriented light manufacturing such as garment, footwear and food processing in the early stage of FDI-led industrialization. However, most Japanese and EU firms no longer engage in such production. High-tech firms, skill-intensive processes, specialized manufacturers and "supporting industries" (component suppliers) need customized workspace which is often smaller and designed differently for each firm. Some require heavy-duty workshop cranes, others need pile work for super solid ground and still others require cleanrooms for precision equipment. Japanese industrial parks at home and abroad offer rental land of various sizes for each investor to build any structure it prefers. It also provides small rental factories of 250-1,000 m^2 for high-tech SMEs or firms wanting to test-produce before building a large plant. Space design and construction work are normally commissioned to consultants and builders selected by individual tenant firms.

In Que Vo Industrial Park in Vietnam, which houses large Canon and Foxconn (Hong Hai) plants, the Vietnamese management decided to build 18 ready-made sheds of 5,000m^2 to attract more Japanese firms. A few Taiwanese and Korean firms were interested, but there was no taker among Japanese FDI. Huge sheds stood empty. The local developer misjudged the spatial needs of Japanese high-tech firms which would not accept standardized large-capacity rental sheds.

Ethiopia currently targets labor-intensive light manufacturing FDI for which large standard sheds are appropriate. However, to attract more sophisticated manufacturing in the future, customized industrial space should also be offered. When Japanese manufacturers invest abroad, they typically start with small and made-to-order industrial space of about 250-1,000m^2, or even smaller "incubation" space with only one machine. They want to first check whether local laws, officials, taxes, customs procedure, market, labor, power, water, logistics and other essentials are fit for their business model based on quality, cost reduction and on-time delivery (QCD). If successful, they move to bigger rental space or build their own factories inside or outside an industrial park. This cautious step-by-step approach is taken because Japanese firms want to stay for a long time, not for short-term profit and a quick leave. They also want to minimize initial investment costs, unlike Turkish, Chinese and Indian investors who are willing to build huge factories from the beginning. Many European and American high-tech firms also behave like Japanese firms even though they tend to be slightly bolder than Japanese.

Chapter 3
Dynamics of FDI in Ethiopia: Bridging the Balance of Payments Gap

3-1. Introduction

As in many developing countries, Ethiopia faces two types of gaps arising from the investment-saving (capital) and export-import (trade or foreign exchange) gaps. There are two potential mechanisms through which FDI can help in filling these gaps, ease balance of payments (BOP) pressure and fuel economic growth. FDI can bridge the low domestic saving-investment (capital gap) of host countries by injecting foreign capital (investment) into the economy. It can also improve the trade imbalance through enhancing exports and substituting imports with domestically produced goods.

In recognition of this, the Ethiopian government has shown renewed interest to attract FDI and has, since 2015, built several industrial parks mostly specialized in textile and apparel. As a result, the country has become one of the top destinations of FDI in Africa despite some slowdown in the last three years, most likely due to political unrest.

FDI does not, however, necessarily lead to bridging the BOP gap in host countries. There are circumstances where FDI may aggravate the BOP deficit of host countries. For example, this can happen when FDI is engaged in low value-adding activities such as simple assembly that require large amounts of imported intermediate inputs, or when FDI is oriented towards the domestic market rather than the export market. Moreover, the effect of initial investment flow may be counterbalanced by the repatriation of profits and workers' wages as well as payment of royalties and interest and principal on a foreign loan. Hence, the net effect of FDI on the BOP, by and large, depends not only on the type and quality of the attracted FDI but also on the rules and regulations governing the operation of multinational corporations (MNCs) in the host country. In a weak policy environment, FDI may aggravate capital leakage and the trade deficit.

The empirical evidence on the impact of FDI on the trade balance is mixed. It can improve or worsen the trade balance and the BOP position of a country. The role of FDI policy is therefore crucial in designing what type of FDI to attract and deciding what kind of conditions and incentive mechanisms to put in place for foreign investors. Active FDI policy is required to maximize the benefits of FDI inflows on the BOP and minimize its negative impact.

Ethiopia has designed several incentive schemes and revised proclamations and regulatory frameworks to encourage FDI inflows and promote exports. Despite these, export remains low

and the significant shortage of foreign exchange persists with a huge BOP deficit (IMF 2020). This calls for scrutiny into the laws and policies governing FDI to understand why the existing laws and policies did not help much in boosting export and easing the BOP pressure despite these efforts. Overall, stress should be given to refining the FDI policy into a better framework that can help to attract FDI through creating an investment environment suited to the Ethiopian context and maximize the benefits and minimize the costs associated with inflows of FDI. The main aim of this chapter is to identify and scrutinize existing FDI-related policy measures with the aim of identifying the areas that need reforms. The chapter will examine the impact of FDI on the capital inflow and net export earnings in Ethiopia and propose policy options for maximizing benefits by drawing on lessons from successful countries.

3-2. Literature review

In this section, we present simplified theoretical predictions on the complex relationship between FDI and the BOP in the context of a developing host country and by looking at both the current and capital accounts. We also review the existing empirical evidence in the area to assess what the evidence suggests about the relationship between FDI and the BOP. As a prelude, we present some basic facts about the BOP.

3-2-1. FDI and the balance of payments

The BOP is a statistical record of all transactions of a country's residents with residents of the rest of the world for a given period (IMF 2009). It gives a comprehensive assessment of a country's economic condition by showing how much a country exports and imports and the amount of foreign exchange a country receives through foreign aid, remittances, foreign loans, foreign direct investment, etc. It is an important indicator of a country's capacity to pay for its imports and shows whether a country saves and/or produces enough goods and services to pay for its economic growth. As we show below, FDI is directly linked to the two main components of the BOP: the current account, which includes the trade balance and primary and secondary income accounts, and the capital and financial account, which contains FDI as one of its elements.

Using the notations of International Monetary Funds (IMF) (2009) and starting from the national income accounts identity, we can summarize the different components of the BOP and how they are related to each other and with the saving and investment gap as follows.

$$S - I = CAB$$
$$S - I + NKT - NPNNA = CAB + NKT - NPNNA = NFI$$

where:

$I = \ gross\ domestic\ investment$

$S = \ gross\ saving$

$CAB \ = \ current\ account\ balance\ in\ the\ balance\ of\ payments$

$NCT \ = \ net\ current\ transfers$

$NKT \ = \ net\ capital\ transfers$

$NPNNA = \ net\ purchases\ of\ non-produced, non-financial\ assets$

$NFI \ = net\ foreign\ investment\ or\ net\ lending/net\ borrowing\ vis-\grave{a}-vis\ the\ rest\ of\ the\ world$

A deficit in the trade balance can be financed through foreign aid and inflows of remittances and other factor incomes from abroad. If this is still not enough to cover the import needs of the country, that is, if the current account is still in deficit, the country will have to rely on foreign loans and other capital inflows like FDI to fill in its current account deficit and/or saving-investment gap. A deficit in the current account—more imports than what can be financed by export earnings as well as current transfers and primary and secondary incomes from abroad—indicates that the country does not have enough savings to finance its growth and needs to depend on foreign borrowings and investments. A surplus in the current account, on the other hand, indicates that the country has enough savings to finance its investment needs and can use the surplus to acquire foreign assets, invest in other countries (outbound FDI) or use it to reduce its foreign debt.

As such, a deficit in the current account is accompanied by a surplus in the capital account, which indicates that the country imports more capital (in the forms of FDI, foreign loans, etc.) from abroad than it exports. Developing countries usually have a deficit in their trade balance and a surplus on their capital account indicating that they are capital importing or, according to Samuelson's Life Cycle of BOP theory, "young and growing debtor" countries. This is also the case with Ethiopia where the huge and continuously growing trade deficit is financed by foreign aid, remittances and capital inflows in the form of foreign loans and FDI (Figure 3-5).

The BOP is considered to be in equilibrium when the sum of the current account and the capital and financial account, including the change in reserves as well as errors and omissions, becomes zero. Running a deficit (or surplus) in both the current and the capital and financial accounts, called a "twin deficit" or a "twin surplus," for an extended period is a rare incident. The only exception in this regard is China which ran a twin surplus from 1994 to 2011 (Zhang, B. 2017).

3-2-2. Evidence on the relationship between FDI and the BOP

FDI is an investment performed by a multinational enterprise (MNC) as part of its strategy to enlarge profits by incorporating real assets in the host country. In FDI, unlike portfolio investment, the investing MNC achieves a significant degree of control over the real asset (Johnson 2006). Sen (1995) describes the difference between FDI and portfolio investment in a more informative way. According to this author, FDI involves an equity investment that leads to the creation or expansion of host country assets and contributes to the creation of new capacities. Whereas, portfolio investment involves the acquisition of host county non-equity financial instruments, financial assets or claims of existing real assets in the form of debt or equity. Because of this, FDI is considered a more stable form of investment and less vulnerable to sudden reversals, bringing with it additional benefits to the host country.

The role of foreign capital inflows in economic growth is debatable. Although FDI is considered more favorably in this regard than debt and portfolio investment, there is no consensus on the impact of FDI on the economies of host countries. For details on this debate, see Gebreeyesus et al. (2017) and studies cited therein.

Nevertheless, the benefits of FDI to host developing countries in terms of enhanced productivity and efficiency, improved product quality and use of advanced technologies are nowadays widely accepted. What is more debatable about the role of FDI on host economies is its potential impact on the BOP—whether or not FDI can be effectively used as a means of financing gaps in the BOP. The impact of FDI on the BOP can potentially be either positive and negative, and the overall impact depends on various parameters and elasticities of the economy, substitutability or complementarity between FDI and local firms (whether they compete or work together), the time dimension we are looking at (short-, medium-, and long-term), and the type of FDI (horizontal vs. vertical, market-seeking vs. export-oriented, the degree of contribution to domestic capacity building, etc.) On top of these, the role of policy is crucial in maximizing the gains from FDI and minimizing its negative impacts on the BOP and growth.

Developing host countries can gain a favorable impact of FDI on the BOP through the following three channels: first, when the FDI subsidiary is used to export goods and services to other countries and, second, when FDI serves as a substitute for imports of goods and services. In either case, FDI can induce positive changes in the current account of the host country (Kurtishi-Kastrati 2013). In addition, for foreign exchange-constrained countries like Ethiopia, initial capital inflows associated with FDI can also directly improve the BOP.

Theoretically, the positive role of MNCs in promoting exports of host countries is well established. According to Helpman et al. (2004), only the most productive firms choose to invest in foreign markets, and this implies that MNCs are large, productive, and equipped with appropriate technologies, adequate capital and know-how. FDI thus has the potential to boost exports of host countries by augmenting domestic capital for exports, making access to foreign markets relatively easier, raising productivity through the transfer of advanced technologies,

upgrading the technical and managerial skills of the labor force, introducing new and modern ways of doing things, and so forth (Zhang, K.H. 2005).

Nevertheless, FDI can also have a negative impact on the BOP by inducing capital outflows in the forms of repatriation of profits, dividends, and repayments of interests and the principal on debt owed to creditors in the country of origin. FDI can also harm the trade balance by inducing imports of raw materials and intermediate inputs while neglecting the procurement of inputs from local firms (Keho 2020; Lam 2014).

When one considers the potential impact of FDI inflows on the BOP, it is important to specify the time dimension over which these impacts are assessed as the impact of FDI on the BOP over the short, medium and long run may be different. In the short run, FDI is expected to have a positive impact on the BOP through the inflows of foreign capital in the form of the initial investment. This initial inflow of capital can be used to fill the saving-investment gap and/or a current account deficit. Thus, the role of FDI in easing the BOP pressure is expected to be positive as long as the equity (as opposed to debt) share of the investment is significantly higher than the value of the investment that is used to finance imports.

Using parameter estimates for propensities of imports and savings equal to 0.15 and 0.27, respectively, Sen (1995) shows that unless the equity share of the investment exceeds 36% (assuming zero imports), FDI will have a negative impact on the BOP in the short run. This underlines the need to focus on FDI projects that have higher equity shares and less import intensity. Gebreeyesus et al. (2017) also indicates that the negative impact of FDI on the BOP is more pronounced when the foreign investment is focused on low value-adding, import intensive activities such as simple assembly or when part of the investment is financed through loans provided by the host country.

As FDI firms become profitable, they start repatriating their profits to their source countries. As a result, the role of FDI as a means of bridging the BOP gaps in the medium to long run becomes less clear. In general, whether FDI can be used to finance the BOP needs of small economies will depend on import and export intensities, tendencies to reinvest versus repatriate profits as well as the extent of outflows of foreign exchange in the forms of payments of royalties, foreign debt service and wages of expatriate workers (Gebreeyesus et al. 2017; Johnson 2006; Keho 2020; Kurtishi-Kastrati 2013; Sen 1995).

The impacts of FDI also depend on the type of FDI. From the perspective of the source country, FDI can be classified as horizontal FDI, vertical FDI and conglomerate FDI. Each of these forms of FDI has different implications for exports and the trade balance. Horizontal FDI is undertaken to produce similar kinds of goods abroad as in the source country for horizontal expansion. This is a market-seeking FDI that targets the host economy’s local market and uses FDI, instead of exporting, to achieve the purpose. This kind of FDI bypasses the host country’s tariff barriers and becomes closer to their customers.

Vertical FDI, on the other hand, sets up part of their production processes in the host economy for the sake of benefiting from resources or other advantages available in the host economy. Vertical FDI can be subdivided into backward vertical FDI and forward vertical FDI. In the former case, investors exploit labor and other inputs available in the host country at relatively low costs. The latter, on the other hand, aims to be nearer to consumers by the acquisition of distribution outlets and other means. Conglomerate FDI carries the features of both horizontal and vertical FDI (Caves 1971).

Sectors that exhibit many FDI-driven exports can contribute more to the improvement of the trade balance. If FDI is in the service sector or other less export-intensive sectors, the impact of FDI on the trade balance is likely to be unfavorable unless this contributes towards substituting imports. It is therefore important to assess the import content of FDI and encourage FDI that is more likely to be export intensive, use local goods and services as inputs, and that has a relatively more domestic value addition and/or has better capacity to substitute imports.

The existing empirical evidence is inconclusive about the effect of FDI inflows on the economic growth and balance of payments of host countries. Some studies show that FDI boosts economic growth and helps host countries to ease their BOP problems (Alencar and Strachman 2016; Zhang, K.H. 2005) while others claim that it has a negative impact (Keho 2020; Razmi 2005). For example, Zhang (2005) investigates the impact of FDI on China's export performance using industrial data and concludes that China's export boom over the years is attributable to the large FDI inflows. Moreover, the author shows that this effect has been much greater than that of domestic capital and is more pronounced in labor-intensive industries. On the other hand, Keho (2020), using time-series analysis for Cote d'Ivoire, shows that inflows of FDI have led to a deterioration of the trade balance in the long run.

The effect of FDI on the economy and the BOP is thus not uniform across host developing countries. Some countries have managed to attract large volumes of FDI and benefited the most out of it, as well as countries that have not been able to do the same. After reviewing the theoretical and empirical literature, Forte & Moura (2013) conclude that the economic role of FDI in host countries is inconclusive and depends on domestic conditions. Country case studies also show that, with the right type of policies and strategies to attract and manage FDI, it is possible to maximize the benefits and minimize the costs of FDI on the balance of payments of host developing countries.

In this regard, Moran (2006) presents Mauritius and the Dominican Republic as two important success stories showcasing relevant policy reforms in low-income countries that can exploit the positive role of FDI in spurring growth in exports. These two countries took straightforward policy reforms that included setting up export processing zones close to economic centers; offering foreign investors reliable infrastructure at competitive prices; and ensuring a conducive business environment with less corruption, crime, bureaucracy, taxes, etc.

Apart from this, both Mauritius and the Dominican Republic undertook macroeconomic reforms to control inflation and end overvalued exchange rates. Madagascar and Lesotho followed the examples of Mauritius and the Dominican Republic and attracted sizable export-oriented FDI firms.

In general, whether FDI has a positive impact or detrimental effect on the economic growth, the BOP, and the trade performance of host countries mainly depends on the local conditions and policies of the host country. This will in turn determine the type and nature of FDI inflows and thus the role FDI plays in the host country's economy. Given this, the next section will review the best practices of selected Asian countries to draw lessons for Ethiopia, on how to attract and manage FDI from the perspective of improving the BOP position of host developing countries.

3-3. FDI policy and the BOP: a review of best practices

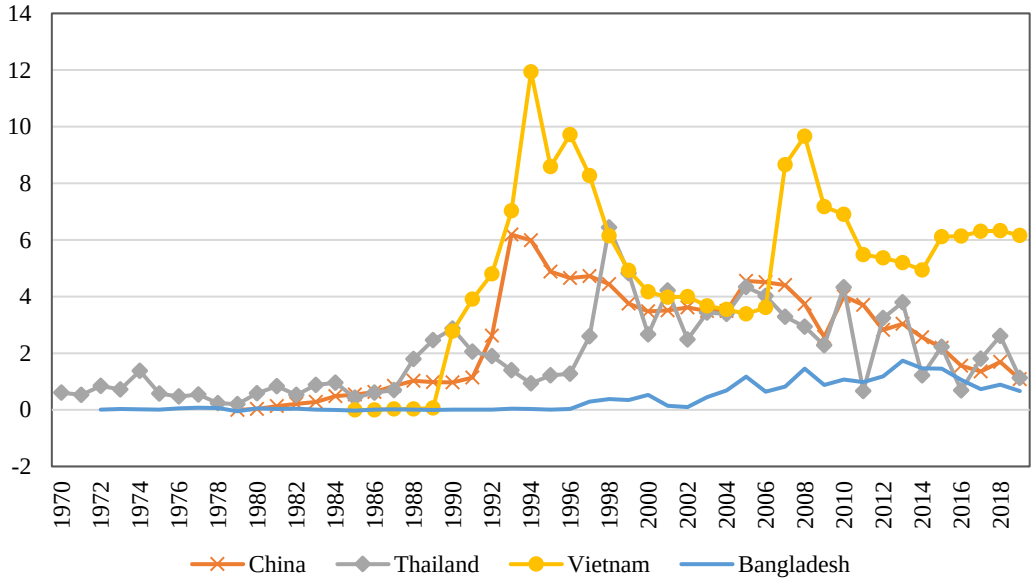
3-3-1. Trends in FDI and exports for selected Asian countries

In this section, we present a brief overview of the FDI and export performances of selected Asian countries. Figures 3-1 and 3-2 below present trends of FDI and exports as a share of Gross Domestic Product (GDP) for selected Asian countries: China, Thailand, Vietnam and Bangladesh.

Although no foreign-owned firm operated in China before 1979 (Wei 1996), the inflow of FDI to China has steadily increased since the early 1990s. Through time and the committed effort of the government, China remains the largest recipient of FDI among developing countries. After 1992, inflows of FDI into China became the largest among developing countries and the second largest, next to the United States, globally (Zhang, K.H. 2006). China has a regulatory framework and policies to boost FDI inflows. The increasing trend in FDI inflows to China is mainly attributed to its policy and governance structure (Davies 2013). Among other factors, the investment environment in China remains attractive for FDI in terms of good infrastructure, relatively efficient public services, preferential policies, fast economic growth, a huge and growing domestic market, macroeconomic and political stability, and the availability of well-educated human resources (Chen 2011; Li 2013).

Thailand is another developing country that has managed to attract long-term investments through its investment promotion policies. MNCs have played a crucial role in Thailand's industrialization experience over the past five decades (Hahn 2004). FDI inflows into Thailand have increased since 1986 and this can be attributed mainly to the country's investment promotion efforts, low labor cost and devaluation of the local currency. Although the overall economy and the FDI sector were severely hit and declined during the Asian financial crisis,

Figure 3-1. FDI as a Percentage of GDP in Selected Asian Countries



Source: author's computation based on data from WDI.

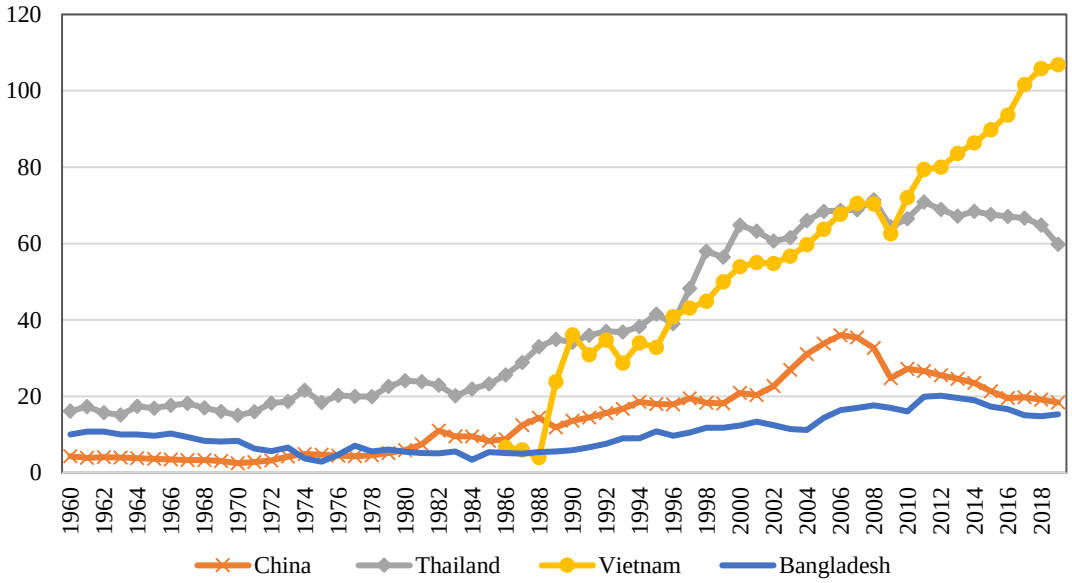
the historical flood and political instability, restoration was made after each incident. This resilience put Thailand among the eight priority destinations of FDI among emerging economies and the seventh-largest FDI recipient in East and Southeast Asia in the year 2016 (Maček et al. 2015).

The inflows of FDI to Vietnam were very low until the 1990s. By the mid-1990s, Vietnam managed to become among the top recipients of FDI, relative to its size, due to its improved investment regime, outward orientation and macroeconomic stabilization measures. It started to benefit from FDI, which accounted for 10% of the country's GDP and 8% of its exports (Jun et al. 1997).

Bangladesh was a low-income country until 2015 that needed to overcome its negative current account balance caused by a huge trade deficit and inappropriate use of foreign direct investment (Rana 2014). The FDI inflow has been low compared to other Asian countries but an increase was registered in the recent decade. The share of FDI to GDP in Bangladesh is very low compared with China, Thailand and Vietnam and this can be attributed to several factors such as unskilled labor force, the lack of FDI performance requirement provisions, macroeconomic instability, intense external debt and other factors (Muhammad 2020; Salman 2009; Siddikee and Rahman 2020).

Turning to export performance (see Figure 3-2), FDI plays an important role in China's trade surplus. The expansion of exports in China has been attributed mainly to FDI and the policies associated with it (Davies 2013). For instance, in 2004 China was the third-largest exporting country in the world, which is a huge improvement compared to its 32nd place in

Figure 3-2. Export as a Percentage of GDP in Selected Asian Countries



Source: author's computation based on data from WDI.

1978 (Zhang K.H. 2005). The export boom and the resulting trade surplus induced a twin surplus in China. In particular, the period from 1994 to 2011 was a twin surplus period for China where export-oriented FDI in the processing industry played an important role (Davies 2013; Zhang, B. 2017).

FDI inflows in Thailand before the 1980s concentrated on import-competing industries, which later shifted to more export-oriented industries where FDI played a significant role (Johnson 2006). FDI in Thailand significantly contributes to export performance mainly due to well-defined investment policies that promote free trade and liberalization (Maček et al. 2015). Exports have doubled as a percentage of GDP since 1982 and the correlation between export and FDI has been very strong. Like other successful Asian economies, Thailand would not probably have experienced this rapid acceleration of exports without the presence of FDI. Exports have been the main engine of Thailand's economic growth, particularly since the mid-1980s, and the shift in export contents reflects the structural transformation of the economy from agriculture to industry (OECD 1999).

The FDI policy in Thailand was part of both the import-substitution and the export-promotion strategies. After 1985, foreign affiliates in Thailand became more export-oriented over time due to export promotion policies and a favorable exchange rate. The potential impact of FDI on the BOP goes beyond their contribution to exports. Foreign affiliates in Thailand do also import goods and services, bring in capital and repatriate interest, income and royalties. Moreover, the dependency of exports on imported components to meet the high-quality input standards partly reduced the benefit to the country's BOP (OECD 1999).

In Vietnam, export promotion has been at the center of government policy which included the promotion of manufacturing exports through FDI. The contribution of FDI to Vietnam's exports developed fast (Schaumburg-Müller 2002), greatly increasing the ratio of export to GDP since the early 1990s.

The export-to-GDP ratio in Bangladesh is low compared to the other three countries. It has been relatively stable and has shown an increasing trend since the 1990s.

3-3-2. FDI related policies in selected Asian countries

This subsection draws lessons from best global practices on how FDI policy is used to increase inflows of foreign capital and improve trade performances and, more generally, the BOP positions of host countries. We review the practices of China, Thailand, Vietnam and Bangladesh and draw lessons for Ethiopia. In these Asian countries, FDI has had a large impact on their structural transformation, industrialization pattern and export promotion.

In high-performing Asian countries—not just the selected four but also Indonesia, Taiwan, Singapore and Malaysia—FDI has played a significant role in transforming their economies. These countries have pursued different policies based on their respective country conditions and succeeded in enjoying the benefits of FDI in terms of trade expansion, investment promotion and improving their BOP (Davies 2013; Gebreeyesus et al. 2017; Johnson 2006).

In what follows, we focus on how these countries maximize the positive impacts of FDI on their BOP and minimize its potential negative impacts by making use of FDI attraction and management policies. These policies are related to the incentive scheme, profit repatriation, FDI promotion, performance requirements, institutional reforms as well as export processing zones (EPZs).

One thing that developing countries like Ethiopia can learn from Asian countries is that they have clear, coherent and progressive policies to attract and utilize FDI and that the respective governments have the commitment and capacity to implement these policies effectively. For example, when China designs its FDI policy, multiple objectives are considered. Among which the most prominent ones include increasing the value-added of domestic industries, promoting linkage and export, balancing trade, and promoting technology transfer and regional development. Among these, a particular focus has been given to two objectives: export promotion and technological advancement (Gebreeyesus et al. 2017; Long 2005).

To achieve these objectives, China has used several laws and regulations governing FDI in the country. These include the Law of the People's Republic of China upon Sino-Foreign Joint Ventures, the Law of the People's Republic of China upon Foreign Cooperative Enterprises, the Law of the People's Republic of China upon Foreign Wholly Owned Enterprises, the Guidance for Foreign Investment Orientations, and the Guiding Directory on Industries Open to Foreign

Investment. China has also laws and regulations governing its preferential policies and stipulations for special economic zones (SEZs) (Long 2005).

Incentives, profit repatriation and FDI promotion in general

Using incentives to attract FDI, guiding it to priority sectors and geographic areas as well as promoting exports and technology transfer has been a common policy tool used by all of the Asian countries we have reviewed. The types of incentives and the purpose they are used are also similar.

Thailand uses both tax and non-tax investment incentive schemes to attract FDI. These incentives are given under certain conditions. The criteria that must be fulfilled by the investors include the type of activities they are engaged in evaluated against its economic impact for Thailand, area development through the investment, and the type of innovations to be introduced to the country. To promote exports and maximize the benefits from FDI, Thailand provided tax exemptions or reductions on imported machinery and raw materials, dividend tax exemption for promoted enterprises and exemption of the corporate income tax for three to eight years. The government also assigned special investment privileges to projects in public utilities and infrastructure, agricultural products, environmental protection, economic target industries, and human and technology development (Laoswatchaikul 2011). Moreover, within the priority sectors, Thailand provides tax exemptions to promote investments in productivity-enhancing activities (OECD 2021).

On the other hand, non-tax incentives include land ownership permits, permission to bring skilled workers and experts, easing restrictions on foreign shareholdings and permission to remit money abroad in foreign currency (Cesar and Wahyuni 2020; OECD 2021). With its 2015-21 investment promotion strategy, it has made its promotion policy more targeted, merit-based, and reduced the number of activities eligible for incentives. The merit-based incentive system availed to both foreign and local firms allowed local small and medium-sized enterprises (SMEs) to compete on a more equal basis. It is also worth pointing out that Thailand has a specific body, the Board of Investment (BOI), which is entrusted with stimulating foreign and domestic investments as well as leading investment promotion and facilitation activities (OECD 2021).

Bangladesh has a favorable geographic location, consumer market, and low labor cost advantages in attracting FDI along with policy incentives such as duty-free imports, tax exemptions, and full repatriation of profits and invested capital. Bangladesh adopted the Foreign Private Investment Act in 1980 to liberalize and encourage FDI to overcome the deficiency in the domestic financial market, increase employment opportunities and economic growth, and obtain a new source for much-needed capital. The Act ensured full repatriation of

profits and capital, protection against expropriation, equal treatment of local and foreign firms, and 5-7 years corporate income tax holidays for foreign investors (Manzoor and Chowdhury 2016).

One major challenge for host countries in maximizing the positive impact of FDI on the BOP is profit repatriation. This denotes the ability of a firm to send the foreign earned profit or financial assets back to the firm's home country in a hard currency such as USD, Euro or British Pound after meeting the host nation's tax obligation. The direct effect of FDI on the BOP of a host country, among other things, thus depends on the difference between net exports and profit repatriation. If net exports exceed profit repatriation, FDI will positively affect BOPs and if profit repatriation is higher than net exports, FDI will hurt the country's BOP position (Zhang, B. 2017).

Foreign currency repatriation is an area where developing countries need to be extra careful. While loose profit repatriation rules can be risky in terms of increasing the outflow of foreign currency, bureaucracy and other difficulties in repatriating profits or repayment of foreign loans are detrimental to the inflows FDI. In Thailand, authorized financial institutions that approve the remittance of foreign currency for repatriation of profits or repayment of a foreign loan make sure that the repatriation is made following terms and conditions of the relevant loan or other agreement, net of all taxes. Moreover, foreign investors in need of repatriating profits are required to submit certain document evidence such as a relevant invoice, a copy of the relevant loan contract and also must apply for the remittance if the amount exceeds $50,000 (Periera et al. 2016).

Countries also use bold measures, laws, regulations, and incentive mechanisms to guide FDI to priority sectors, areas, and objectives (export promotion, technology transfer, etc.) For example, China classifies FDI projects into four categories of encouraged, allowed, restricted and prohibited. Regulations that prohibit FDI participation in some sectors and industries are introduced to protect industries that the Chinese government considers strategic, sensitive or threatening to national economic and spiritual security (Chen 2011; Li 2013).

Under the pressure of BOP difficulty, the Thai government emphasized investment promotion and liberalization of hitherto restricted sectors. Laws and regulations limiting foreign ownership in certain activities have been progressively liberalized, especially after the Asian financial crisis of 1997-98 (Brimble 2002). In general, Thailand took a favorable policy approach towards FDI such as amending the alien business law which used to restrict majority foreign ownership in certain activities, financial sector liberalization, and legal infrastructure which defined a framework for foreign involvement in industrial restructuring and merger and acquisition (M&A) (Brooker Group plc 2002).

Foreign investment in Thailand is still divided sharply between local market-oriented and export-oriented production. Recently, however, the import substitution and export promotion

policies have begun to converge. Firms wishing to export most of their output now face fewer restrictions in terms of, for example, being able to locate anywhere, holding the entire shares in the affiliate, and receiving exemptions on duties of imported inputs and tax holidays. On the other hand, firms that wish to sell most of their outputs in the local market are prohibited or restricted in several ways (OECD 1999).

Vietnam also has a policy that favors foreign investors so that they can contribute to export promotion and diversification, with strong attention on the exports of the manufacturing sector and with a more limited concern in opening other potential sectors (UNCTAD 2008). Export-oriented growth strategy and the policy to favor FDI mainly in export-oriented manufacturing sectors are the secrets of success for Vietnam (Andronova et al. 2020).

Performance requirements

Unless incentive schemes are targeted and tied to performances, they can easily be manipulated or abused and may have unintended consequences. Putting performance requirements and imposing them in practice requires strong bargaining power and strong government bureaucracy, capacity and commitment to follow up their implementation.

Before joining the World Trade Organization (WTO) in 2001, China had policies that put performance requirements on foreign-invested enterprises. They were classified into compulsory, neutral and voluntary policies. The compulsory requirements included a balancing of foreign exchanges, procurement of domestically produced inputs above a certain threshold (local content requirement), and the minimum share of total products that must be exported. China also had requirements for technology transfer and the creation of R&D centers. China used to allow solely foreign-owned enterprises only under the condition that they either adopted advanced technology and equipment or exported the majority of their outputs. Otherwise, FDI had to be in the form of joint ventures and cooperatives. China used its strong bargaining power to dictate the form of FDI inflows in such a way that it could generate more technology transfer or export. Most of these requirements were abolished when China joined the WTO (Long 2005). Meanwhile, China's neutral policies aimed to create fair conditions for exporters from China and offer tariff and value-added tax (VAT) exemptions on imports processed for re-exports. Voluntary requirements were used to promote exports by offering a 50% cut in corporate income tax to firms exporting 70% or more of their outputs.

Bangladesh as a host country has provisions to promote inflows of FDI but these provisions are criticized for the lack of performance requirements. Since the country desires to attract more FDI and the pressure from MNCs is strong, requirements are hardly imposed. Even when they are imposed, the government is not strongly committed to enforcing them (Hossain et al. 2020).

Institutions, infrastructure and FDI-friendly business environment

Having a competitive advantage in certain factors of production and providing fiscal and non-monetary incentives are not enough to attract FDI. It is important to create and maintain a proactive and FDI-friendly business environment that must go with performance requirement provisions for foreign firms (Mujeri et al. 2021. In addition to the availability of cheap raw materials and low-cost labor, foreign investors take into consideration the quality of institutions and infrastructures of the host country in their investment decisions. If institutions are strong in terms of political stability, voice and accountability, control of corruption, government effectiveness, regulatory quality, and the rule of law, this will induce inflows of FDI and profit reinvestment instead of profit repatriation to the home country (Siddikee and Rahman 2020). In Thailand, macroeconomic stability, government effectiveness, regulatory quality, control of corruption and political stability are significantly and positively associated with inward foreign investment (Bunnag 2020).

While China and Thailand have done relatively well in improving institutions, building quality infrastructure and creating FDI friendly business environment, Vietnam and Bangladesh are lagging in this regard. In Vietnam, there are several factors identified as major impediments to FDI. They are related to the lack of adequate infrastructure, the legal environment, treatment of workers, environmental concerns, property rights, enforcement of contracts, long and non-transparent bureaucratic procedures, red tapes, and so forth (Lam 2014; Schaumburg-Müller 2002; Nguyen Xuan and Dinh Phi 2021). Current FDI laws in Vietnam are, however, quite liberal compared to other Asian countries for the protection of rights, preferential treatment and permitted types of investment (Nguyen Hoang Viet et al. 2019). Moreover, macroeconomic stability, qualified management force and workers' skills have been important factors that Vietnam used to realize the full potential of FDI on the balance of payments and the overall economy (Ngo et al. 2020). Similarly, in Bangladesh, while the low labor cost, natural resources and a high investment return are key strong features, the country has serious problems in the quality of its institutions. The problems include widespread corruption undermining good governance and the rule of law, high inflation crippling lives of the poor, shortage of electricity, rising import and a weak currency. These collectively worsen the balance of payments and impede the overall growth and development (Salman 2009).

Special economic zones

Developing countries may find it difficult to undertake nationwide reforms in institutions and infrastructures in a short period. It is therefore a practical policy option to develop special economic zones in limited areas and implement necessary reforms, provide business-friendly

services and quality infrastructure for FDI as a showcase that can be scaled up progressively over time. In this regard, China has a rich experience where its open-door policy was accompanied by the construction of special economic zones (SEZs). China's SEZs, which were concentrated in the Eastern Region, were a major pillar of economic development in the 1990s that strengthened the country's export performance and had a positive impact on its BOP (OECD 2000). Enterprises in the SEZs were offered standard policies such as tariff reduction or exemption and preferential tax treatment, which created a favorable business environment in geographically confined areas. This encouraged both domestic and foreign investment and promoted industrial agglomeration. China thus managed to establish SEZs that absorbed FDI and generated significant national benefits from it (Song et al. 2020).

Similarly, Thailand was able to develop competitive SEZs that attracted large amounts of FDI and improved the performance of the manufacturing sector. Thanks to these SEZs, the country became the center of world-class manufacturing with active participation in global value chains (Cesar and Wahyuni 2020). SEZs are used as an instrument to experiment in structural reforms which are difficult to implement at the national level. The zones are deployed to modernize Thailand's industrial structure, gain competitiveness and intensify its position in the value chain. The clustering of economic activities in certain geographical areas facilitated all this (OECD 2021).

Vietnam's SEZ policy targets encouraging export, attracting FDI and creating employment opportunities using different policy tools such as favorable corporate income tax, fees and land rent. The SEZs are also used as a means to provide better infrastructure and simplification of administrative management. The SEZs are built close to expressways, ring roads and national highways connecting regions in the country. These have been developed in steps. In the beginning, the focus was given to establishing export processing zones, then to industrial zones with export orientation. This was followed by the establishment of high-tech and cross-border zones as well as open and coastal economic zones to promote heavy industries. Finally, information technology parks and agricultural high technology parks were set up to encourage new industries in the country (Tien and Huong 2020).

3-4. FDI and the BOP in Ethiopia: policy and performance

In this section, we present Ethiopia's FDI policy from the perspective of the BOP and discuss its BOP position vis-à-vis the potential impacts of FDI on the two major components of the BOP. We look at trends in exports and imports (the trade balance) as well as how the foreign exchange needs of the country are financed, either by debt or FDI, and associated outflows of foreign exchange in the forms of profit repatriation and payments of interest and principal on the country's foreign loans.

3-4-1. Overview of Ethiopia's FDI policy[23]

When the Derg regime took power in 1974 and instituted a command economic system, it nationalized major industries owned by Ethiopians and foreigners. This scared off foreign investors from the country (Gebreeyesus et al. 2017; UNCTAD 2002). After the fall of the Derg in 1992, the country started to adopt a relatively more liberal policy and took reform measures as part of the structural adjustment program. It is since then that FDI as a component of capital formation gained importance in Ethiopia. In the same year, the Ethiopian investment office was established and the first investment proclamation was issued (Proclamation No 15/1992). This proclamation was the first step towards creating favorable conditions for the private sector, both domestic and foreign. The proclamation provided incentives to firms participating in the primary sector and allowed the participation of FDI with a minimum of $125,000 block account (Gebreeyesus et al. 2017; Teka 2013).

Since 1992, the investment proclamation has been revised several times to make the incentive scheme more generous, especially for those investing in the export sectors, hence ensuring the participation of more foreign investors in the economy (UNCTAD 2002). In 1994, the privatization program was started with the main objective of increasing the role of the private sector in the economy. To promote the export sector and engagement of the private sector, several measures were taken towards further liberalizing the investment regime and relaxing restrictions on the operation of FDI. These reform measures included liberalization of trade and the foreign exchange rate system, devaluation of the currency, deregulation of domestic prices, lowering of import duties, and relieving of export regulations and procedures. Despite these measures in the past, the Ethiopian economy is still highly regulated. Cross-border trade taxes are still relatively high, reaching as high as 240%, the foreign exchange rate is far from full liberalization with the exchange rate of the birr usually overvalued. The National Bank of Ethiopia practices foreign exchange rationing and the parallel market flourishes.

Following the introduction of the first comprehensive industrial development strategy in 2002/03, the government of Ethiopia took several reform measures towards promoting export and investment in selected priority sectors. The regulatory framework broadened economic sectors open to FDI, made licensing and registration easier, established financial limits for FDI firms, and stipulated financial incentives as well as monitoring and reporting requirements. Accordingly, economic sectors open to foreign investors are now all sectors except those reserved for domestic state and private investment—see UNCTAD (2002) for the list of sectors reserved for domestic investors only. For both wholly foreign-owned and joint ventures with

[23] For a detailed review of Ethiopia's FDI policy, see Chapter 1 of this report.

Ethiopians, the minimum required investment is set which can be paid either in cash or in kind. FDI and domestic investors are also required to provide progress reports on the status of projects to Ethiopian Investment Commission (EIC) every six months after receiving permission to invest (Gebreeyesus et al. 2017; UNCTAD 2002). These reforms may have contributed to the increased FDI inflow since the mid-2000s (Gebreeyesus et al. 2017).

Recently, the Ethiopian government issued Proclamation 1180/2020, a new investment proclamation that aims at increasing foreign exchange earnings through enhanced global competitiveness and expansion of exports of goods and services in volume, variety and quality. The proclamation also promotes the saving of foreign exchange through the local production of import substitutes. This will augment the BOP by stimulating export and replacement of hitherto imported goods by domestically produced goods. According to this proclamation, any investor may engage in any area of investment except in cases where it is contrary to the moral, law, public health or security of the country. Foreign investors are required to allocate a minimum capital of $200,000 for a single investment project or $150,000 if it is a joint venture with a domestic investor. This restriction remained the same as the provision in the previous Investment Proclamation No. 769/2012.

Investment Proclamation 1180/2020 also gives foreign investors the right to remit profits, dividends, principal and interest payments on an external loan of their investment out of Ethiopia in convertible foreign currency at the prevailing exchange rate. To further encourage foreign investors, the proclamation allows employment of duly qualified foreigners for the operation of their investment as trainers, high management, supervisors and other professions if Ethiopians possessing qualifications or experience required by the sector are not available. The regulations also provide a fiscal incentive scheme for foreign investors including corporate income tax holidays from one to nine years, additional tax holidays for priority sectors, duty exemption of raw materials used as inputs for export, provision of land with competitive lease prices, investment credit support, and duty-free import of capital goods (EIC 2018).

3-4-2. Trends in FDI inflows and the BOP in Ethiopia

FDI inflows to Ethiopia steadily rose since the early 2000s and showed a dramatic increase between 2012 and 2017. Specifically, net FDI inflows to Ethiopia increased from around $500 million in 2005 and 2006 to a peak of $4.17 billion in 2016/2017 (Figure 3-3). The big jump in FDI inflows during this period can be explained partly by the reform measures briefly mentioned in section 3-4-1 and more fully discussed in chapter 1. The observed increase in investment is mostly in the manufacturing sector and comes mainly from China, Turkey and India (Gebreeyesus et al. 2017). In the years after 2016/17, however, net FDI inflows have been continuously declining. This can be attributed to the political instability and associated

economic problems within the country during the same period. Despite this fall in the last three years, the average FDI inflows in the past five years (2015/16-2019/20) is greater than the average in the previous five-year period (2010/11-2014/15).

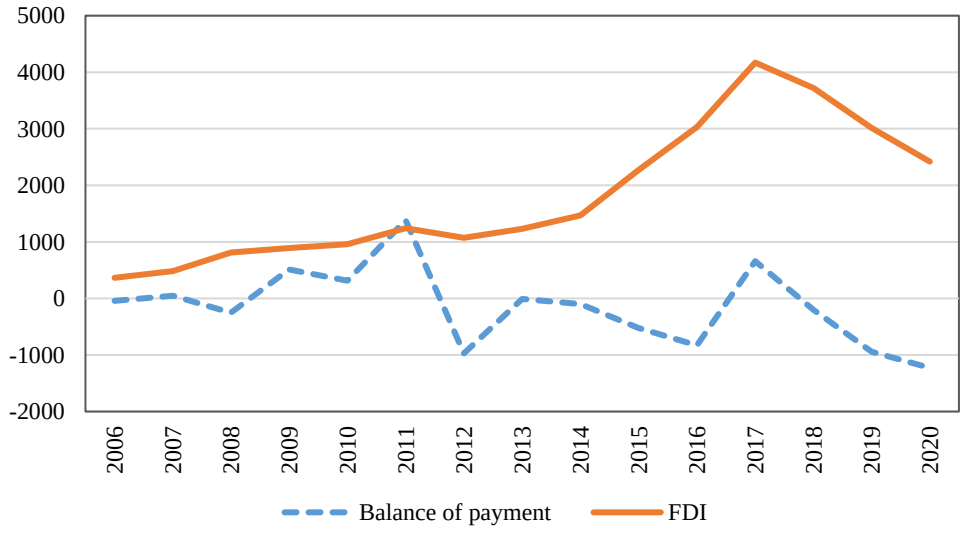
FDI as a share of GDP has also grown in the past years. It increased from 0.6% in 2012 to a peak of 5.8% in 2016. After 2016, it declined to reach 2.6% in 2019. Despite this, Ethiopia's FDI-to-GDP ratio is higher than the average of Sub-Saharan Africa (less than 2%) and that of low-income countries (less than 3%) for the period 2016-2018 (IMF 2020). If the current downward trend in Ethiopia's FDI inflows continues, the situation may be reversed in the near future.

With the new administration's clear move to restrain the use of foreign loans to finance public investment projects, FDI has become, and is projected to remain, an important source of external finance to ease the country's BOP pressure. Although this shift from debt financing to FDI financing of the BOP is important to reduce Ethiopia's external vulnerabilities, the current FDI inflows are not sufficient to cover the country's external gross financing needs (IMF 2020).

Figure 3-3 also shows trends in Ethiopia's BOP from 2006 to 2020. It has an alternating trend over the period. The BOP is mostly in deficit owing to the high import volume that significantly outweighs the volume of exports as well as the increasing need for foreign debt service. After dipping in 2011/12, Ethiopia's BOP has remained in deficit except for 2016/17, a year that saw some pickup in FDI activities.

Given that Ethiopia's capital account is relatively closed, the external financing needs of the country are mainly met by inflows of FDI and external loans taken by the public sector. The government's move to slow down external borrowings coupled with the unfortunate decline in

Figure 3-3. Ethiopia: Trends in FDI and the Balance of Payments (Million USD)



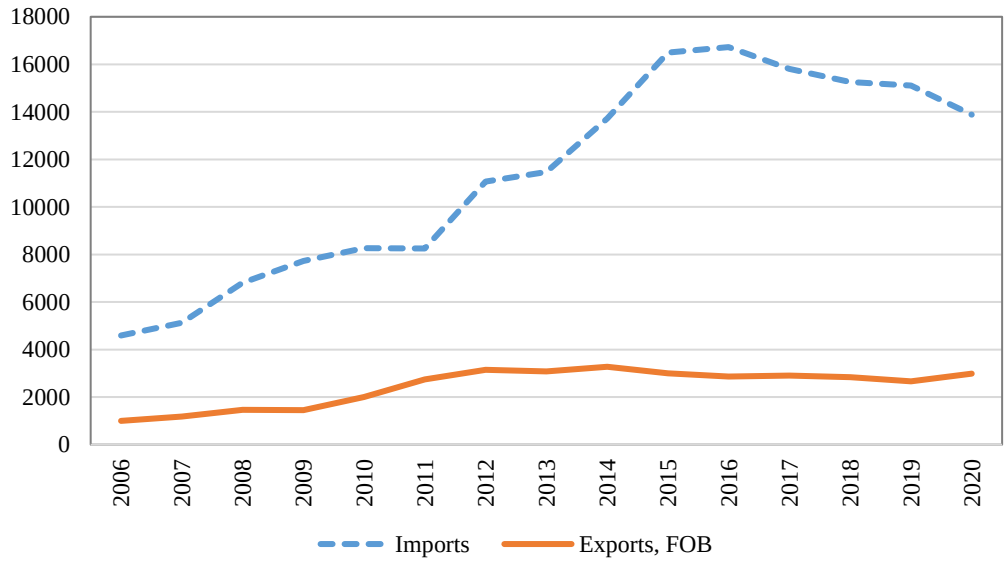
Source: author's computation based on data from the National Bank of Ethiopia.

FDI inflows has exacerbated the country's BOP pressure. The International Monetary Fund (IMF) characterizes Ethiopia's BOP pressure as acute and attributes this low performance to the "highly overvalued exchange rate, weaker-than-expected export performance in recent years, and elevated external debt servicing needs. As a result, Ethiopia is experiencing an intensification of its persistent FX shortages and a large FX backlog, resulting in continued rationing of hard currency" (IMF 2020).

3-4-3. The trade deficit, current account balance and FDI inflows in Ethiopia

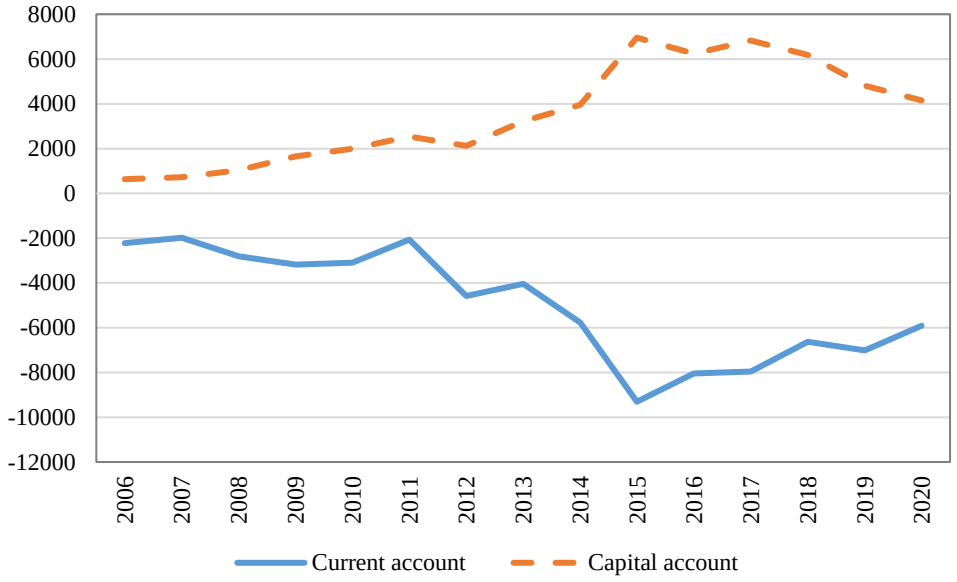
Ethiopia habitually runs a trade deficit, which is growing over the years, due to the stagnant export performance of the goods sector and an ever-increasing import bill. As depicted in Figure3-4, Ethiopia has a huge trade gap in the goods sector. After deteriorating for several years, the country's trade deficit started to show some improvement from around 2015/16. One of the likely explanations for this is import compression. Imports of goods have declined since 2016/17 during which the National Bank of Ethiopia implemented foreign exchange rationing. Ethiopia's trade deficit in the goods sector is to some extent compensated by a surplus in service trade as well as by inward remittances and official transfers. The current account has improved after reaching the low level in 2014/15 (Figure 3-5). The main reasons for this, apart from the import compression mentioned above, are reduced imports following a curb in public investment, an increase in private savings and increased official transfers (IMF 2020).

Figure 3-4. Ethiopia: Imports and Exports (Excluding Services) (Million USD)



Source: author's computation based on data from the National Bank of Ethiopia.

Figure 3-5. Ethiopia: Current and Capital Account Balances (Million USD)



Source: author's computation based on data from the National Bank of Ethiopia.

Except for the modest improvement in the service trade sector, export earnings do not play a meaningful role in reducing Ethiopia's current account deficit. Although the government's Second Growth and Transformation Plan (GTP II) stipulated an exchange rate policy to promote exports as well as efficient transport and logistics services, these issues remain major bottlenecks for the export sector. Similarly, the project for constructing industrial parks, which is supposed to stimulate exports through an increased supply of industrial land and the benefits of agglomeration, has not yet brought visible improvements in trade statistics.

FDI is believed to be a strategic tool to finance the BOP deficits through the introduction of foreign capital, export promotion and substitution of imports with locally produced goods. Cognizant of this, the government of Ethiopia has been working to increase FDI inflows with a focus on export-oriented FDI. The government offers an incentive system that favors the export sector and established several industrial zones with single window services. Yet, the performance of the export sector in general and FDI-driven export in particular has been significantly below expectations. Firms tend to sell more to the domestic market (Gebreeyesus et al. 2017; Teka 2013; UNCTAD 2002). Gebreeyesus et al. (2017) finds that only 16% of FDI firms in the manufacturing sector participate in exports and, on average, only 7% of their sales is bound for overseas markets. Although a better picture emerges when one focuses on the labor-intensive textile, apparel and leather products sectors where 47%, 50% and 68%, respectively, of these FDI firms are exporters. Overall, however, the performance of the FDI-driven export sector remains below expectations.

Several factors can be listed for this underperformance. First, although the government

places export requirements on MNCs, monitoring their fulfillment is challenging. On top of this, there is an anti-export bias created by the existing policies such as the overvaluation of the birr, high import duties and non-policy factors such as inefficient logistics including high freight costs and delays in customs clearance. Plagued by these factors, manufacturing firms in Ethiopia tend to be more interested in the domestic market than exporting (Gebreeyesus et al. 2017; Gebreeyesus and Kebede 2017). This accentuates the need for reform in the areas generating an anti-export bias and to make sure that the incentive system is result-based and easy to monitor.

Moreover, the high import intensity and the high debt-to-equity ratio of FDI inflows into Ethiopia may explain why the contribution of FDI to the narrowing of the BOP gap is minimal and ineffective. As argued in Sen (1995), the debt-equity ratio and direct import component of the FDI projects should be small for FDI to have a positive effect on the BOP.

In Ethiopia, many foreign investors avail themselves of debt-financed investment obtained from their source country or locally from the Development Bank of Ethiopia (DBE). When the investment is import intensive or does not generate sufficient foreign currency through export, capital flight may substantially attenuate the potential benefit of FDI as a partial solution to the country's current account and BOP deficits. Repatriation of foreign exchange earned from exports to finance MNCs foreign debts along with the possibility of inflated debt (usually from their parent companies), under-invoicing of exports, over-invoicing of imported inputs, defrauding of DBE loans to capital flight are some of the important factors that can explain the marginal contribution of FDI inflows to the BOP needs of the country (Gebreeyesus et al. 2017).

3-5. Policy recommendations and the way forward

In this chapter, we have assessed the BOP effects of FDI inflows from the viewpoint of a host developing country. As part of this, we have reviewed best practices of selected Asian countries focusing on policies they have used to attract FDI and maximize its positive impact on the BOP. Since the aim is to draw lessons for Ethiopia, we have also examined Ethiopia's FDI policy vis-à-vis its BOP performance. For foreign exchange-constrained countries like Ethiopia, FDI is an important source of capital that can be used to ease the BOP pressure. This can, however, be effective only if the FDI policies, requirements, incentives and monitoring mechanisms are well designed and properly implemented.

With its move to join the upcoming African Continental Free Trade Agreement (AfCFTA), access to the US and European markets via African Growth and Opportunity Act (AGOA) and Everything but Arms (EBA) tariff exemption arrangements, together with its relatively large and growing domestic market, Ethiopia is an attractive location for FDI. The government should therefore exert utmost effort to take bold reform measures and remove the identified

major bottlenecks in attracting FDI and maximizing its benefits for Ethiopia. Among the areas that require serious attention are macroeconomic measures towards controlling the high inflation and ending the overvalued exchange rate of the birr; reduction of bureaucratic hurdles in licensing, registration and customs clearance; and enhancement of infrastructural as well as logistic services. With these improvements, the government will have stronger bargaining power when negotiating with foreign investors and can also be more selective in the type of FDI it wants to attract. Moreover, the overvalued exchange rate of the birr and high trade costs produce an anti-export bias in Ethiopia. As a result of this, serving the domestic market appears to be easier and more lucrative than exporting for both FDI and local firms. If Ethiopia wishes to promote its exports and improve its BOP positions, this issue needs to be carefully addressed.

As Gebreeyesus and Kebede (2017) points out, Ethiopia focuses more on attracting new FDI, by providing incentives and relaxing restrictions on FDI participation in the economy, than trying to maximize benefits that can be obtained from FDI that is already in the country. The incentive scheme available to exporters and foreign investors should be redesigned in such a way that they become more result-based, easier to monitor, and less costly.

Chapter 4
Enhancing the Role of FDI in Technology and Knowledge Transfer

4-1. Introduction

Given the gap in technology and know-how between Foreign Direct Investment (FDI) source countries and their developing host counterparts, FDI can potentially play a crucial role in narrowing this gap. FDI is perceived as one of the key channels for technology and knowledge transfer across national boundaries and between firms (Torlak 2004). Technology transfer is the process of transmitting technical information from one party to another, assuming that the receiving party can successfully absorb it into its production process (Gheribi and Voytovych 2018). It transfers technology, know-how and expertise, including management practices, from one individual, enterprise, or organization to its counterpart (Tessema 2016). The benefit of these transfers is productivity spillovers, which take place when the entry of foreign affiliates in a host country leads to an increase in the productivity or efficiency of local firms (Blomström et al. 2000; Torlak 2004). Technology transfer is critical to the economic growth and welfare of any country regardless of its level of development. It is also a necessary condition to put developing economies on a path of sustainable development and poverty reduction (UNCTAD 2010).

The literature recognizes two major channels through which technology and knowledge transfer from FDI can occur: horizontal and vertical. With respect to the horizontal channel, the main mechanisms of positive technology externalities to local firms are the demonstration effect, labor turnover and the competition effect. On the other hand, vertical technology transfer occurs through backward (supplier) and forward (buyer) linkages. The backward linkage is often regarded as the main channel of FDI technology spillovers. Multinational corporations (MNCs) have more incentive to facilitate technology diffusion in this direction because they benefit from the improved performance of upstream input suppliers. Technology transfer can also occur directly through joint ventures between MNCs and local firms (Lee and Tan 2006; Fu 2008).

The extent to which new technology, knowledge and management practices are transferred to host economies varies significantly between regions and countries. These variations can mainly be explained by differences in local conditions, absorptive capabilities of local firms and government policy. The absorptive capacity of local firms and the existence of complementary assets are crucial to the technology and knowledge spillover from FDI (Fu

2008). The effectiveness of the transfer also heavily depends on the host country's political, economic and institutional conditions that allow the leverage of positive effects and reduction of FDI's adverse effects (Forte and Moura 2013). For an effective transfer of technology and knowledge through FDI, the role of government in supporting the transfer is vital in building domestic technological capabilities (UNCTAD 2007; UNCTAD 2010).

Among advanced countries, FDI has a significant effect on the local economy in terms of capital provision, technology transfer, employment opportunity, knowledge spillover and export promotion (Holland and Pain 1998; Doeringer and Terkla 2003; Djulius et al. 2018; Te Velde 2019). However, the empirical evidence on the effect of FDI on technology and knowledge transfer for developing countries is inconclusive. For some developing countries, FDI has been a significant factor for smooth technology diffusion (Torlak 2004; Lee and Tan 2006; Fu 2008; UNCTAD 2010) while for others it is either neutral or an ineffective device (Javorcik and Spatareanu 2005; Osano and Koine 2016; Gebreeyesus et al. 2017). In many developing countries, FDI fails to deliver knowledge and technology to local firms due to their limited absorptive capacity, weak supply chains, the unskilled labor-intensive nature of the production process, poor infrastructure, fragile policy coordination and targeting, the unfavorable political and economic environment of host countries, and so on (Acs et al. 2007; Todo et al. 2009; Djulius et al. 2018).

Ethiopia is keen to attract FDI as a bringer of technology and knowledge. The country has enjoyed an influx of investment particularly from China, India and Turkey. However, the investment proclamations of the country have been passive when it comes to the issue of technology and knowledge transfer. There are no specific interventions aimed at forming and strengthening linkages between FDI and local firms. Moreover, there is no mechanism to monitor and evaluate the technology and knowledge spillover effect of FDI (Gebreeyesus et al. 2017).

Research on the benefits of FDI concerning technology transfer focuses mainly on products or processes such as newly introduced machinery and software while the transfer of managerial know-how and skills is often overlooked. Managerial knowledge transfer from foreign to local firms through the diffusion of management practices is also a major benefit of FDI to host countries. Management practices represent regular routines of management operations of a firm towards work organization, organizational culture, production management and employee relationships. Such managerial knowledge is a key determinant factor for the firm's competitiveness (Teece and Pisano 1994; Fu 2012).

The purpose of this chapter is to (i) examine the presence and depth of linkages between FDI and local firms and the attendant benefits in knowledge and technology transfer and spillover in Ethiopia and (ii) propose policy options to strengthen the FDI-local firm linkage and enhance technology and knowledge spillover in the overall economy. In this spirit, it

examines both technological transfers by way of introduction of new products, machinery, software, etc. as well as the transfer of managerial know-how through the adoption of new managerial practices. These two types of transfer are distinguished in the literature review as well as our field survey reports.

The rest of the chapter is organized as follows. Section 4-2 reviews the literature on the mechanisms through which FDI can generate technology and knowledge transfer in the context of a developing host economy. Section 4-3 presents global policy practices for effective technology transfer and diffusion. Section 4-4 reviews the literature and policies regarding FDI and technology transfer in Ethiopia. Section 4-5, based on a field survey conducted in late 2020, examines the presence and depth of different mechanisms of technology and knowledge transfer in Ethiopia as well as the possibility of managerial knowledge spillovers. The last section concludes with a summary of the main findings and some policy recommendations.

4-2. Literature review

4-2-1. Mechanisms for technology and knowledge transfer through FDI

FDI transfers advanced technology and organizational know-how to domestically owned enterprises of host economies (Ikiara 2003). The literature distinguishes between knowledge transfer and knowledge spillovers. The former is an intentional transfer of knowledge from foreign firms to local ones and can be intra-firm or inter-firm while the latter is an unintentional transfer through externality that occurs between different firms (Smeets and Vaal 2006; Te Velde 2019). Knowledge can be explicit or implicit. Explicit knowledge can easily be communicated, codified and understood across or within firms. It can be explained in words and can be spread through written or oral explanations. However, most knowledge from MNCs is tacit and deeply rooted in the minds and experiences of individuals. It is therefore largely invisible and hard to codify, articulate or transfer in a systematic fashion (Nelson and Winter 1982; Kogut and Zander 1992; Wang et al. 2009). It cannot be conveyed or disseminated easily to local firms (Fu 2012). Technology sharing, personnel transfer, strategic interaction between MNCs and local firms, among others, are critical for knowledge exposure. However, some strategies are more effective than others for the transfer to take place (Inkpen and Dinur 1998).

Technology and knowledge transfer can be effected through various mechanisms. One popular mechanism is through supplier (backward and forward) linkages. Local suppliers of MNCs may generate backward linkage if they receive training, information and technical assistance to fulfill the required quality standard of inputs. The foreign firms may purposely transfer knowledge to their suppliers to reduce their production costs and raise efficiency. MNCs can also supply inputs to local firms and assist the modernization of their production

facilities which can induce technology transfer through forward linkage (Tessema 2016).

Another way of technology transfer is through the demonstration effect by which domestic firms learn and imitate a new product or a new organizational process from MNCs (Wahab et al. 2012). Firms in the same sector may also compete horizontally with MNCs forcing them to reform the management style and update production technology (Sönmez and Pamukçu 2013; Tessema 2016).

The movement of labor from MNCs to local firms is another mechanism for spillover of management practices to local firms. Most foreign firms invest in labor through stiff training to improve productivity using good management practices that can be transferred to local firms when employees move from foreign to local firms (see also Fu 2012). MNCs are more likely to manage their labor well towards improving their motivation and competence. They are also more likely to give due attention to the process of recruitment and training of the labor force. Local firms can benefit greatly from such labor migration (see also Ito et al. 2010; Franko and Kozovska 2010; Djulius et al. 2018).

Expatriates are also an important source of knowledge transfer and learning for local firms (Tsang 1999). MNCs frequently assign expatriate executives at overseas subsidiaries to transfer knowledge and enhance the subsidiary's performance through implicit knowledge transfer (Wang et al. 2009). In a joint venture setup, the local partner can acquire knowledge from the foreign partner with different degrees of effectiveness depending on the level of trust between companies, the depth of business relationship, the degree of engagement of the foreign company, and the intention of the joint venture to learn together under global competition. The knowledge absorption capacity of the local firm is a particularly significant factor for effective transfer (Park et al. 2009). Success hinges on the openness and receptiveness of the top management team of the local firm to embrace and assimilate practices exemplified by the MNC (Fu 2012).

The choice of mechanisms for technology and knowledge transfer depends on the characteristics of the host country, labor skills, the education level of the workforce, technological transfer requirements, the complexity and novelty of the technology, and the state of competition in the host country (Sinani and Meyer 2004; Wahab et.al. 2012). Likewise, the extent to which the mechanism can be effective depends on multiple conditions including the absorptive capacity of local firms, the extent to which various stakeholders are supportive of such knowledge flows, explicit and implicit policies of the host country, and the degree to which MNCs are integrated into the national economy (Fu 2008; UNCTAD 2010).

Public policy on inducing linkage and boosting knowledge transfer between FDI and local firms is also very significant. To promote economic development and to build linkage, political incentives are major drivers behind failures through lack of coordination, lack of leadership, low-quality business and state relations (Te Velde 2019). The technology and knowledge transfer policy of the host country should focus on boosting the absorptive capacity of domestic

enterprises, developing innovation systems at various levels, promoting technology dissemination through linkages, protecting intellectual property rights (IPRs), and targeting specific technologies and companies (UNCTAD 2010; Forte and Moura 2013).

4-2-2. Global evidence on technology and knowledge transfer through FDI

Though FDI is expected to generate technology transfer and spillover to the domestic economy and firms, the existing empirical evidence is mixed (Javorcik and Spatareanu 2005; Johnson 2005). Lee and Tan (2006) examined the intensity of technology transfer through FDI and the import of machinery in four Asian countries. Their result shows that technology transfer intensities vary across countries and the intensity of FDI inflow is strongly related to technology transfer in Singapore, Malaysia, Thailand and Indonesia. This is attributed mainly to local policies that fostered the absorptive capacity of local firms.

Fu (2008) investigated the impact of FDI on the innovation capabilities of regions in China. This author finds a favorable effect of FDI on regional innovation capacity and shows that this heavily depends on the absorptive capacity and the conditions complementary to innovation in the host region. Reenena and Yuehb (2012) states that the FDI policy in China has been pitched at developing joint ventures with foreign firms and attracting technology to improve the productivity of domestic firms. In China, the majority of FDI is in joint venture format which has a high likelihood to bring technology and knowledge spillover for domestic firms.

On the other edge, Ikiara (2003) notes that few studies address the FDI-local firm link in Africa and these studies signify the existence of limited technology transfer and spillovers to the domestic firms in the region. It is indicated that, to reap the benefits from FDI, Africa must put in place the necessary policies, regulatory frameworks, institutional setups and enforce them aggressively. Similarly, Torlak (2004) tested the intensity of technology and knowledge transfer through FDI for five transition countries in Eastern Europe including the Czech Republic, Poland, Hungary, Romania and Bulgaria. Torlak reports the lack of empirical evidence for technology diffusion from foreign firms to domestic ones in these transition countries.

The difference in local firms' capacity to absorb and adopt management practices of MNCs is a significant factor explaining productivity differences across countries (Bloom and Van Reenen 2007; Fu 2012). Doeringer and Terkla (2003) explored differences in the production functions and management practices between manufacturing plants newly opened and owned by Japanese MNCs in the US in the 1970s and 1980s and new branch plants owned by US corporations. A large difference was found in the extent to which new Japanese and US plants invested in management practices and human capital to promote productivity and management cultures. The management practices of Japanese FDI firms generated faster growth in productivity and employment. Branstter (2006) examined if FDI was a channel of knowledge

spillovers for Japanese MNCs investing in the US. It was discovered that FDI increased the flow of knowledge spillover in both directions, from and to the Japanese MNCs, because the absorbing capacity of human capital was high on both sides.

Ferretti and Parmentola (2010) analyzed the influence of host government policies on knowledge spillovers from FDI in Iran. It was shown that government could promote FDI knowledge spillover only if the absorptive capacity of local firms was improved and a strategic approach was introduced to create a connection between foreign investors and local firms. Similarly, Lashaki and Ahmed (2017) examined the influence of FDI on the catching-up process driven by labor, human capital, physical capital, absorptive capacity and export channel in the Asia Pacific region. They find a positive link between FDI inflow and absorptive capacity (human capital) which implies that human capital had to be a top priority in effectively producing spillovers.

Djulius et al. (2018) investigated if FDI could prompt knowledge spillover to textile companies in Indonesia through labor turnover, the demonstration effect and vertical linkage. Labor turnover is found to generate knowledge spillover while the demonstration effect promoted innovation. Nonetheless, the growth of the textile industry driven by foreign investment is relatively small in Indonesia compared to other developing countries like Bangladesh, India and Vietnam where initial technology and knowledge levels were higher and the absorptive capacity of local firms was also high.

Keller (2021) examined knowledge spillovers and positive externalities in the context of international economic transactions. The evidence shows that trade and FDI lead to sizable knowledge spillovers. Monge and Rivera (2021) similarly investigated knowledge spillover from MNCs to local firms in the IT sector of Costa Rica through labor mobility. Foreign and domestic firms and workers each exhibit salient characteristics and there is low mobility of labor from MNCs to local firms in the IT sector. IT workers at local firms with previous working experience in IT MNCs enjoy wage premium which suggests knowledge spillover through labor mobility.

The review above generally points to several determinants of effective technology transfer including the absorptive capacity of local firms, infrastructural development, human capital, labor mobility, joint venture arrangement, subsidized R&D, licensing, the political environment of the host country, the level of industrialization, market size, competitive environment, the system of proactive governance and fiscal incentives (Holland and Pain 1998; Todo et al. 2009; Lashaki and Ahmed 2017; Zhang 2017; Djulius et al. 2018; Hauge 2019; Te Velde 2019; Keller 2021).

4-2-3. Review of existing studies on FDI's technology and knowledge transfer in Ethiopia

This subsection highlights the existing evidence on the role of FDI on technology and knowledge transfer in Ethiopia. Geda and Meskel (2009) investigated the horizontal and vertical spillovers of Chinese investments in Ethiopia with attention to managerial skill transfer and technology spillover to Ethiopian firms. Although joint ventures are one means to increase the spillover, Chinese firms are not enthusiastic and call for appropriate incentives by the government if joint ventures are to be encouraged. The study further shows that, in negotiating and operating investment projects, the skill and expertise gap between China and Ethiopia works against the interest of Ethiopia in the short run, and the interests of both parties in the long run. As a precondition of a successful joint venture, Ethiopia needs to upgrade the skill of its workforce and the capacities of its officials and experts.

Bekele (2011) assessed the impact of FDI on knowledge and technology transfer in Ethiopian industrial parks. The results show that knowledge and technology spillover has not been achieved and foreign firms request renewal of expat contracts, citing insufficient training achievements by the locals as a major reason. These firms may even dismiss trained local workers due to unsatisfactory improvements.

Lemma (2011) examined the impact of FDI on technology transfer in Ethiopia. The study shows that the horizontal and vertical channels for technology transfer to local firms in the metal and engineering industries in Ethiopia are weak. According to the author, the main reasons for this are FDI's engagement in labor-intensive production systems, weak technology transfer policy, and the frail intention of MNCs to transfer technological know-how to local firms. Lemma et al. (2014) assessed the effect of FDI on technology transfer in Ethiopian metal and engineering industries. The technological capability of local industries to adopt and modify technology from foreign affiliates was found to be very weak. This was attributed to the uncooperative environment for foreign and local firms to work together and the technology policy of the country was too weak to soak up technology benefits.

Ahmad (2016) studied the impact of FDI on the productivity and growth of Ethiopian firms and found that domestic firms benefited from the presence of foreign firms in their respective sectors. Domestic firms in sectors with a higher presence of FDI show substantially higher total factor productivity (TFP) and output growth, suggesting a horizontal spillover effect. This effect is higher for firms with relatively high productivity and a low technology gap implying that more advanced domestic firms have a higher absorptive capacity, not those with a large gap to learn and fill. Begum and Tesfaye (2016) investigated the technology spillover impact of foreign firms on Ethiopian firms using primary data. The presence of foreign firms creates technology spillover but the magnitude is found to be small. The demonstration is the most effective channel for spillover followed by linkages. The study also confirms that changes in organizational setup and management practices are the most common response of local firms to the influence of MNCs while changes in products and processes proved to be weak.

Gidey (2020) empirically examined the effect of FDI on TFP, export and employment in Ethiopia. FDI exerts a significant positive effect on TFP in the long run but has a negative impact in the short run. The study also urges the government to improve the overall business climate to encourage foreign firms to locate and stay in Ethiopia. This should include ensuring economic and political stability, providing multiple incentives, keeping law and order, developing infrastructures, and minimizing corruption and unnecessary bureaucracies. Negash et al. (2020) examined the impact of Chinese FDI in Ethiopia on the productivity of domestic firms through horizontal linkages and absorptive capacities. Chinese firms are more productive than local firms and their existence may produce potentially positive productivity spillover for domestic firms. Chinese manufacturing firms operate more efficiently due to superior production technology and greater managerial ability. However, local firms gain positive spillover only when they already have high absorptive capacity while local firms with low absorptive capacity fail to enjoy the spillover. This echoes the conclusion of Lemma's research cited above.

Abebe et al. (2018) did a case study of FDI and knowledge diffusion in Ethiopia. They find that one-third of Ethiopian plants are linked to FDI through labor sharing, supply chains and competition. Exposure to foreign firms induces changes in production processes, managerial practices, exporting knowledge and logistics of domestic firms. Knowledge transfer is found to be stronger with labor and firms linked vertically with FDI. Abebe et al. (2018) indicates that vertical linkage operates primarily between local suppliers of inputs and foreign firms procuring them. Foreign firms have an incentive to upgrade the quality of domestically purchased inputs for the sake of their efficiency, and this contributes to technology transfer. The study further indicates that the low quality of inputs has been a critical factor limiting vertical linkage between foreign and local firms.

Brautigam et al. (2013) shows that FDI firms engaged in the processing of raw hides and the production of leather products have limited technology and knowledge transfer to local firms and workers. It is argued that the Ethiopian investment policy encourages value addition and local processing by large foreign tanneries but fails to encourage smaller Ethiopian tanneries.

Begum and Tesfaye (2016) examined the existence of knowledge and technology transfer from foreign to local firms in the Ethiopian manufacturing industry using firm-level survey data. Evidence indicates weak knowledge and technology spillover mainly in terms of the demonstration effect and linkages. Changes in organizational setup and management practices are common adaptation by local firms but reactions in products and processes are low.

Tang (2019b) examined Chinese investments in the leather and leather products sector and the impact on employment creation, export, productivity increase and knowledge transfer of Ethiopian firms and workers. A positive contribution to employment and export was detected,

but problems were found in the interaction of Chinese and Ethiopian stakeholders to facilitate knowledge transfer which was attributed to the lack of insights on the domestic side into international business reality which produces numerous inaccuracies.

Vallejo and Mekonnen (2021) asks if current Chinese and Indian FDI in the Ethiopian textile and garment sector supports knowledge-based economies or shifts growth direction to non-inclusive patterns. It was discovered that foreign firms neglect training and technology transfer beyond what is strictly required for their operations. FDI firms discourage learning by local firms which makes them turn to the local traditional clothing segment.

In sum, empirical evidence suggests that FDI in Ethiopia has not been successful in transferring managerial know-how to local firms as much as it should or is expected. Forward and backward linkages between MNCs and domestic firms are very weak which can be attributed to several factors which require further empirical investigation. Unregulated FDI and the lack of sound business relationship between foreign and local firms and the passive role of government in technology and knowledge transfer result in weak local learning and technological upgrading.

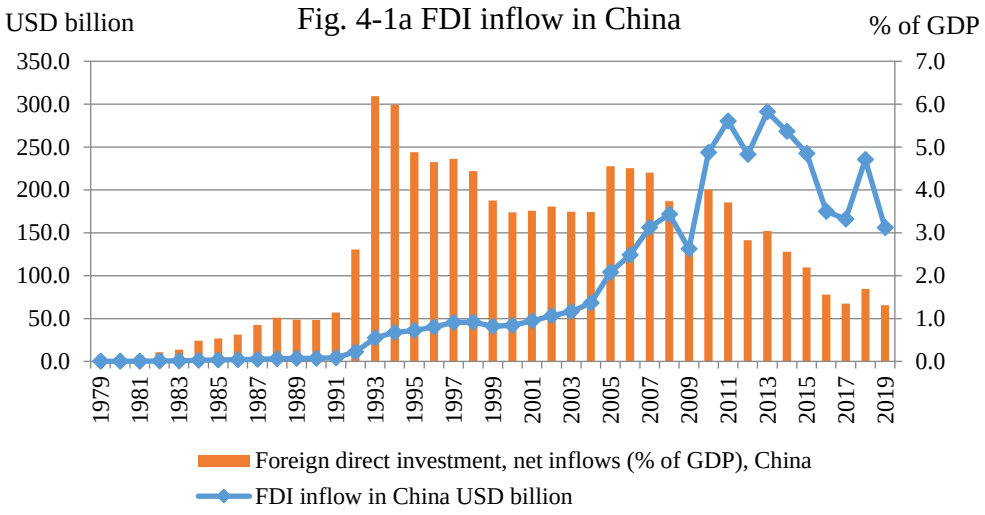
Although FDI attraction is among the top priorities of the Ethiopian government, the investment proclamations and regulations practically fail to provide adequate strategies and incentives to encourage knowledge and technology transfers to domestic firms. They also fail to explicitly stipulate R&D and joint venture requirements and incentives needed for such arrangements (Gebreeyesus et al. 2017; Abebe et al. 2018; Hauge 2019; Tang 2019a; Negash et al. 2020; Vallejo and Mekonnen 2021). There is an urgent need for Ethiopian FDI policy to more concretely support the capability development and supply chain expansion of the domestic sector.

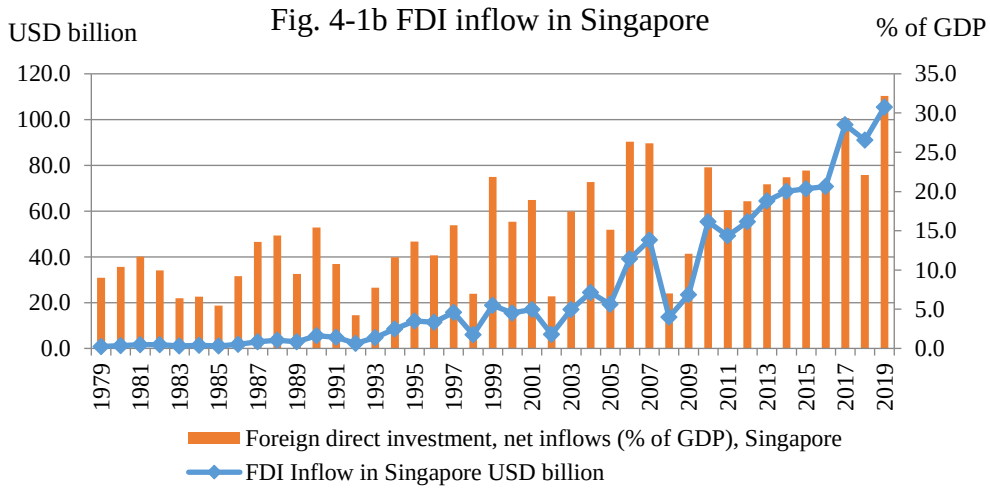
4-3. Some policy lessons from best global practices

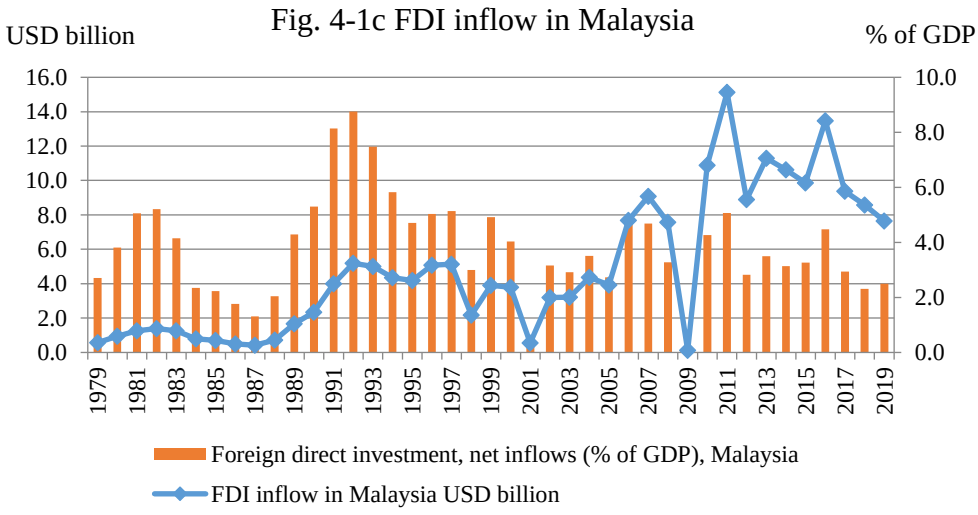
The benefits of FDI to the economy of the host country do not accrue automatically or evenly across local firms. National policies matter greatly for attracting FDI and reaping the technology and knowledge transfer benefits from it. The presence of foreign companies is the most important channel for technology transfer to domestic firms through positive externality (OECD 2002). In this section, FDI policies and regulations for effective transfer of technology and knowledge by China, Malaysia and Singapore are discussed as the best global practices from which policy lessons can be drawn. These Asian countries are chosen for our review because their policies are explicitly or implicitly designed to develop indigenous capabilities.

Figure 4-1 (a to c) presents the FDI inflow of the selected three Asian countries, respectively China, Singapore and Malaysia. These countries not only have achieved success in attracting

Figure 4-1. FDI inflow in Selected Asian Countries







Source: author's computation based on data from World Bank, *World Development Indicators*.

FDI but also applied innovative policies to maximize the technology and knowledge transfer from FDI. This section briefly reviews the key policy lessons from each of these countries.

China

FDI inflow to China was low until the 1980s. After China opened the door for foreign investors in the 1990s, it experienced a large FDI inflow. It has reached a peak in 2013 with about $291 billion annual net inflow. The proactive local policy boosted the capacity of domestic firms to absorb technology and knowledge from MNCs. China was gradually transformed from a centrally controlled economy to a market economy with very high Gross Domestic Product (GDP) growth (Zhang 2011). The following factors made China different from other countries.

- An emphasis was given on aligning FDI inflow with national priorities such as supporting innovation, industrial sophistication, developing poorer hinterland regions, and setting up outsourcing industries (Davies 2013).
- There were four specific reasons for China to promote FDI: introduction of advanced foreign technologies and professional management; making up the capital shortage for economic construction; reducing unemployment; and FDI as one of the important drivers of the market-oriented economic reform (Zhang 2011).
- FDI intensity was positively related to the innovation efficiency of different regions in China, exerting a positive impact on the overall regional innovation capacity. This was attributed to the proactive policy, the high absorptive capacity by local firms and innovation- complementary assets in the host regions (Fu 2008).
- To encourage technology transfer, China's FDI policy gave preferential treatment to firms conducting export and technology transfer.
- Transition over time from promoting exports of low-tech and labor-intensive industries to those of more advanced industries with higher technology requirements (Fung et al. 2004).

Singapore

In Singapore, FDI inflow has been the major cause of rapid economic growth and it became one of the largest recipients of FDI in the world (Ratiphokhin 2011). Singapore transformed its economy by enhancing the technological capabilities of its industries through calculated policies. In the 1960s and 1970s when unemployment was high, attracting foreign companies was necessary to generate employment. Subsequently, FDI became the major instrument of development strategy to make Singapore a business hub of the global market (Koh 2006). As indicated in Figure 1b, FDI inflow in Singapore was low initially, but through time and thanks

to the purposeful and committed FDI policy, the country drastically increased its FDI inflows and reaped its benefits (Koh 2006; Branstetter 2006; Ratiphokhin 2011; Gebreeyesus et al. 2017). FDI net inflow as a percentage of GDP had reached up to 30% in some years.

- In Singapore, FDI remained a significant tool for technology transfer even after the Asian financial crisis of 1997-98. It managed to attract more FDI which generated the expected benefits of technology spillovers (Branstetter 2006).
- Singapore had a proactive and dynamic FDI policy, incentives and institutional setup for technology and knowledge transfer. The initial stress on labor-intensive manufacturing was later replaced by a focus on skill-intensive manufacturing that produced higher value-added and, more recently, knowledge-based professional services such as Information and Communication Technology (ICT), finance and offshore services which are now the main drivers of the Singaporean economy.
- The government took measures to improve the technology absorption capacity of SMEs and create linkage with MNCs (Gebreeyesus et al. 2017). For MNCs, generous tax and grant incentives were provided by the government along with public investment in technological infrastructure.
- The government has made systematic efforts to re-fashion infrastructure and institutions to become an innovative economy.
- To upgrade the nation's technological capabilities, Singapore has an open-door policy to attract global talents and a policy to strengthen the linkage between research institutions and the private sector (Koh 2006).

Malaysia

Malaysia is one of the newly industrialized countries and has been among the fastest-growing economies in the world like China, India and Thailand (Ratiphokhin 2011). FDI inflow in Malaysia was moderate in earlier periods but an increase was observed starting in the late 1990s (Figure 4-1c). This was attributed to the augmented technology absorptive capacity of firms through various policies and incentives.

- Technology spillover has been supported by many policy instruments and took different forms including vertical and horizontal linkages (Gebreeyesus et al. 2017). Regarding the intensity of technology transfer, Malaysia was second-highest among Asian economies after Singapore. After the Asian financial crisis, momentum was gained in attracting inward FDI, and Malaysia was successful in tapping its benefits and technology transfer. To this, the local policy combining restrictions and incentives contributed greatly which strengthened the absorptive capacity of local manufacturing firms (Lee and Tan 2006). FDI policy in Malaysia has been selective and based on the motive of investment (introducing

new technology, value, etc.) rather than sectors.

- Malaysia has a dualistic policy towards incoming FDI. MNCs that contribute to technology transfer, exports or other national objectives are provided with fiscal and other incentives with few restrictions. However, if their activities are detrimental to local producers in any sector, they are prohibited from entering that sector or face many restrictions even if they are permitted to enter (OECD 1999).
- To reduce reliance on imported intermediate inputs of SMEs and induce technology transfer, the government introduced different programs: the Vendor Development Program (VDP), the Industrial Linkage Program (ILP) and the Global Supplier Program (GSP) which promoted horizontal and vertical linkages of local firms with MNCs, and Penang Development Corporation (PDC) as a technology incubator (Gebreeyesus et al. 2017).
- The FDI policy in Malaysia has its own requirements and incentives. To obtain a manufacturing license it must be approved by the Malaysian Investment Development Authority (MIDA) or the Foreign Investment Committee (FIC). Investors must be checked for technical and marketing agreements, distribution pattern, location, equity structure, use of local professional services, construction date, quality standards, pricing and use of local raw materials. Investments that conduct more activities in the domestic market naturally have a greater scope for technology transfer and linkages with the local economy.
- Malaysia's principal investment incentives are the Pioneer status (tax holidays) or an investment tax allowance given to companies that bring high-technology products or activities, strategic products with national importance, support for small-scale industries, technical or vocational training, and R&D activities. Profits are freely remittable and exchange controls are minimal which makes investments more attractive for foreign investors (OECD 1999).

4-4. Policies, instruments and institutions in promoting technology and knowledge transfer in Ethiopia

Ethiopian policies related to foreign investors date back to the Imperial regime when three consecutive five-year plans were executed. Though these plans were restrictive for domestic firms, investment by foreigners in the manufacturing sector was encouraged with various incentives (Chole 1995; Gebreeyesus et al. 2017; Kebede 2020). During the Derg regime, companies were nationalized and the private sector was abolished. The joint venture proclamation of 1983, which was revised in 1989, aimed to attract FDI but failed to do so as foreigners were uncomfortable with the regime (World Bank 1985; UNIDO 1991; Gebreeyesus et al. 2017). After the regime change in 1992, a series of reforms including privatization, market deregulation, trade liberalization, several investment proclamations, and new laws were put in

place. The 1992 investment proclamation was restrictive in the sense that a huge capital requirement was placed on foreign investors without offering sufficient incentives. Since then, the proclamation has been refined repeatedly to overcome its limitations. The most recent revision as of this writing of the investment proclamation and regulation was done in 2020 whose implications towards technology and knowledge transfer are discussed below.

4-4-1. Proclamations, regulations, incentives, and technological capabilities for technology and knowledge transfer in Ethiopia

A full review of the policies and regulations regarding FDI in Ethiopia can be found in chapter 1 of this report. This part tries to briefly highlight the relevant and current legislation related to FDI technology and knowledge transfer. Ethiopia's current investment regulatory framework is defined by Proclamation No.1180/2020 enacted on 2 April 2020 along with Investment Regulation No. 474/2020 enacted on 2 September 2020. The objectives of the proclamation are to enhance the competitiveness of the Ethiopian economy; create more and better employment opportunities for Ethiopians; increase and save foreign exchange through promoting investments in productive and enabling sectors, by advancing the transfer of knowledge, skills and technology required for national development, encouraging the expansion of volume, variety and quality of the country's export products and services; save foreign exchange through local production of import substitutes; augment the role of the private sector; create an integrated economy by strengthening inter-sectoral and foreign-domestic investment linkages; encourage socially and environmentally responsible investments; and exploit and develop natural, cultural, and other resources of the country.

The proclamation requires foreign investors to allocate a minimum capital of $200,000 for a single investment project and $150,000 if the foreign investor invests jointly with a domestic investor. The investment regulation specifies investment areas reserved for joint investment with the government, those reserved for domestic firms, those reserved for joint investment of domestic investors with foreign companies, and those reserved for foreign investors.

Any investor concluding a technology transfer agreement associated with the investment must register the agreement with the Ethiopian Investment Commission (EIC). The commission shall notify registered agreements to relevant federal executive bodies and the National Bank of Ethiopia. Article 19 of Regulation 474/2020 specifies the procedure for knowledge and skill training and transfer to local employees. An investor employing foreigners in permanent occupation is obliged to replace the expats with Ethiopians through job training and transfer of knowledge within a clear time frame.

The proclamation and the investment regulation do not explicitly reveal incentive schemes to support technology and knowledge transfer to local firms. In either document, there is no

joint venture requirement to induce technology transfer, linkage creation requirement such as setting a standard, or local input use requirement. This indicates passivity in the policy framework for using FDI in transferring technology and knowledge to domestic firms. Though refined repeatedly, the current proclamation and regulation remain general covering all types of investments. They are not sufficiently specific and lacks structured instructions for implementation. A more concrete FDI policy is required to augment the benefits from FDI and minimize its risks and setbacks.

4-5. Technology and knowledge transfer from FDI: survey results

As explained in the introduction section, technology and knowledge transfer can take place through vertical (supply) linkages, horizontal linkages and spillover (which includes the demonstration effect, competition effect and labor or management turnover) as well as through joint ventures.

Using data from a field survey, this section examines the presence and depth of different mechanisms of technology and knowledge transfer in Ethiopia. The survey was conducted in the first quarter of 2021. It had a randomly selected sample of 30 firms out of which 16 were FDI and 14 were local firms. They all belonged to the manufacturing sector covering four production sub-sectors: textile and garment, leather, brewery and automotive assembly. Table 4-1 gives the sectoral distribution and export participation of the surveyed firms. The textile and leather sectors each consist of one-third of the overall sample size while automotive and brewery respectively account for 20% and 13%. The FDI firms are more export-oriented than the local firms. On average, about 70% of the FDI firms export 75% or more of their output while only 14% of the local firms export 75% or more. See chapter 5 for more details on the survey and chapter 6 for comparative analysis of garment exports by Ethiopia, Vietnam and

Table 4-1. Sector Composition and Export Orientation of Sampled Firms

	Ownership composition				% of firms that engage in exports		% of firms that export 75% or more	
Sector	Number of local firms	Number of FDI firms	Total number	Sector share (%)	Local	FDI	Local	FDI
Automotive	3	3	6	20.0	0	0	0	0
Textile & garment	4	6	10	33.3	50	100	25	100
Leather	5	5	10	33.3	100	100	20	100
Brewery	2	2	4	13.3	50	50	0	0
Total	14	16	30	100	57	75	14.3	69

Bangladesh.

The four sub-sectors are among those to which Ethiopia is seeking to attract foreign investors for competitiveness and technology transfer. The textile and garment, leather and food industries are designated as export-oriented priority sectors. Categorized within the metal and engineering sub-sector, the automotive industry is among the sub-sectors expected to effect meaningful technology transfer and facilitate Ethiopia's industrialization through import substitution.

4-5-1. Technology transfer

Vertical linkages

The literature tells us that vertical linkage in general and local backward supply linkage in particular are the main channels of technology transfer from FDI to local firms. Table 4-2 reports the import intensity of local and FDI firms by sector. The firms in our sample by and large depend on imported inputs leaving little room for domestic supply linkage. As a result, the perceived benefit of technology and knowledge transfer cannot be realized. FDI firms are more import-dependent procuring 78% of their inputs from abroad in comparison with local firms (65%).

In terms of sectors, the automotive and textile and garment sub-sectors are more dependent on imported inputs. In the automotive sub-sector, one firm entirely imports its input requirements except for consumable supplies. The other two firms purchase 20% of their inputs

Table 4-2. Import Dependence and Technology Transfer

	% of imported inputs (raw materials, intermediaries)		Number of local suppliers as reported by FDI			Do relations of FDI with local suppliers require technology transfer? (yes)	Have you ever been involved in any capacity-building activity for your supplier? (yes)	Number of FDI firms
Sector	local	FDI	None	2-10	> 10			
Automotive	75	86.7	1	0	2	1	1	3
Textile & garment	75	100	5	1	0	0	0	6
Leather	48	42.5	0	2	3	2	1	5
Brewery	72.5	69	0	1	1	0	1	2
All sectors	65	77.9	6	4	6	3	3	16

(wood, metal, leather, and tire) from the domestic market. The situation remains the same with local automotive firms as only one of the firms sources its input needs locally, while the other two use 100% (directly or indirectly) imported inputs. Only one of the FDI firms in this sub-sector confirmed that local sourcing involved technology transfer.

Similarly, all the FDI firms in the textile and garment sub-sector import their input needs except for consumable supplies. As reported by our key informants, this is because these manufacturing enterprises enjoy duty-free importation while local procurement is expensive because local suppliers import materials by paying taxes. FDI firms, therefore, have little interaction with local suppliers. In the case of local textile and garment enterprises, except for one firm which uses 100% locally sourced input, the rest use inputs that are directly or indirectly imported. Table 4-2 thus provides little evidence of technology transfer via linkages between FDI firms and their local suppliers.

By contrast, all leather factories in the survey procure leather from the local market and import some from abroad. For chemicals, they mainly rely on imports. These factories indicate that quality (softness, defects, color and thickness), volume and timely delivery are the main constraints when dealing with local suppliers. Some firms report that they transfer technology in how to process sheepskin for shoe production and support other firms to finish processed skin (previously exported as semi-processed) for domestic shoe production. Except for one firm, all of the leather products manufacturing firms replied that their linkage with suppliers involved technology transfer.

Meanwhile, as shown in Table 4-2, the breweries source about 20% to 30% of their input (barley malt) from the local market which involves technology and knowledge transfer to some extent. Currently, one of the breweries mainly purchases barley malt from local malt factories (Assela Malt factory and Gondar Malt factory) and the other foreign brewery procures its malt from Assela Malt factory and (cooperative) farmers in Arsi, Bale, Shoa and Gojjam. To ensure quality and consistent supply, this brewery is working, through the out-grower or contract farming scheme, with 55,000 farmers in the said areas to build their capacities through training, recruiting experts to supervise and support the farmers through research (extension service), arranging a revolving fund, and supplying an improved barley malt variety from Europe. The beer factories generally state that, even if they prefer to buy inputs from domestic suppliers, they do not always do so as the local price is high, quality is low, and quantity is insufficient to meet their demands.

Horizontal linkages and spillover

Table 4-3 summarizes the responses of both the FDI and local firms regarding horizontal linkages and the technology spillover effect. The majority of the foreign firms, respectively

Table 4-3. Perceptions of FDI and Local Firms Regarding Technology Transfer and Spillovers

	Response	# of firms	% of firms
FDI firms			
Have you observed domestic firms (competitors within the same sector) changing production techniques/processes due to competitive pressure from your enterprise?	Little or never	11	69
Have you observed domestic firms (competitors within the same sector) trying to directly adopt production techniques/processes by observing or copying from your enterprise?	Little or never	12	75
Have you ever observed former employees leaving the enterprise to set up a business that is enterprise and becomes competitors?	Yes	0	0
Have you ever observed former employees leaving the enterprise to set up a business that is enterprise and becomes customers?	Yes	2	13
Have you ever observed former employees leaving the enterprise to set up a business that is enterprise and become suppliers?	Yes	0	0
Are you willing to work with domestic firms as a joint venture?	Yes	11	69
Have you ever been involved in any activity of capacity building for your supplier?	Yes	3	19
Total number of FDI firms		16	100
Local firms			
Have you ever changed production techniques/processes due to competitor pressure (in order to keep up) from MNCs/FDIs within the same sector?	Yes	6	43
Has the firm tried to directly adopt production techniques/ processes (by observing or copying) from MNC/FDI competitors?	Yes	7	50
If yes, have you ever felt that MNCs/FDIs try to prevent this technology transfer from occurring?	A great deal or much	9	64
Has the firm ever hired employees trained in MNC/ FDI?	Yes	9	64
If yes, has the engagement of these employees ever directly resulted in changes in production techniques/processes in the enterprise?	Yes	8	57
Is there any policy support (incentives) provided for technology/knowledge transfer by the government which you find useful or want to receive?	Yes	3	21
Are you willing to work with foreign firms in any joint venture arrangements?	Yes	8	57
Total number of local firms		14	100

69% and 75%, stated their observation that domestic firms are neither changing their production processes nor directly adopting production techniques from the foreign factories. In contrast, 43% and 50% of local firms responded to having changed their production techniques or processes to keep up with competition arising from FDI in the sector whether directly adopting FDI production techniques or through other means. The difference in the observation between FDI and local firms might be due to either the lack of formal assessments or lack of concern as the foreign and local firms do not compete in the same market. On the other hand, about two-thirds of the local firms interviewed feel that MNCs try to prevent technology transfer from occurring.

Unlike the other sectors which mainly produce for the export market, there is severe competition among the breweries to increase or maintain their domestic market shares. In Ethiopia, according to the key informants, the beer companies compete through process configuration, accessibility and expansion, upgrading technology, and aggressive promotion and advertising. Because of the influence of foreign investors, domestic firms have been forced to partner with foreign firms to introduce foreign technology to standardize their products. Foreign beer factories that we interviewed suggested that domestic beer firms have made changes and adjustments in their production process and techniques to cope with the increased competition. One key informant pointed out that "to keep their place in the competition, domestic breweries have partnered with foreign beer companies to adopt technology and process. As such, all have their own technology and standard, and don't directly adopt ours."

The FDI firms state that there have been no cases where their former employees set up businesses to become either their competitors or suppliers of raw materials and intermediate inputs. There were, however, two cases where former employees upon leaving the enterprise became customers. They opened a hotel or restaurant which purchased beer from the factory.

Concerning the hiring of skilled workers, 64% of local firms responded that they hired employees trained in an MNC or FDI. 57% admitted that the engagement of these employees directly resulted in changes in production techniques or processes in their enterprises. There are, however, different stories regarding skill poaching depending on the sector. In the automotive sub-sector, despite the high demand and relatively limited supply of skilled workers, all three foreign firms had never felt competition in the labor market. In the textile and leather sectors, where foreign firms recruit unskilled workers and train them internally, there is little competition for a skilled labor force in the market. However, skilled employees do sometimes leave FDI firms to join other foreign firms or local firms which results in technology transfer. In contrast, in the beer industry, there are severe competition and active poaching of skilled workers. To retain their employees, they must compete in salary and other incentive packages.

Joint venture

Joint venture with foreign firms is another key channel for technology transfer, which has been widely employed particularly in China. Foreign investors may also benefit from joint ventures by bypassing restrictions imposed on foreign ownership, understanding local customs and practices, and better access to the local market. The government of Ethiopia encourages joint ventures with foreign investors but lacks a comprehensive framework to attract, manage and benefit joint ventures.

In our sample, three firms registered as local (two beer and one automotive) and two as FDI (both automotive) are already joint ventures. The survey asked both FDI and local firms if they were willing to work in joint venture arrangements (Table 4-3). The responses show that 69% of foreign firms are willing to form a joint venture. For FDI firms, the main motivation for choosing a joint venture is to access the growing domestic market and share the costs of expansion. Foreign firms in the textile and leather sectors are particularly interested in joint ventures due to the restriction imposed on them not to sell in the local market as they are designated as export-oriented FDI and entitled to several export-related incentives. But we do not see a similar appetite in import-substituting FDI, for example in the brewery industry, as they already have full access to the local market.

Table 4-3 also shows that 57% of local firms are willing to have a joint venture arrangement. They perceive that joint ventures can help them to earn an international reputation and strengthen their firms through technology and skill transfer. Several local firms do not show interest in joint ventures although they do not give clear justification for this.

Government's requirement and support for technology transfer

Except for two small automotive firms, all other FDI firms in the survey agree with the requirements set by the government of Ethiopia for knowledge and technology transfer. Nonetheless, the majority acknowledges that they are doing little in technology transfer except for training their own employees. In general, firms comply with the requirements through the following methods.

- Training their employees (pre-employment and on-the-job training), often by inviting foreign trainers.
- Providing an opportunity for their employees to visit and obtain training at the parent company.
- Allowing domestic firms to visit their factories and share experiences.
- Cooperating with Technical and Vocational Education and Training (TVET) colleges and universities for factory visits, practical teaching and apprenticeship.
- Collaboration with researchers who can document and share insights (knowledge) through seminars and conferences.

A concern has, however, surfaced that, while firms are willing to support technology transfer, government bodies are not doing what is expected of them in facilitating the knowledge and technology transfer. There are general support and incentives such as duty-free imports and tax breaks for foreign textile and garment firms, these are not distinctly or directly tagged as incentives for technology transfer. Beer factories feel that they are no longer required by the government to engage in any knowledge or technology transfer because they have become a "disfavored sector" by the imposition of a 25% exercise tax on alcohol and banning its advertisement in the media.

The following suggestions were forwarded by the respondents to resolve the prevailing problems regarding knowledge and technology transfer.

- Proper and strict supervision and evaluation of knowledge and technology transfer to identify which companies are doing well in such transfer and which ones are not.
- As foreign trainers are paid in foreign currency, standards are needed to determine whether foreigners are transferring knowledge to workers, and license renewal should depend on the extent of knowledge they have transferred.
- The human resource on the Ethiopian side should also be assessed if it is capable of acquiring the knowledge transferred;
- There should be distinctive incentives (priority allocation of foreign currency, low shed rents, tax reduction, etc.) and official certificates for those who can transfer knowledge or technology.

4-5-2. Management practices

Companies with best management practices have a clearly defined organizational culture, establish clear communication with employees, engage workers, reward efforts, focus on teamwork, share responsibility, and update the organizational community through regular meetings. This sub-section asks whether the firms that participated in the survey implement good practices to manage their organizational resources and create smooth linkage with customers. We analyze the differences in managerial practices of foreign versus local firms and see if there are lessons local firms may learn from their foreign counterparts in Ethiopia.

Organizational culture and socialization

All the firms, local and foreign, we interviewed have well-articulated vision and mission statements, although they differ in the effectiveness of communicating such visions and missions to their employees (Annex Table A4-1). All the local and foreign automotive firms, except one, have a well-communicated vision and mission that is widely communicated and

understood by the employees. The majority of the textile and garment firms have well-written and articulated vision and mission statements but they are not widely communicated to their employees. Table A4-1 also shows that the leather firms, except one, have a similarly well-written and articulated vision and mission. Both breweries have well-written, articulated and communicated vision and mission statements.

Business companies usually use identifying slogans to nurture their business values and products to their customers and the public at large. All of the foreign automotive and beer factories as well as the majority (three out of five) of the foreign leather factories have well written, articulated and communicated company identity (slogan) to distinguish themselves and their products from those of competitors. In the case of local firms, on the other hand, it is only the breweries and some automotive assemblers that have a clearly stated company slogan. Only one domestic garment factory uses a slogan to show the unique company and product identity to customers and the public.

In internal communication and sharing information of decisions, financial updates, relevant news and other company information with their employees, all firms combine different options: informal discussion with individual employees, formal feedbacks and letters as well as regular employer-employee meetings. While 13 out of the total 15 foreign firms indicate using a combination of these options, nine out of the total 13 local firms mainly use employer-employee meetings.

Teamwork is also an essential ingredient of the operations of all foreign firms surveyed except one tannery where teamwork is rarely practiced and performance is predominantly based on individual targets. In all other foreign firms, teamwork spirit remains one of their core principles. Foreign firms instill teamwork spirit through setting targets, competitive team rewards (bonus for higher achievers), feedback, recognition and appreciation letters, open and transparent discussion about the company's successes and failures, training, and family-like treatment of employees. Meanwhile, at local firms, teamwork is rarely practiced and emphasis is given to individual performance. Specifically, out of the 14 domestic firms, only one organizes shop floor work teams as a common practice. This is one aspect of corporate management that distinguishes local firms from foreign ones.

Foreign and local firms also differ in the way they use social events to motivate their employees. Whereas the majority of the foreign firms, 14 out of 16, had company-sponsored social gatherings and entertainments, this is largely missing among local firms. Out of the total 14 local firms, only three have this practice. Social gatherings and entertainments at foreign firms include public holidays and entertainment during (semi) annual meetings as well as regular drinks (monthly open bar drinks) with open talks with top management. Apart from entertainment, the companies use these occasions to give recognition, rewards and certificates to their best-performing employees. Recently, however, most firms had to cancel such events

in compliance with COVID-19 rules and some reduced their costs.

The decision-making process

There are differences in the decision-making process across firms depending on the number and composition of shareholders and other aspects of the firm. Nevertheless, there is a clear general tendency, also detected in our survey, that corporate decisions are made mostly by the top management either solely or in consultation with middle and frontline heads depending on the issue. There are also firms with more decentralized decision-making where middle and frontline managers make decisions in their respective responsibilities. These patterns can also vary with time, for example, when a decision is made by the top management in the previous year is delegated to the lower management in the following year.

Annex Table A4-2 presents the comparison of the decision-making culture of foreign and local firms in the four sub-sectors. The dominant majority of foreign firms say that the way decisions are made depends on the type of the decision, and only 12.5% indicated that decisions are made solely by the top management. Specifically, decisions are made either by the board, the owners at the head office and/or the top management. Decisions related to strategic issues such as new market entry, production cuts, discontinuation of a product line and retrenching employees are initially decided by the top management of FDI, possibly in consultation with the head office or the parent company. Selection of employees for a visit, training or rewards is done more locally in consultation with section or department heads and line supervisors. The decisions can subsequently be discussed with employees' representatives.

The culture of involving employees in certain decision-making does not substantially differ between foreign and local firms. In such cases, decisions on the lower side are predominantly proposed by employee representatives (see Table A4-2 in the annex). While responsibilities for some issues are taken collectively (e.g., quality assurance), individuals take responsibility for their own decisions and specific tasks (targets) assigned on the production line. In the two interviewed breweries, the top manager is authorized to make decisions as per the direction given to him or her from the head office of the parent company. Decisions are executed in consultation with production, marketing, finance and human resource directorates. Responsibilities are taken either collectively (e.g., for quality, organizational success and failure, etc.) or individually (e.g., the volume of sales by salespersons).

Foreign and local firms do not show significant differences in the way they make decisions whether collectively or individually. Collective decision-making is more common than individual decision-making. However, virtually all firms say they combine both types of decision-making. The local firms in our study encourage collective decision-making and argue that it is better because it is participatory, receiving inputs from different perspectives and

making it evidence-based. However, the decision-making approach may vary depending on the type and urgency of the issue at hand. Some decisions can be made at the individual level but need to be communicated to the top management for transparency and collective responsibility.

Regarding taking responsibility, local firms prefer promoting individual responsibility to avoid potential risks for the company and be able to maintain the organizational reputation and ensure quality. Individuals of each production unit are being led by experts and they are jointly responsible for their respective unit, which is regularly supervised and monitored by technical managers to ensure maximum quality.

4-5-3. Labor practices

Incentive structure and promotion

The survey confirms that firms provide both monetary and non-monetary incentive packages to their employees. The companies use performance indicators for individuals, teams, and the entire factory for evaluating and incentivizing employees. Here, there is some distinction between foreign and local firms in terms of how they measure performance. Most foreign firms provide incentives based on all levels of performance indicators including individual, team and company. Most domestic firms, on the other hand, give more weight to individual performances (4) and team performances (3) as shown in Annex Table A4-3.

The foreign automotive firms and the textile and garment factories give bonuses when individuals and teams meet or exceed targets and/or when the firms achieve high profitability. The incentive structure in the leather companies varies from factory to factory. While one of the factories incentivizes (provide a bonus) to its employees based on individual, team and company performance, the rest in the leather sub-sector use different packages such as individual performance as measured by target and firm performance. The beer factories incentivize their employees based on individual performance (e.g., number of sales for sales employees), team performance (e.g., number of produced bottles) and factory performance (e.g., profitability).

Commonly provided non-monetary incentives for employees include transportation service (or allowance) and coverage of medical expenses for incidents that occurred at work. One firm in the automotive sub-sector, three in the textile and garment sub-sector, two in the leather industry and one in the brewery industry provide career development opportunities, albeit for a few selected employees, by sending them to visit and be trained at the head office of the parent company. Except for the automotive firms, all have food programs, typically a lunch on working days, for their employees. Housing allowance is mainly for expatriate staff. For promotion, virtually all firms, domestic and foreign, indicate that the performance and ability of their

employees are the basis of promotion.

Employment policy, recruitment and selection

This sub-section looks at the policies related to the human resource of the firm. The foreign firms unanimously focus on permanent employment when recruiting the production workforce. However, two firms in the automotive sector reported that 26 out of 166 and ten out of 150, respectively, were temporary employees at the time of the survey. In the leather sub-sector, one foreign firm had 120 temporary employees, whose contract depended on the volume of work. The contract that governs temporary employment relates mainly to the loading and unloading of products. The beer firms say that they outsource such tasks as loading, unloading and security.

Concerning the criteria for hiring production workers, 62.5% of the foreign firms indicate that they give education less than average weight. This is particularly so in the case of the textile and leather products sub-sectors as their production processes do not demand a high level of education compared with the automotive or beverage sub-sector. They recruit low-skilled, relatively young (18 to 35) and predominantly female workers with little or no education. In these factories, education serves as a criterion for employing only administrative workers. By contrast, dominated by male workers, the automotive and brewery sub-sectors essentially focus on education and experience followed by age in recruitment. Young and energetic workers between the age of 18 and 35 are preferred.

At the foreign firms, regardless of sector, marital status is not considered for recruitment. Meanwhile, some local firms (five out of 13) give marital status at least an average weight. The majority of the local firms also consider skills as an important criterion for the recruitment of their production workers. Skill is given more than average weight by the majority of firms, both foreign and local. Among local firms, we detect no particular difference in recruitment criteria across sectors, unlike foreign firms where education is valued highly only in the automotive and beverage sub-sectors.

4-6. Summary and policy implications

In this chapter, we studied the impact of FDI and the possible channels through which FDI can transfer technology, knowledge and managerial practices to host developing economies. The review of the empirical literature revealed that the impact of FDI on technology diffusion was mixed and different for different countries. The main reason for the contrasting results across countries is the difference in local policies and incentives of the host countries to strengthen the absorptive capacity of domestic firms. The review also presented the best global practices on technology and knowledge transfer and spillover. Successful Asian countries including China,

Singapore and Malaysia opted for pragmatic FDI policies which were designed to advance indigenous capabilities through policy requirements and incentives.

A review was also conducted on the recent Ethiopian investment proclamation and regulations. It showed that the Ethiopian policy had its limitations in setting specific strategies and incentives for technology diffusion from MNCs to local firms. Furthermore, empirical evidence was examined on the presence or absence of technology and knowledge spillover as well as transfer of managerial practices in Ethiopia. It was discovered that spillover was very little in Ethiopia due to several challenges as a host country. The major challenges include the following.

- FDI firms in Ethiopia are mostly market and resource-seeking; this, coupled with the limited absorptive capacity of local firms, makes technology and knowledge transfer a daunting challenge.
- Foreign companies are mainly engaged in simple and labor-intensive production systems requiring unskilled cheap labor only.
- FDI firms in Ethiopia are not inclined to transfer technological know-how and managerial practices to local firms; this can be explained partly by Ethiopia's weak technology transfer policy and the absence of incentives for technology and knowledge transfer.
- Problems related to political and macroeconomic instability constitute additional challenges. They include failure to maintain law and order, rent-seeking and corruption, policy incoherence, distorted incentive structure and coordination failure.

Our field survey also examined the status and depth of different mechanisms of technology and knowledge transfer in Ethiopia. It investigated vertical and horizontal linkages as well as joint venture arrangements between FDI and local firms. It was revealed that both FDI and local firms were largely dependent on imported inputs, leaving little room for domestic supply linkages. Perceived benefits from vertical linkages are therefore close to nonexistent. The automotive and textile sub-sectors are more import-dependent in comparison with the leather and brewery industries. Even in the latter, however, the lack of quality, sufficient volume, reasonable price and timely delivery are the main constraints for dealing with local suppliers.

Regarding horizontal linkages, the common observation of FDI firms is that domestic firms do not adopt foreign knowledge and technology. However, local firms testify to the contrary. About half of the surveyed local firms indicated that they changed their production techniques or processes to keep up with competition from FDI by directly adopting FDI firms' production techniques or through other means. About two-thirds of the local firms complain that foreign firms prevent technology transfer from occurring. Competition is particularly intense in the brewery industry where domestic firms made changes and adjustments in their production process and techniques to cope with the competition. The beer industry is also where much competition and poaching of skilled workers is detected unlike in other sub-sectors.

The presence of joint ventures differs by sector. While some foreign firms have shown interest in joint ventures, they are mostly in export sectors and there is little appetite in import-substituting sectors. The main motivation for FDI to choose a joint venture arrangement is to access domestic market opportunities as foreign firms, particularly those designated for export, are restricted in selling products to the domestic market.

While the government provides various incentives to attract FDI and encourage production and exports, there is no incentive distinctively and directly tagged to technology transfer. There is also a complaint that the government does little to create linkages between FDI and domestic enterprises. Furthermore, the government lacks a comprehensive framework to attract, manage and benefit joint ventures.

From the survey results, it was found that foreign and local firms in Ethiopia differed greatly in their organizational culture and that local firms have a lot to learn from their foreign counterparts. Well-articulated and widely communicated visions, missions, values and company slogans are common among foreign firms but they are generally lacking in local firms. In communicating with employees, local firms mostly rely on formal employer-employee meetings while foreign firms use various options mixing formal and informal channels of communication. Moreover, while the foreign firms inculcate teamwork and organize social events to motivate and incentivize employees, these practices are largely missing among the local firms we interviewed.

The incentive structures for employees used by the foreign and local firms are similar. While five out of the ten foreign firms use targets set at the individual, team and company level, four out of the ten local firms indicated that they base bonuses on individual targets. We do not observe significant differences between the foreign and local firms in terms of the promotion criteria. They are performance and ability, performance and ability plus loyalty, or mainly loyalty and family connection.

In conclusion, we reiterate the policy implications and suggestions for a successful technology and knowledge transfer based on the extensive review of global and Ethiopian studies as well as the field survey conducted for this report as presented above.

- A comprehensive investment policy must be established which reflects the development strategies and priorities of the country. Although requirements of local input procurement and technology transfer requirements that China used in its early years (before joining the WTO) may seem attractive, these can be counterproductive in Ethiopia where local supply capacity and absorptive capacity are low. The policy should instead provide incentives for the use of local materials and induce production linkages between foreign and domestic firms. The existing platform, if properly adjusted and operated, can encourage forward and backward linkages between MNCs and local firms and stimulate managerial knowledge

and technological transfer. The adoption of a strategic approach to establish a smooth connection between foreign investors and local firms is critical for host countries.

- Encouraging joint ventures is also critical as they are likely to boost technology and knowledge transfer because daily interaction in the production management process induces explicit and tacit management knowledge transfer.
- One means to promote technology and knowledge spillover is for government to encourage local firms to learn about export markets through different fiscal incentives such as tariff protection, subsidized credit and facilitating financial access. Priority and tax incentives should be given to high technology activities by local firms along with incentives for the formation of vertical and horizontal linkages between MNCs and domestic firms.
- Industrialization and export promotion in FDI host countries will prompt local firms to engage in R&D activities, raise the interest among them to acquire managerial and technological knowledge spillover, and enhance production process management to the global standard. Besides this, the identified obstacles to technology and knowledge transfer in Ethiopia must be rectified by the exhaustive engagement of all stakeholders.
- Investing in the human capital of FDI host countries is important for an easy and effective transfer of technology and managerial know-how from MNCs to local firms. The methods include R&D activities, encouraging innovation, initial and recurrent training, incentives, staff exchange, and so forth. This increases the absorptive capacity, productivity and competitiveness of local firms.
- Development of such infrastructure as power, water, internet and road, rail and air transport increases the probability of smooth interaction between MNCs and local firms and creates the necessary platform for knowledge transfer.
- Policy as the core bridge must be consistent and effective to guide linkages, competitive environment, incentives, requirements, human capital development, labor mobility, joint venture arrangement, innovation and R&D activities, the absorption capacity of local firms, the rules for FDI management, and so forth.
- If Ethiopia is to attract FDI and maximize its knowledge and technology transfer to local firms, the government should go beyond economics and become proactive with sufficient commitment to assure political stability and sustain a conducive political environment for investment. The government should also wisely manage and bargain with MNCs for knowledge and technology transfer and backward linkage creation while offering attractive incentives to those who contribute to national development objectives.

Annexes

Table A4-1. Comparison of Organizational Culture between Foreign and Local Firms

Sector	Vision/Mission/ Values		Identify/ slogan		Communicate employees				Teamwork		**Company sponsored Social event**		
	Written/ articulated but not widely communicated	Well-articulated and understood by everyone	Written/ articulated but not widely communicated	Well-articulated and understood by everyone	Informal Channel	Employer-employee meeting	Formal Union	All options	Rare	Organized shop floor work team	No./Per Year		
											4X	2X	1X
	FDI Firms												
Automotive	1	2	1	2	0	0	0	3	0	3	1	0	1
Textile	4	2	0	0	1	1	0	4	0	6	4	1	1
Leather	2	2	1	2	0	0	0	4	1	4	0	1	3
Food & Bev	0	2	0	2	0	0	0	2	0	2	2	0	0
Total	7	8	2	6	1	1	0	13	1	15	7	2	5
	Local Firms												
Automotive	3	0	0	0	0	1	0	1	3	0	0	0	0
Textile	2	2	0	1	0	3	0	1	4	0	0	1	1
Leather	4	1	2	0	0	4	1	0	5	0	0	0	0
Food & Bev	2	0	1	1	1	1	0	0	1	1	1	0	0
Total	11	3	3	2	1	9	1	2	13	1	1	1	1

Table A4-2. The Decision-making Process of Foreign and Local Firms

Sector	Who makes the decision				Employees involvement in decision making			Collective vs individual decision making		
	Top manager only	A top manager in consultation with middle and frontline managers	Decision is decentralized	Depends on the type of decision	Employee representative	Joint consultation and full participation	Both	Collective	Individual	Both
	FDI Firms									
Automotive	0	1		2	3	0	0	1	0	2
Textile	0	2		4	2	3	1	1	0	5
Leather	2	1		2	4	0	1	1	3	1
Food& Bev	0	0		2	2	0	0	0	0	2
Total	2	4		10	11	3	2	3	3	10
	Local Firms									
Automotive	2	1	0		2	1	0	1	0	2
Textile	0	4	0		4	0	0	2	0	2
Leather	0	2	3		5	0	0	0	0	5
Food& Bev	2	0	0		1	0	1	0	0	2
Total	4	7	3		12	1	1	3	0	11

Table A4-3. Incentive Structure and Promotion Practiced by Foreign and Local Firms

Sector	Monetary incentive/bonus (as measured by target)				Employees' promotion			
	Individual employee performance	Team performance	Company performance	All	Solely on performance and ability	Partly on performance and ability and loyalty and family connection	Mainly on loyalty and family connection	Mainly on seniority
	FDI Firms							
Automotive	0	0	1	1	3	0	0	0
Textile	1	1	0	1	5	1	0	0
Leather	1	1	0	1	3	2	0	0
Food& Bev	0	0	0	2	2	0	0	0
Total	2	2	1	5	13	3	0	0
	Local Firms							
Automotive	2	1	0	0	3	0	0	0
Textile	1	1	0	0	3	0	0	0
Leather	1	0	2	0	4	1	0	0
Food& Bev	0	1	0	1	1	1	0	0
Total	4	3	2	1	11	2	0	0

Chapter 5

Foreign Direct Investment in Ethiopia: A Survey Report

5-1. Introduction

Ethiopia is implementing the Ten-year Perspective Development Plan 2021-2030 with a vision of becoming an African Beacon of Prosperity by 2030. Private sector-led economic growth is one of the pillars of this plan in which the private sector is expected to play a pivotal role in economic growth and structural transformation.

In promoting private sector development, Ethiopia has been striving to design policies that create a level playing field for both domestic firms and foreign direct investment (FDI). The important role of FDI for economic development, structural transformation and industrialization of developing economies is well recognized both in academia and the policy arena (see, for example, Gebreeyesus et al. 2017; Makki and Somwaru 2004). The potential benefits of FDI to developing countries include technology and knowledge transfer, transfer of management and marketing skills and practices, enhancing employment opportunities, and export earnings. According to UNCTAD (2005), attracting FDI is crucial in bridging the resource gap of low-income countries and hence avoiding further debt accumulation while directly tackling the causes of poverty. To maximize the benefits and minimize the costs of FDI, governments of developing countries need to take active policy measures to create an enabling environment. These include, but are not limited to, timely entry approvals, ease of access to land, improved infrastructure such as roads, electricity and ICT, reliable and safe logistics, and a stable macroeconomic environment (Rajan 2004).

Like many other developing countries, Ethiopia has been taking measures to increase the inflow of FDI after liberalizing its economy in 1992 (Haile and Hirut 2006; Mohapatra 2014). The government has gradually relaxed the constraints imposed on foreign investors, offers a host of incentives, and has invested in the development of industrial parks that host foreign investors. The government has also revised investment policy and expanded the sectors that are open to FDI. These measures have contributed to an increased inflow of FDI to Ethiopia until the nation became one of the largest FDI recipient countries in East Africa (UNCTAD 2020b). To what extent the increased inflow of FDI to Ethiopia has brought the expected benefits of technology transfer, enhanced managerial skills of domestic firms, boosting international market integration, and product quality improvement and standardization is an open empirical question.

With a particular focus on the manufacturing sector, this qualitative study aims to investigate issues related to marketing, standards, export performance, and challenges faced by local and foreign firms operating in Ethiopia. The study also assesses the impacts of the COVID-19 pandemic on firm performance and government requirements and support to manufacturing firms in selected sub-sectors including automotive, textile and garment, leather products, and food and beverage. In the rest of the chapter, section 5-2 gives an overview of the survey, section 5-3 presents the major findings, and a final remark is given in section 5-4.

5-2. Overview of survey

5-2-1. Sample size and sector composition

We have collected qualitative information from a randomly selected sample of thirty firms operating in the manufacturing sector in and around Addis Ababa. Out of this total, sixteen of them are foreign firms and the remaining fourteen are local firms. They belong to four production sub-sectors including six (four foreign and two local) firms in the food and beverage industry, ten (six foreign and four local) firms in the textile and garment industry, six (three foreign and three local) firms in the automotive industry, and ten (five foreign and five local) firms in the leather industry. The profile of these firms is provided in section 5-2-3 as well as in Table A5-1.

Concerning the response rate, the sampled firms actively participated in the study and provided required information except for three local firms (two firms in the leather industry and another in the textile and garment industry) and two foreign firms (in the food and beverage industry) that declined to respond or already ceased operation. These were replaced with similar firms from a pre-identified list of replacement firms in the respective sectors. Two beverage firms that were unwilling to cooperate despite our frequent approaches were dropped, and it was not possible to replace these firms due to time constraints. This study uses information obtained from thirty firms after these substitutions.

5-2-2. Survey implementation

The study was conducted from November 2020 to January 2021. Qualitative data was collected using a semi-structured questionnaire with one key informant from each firm. An effort was made to collect information from senior managers, directors, technical experts and other officials who were expected to have good exposure to policy matters. In transcribing the qualitative information obtained through open-ended questions, care was taken to correctly capture the realities, practices and opinions expressed by the respondents.

Although data collection was done by in-person interviews, phone calls were also used for additional information and follow-up clarification to complete the data collection work. In some instances, for convenience and physical distancing, interviews were conducted through Skype or Zoom meetings.

5-2-3. Profile of surveyed companies

Table A5-1 presents the profile of firms covered in this survey. In terms of ownership, there were 14 firms fully owned by foreigners, 13 firms fully owned by Ethiopians, and three firms that are jointly owned with a local share of 70%, 50%, and 20%, respectively. Among them, the beer companies had been transferred to foreign ownership through privatization before the survey. Meta Abo Brewery, established in 1963, was transferred in 2012 to Diageo while Harar and Bedele breweries were sold to Heineken in 2011. Heineken also added Walia Brewery to its beer conglomerate in Ethiopia.

In terms of product types, the interviewed firms in the automotive sector produce commercial vehicles (trucks and minibusses), steel structures, trailers, fuel containers, motorbikes and three-wheel bajajs. The automotive companies sell their products mostly to the domestic market. In terms of firm size, all firms employ more than 100 workers except for one firm that has only five workers.

The local firms in the textile and garment sector produce mattress covers, bed sheets, T-shirts, trousers, hoodies and blankets. Except for one firm that exports its products to Central Africa and the EU, all firms sell their products locally. The foreign firms operating in the same sector produce jeans, trousers, jackets, shirts, underwear, uniforms, children's wear and safety clothes for construction workers. They export their products to different destinations (see Table A5-1). In terms of firm size, while the non-micro local firms hire 289 to 600 workers, the foreign firms in the sector employ 300 to 1,900 workers. Out of the six foreign firms surveyed in the sector, three employ more than 1,000 workers each.

For the foreign and local firms engaged in the leather and leather products sector, major products include footwear, bags, belts, gloves, shoelaces and finished leather. All surveyed leather firms, foreign and local, report that they export their products but to different market destinations. On average, the local firms in the sector employ 693 workers, while the foreign ones employ 1,650 workers.

The surveyed local firms in the food and beverage sector are limited to the production of beer which is predominantly for local consumption, with only a small amount being exported. The foreign firms in this sector are also beverage factories (beer factories or breweries). Although these firms are expected to export their products, only one of the breweries exports a small proportion of its products, estimated at 3%, to different destinations including the US, the

EU and Japan. Beer export is insignificant due to uncompetitive prices and various other export challenges including unreliable and inefficient logistics, a bureaucratic customs system, and a one-way bottle problem. While two breweries, one local and one foreign, employ more than 1,000 workers, the other two employ 345 and 450 workers, respectively.

5-3. Major findings of the survey

5-3-1. Impact of Covid-19 on firms' performance

In April 2020, the Ethiopian government declared a state of emergency to curb the transmission of the COVID-19 pandemic that lasted for five months. The state of emergency prohibited organizations from retrenching their employees. In return, the government promised to support business organizations, including foreign firms, with the postponement of tax and pension contribution payments for three months so they would be able to cope with the impacts of the pandemic. Although some local firms acknowledged receipt of the indicated support, the foreign firms that we interviewed indicated that the government failed to extend any support to them. However, all of the surveyed firms refrained from laying off workers during the state of emergency which lasted from April through August 2020. They were forced to retain idle employees until the end of the state of emergency despite the slowing down of business. One firm pointed out that it had no other choice but to retain idle employees as the state of emergency prohibited retrenching workers.

The COVID pandemic has affected different manufacturing sub-sectors (and firms) differently. All firms tried to get through the pandemic using different mechanisms. Some of the automotive firms indicated that the pandemic does not jeopardize their operations as much as the chronic shortage of foreign currency. They stated that the latter was by far a greater threat to their survival. To get through the pandemic, some automotive firms rearranged work schedules such as working in shifts or office staff working from home. Others requested loan repayment extension and solicited financial contributions from business partners (owners) for the survival of the firm. For one firm that had only five employees and outsourced most of its operational activities, coping with the pandemic was not a big issue.

Companies in the textile and garment and leather sectors covered in this study have several things in common. They are 100% owned by foreigners, their products are entirely for export (or for indirect export[24]). They all recruit many unskilled women whose skills are upgraded through pre-employment training of 45 to 90 days, depending on their capacity to acquire knowledge and skill, and through on-the-job training. During the pandemic, these factories did

[24] Indirect export here means selling tanned (finished) leather to FDI footwear factories and other leather factories whose production is fully for export.

not cut back their employees either because they were not severely affected or because the state of emergency prohibited them from doing so. The majority of the textile factories continued to export as they had long-term contract orders and hence COVID did not immediately affect them. On the other hand, the remaining textile firms faced a decline in export and had to cut production to reduce operational costs.

After the state of emergency is lifted, two textile factories and three leather factories released some of their employees to cut operational costs and thus to cope with the effects of the pandemic. One leather firm retrenched 3,000 employees including both permanent and contract workers because its export had fallen almost to zero. There were also factories in our survey that took other measures after the state of emergency, including instructing their employees to take paid leaves which economized transportation and lunch costs, cutting production, and minimizing overhead costs by, for example, avoiding travel to reduce fuel costs. One textile factory had to freeze its operation with 20,000 shirts stocked without being exported and faced a financial crisis following the pandemic.

The outbreak of the COVID pandemic posed a unique challenge to beer factories and other alcohol-producing firms as some people abstained from consuming alcohol to avoid health risks and shifted their disposable income to other necessities. Recently, even without the pandemic, brewing factories have faced challenges in connecting and communicating with customers, introducing new product lines, and keeping the prices of their products reasonable for their consumers. These challenges are mainly due to the banning of advertisements of alcoholic products on billboards and broadcast media, and the imposition of a stiff excise tax which resulted in beer price hikes. They forced breweries to close outlets and distribution centers, cut production, and stop expansion to adjust the supply capacity to the declining demand.

The COVID pandemic has also adversely affected exporting firms through schedule mismatches among various firms and services, including changed working hours at the Port of Djibouti. Apart from the COVID-pandemic, many interviewed firms reported the shortage of foreign currency and political instability as the most serious problems over the last three to four years.

5-3-2. Export activities, challenges and standards

There are visible heterogeneities in the export market participation of firms across sectors and ownership types. Most of the local firms, eight out of the fourteen firms we have interviewed, indicated that they sold all of their products locally. Some of the local firms are struggling to satisfy the local market demand, and have no production capacity left for export. The foreign firms, especially those in the automotive sector, also face the same situation. For instance, one foreign automotive firm sells its products to individuals and organizations based

on orders received in advance. According to this respondent, since there are more orders than it can possibly satisfy, customers usually have to wait for seven to ten months before the delivery of the automobiles they ordered.

In terms of sectoral differences in export market participation, we observe that none of the firms in the automotive sector export their products regardless of ownership type. On the other hand, in the textile and garment and leather products sectors, all foreign firms and all but two local firms actively participate in the export market. It is important to note here that the leather tanneries supply their finished leather to companies producing and exporting footwear and other leather products. The tanneries consider their local sales as (indirect) export.

The leather factories routinely complain about the quality and volume of leather supply in the local market. They acknowledge that they are doing little in technology transfer except training their own employees. To resolve the problem of leather quality and supply constraints, some foreign firms producing footwear and other leather products are moving in the upstream direction by, for example, tanning and finishing leather to be used in their footwear production.

Concerning the food and beverages sector, two firms, one local and one foreign brewery, participate in the export market while the remaining two do not export. Although the Ethiopian government makes it mandatory for foreign beer factories to export a certain proportion of their products, nearly 100% of their beer production is currently supplied to the domestic market because of the constraints, discussed below, that the sector is facing. To fulfill the obligation, the foreign breweries have tried to export mainly to the US and Europe by targeting Ethiopian Diaspora there. One of the beer factories admitted that "we have tried to export only because the government has made it mandatory for us."

Firms currently exporting their products indicated that they face the following challenges.

- Shortage of foreign exchange, which limits firms' ability to buy intermediate inputs and raw materials necessary for their production processes. Because of this problem, several firms indicate that they operate below capacity most of the time.
- The lack of a well-organized, reliable and scheduled logistics and transportation system forces firms to use private shipping companies whose price is three times higher than the official (monopoly) price charged by the Ethiopian shipping lines.
- Highly bureaucratic customs clearance and inaccurate information about policies and regulations create delays and complaints from customers.
- Variation between actual prices of imported inputs and customs evaluation of invoice values.
- Political unrest hinders the regular transportation of goods between the factory and the Port of Djibouti.

- Global political crises including the US-China trade war[25].
- Global market instability due to COVID (e.g., shoes are not a priority item for many families under the pandemic situation).
- The lack of skilled manpower necessitates extra training of recruits which pushes up the production cost.

One of the critical challenges almost all firms in this study indicated was the shortage of foreign exchange which led to a lack of access to inputs, a high production cost, and low capacity utilization. As mentioned above, firms in the automotive sector sell their products entirely in the domestic market. At the moment, they are not able to satisfy domestic demand, let alone participate in the export market. They argue that the shortage of foreign currency undermines their intention to export by constraining their supply capacity. They also express their intention to start exporting when the shortage of foreign currency is resolved. Similarly, one local firm says its capacity to export is limited because of poor bargaining power, which is exacerbated by a high production cost caused by difficulty in securing crucial inputs.

The automotive firms also point to high transportation and customs processing costs and inefficient logistics scheduling in Ethiopia as a major cause of weak competitiveness relative to firms in other countries. One respondent stated that its automobile export to Egypt would cost $3,000 more than the same model exported from China to Egypt.

In addition, the beer factories said that there were factors that negatively affected their effort to export, including:

- The government's policy to discourage consumption of alcohol by levying an excise tax makes the prices of made-in-Ethiopia beer less competitive than those in destination countries.
- The one-way bottle problem, i.e., beer bottles not returned from destination markets.
- Delay in revenue collection, which causes long deferment of revenue recognition in financial reports.

A limited supply of skilled labor has also been cited as an additional cost to firms since this forces them to train newly recruited low-skilled workers for 45 to 90 days before being put to work and additional on-the-job training. Some firms consider this as their contribution to the local capacity building despite additional costs. Most firms also contribute to local capacity building through cooperation with Technical and Vocational Education and Training (TVET) institutions, especially in the textile and garment and leather sectors, by allowing their

[25] The firms with Chinese origin stressed that exporting to the US had become increasingly difficult even if all procedural requirements were fulfilled. They also pointed out that the lack of discipline of Ethiopian workers was an additional problem for their production.

workshops to be used for practical demonstration and apprenticeship up to six months. Some foreign firms also invite domestic firms to visit their factories and share experience and collaborate with local farmers. For example, to resolve the foreign currency problem, some breweries collaborate with local farmers by providing a suitable barley malt variety, technical support and a revolving fund.

Policy measures for export promotion produce mixed results. They help some firms to grow and penetrate the market both locally and internationally. For instance, export promotion incentives that cover packaging and production costs in the food and beverage sector are reported by some to be effective. Imported production inputs used in manufacturing products for export are exempted from taxes, a measure which is recognized by many firms as effective policy support. However, there are also reports that export promotion incentives are very poor and not appreciated by most firms. Some firms say that the existing incentives are not specific or targeted enough to the type of export (performance) and the type of firms that should be promoted (beneficiaries) and that they lack clarity and their impact on the export effort is quite limited. Some firms are not even aware of the export promotion incentives available to them.

Although duty-free imports of inputs and other incentives are given to exporters to make their products more competitive in foreign markets, surveyed firms generally noted that they fell short of overcoming the constraints firms were facing. Firms also complain about the exaggerated invoice prices that the Ethiopian customs authority uses for calculating taxes on imported goods. Processing their appeal and getting a decision on it also takes a long time, which greatly discourages exporters. Besides these policy challenges, one firm in the textile and garment sector added that a high employee turnover, partly due to inflation and economic disorder, is a major problem that undermined its capacity to produce and export.

5-3-3. Standards

The last column of Table A5-1 shows the export markets of each surveyed firm. For the local firms that engage in export activity, the main markets are the US, the EU, and some parts of Africa. For foreign exporting firms, the main markets are the US, European countries such as the United Kingdom, the Netherlands, Italy and Germany, and Asian countries such as China and India. One brewery firm exports also to Japan. The foreign textile factories export their products to firms (markets) with whom they have had long-term contract orders. On the other hand, some of the local firms indicate that their markets are decided on an ad-hoc basis and that the absence of long-term contracts between local firms and foreign buyers is quite common.

Foreign customers have different requirements and impose various preconditions related mainly to the quality, safety and delivery of products. One firm explained that “every year, our product is evaluated in Italy to ensure the quality is maintained, in particular, thermoplastic

rubber sole evaluation as specified by customers." Other requirements mentioned by the respondents include:

- Quality and compliance with standards (meeting product specifications)
- Timeliness and consistency of delivery
- Compliance with the labor law (ILO Better Work certificate; labor safety and security)
- Environmental audit and evaluation (this is a must document)
- Certification of origin, bill of loading, factory set-up and management audit
- Documents on employee salary and benefits
- African Growth and Opportunity Act (AGOA) visa (eligibility and beneficiary status in exporting to the US)
- Energy sustainability

Preconditions concerning labor treatment and environmental protection are less common and are limited to few foreign customers. For domestic sales, the situation is different from the export market. One respondent from a beer factory said, "Of course, domestic consumers are less likely to impose or demand explicit and overt requirements". However, even without explicit requirements in the domestic beer market, their sales fluctuate from time to time due to competition in quality, delivery and, in the past, aggressive promotion and advertising (which is now banned).

5-3-4. Product quality and ethical correctness

In this section, we examine more closely the situation surrounding product quality and ethical correctness, focusing on textile and garment firms that engage in export.

Buyers and importing countries impose and monitor required conditions and standards using different ways. One way is to check whether a firm possesses certain standard certifications without demanding any further examination. Others conduct an initial investigation and regular and/or unannounced follow-up inspections that require the submission of documents, data and proforma invoices for purchases. Standardizing institutions may provide quality certification which the firm can show to its customers.

Requirements mentioned by foreign exporting firms include (i) presentation of documents for annual evaluation of certain quality and standards; (ii) submission of various procedural documents concerning export registration, environmental audit, certificate of origin, bill of loading, social compliance, customs clearance, and so on; and (iii) AGOA visa for the US market.

In our interviews, the foreign firms unanimously agreed that their products had to meet the necessary standards and quality specifications imposed by buyers. If their products fail to meet

any of them, they will face an automatic rejection. Most of the local firms also confirmed that standards could affect their performance in different ways. They indicated that meeting standards would raise the reputation of the firm and hence increase profits. Some local firms indicated that they already considered standards as part of their business philosophy, accepting them as part of doing business and even welcoming them. However, other local firms consider standards as costly, difficult to obtain, and irrelevant to the market they serve.

Regarding buyers' support for quality specifications and standards, the majority of the foreign firms (five out of six) and all domestic firms responded that they did not receive any support from buyers except that buyers demanded firms to comply with standards and meet required specifications. Moreover, both the foreign and local firms did not receive any support from either the government or an industry association to adopt and comply with standards. One respondent stated that "except for the rare awareness creation program by the Ethiopian Textile Industry Development Institute (ETIDI) and the Industrial Parks Development Corporation (IPDC) to adopt and comply with standards, there was nothing in this edge." One foreign firm, however, reported that it did receive assistance from more than ten customers to comply with requirements in document processing, early warning and evaluation. The same firm additionally received training from ETIDI and IPDC to comply with standards.

The local firms also indicated that it was mostly up to foreign buyers and sometimes aid agencies such as the German Corporation for International Cooperation (GIZ) to decide whether technical assistance should be provided to garment firms concerning compliance. This assistance mostly consists of skill training of technical staff responsible for meeting standards. The Ethiopian Kaizen Institute has also supported local firms through technical capacity-building to comply with standards. Business associations such as the Addis Ababa Chamber of Commerce also engage in assistance in obtaining quality standard certifications though this was not mentioned by the firms in our survey.

Textile and garment firms recognize that meeting product and process standards are critical to approaching customers and competing in the global market. They consider compliance as an essential part of organizational philosophy. Standardization and compliance help them to know precisely what is required and must be focused on, smoothly process orders and communicate with customers, avoid product rejection, and thus minimize cost and increase efficiency.

Foreign textile and garment firms even regard standard compliance as an essential and positive method to promote business and increase competitiveness. It dictates their input procurement and production processes. They consider product standards as the decisive factor to build competitiveness and success in the global market while other requirements such as compliance with the labor law, environmental protection, AGOA visa, certificate of origin, and export registration as mandatory obligations to remain in this business. One foreign firm noted that "complying with and meeting product standards is about a question of survival and success

in a market, while the requirements like creating a safe working environment for employees is an obligation." That means product standards are the key information for aligning production processes to what customers require, which can differentiate one firm's products from those of others. Similarly, the local firms noted that quality standards were more effective in helping them to improve performance than any other forms of standards including process and production.

The survey inquired the six foreign textile and garment firms (Firms no. 4 to 9) which certification they had among ISO 9000s, ISO 14000s, Kaizen, Total Quality Management (TQM), SA 8000 and ILO Better Work. All except one had secured the ILO's certification and approval for Better Work because compliance with relevant labor laws was an obligation for export. The remaining one firm had completed 90% of the process for certification. As for ISO 9000s, two firms were in the process of obtaining this certification and the remaining firms indicated that they do not have a plan of obtaining it. For kaizen, respondent firms typically replied that their factories were physically arranged as per the standard layout approved by their customers, ETIDI and IPDC but certification for kaizen had not yet been secured. Regarding the remaining three standards (ISO 14000s, TQM and SA 8000), the six foreign firms did not have them.

A parent company in the home country may obtain other types of certification not listed in our survey but essential for doing business for subsidiary firms abroad. They include Registered Exporter (REX), Supplier Ethical Data Exchange (SEDEX) and Worldwide Responsible Accredited Production (WRAP). While REX is a requirement to export, the surveyed firms opted to register for the other certificates by their own initiative and bore the costs to comply with standards and requirements. Few firms saw any trade-off or excessive cost burden in adopting different standards. Some said that associated costs were not significant if the benefits of easing the export process and creating a smooth linkage with customers are considered.

To ensure that factory operations and products are consistently up to standards, all six foreign firms in our survey have established an internal quality and standard department that conducts regular supervision and testing of products, purchases raw materials, inputs, and machinery, and checks if trained workers have the required skills. They assert that maintaining standards is a collective responsibility. One firm explained, "Textile manufacturing is a collective responsibility that requires all members of the factory to work in a coordinated manner to achieve and maintain quality and standards."

As for local firms, nearly half of them in the survey have ISO 9000s. Other certification obtained by some includes TQM and ILO Better Work. These were acquired mostly with their own initiative. Some local firms confided that implementing several standards created a trade-off regarding costs and capacity. Many have internal units or persons to implement standards, but concrete implementation methods are different from one firm to another. Multiple

approaches are taken including internal rules and procedures, purchase of testing equipment, staff training with monitoring, evaluation and promotion. These may be conducted either in a companywide coordinated manner or by a special unit. In the latter case, the designated unit or person does regular monitoring to ensure compliance and takes corrective measures when necessary.

5-4. Summary

This qualitative survey studied local and foreign manufacturing firms in the automotive, textile and garment, leather, and food and beverage sectors in and around Addis Ababa. It explored COVID-19 related challenges, firm reactions, and government support during the pandemic; export activities and related challenges; and quality standards and ethical correctness.

During the COVID pandemic, manufacturing firms in Ethiopia faced different challenges that hampered their operation and export performance. There were sectors that were relatively less affected by the pandemic than others. Some firms in the textile and garment and leather sectors continued to produce despite the pandemic mainly due to long-term contract orders. But many others were forced to cut back production below capacity as the demand for their products declined. Exacerbated by an ongoing problem of shortage of foreign currency, the pandemic posed an additional serious challenge to the automotive and beer factories as their products became less of a priority for consumers during the pandemic. The beer factories had already been suffering because beer demand had declined following the imposition of an excise tax on alcoholic beverages.

Regardless of the severity of COVID challenges, firms covered in the survey did not retrench employees during the pandemic. A state of emergency in place from April through August 2020 prohibited firms from laying off workers. When the state of emergency was lifted, a few firms released employees. One foreign firm reported that it discharged up to 3,000 permanent and contract employees out of 4,500 due to a total disappearance of its exports following the pandemic.

The major challenges the firms in this study faced included unreliable logistics and schedule mismatch, bureaucratic customs clearance, a large gap between the import price declared by the firm and the valuation of the customs authority, political instability, and, most importantly, the shortage of foreign currency. A limited supply of skilled labor is also a problem that adds to the production cost. Some firms consider worker training as a contribution to local capacity building even though they may not be able to retain them for long. Others assist upstream domestic suppliers to increase local procurement and ameliorate the foreign currency problem.

The automotive and beer companies supply their products to the local market, while the FDI firms operating in the textile and garment and leather sectors do not sell in the domestic

market as their products are entirely for export to the US, Europe, China, India and others. The leather factories complain about the low quality and volume of domestic leather supply. Some foreign firms producing leather products have decided to tan and finish leather for use in their factories.

Annexes

Table A5-1. Characteristics of Surveyed Firms

(a) Foreign or foreign-majority joint venture firms

Firm no.	Country of origin	First year of production at current location	Ownership		Main products	Number of employees	Export
			Domestic (%)	Foreign (%)			
Automotive							
1	China	2009	-	100	Automobiles and motorbikes	166	No
2	Ethiopia	2018	50	50	Three-wheel bajajs	150	No
3	Ethiopia	2013	20	80	Three-wheel bajajs to transport goods	5	No
Textile and garment							
4	India	2015	-	100	Babyware (shirts, pants)	1,860	EU, US
5	India	2015	-	100	Denim and non-denim (jeans) trousers, shirts, men's underwear	1,900	India, EU, US
6	India	2015	-	100	Children's ware (shorts; shirts, pants)	1,500	USA
7	China	2019	-	100	Jackets, T-shirts, shorts, pants, uniforms for kids and adults	699	UK, Germany, Netherlands, US
8	S.Korea	2015	-	100	Safety clothes for construction, traffic, sanitary	300	US
9	S.Korea	2016	-	100	Fleece jackets	500	Germany
Leather							
10	China	2010	-	100	Tanned leather, gloves	1,000	China
11	India		-	100	Finished leather, men's and women's footwear	850	India
12	Taiwan	2015	-	100	Women's shoes, leather	400	US, China
13	China	2013	-	100	Men's and women's shoes, shoe parts	4,500	US
14	Hong Kong	2011	-	100	Casual flats, moccasins, sandals, boots, heels, bags	1,500	US, Italy
Food and beverages							
15	Netherlands	2011	-	100	Beer	1,120	US, Europe, Japan (see note)
16	UK	1963/2012	-	100	Beer	345	Not currently

Note: firm 15 exports around 3% of its output, and it is not actively or consistently exporting. The target is the Ethiopian Diaspora.

(b) Local or local-majority joint venture firms

Firm no.	Country of origin	First year of production at current location	Ownership		Main products	Number of employees	Export
			Domestic (%)	Foreign (%)			
Automotive							
17	Ethiopia	1975	70	30	Commercial vehicles	111	No
18	Ethiopia	2018	100	0	Trucks and minibuses	340	No
19	Ethiopia	1975	100	0	Steel structure, trailers, trucks, fuel tractors	146	No
Textile and garment							
20	Ethiopia	2003	100	0	Shirts	289	No
21	Ethiopia	1993	100	0	T-shirts, pillows, sports clothes, trousers, hoodies	600	Central Africa, EU
22	Ethiopia	1961	100	0	T-shirts, blanket	547	No
23	Ethiopia	1970	100	0	Polyester, Tetror, mattresses, bed sheets	320	No
Leather							
24	Ethiopia	1970	100	0	Shoes	755	EU and Africa
25	Ethiopia	1935	100	0	Shoes, belts, bags, gloves	1,650	Madagascar, US, Somalia, Nigeria, Angola
26	Ethiopia	1998	100	0	Shoes, bags, garment, related goods	84	Africa
27	Ethiopia	1989	100	0	Shoes	420	EU, North America, Africa
28	Ethiopia	1993	100	0	Shoes, bags, belts, soles	556	US, Africa
Food and beverages							
29	Ethiopia	2016	100	0	Beer	450	No
30	Ethiopia	2000	100	0	Beer	1,100	EU

Table A5-2. Firm responses to survey questions

(a) Organizational culture

Vision, mission, values	Written/articulated but not widely communicated	Well articulated and understood by everyone
Automotive	1	2
Textile and garment	4	2
Leather	2	2
Food processing	0	2
Identity, sologan	**Written/articulated but not widely communicated**	**Well articulated and understood by everyone**
Automotive	1	2
Textile and garment	0	0
Leather	1	2
Food processing	0	2

Communication with employees	Informal channel	Employer-employee meeting or formal channel (union)	All options
Automotive	0	0	3
Textile and garment	1	1	4
Leather	0	1	4
Food processing	0	0	2

Teamwork practice	Rarely practiced	Organized shop work teams
Automotive	0	3
Textile and garment	0	6
Leather	1	4
Food processing	0	2

Company-sponsored social events	Four times a year	Twice a year	Once a year
Automotive	1	0	1
Textile and garment	4	1	1
Leather	0	1	3
Food processing	2	0	0

(b) Decision-making process

Who makes the decision	Top manager only	Top manager in consultation with middle and frontline managers	Decision is decentralized	Depends on the type of decision
Automotive	0	1	0	2
Textile and garment	0	2	0	4
Leather	2	1	0	2
Food processing	0	0	0	2

Employees involvement in decision making	Employee representative	Joint consultation committee	Both
Automotive	3	0	0
Textile and garment	2	3	1
Leather	4	0	1
Food processing	2	0	0

Collective vs individual decision making	Collective	Individual	Both
Automotive	1	0	2
Textile and garment	1	0	5
Leather	0	2	3
Food processing	0	0	2

Collective vs individual responsibility	Collective	Individual	Both
Automotive	1	0	2
Textile and garment	0	1	5
Leather	0	2	3
Food processing	0	0	2

(c) Incentive structure and promotion

Monetary incentive/bonus (as measured by target achievement)	Individual employee performance	Team performance	Company performance	All
Automotive	0	0	1	1
Textile and garment	1	0	1	4
Leather	1	1	1	3 (see note)
Food processing	0	0	1	1
Non-monetary incentives	Cover medical expenses and transport service	House allowance and transport service	Cover medical expense, transport service, and career development opportunity	
Automotive	1	1	1	
Textile and garment	2	1	3	
Leather	2	3		
Food processing	1	1	1	
Employee promotion	Solely on performance and ability	Performance, ability, loyalty & family connection	Mainly on loyalty and family connection	Mainly on seniority
Automotive	3	0	0	0
Textile and garment	5	1	0	0
Leather	3	2	0	0
Food processing	3	0	0	0
Employment policy	Short-term and contract		Long-term employment	
Automotive	0		3	
Textile and garment	0		6	
Leather	0		5	
Food processing	0		2	

Note: the tables show the number of surveyed firms responding to prepared questions. Answer formats are not exactly the same across sectors. No reply or inapplicable question is not counted. In subtable (c), count 3 in the last column of leather in monetary incentive bonus includes All 3, 1&2 and 1&3. The last question (employment policy) is asked separately but is combined with subtable (c) in this presentation.

Chapter 6

Current Status and Challenges of the Garment Sector: A Comparison of Vietnam, Bangladesh and Ethiopia

6-1. Introduction

The Policy Studies Institute (PSI) of Ethiopia and the National Graduate Institute for Policy Studies (GRIPS) Development Forum of Japan jointly produced a three-country comparative study of the garment industry in the framework of the Ethiopia-Japan Industrial Policy Dialogue. Firm surveys were conducted simultaneously in Vietnam, Bangladesh and Ethiopia between November 2020 and January 2021 after coordinating the content of the questionnaire among the three countries. It was agreed that surveys should contain comparable information across countries but also address issues that were unique and critical in each country.

The survey in Vietnam was organized by Dr. Le Ha Thanh of the Vietnam Development Forum (VDF) and the National Economics University and her colleagues. The survey in Bangladesh was implemented by a team led by Dr. Monzur Hossain of the Bangladesh Institute of Development Studies (BIDS). Surveys in these countries focused exclusively on the garment sector. The survey in Ethiopia was conducted by Dr. Mulu Gebreeyesus and Dr. Kiflu Gedefe Molla of PSI, covering four sectors including garment (as reported in Chapter 5). The number of surveyed garment firms in each country was as follows.

- Vietnam: 31 firms—21 domestic private, 5 FDI, 5 former state-owned (now "equitized"[26])
- Bangladesh: 30 firms—25 domestic, 1 joint venture (50:50), 4 FDI
- Ethiopia: 10 firms—4 domestic, 6 FDI (besides this, 20 firms in food processing, automotive and leather sectors were interviewed)

Additional information, in possession of the joint team or newly collected, was used to complement survey data in each country. The profile of surveyed firms is given in the appendix table.

The objective of the three-country survey is to identify the current status of each garment exporting country as well as the challenges they face in the context of global dynamic shifts in technology, competitors, industrial organization, and various shocks. To save time and cost, and in the presence of the COVID pandemic, surveys were conducted in the vicinity of the capital

[26] In Vietnam, equitization means transforming state-owned enterprises into joint stock companies whose initial shares are held by designated stakeholders, among which the state usually holds an overwhelming proportion.

city of each country with a sample size of about 30 firms. Our aim was not to obtain average results over a large number of firms but to extract analytical points that should inform policymakers. The findings mainly focus on long-term structural issues including competitiveness and value creation, but we also look at the impact of the COVID pandemic of 2020. Results are arranged by topic and reported in ten relatively short sections below.

6-2. The time factor

As we begin our international comparison, it must first be recognized that the three countries are at different stages of economic development in general, and the development of the garment industry in particular. Bangladesh and Vietnam are large and well-established exporters of garments while Ethiopia is a newcomer with growing but still small garment export.

In terms of per capita income in 2019, Vietnam stands at $2,715, Bangladesh at $1,856 and Ethiopia at $856 (World Bank data). The first two are lower middle-income countries while Ethiopia is a low-income country by the World Bank income classification. Turning to the export value of textile and garment, in 2019, Vietnam exported $40.3 billion and Bangladesh $34.6 billion while Ethiopia's export was mere $143 million (UNCTADstat data)[27]. Ethiopian export value is between a two-hundredth and a three-hundredth of the first two, though it made a great jump from virtually zero in 2000 and $36 million in 2010. Vietnam boasts 7,627 garment firms which hire 1.56 million workers (General Statistics Office, 2018 data). Bangladesh has 3,500 garment firms, over 1,000 buying houses (Uddin 2017) and garment-related employment of roughly 4 million (Bakht and Hossain 2017). In Ethiopia, the number of medium and large garment firms in 2018 was 176 (ETIDI data). The number of garment employees grew recently in Ethiopia but is uncertain. The Central Statistical Office reports 78,786 employees in 2017/18 but this includes workers at micro and small establishments. Meanwhile, many large garment factories came into operation after 2017/18.

Vietnam's modern garment export started in the mid-1990s when its economy was opened up to the Western world and FDI began to arrive from Japan, Korea, Taiwan, and so on. Since then, garment export has grown steadily backed by cheap and good unskilled labor and an increasing number of bilateral trade agreements and Free Trade Agreements (FTAs) vis-à-vis the United States (US), European Union (EU), Japan, China, Korea, India, Russia, etc[28]. Vietnam is also a member of regional economic groups such as the Association of Southeast Asian Nations (ASEAN), the Trans-Pacific Partnership Agreement (TPP) and the Regional Comprehensive Economic Partnership Agreement (RCEP). Its status as the leading "China Plus

[27] The National Bank of Ethiopia data for textile and garment export gives $153 million for 2018/19 and $169 million for 2019/20.

[28] As of August 2021, Vietnam has 15 concluded FTAs and 2 under negotiation with bilateral trading partners or regional associations (Center for WTO and International Trade, Vietnam Chamber of Commerce and Industry).

One" country—favored destination for FDI firms that exit or diversify from China for various reasons—gives it a strong advantage for securing major overseas markets. Every time China faces friction with other large nations, Vietnam receives more FDI and trade. The main products include jackets, T-shirts, trousers, shorts, dresses, coats, ladies' underwear, kimono, etc. Vietnam is a member of the World Trade Organization (WTO) since 2007.

Bangladesh's modern garment export started in 1974 when it began to cooperate with Daewoo (Korea) to take advantage of its Multi Fiber Agreement (MFA) status[29]. Its modern ready-made garment (RMG) sector has the longest history among the three countries. Apparel export continued to grow rapidly despite such major shocks as the disappearance of the MFA quota in 2005 and the Rana Plaza collapse in 2013. The main products are T-shirts, polo shirts, jackets, sports items, hoodies, sweatshirts, woven top items, pants, innerwear, underwear, etc. Bangladesh has been a member of the General Agreement on Tariffs and Trade (GATT, now WTO) since 1972. It is expected to graduate from the Least Development Countries (LDC) status and lose preferential treatment (tariff exemption) in 2026. Bangladesh has so far concluded no regional or bilateral FTA or similar trade agreement with major overseas RMG markets. Like Vietnam, it is considered as one of the "China Plus One" countries that benefit in trade and investment as a result of the China-US trade confrontation[30].

In Ethiopia, modern garment export started in the late 2000s with the arrival of Turkish, Indian and Chinese FDI. This was a result of active top sales, favorable policy which included investment incentives and generous public loans[31], and the availability of cheap labor. The aggressive construction of state-owned industrial parks in recent years attracted many foreign apparel firms, especially in Bole Lemi and Hawassa Industrial Parks, but also in other locations. Ethiopia's main products are relatively simple knitted apparel such as T-shirts, sportswear, jeans, jerseys, babywear, socks, etc. Ethiopia enjoys the African Growth and Opportunity Act (AGOA) status with the US[32] and the Everything but Arms (EBA) status with the EU (zero import duty privilege for exporting countries satisfying certain conditions). Ethiopia is not a member of WTO. It has no regional or bilateral FTAs with its major garment importing

[29] MFA of GATT controlled, from 1974, the trade flows of the garment from developing countries to developed countries, permitting an annual increase of 6% but imposing quotas on countries that exceeded this limit (Chowdhury, Ahmed and Yasmin 2014).

[30] According to the JETRO annual survey of Japanese FDI (JETRO 2020), Japanese firms operating in Vietnam and Bangladesh had the highest business prospects because of the China-US trade war, among 19 Asian economies surveyed. In Vietnam, 15.3% and 16.1% of Japanese firms said they had a positive impact in 2020 and expected a positive impact within 2-3 years, respectively, from the change in the global trade situation. In Bangladesh, the corresponding ratio was 13.8% for both in 2020 and the near future. Most other economies reported no or little such prospect.

[31] Generous low-interest long-term public loans were provided by the Development Bank of Ethiopia to Turkish investors. Subsequently, however, most of such Turkish garment firms went into default within a decade, for which Ethiopia was the first overseas investment destination. They failed to achieve profitability despite (or because of) huge capital investment.

[32] However, in January 2022, the US suspended the AGOA privilege to three African countries including Ethiopia.

countries or areas.

6-3. Key players and business associations

Among the three countries, Bangladesh has the longest history of garment production for export and boasts highly developed domestic garment producers. Domestic firms dominate the nation's about 3,500 garment producers (98% are estimated to be domestic firms)[33] and over 1,000 buying houses (of which 80% are domestic). Domestic garment producers are internationally competitive if we confine our attention to physical production, while their main shortcomings are such capacities as brands, global logistics and retailing, and fabric supply. Very few Bangladeshi producers carry their own brands or engage in global marketing. Their activities consist of the production of foreign brand products on a contract basis (sections 6-6 and 6-7 below).

Our survey indicates that production cooperation among Bangladeshi garment firms is not uncommon in the form of subcontracting production of finished garments or intermediate inputs and accessories to smaller or less busy firms. This is done regularly as well as temporarily, based on the size of the received order relative to the factory's capacity. Such subcontracting may be done with or without the consent of buyers. Traders also seem active in arranging input procurement and matching foreign buyers with domestic producers. Surveyed firms use both direct contact and indirect contact via traders in finding and communicating with buyers.

Another important feature of Bangladesh's RMG sector is the existence of two powerful industry organizations, the Bangladesh Garment Manufacturers and Exporters Association (BGMEA) and the Bangladesh Knitwear Manufacturers and Exporters Association (BKMEA). As of May 2021, BGMEA has about 4,500 members, of which 60% are woven garment exporters and 40% are knitwear exporters. BGMEA's membership coverage is wide and includes almost all woven garment exporters in the country, 95% of sweater exporters, and around half of the light knitwear exporters. The number of member companies of BKMEA is 2,320 (there may be a double-counting of membership between the two associations). According to Bakht and Hossain (2017), active members of BGMEA are about 2,700 and those of BKMEA are about 800. BGMEA and BKMEA are powerful summit organizations of the industry responsible for over 80% of the nation's total export. They have strongly promoted the interests of the industry and its workers, extended necessary support to members, and secured significant policy assistance from the government (section 6-10).

In Vietnam, the ownership profile of garment producers is more varied, reflecting the nation's socialist history, which shifted from 100% state monopoly to permission of private

[33] Information provided by the Bangladesh Institute of Development Studies. Formal data on the ownership of RMG firms is unavailable to the author, but tenant firms in Export Processing Zones (EPZs) are mostly FDI firms.

enterprises and arrival of FDI in the 1990s, and a great increase of private firms in the 2000s. Table 6-1 shows the current number of textile and apparel producers in Vietnam. Focusing on apparel, there are still a small number of virtually state-owned or state share-dominated firms as well as "equitized" former state enterprises with majority state shareholding[34]. These are remnants of yesteryears but some are large enterprises. The army is also a very active business operator within the state sector of Vietnam. Nonetheless, at present, dominant players in terms of number are purely or mostly private firms with the state share of 0-50% (private individual companies, and private limited liability companies and joint stock companies with 50% state share or less) accounting for 86.8% of total apparel establishments. Adding 100% FDI firms and joint ventures with foreign firms, whose share is 11.8%, domestic and foreign private establishments comprise 98.6% of the Vietnamese apparel sector. The situation in the textile sector is similar.

Table 6-1. Vietnam: Number of Textile and Garment Establishments by Ownership Type

		Textile	Apparel	Total
One owner limited liability company, 100% state owned	Count	2	4	6
	%	0.0%	0.1%	0.0%
Joint stock company or limited liability company, with state share over 50%	Count	17	15	32
	%	0.4%	0.2%	0.3%
Cooperatives	Count	69	58	127
	%	1.5%	0.8%	1.0%
Private individual company	Count	176	185	361
	%	3.9%	2.4%	2.9%
Private limited liabililty company or limited liability company with state share of 50% or less	Count	3,290	5,611	8,901
	%	72.3%	72.9%	72.7%
Joint stock company with no state share	Count	449	880	1,329
	%	9.9%	11.4%	10.9%
Joint stock company with state share of 50% or less	Count	14	31	45
	%	0.3%	0.4%	0.4%
100% foreign owned	Count	508	865	1,373
	%	11.2%	11.2%	11.2%
Joint venture between state firm and foreign firm	Count	2	2	4
	%	0.0%	0.0%	0.0%
Joint venture between non-state firm and foreign firm	Count	26	42	68
	%	0.6%	0.5%	0.6%
Total	Count	4,553	7,693	12,246
	%	100.0%	100.0%	100.0%

Source: calculation based on General Statistics Office, Vietnam Enterprise Survey 2019.

[34] Through a series of state enterprise reforms since the 1990s, Vietnam's small state companies were privatized and large ones have been "equitized" or transformed to corporations owned by shareholders, with the majority of initial shares allocated to the state and employees. This increased management autonomy of such enterprises but ownership of many of them still largely remains in the state's hands.

The Vietnam National Textile and Garment Group (Vinatex) was created in 1995 by merging state-owned textile and garment enterprises to form a large "general corporation 91" (GC91) as was also done in other sectors. Currently, Vinatex has 45 member companies including 12 spinners, 10 weavers and 24 garment manufacturers[35]. Initially, Vinatex members were dominant in the nation's production and export of textile and garment and played a key role in executing the government's policy, but their weight gradually eroded as private and FDI firms expanded and the equitization process progressed. Even so, the export share of Vinatex members is still significant at 10-15% of total textile and garment export.

Meanwhile, the Vietnam Textile and Apparel Association (VITAS), established in 1999, is an industrial association that supports member companies with such standard activities as export promotion, linkage with foreign firms, global marketing, standard-setting, and working with government and foreign development partners. As of May 2021, its website has nearly 1,000 corporate, institutional and individual members of which corporate members are 236. VITAS is not very politically influential unlike BGMEA and BKMEA in Bangladesh where the garment is the leading manufacturing export.

In Ethiopia, the number of garment firms is far fewer than in the other two countries. According to the Ethiopian Textile Industry Development Institute (ETIDI) data, the number of garment firms, excluding micro and small establishments, was 176 in 2018 (section 6-2). Startz et al. (2016) reports that 66% of large and medium garment firms were domestic private (including diaspora-owned) firms while 34% were FDI as of 2016. Domestic firms are smaller than FDI firms in terms of employment size. There are also three state-owned or party-affiliated large firms. Most apparel export is conducted by FDI firms. An unpublished survey of industrial parks found 39 active exporters in Ethiopia, the majority of which were garment exporters while others exported footwear and leather products (EIC and JICA 2021). Of the surveyed 39 exporting firms, all but one were FDI firms (there are also garment exporting firms outside industrial parks). This suggests that the number of garment factories with export capability is far less than 100, and they are all foreign operators except one. If MAA Garment and Textiles Factory, a member of MIDROC Ethiopia Group owned by an Ethiopian-Saudi billionaire businessman, is counted as "domestic," as Ethiopians do, it is the only domestic firm that engages in substantial export to EU and US markets.

ETIDI is a state-run sector support organization with the backing of government and donors (India is the most generous supporter). Its original mandate is the provision of training, consultation, marketing and policy support on technical matters but it also provided non-technical services such as investment facilitation following government instruction. The Ethiopian Textile and Garment Manufacturers' Association (ETGAMA), with over 100 member

[35] The numbers do not exactly add up. This may be due to firms performing more than one function, members not listed here, or different timing of membership data in the Vinatex website.

factories which include both domestic and FDI firms, conducts promotional activities for the nation's textile and garment industry. It also works with government and development partners but its advocacy and lobbying influence is relatively small.

6-4. Securing markets

The largest markets of ready-made garments are high-income economies with a large population that no longer produce apparel domestically. They are the EU and the US, followed by Japan, Korea and other advanced economies. The three garment exporting countries under our investigation differ significantly in their major markets. Vietnam's main markets are the US (47%) followed by Japan (12%), the EU (11%) and Korea (10%) (2020 data). For Bangladesh, main markets are EU (61.8%), US (18.2%) and Canada (3.4%) (2019 data, BGMEA (2021)). For Ethiopia, the main markets are the EU (67%) and the US (19%) in 2016. Among the surveyed firms in Ethiopia, FDI firms all export while domestic firms, except one that sells to Central Africa and the EU, do not export.

At the level of an individual firm, some garment producers have regular large-volume contracts which permits expansion, long-term planning and smooth production management, while others rely heavily on short-term contracts which are susceptive to volatility, external shocks and price-cutting pressure. In Vietnam, producers are mostly of the first type. Meanwhile, when a global brand apparel retailer sets up a subsidiary factory abroad, production orders and markets are specified by the head office. By contrast, nonaffiliated producers may run the risk of being captured by one or a few buyers, supplying products exclusively to them by contract stipulation or due to the lack of marketing skill[36]. Having a regular but diverse customer base and retaining sufficient bargaining power is a good business strategy, but this must be backed by high managerial and technical competence. Another good strategy is to accept temporary orders during slow seasons to keep up the operation ratio.

At the national level, it is important for a country to conclude as many trade, investment, and other economic agreements as possible with its current or potential major markets. This ensures significant tariff privileges, a stable business relationship, and ease in market expansion. In this regard, Vietnam is the winner among the three countries studied here. As noted above (section 6-2), through active economic diplomacy, Vietnam has concluded such agreements bilaterally with the US (2000), Japan (2008), EU (2020), Korea (2015), and Russia and former Soviet republics (2015), to name the most important. Vietnam is also a member of the ASEAN

[36] This statement is true for both domestic and FDI garment manufacturers. In Ethiopia, a large vertically integrated knitwear producer from Turkey went into default within a decade of operation. The main reasons for this were (i) over-borrowing from the Development Bank of Ethiopia for investment too large for its business scale; and (ii) reliance on only one German buyer and the resulting lack of customer diversification and bargaining power.

Free Trade Area (1995) as well as economic agreements ASEAN concluded with China, Korea, Japan, Australia-New Zealand, India and Hong Kong. Moreover, it is a founding member of such multilateral economic arrangements as TPP and RCEP. This covers virtually all major trading partners of Vietnam. Bangladesh has no such FTA or similar agreements with its major markets, especially the EU and US. The situation is similar with Ethiopia, but it has enjoyed trade privileges (duty-free imports) offered by the EU and US in the form of EBA and AGOA.

Vietnam has an additional advantage of being the top "China Plus One" country—the most favored destination for FDI which exits or diverts from China for various economic and political reasons. Every time China experiences a political or economic conflict with other nations, Vietnam receives more FDI and trade diverted from China. In the annual survey of Japanese FDI firms conducted by the Japan External Trade Organization (JETRO), Vietnam is by far the most popular destination of Japanese investors.

WTO membership is also important for promoting a nation's trade and investment. Bangladesh is a member of WTO (formerly GATT) since 1972. Vietnam joined WTO in 2007. Ethiopia is currently in accession negotiation with WTO but it has not made much progress so far.

6-5. Vertical integration of the firm

Some firms specialize in one process along the value chain such as garment production (cutting, sewing and finishing only) while others internalize many processes from upstream to downstream such as cotton ginning, spinning, weaving/knitting, dyeing, garment production, marketing, retail, and so on. The degree of vertical integration[37], or how a firm draws its activity boundaries along the value chain, is one of the topics of the theory of the firm. The theory presents various angles including transaction cost economics, agency theory and property rights theory (Kim 2019). Business transactions with other firms permit a firm to focus on core competence and give more flexibility in dealing with shocks, but entail costs to monitor cheating and enforce contracts. By contrast, doing everything internally gives a firm a strong grip over the entire value chain but requires additional costs in managing and coordinating multiple activities. Firms choose boundaries to balance these merits and demerits (Coase 1937; Williamson 1981). If a firm possesses a valuable asset, it may want to build activity boundaries around that asset. Additionally, agency theory points to different contractual possibilities depending on the objectives, incentives and uncertainties of a principal and an agent.

There is an additional issue for latecomer countries with a less-than-perfect business environment. If the physical flow of goods from upstream to downstream (input procurement

[37] In Bangladesh, vertically integrated producers are often called "composite" factories.

and product sales) is slow or unpredictable due to bureaucracy, poor logistics, shortage of foreign currency, external shocks, and so on, a manufacturing firm may opt for a more integrated production mode than otherwise, and hold sufficient raw materials and intermediate inputs to guard against production stoppage even at a high inventory cost. This is opposite to Toyota's just-in-time production where inventories are kept to a minimum, but such an approach does not work if supply chains move slowly and with many disruptions.

We observe many patterns of vertical integration or the lack of it among apparel firms in Vietnam, Bangladesh and Ethiopia. Choice of integration also seems to depend on the nationality and ownership of firms. For example, highly integrated firms include Ayka, MAA Garment, Velocity and DBL in Ethiopia[38] and some former state-owned factories in Vietnam. Meanwhile, most factories in Bole Lemi and Hawassa Industrial Parks in Ethiopia engage in garment production only. In Bangladesh, most firms specialize in garment production, but some internalize weaving and knitting processes ("composite" factories). These firms are contract producers of apparel for large global brand retailers. PVH, a holder of global brands including Calvin Klein, constructed its own factory in Hawassa Industrial Park in 2017, but this was a rare case and the firm later decided to pull out of Ethiopia after four years of operation. Most global brand corporations contract out production to a large number of garment firms in many countries without investing in production facilities of their own.

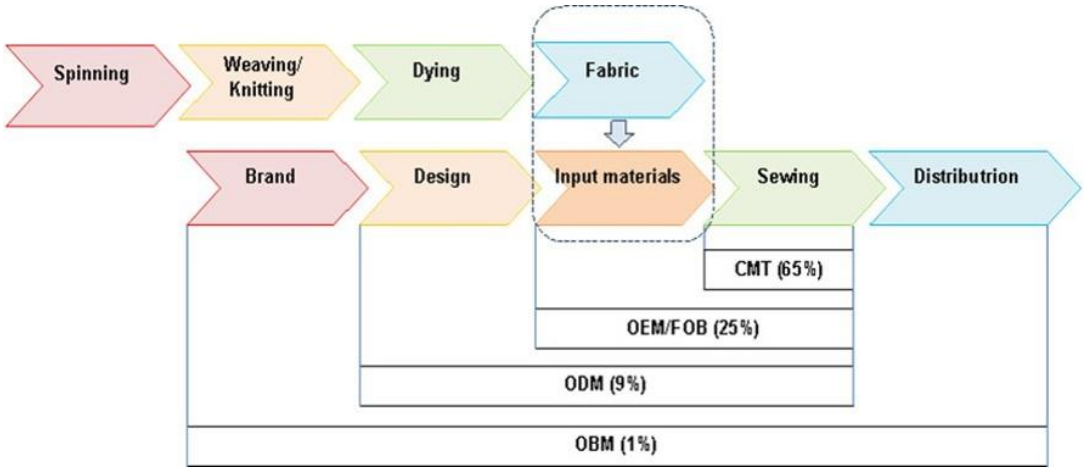
We should therefore distinguish three types of apparel FDI: (i) global brand holders that specialize in downstream marketing and retailing, and outsource production to others (GAP, H&M, Uniqlo, etc.); (ii) brand holders that also build and operate their own factories abroad in addition to marketing and retailing (Tommy Hilfiger, Triumph, etc.), and (iii) global garment producers without own brands, who manufacture brand products of others on a contract basis (DBL, Velocity, Arvind, etc.) Type (i) is the buyer, type (iii) is the manufacturer, and type (ii) does both. Meanwhile, domestic garment firms in the three countries under our investigation engage in activities of type (iii).

6-6. Domestic value creation

In the early stage of industrialization, latecomer countries often attract labor-intensive light manufacturing FDI. Production of relatively simple low- to middle-range apparel is an activity of such kind, along with food processing, footwear production, and assembly of electrical and electronic devices.

[38] Startz et al. (2016), supplementing ETIDI data, says there were 127 textile and garment firms in Ethiopia as of January 2016, of which 24 were integrated mills, 23 were spinning, weaving or knitting, 72 were apparel, and 8 were handloom factories.

Figure 6-1. Value Chain and Business Models of the Garment Industry



Source: the General Statistics Office of Vietnam as quoted in VDF (2021).
Note: percentages in the diagram show the share of each business model in Vietnam in 2019.

Figure 6-1 illustrates the physical flow of garment production as presented by the Vietnamese statistical authority, which is also applicable to most other garment exporting countries (there are slight variations in terminology across countries). The following concepts are often used.

- CMT (cut-make-trim), CM (cut-make) or CMP (cut-make-pack)[39]
- OEM/FOB (original equipment manufacturing/free onboard)
- ODM (original design manufacturing)
- OBM (original brand manufacturing)

Their meanings as used in the garment industry are often different from those in other sectors. CMT (or CM, CMP) is the production mode where all materials including fabric, thread, buttons, zippers, labels, etc. are provided by the foreign buyer, and the manufacturer concentrates on producing final products to the buyer's specs and receives processing fees only. OEM/FOB (or just FOB)[40] is the mode where materials are not given by the buyer but procured at the manufacturer's cost and risk, provided that they satisfy the buyer's requirements, and the manufacturer receives the total export product value including both labor and physical inputs. ODM is the mode where the contracted manufacturer not only engages in production but also

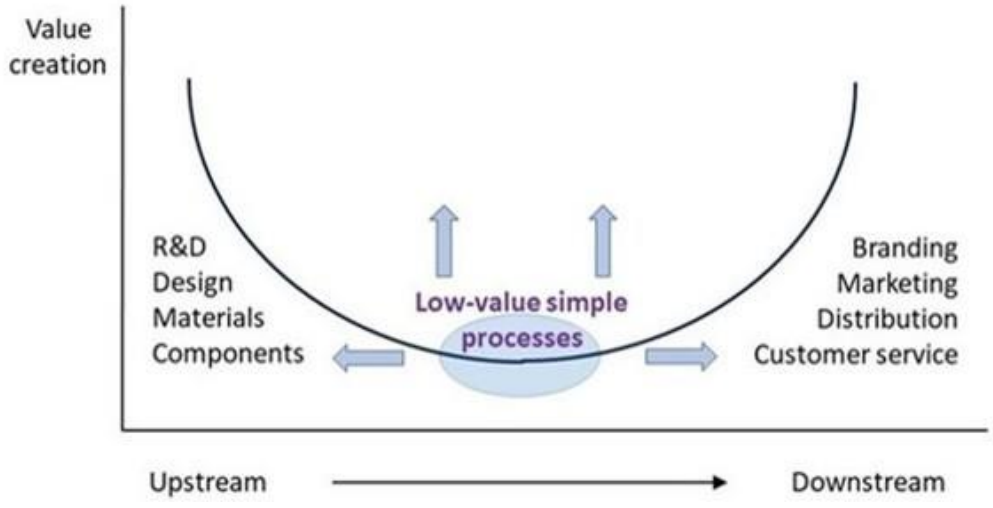
[39] CMT is common in Vietnam and Ethiopia, CM is used in Bangladesh while CMP is more popular in Myanmar.
[40] In the electronics and IT industries, OEM means contract manufacturing of brand products of other firms. In the automobile sector, however, OEM often means global carmakers with established brand names such as Toyota, Volkswagen and General Motors. These are diametrically opposite meanings, and the meaning in the garment industry is closer to the former. FOB generally means product value at the time of loading onto a ship at the port of export exclusive of ship charge or insurance, or contract terms based on it. Thus, in the garment industry, FOB means the manufacturer receives the entire value of products at shipment because it procures (not the buyer provides) materials that fit the order specification of the buyer.

proposes the design, materials and specs of products for the buyer's approval. Finally, OBM occurs when the manufacturer graduates from the supplier status by designing, producing and selling its own brand products instead of producing for others.

Domestic value creation rises as a garment manufacturer shifts from CMT, which is simplest, to FOB, ODM, and OBM. Industrial officials in garment exporting countries usually want domestic producers to advance along this path and produce more value. But this also increases the cost and risk of managing and coordinating more complex and diverse activities and therefore calls for additional knowledge, judgment and networking on the part of domestic firms.

Figure 6-2 is the famous Smile Curve illustrating that greater value is created at the two ends of the global value chain than in the middle stream which developing countries tend to take up initially. It must be stressed that there is nothing wrong for latecomer economies to start industrialization from simple manufacturing. However, they should not be stuck in this position forever but should grow out of it as quickly as reasonably possible by improving management and technology. In the 1990s, Malaysia drafted the Second Industrial Master Plan (IMP2) 1996-2005 which featured the Manufacturing Plus Plus strategy. For each of the eight key "clusters" (manufacturing subsectors and their support activities), this strategy expressed the two-dimensional desire to (i) improve the productivity of existing middle-range processes and thereby uplift the value chain curve; and (ii) expand the business scope to encompass more upstream and downstream activities with higher value-added[41]. In the figure, these are

Figure 6-2. The Smile Curve and Manufacturing ++



Source: adapted from Malaysia's Second Industrial Master Plan 1996-2005, with the author's editing.

[41] According to the terminology of Staritz et al. (2016), the vertical move includes "process upgrading" and "product upgrading" while the horizontal move includes "supply chain upgrading" (upstream) and "end market upgrading" (downstream). The transition from CMT to FOB and beyond is called "functional upgrading." They also define "social upgrading" (labor skills and welfare) and "environmental upgrading." Despite more detailed naming, the ideas are similar to those of Malaysia's Second Industrial Master Plan.

represented by the vertical and horizontal arrows, and hence the name Manufacturing Plus Plus. It must be admitted that Malaysia's effort to do this did not produce significant results. Nevertheless, even today, ideas behind this strategy should be valid for all latecomer economies including Vietnam, Bangladesh and Ethiopia which start industrialization from the "bottom" of the Smile Curve.

How much progress did the garment industry make in the three countries we are examining? Movement from CMT to FOB can be regarded as the first step in moving from the bottom position to the left (upstream), and ODM and OBM are a further expansion in the horizontal direction.

In Vietnam, as Figure 6-1 indicates, 65% of garment firms engaged in the CMT mode of production in 2019 while the shares of FOB, ODM, and OBM were 25%, 9%, and 1%, respectively, despite the awareness of the need to move away from CMT during the last three decades. According to our survey, the main challenges facing Vietnamese apparel exporters are technical and social requirements demanded by buyers. Vietnam has the upstream textile sector (spinning, weaving and dyeing) but its output hardly satisfies the specs required by foreign buyers and is therefore used only for garments sold to local consumers. Fabric production and garment production are separated in Vietnam. There is a domestic supply of accessories but its operation size is still small, covering only 30% of domestic demand according to VITAS.

In Bangladesh, apparel history is longer, domestic garment firms are dominant, and garment industry associations are very active. Our survey shows that 70% of the sampled firms engage in FOB while 30% conduct CMT[42]. FOB firms source fabrics mainly from Hong Kong/China, and accessories and some knitwear fabrics from domestic markets. Large Bangladeshi firms can even propose materials for buyers' approval. Thus, Bangladesh is more advanced than Vietnam in producing domestic value through material procurement at the manufacturers' cost and risk. It must also be noted, however, that frequently cited challenges in Bangladesh are high cost and access to finance for technology upgrading, the multiplicity of compliance requirements by buyers, and downward price pressure due to severe competition. These are challenges associated with existing processes rather than expanding the business scope along the global value chain. Domestic firms are generally aware of their lack of access to finance and global markets in comparison with FDI firms.

In Ethiopia, a survey conducted by the Ethiopian Investment Commission (EIC) and the Ethiopia Industrial Promotion Project (EIPP) of the Japan International Cooperation Agency (JICA) from December 2020 to March 2021 found the following (EIC and JICA 2021). Among garment firms that were located inside industrial parks and actually exporting garments, which totaled 31, 21 firms (68%) were conducting FOB and 10 firms (32%) were engaged in CMT.

[42] All CMT firms in our Bangladesh survey are domestic firms except one FDI firm (Japanese).

At Hawassa Industrial Park, which is Ethiopia's flagship garment industrial park, the numbers were 14 FOB firms (70%) versus 6 CMT firms (30%), which were similar to national results. It must be noted that all surveyed firms are FDI because foreign firms dominate Ethiopia's garment exports. There are very few domestic garment firms that are capable of exporting. The high FOB ratio of Ethiopia, equivalent to Bangladesh, surely reflects the strategy of FDI firms rather than the capacity of Ethiopian firms[43]. MAA Garment, the only domestic firm that regularly exports garments abroad, was not surveyed due to security reasons surrounding the Tigray conflict[44].

One technical problem is the interpretation of garment export data when CMT firms and FOB firms are mixed in data collection and analysis. The former tend to report the processing fee only (without material cost) which is a small part of garment value, while the latter's statistics correspond to the total value of the garment at shipment. Export data obtained by just adding the two without clarifying the definition of export value does not make much economic sense.

6-7. Participation in the global value chain

Another indicator of domestic value creation is the degree of a nation's participation in global value chains. Instead of counting the number of CMT firms and FOB firms, this method decomposes total export value into the value of imported inputs, domestically added value, and others. Our information in this regard is quite limited and fragmentary, but what we tentatively have can still tell an interesting story.

Nguyen Viet Khoi and Shashi Chaudhary (2019) define the "backward participation" as the amount of domestically produced intermediate products and services contained in a nation's total export, and "forward participation" as the amount of value-added earned abroad in a nation's total export. The sum of these two is defined as the "degree of participation in global value chains." Note that export value here is FOB (shipment value at the port of export), not the retail price at final markets which is unknown to producers and may be considerably higher. The value accruing after product shipment is captured by foreign buyers and distributors.

Figure 6-3 shows some data, incomplete yet suggestive, for Vietnam (Nguyen Viet Khoi and Chaudhary 2019) and Bangladesh (information from the Bangladesh Bank). It reports value addition through domestic production processes (backward participation) and profits generated

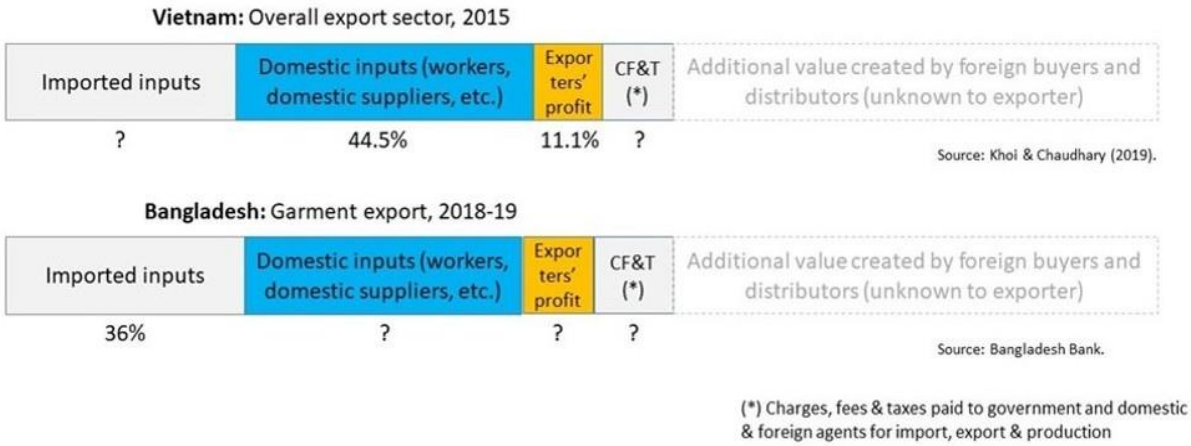
[43] Staritz et al. (2016) showed that most garment exporters in Ethiopia were doing CMT. The CMT-FOB ratio seems to have changed dramatically when additional garment FDI arrived at newly established industrial parks after 2016.

[44] The EIC-JICA survey covered all garment exporting firms which were operational at the time of interviews except those located outside industrial parks (due to survey design), those in Tigray (due to security problems), and those in Bole Lemi Industrial Park (which has eight garment exporting firms but the preliminary survey conducted in this park did not ask the FOB-CMT question).

by exporters (forward participation). Vietnam's data is for overall export, not just for garment[45].

Nguyen Viet Khoi and Chaudhary (2019) shows five-yearly results for Vietnam from 1995 to 2015 in table format (Table 6-2). Participation (i.e., domestic value creation as a share of export value) rose from 34.2% to 55.6%, but there are two cautions worth noting: (i) a large jump was recorded between 1995 and 2000, after which progress was slow; and (ii) improvement was observed only in backward participation (upstream) while forward participation (downstream) showed no progress during the two decades. This suggests that Vietnam's progress has been slow and that downstream encroachment is more difficult than

Figure 6-3. Export Value Structure of Vietnam and Bangladesh (Preliminary)



Note: Vietnam's data also covers sectors other than the garment. Bangladesh's information (imported materials occupy 36% of final garment value) does not give information on other components individually. In Ethiopia, we suspect that domestic value is much smaller than Vietnam or Bangladesh.

Table 6-2. Vietnam: Participation in Global Value Chains

Year	Forward participation (%)	Backward participation (%)	Participation in global value chains (%)
1995	12.6	21.6	34.2
2000	19.5	27.2	46.7
2005	14.5	36.1	50.6
2010	12.5	40.5	53.0
2015	11.1	44.5	55.6

Source: Nguyen Viet Khoi and Chaudhary (2019).

[45] For the garment industry only, we have the following information. In 2019, Vietnam imported up to 89% of fabrics, of which 55% were from China, 16% from South Korea, 12% from Taiwan, and 6% from Japan (GSO data).

upstream advance. In Vietnam, backward participation is often associated with the development of "supporting industries," or domestic supplier firms which produce materials and components for firms that manufacture final products in Vietnam. Supporting industries include both domestic and FDI suppliers.

The latest figure for Vietnam's participation (the sum of backward and forward participation) is 55.6%. Meanwhile, the RMG sector of Bangladesh reports that imported materials occupy 36% of total export value. Ignoring miscellaneous costs and charges related to taxes, domestic transport, and export and import procedures, we may presume that Vietnam and Bangladesh share similar ratios of domestic value creation amounting to 50-60% of total export. Whether this is high or low depends on the perspective of each reviewer.

For Ethiopia, foreign garment firms generally do not procure materials from local sources due to problems in cost, quality and prompt delivery (Staritz et al. 2016). Local subcontracting is very limited for export items except among some diaspora firms. Local cotton and materials derived from it are used exclusively for products destined to domestic markets. A trial calculation by the aforementioned EIC-JICA survey shows that domestic labor cost ($62.6 million) is 38% of total garment exports from Ethiopia's industrial parks ($165 million) in 2019/2020. This number is hard to interpret as export value is a mixture of CMT and FOB receipts. If it is all CMT, 38% seems rather low. If it is all FOB, 38% is incredibly high.

It must be reminded that, in this and previous sections, we are looking at value addition by moving slightly upstream along the Smile Curve. This is just one possibility of additional value creation. It is a great challenge for garment firms originating from developing countries to move horizontally—especially downstream—in the Smile Curve to establish their own brands and compete squarely with such giants as H&M, Zara, Calvin Klein, Uniqlo, and Levi's. In other words, attaining OBM is very difficult. This requires not just production efficiency but a strong grip on the retail networks and consumer tastes in advanced markets, outstanding and costly advertisement, excellent international coordination and logistics, and a constant battle to defend and upgrade one's brands. The fact that even global garment producers such as Arvind, DBL, MAS, Shin Textile Solutions, etc. operate as subcontractors of famous brands and without consumers' recognition of their names points to the difficulty in establishing a new global brand in this industry. For countries engaged mostly in CMT production, the road to greater value creation is steep and long. Bangladesh appears eager to take up this challenge, but Vietnam seems more content with the quantitative expansion of CMT than achieving higher value per piece exported.

6-8. Wage, labor productivity and labor quality

According to the 2020 survey of overseas operations of Japanese firms (JETRO 2020), the

average annual labor cost of manufacturing workers in Vietnam was $4,132 and that in Bangladesh was $1,848, which includes salary, bonuses, overtime and social security. As for Ethiopia, our joint survey shows that, in 2016, the average annual wage cost of garment workers was 21,710 Birr or $994 (PSI and GRIPS 2020). Division by 12 yields monthly cost per worker, which is $344 in Vietnam, $154 in Bangladesh, and $83 in Ethiopia[46]. Minimum wages are set in Vietnam and Bangladesh, and Ethiopia is preparing to introduce them. In all these countries, we detect workers' dissatisfaction with low wage levels. Since low wage advantage is the key attraction of these countries for garment FDI, CEOs and policymakers constantly face a dilemma between wage demand and cost competitiveness. In Vietnam, where the labor market is tightening thanks to the arrival of many FDI firms other than the garment, there is an acute shortage of entry-level workers, especially at factories located in or close to urban areas.

Worker training, graded salary schedule, bonuses, non-wage benefits such as subsidized insurance, food, transport, clinic, family picnic, etc., and incentives and promotion for good performance are commonly observed though details may differ across countries. Management style where instructions come from the top, except daily operational issues which are handled by middle managers, also seems standard. Not many firms allow bottom-up initiatives and suggestions by workers even in countries where kaizen is popular.

Turning to labor productivity (value creation per worker per year), the Asian Productivity Organization (APO) database reports $12,700 for Vietnam and $10,400 for Bangladesh in 2018. PSI-GRIPS (2020) indicates that the labor productivity of the Ethiopian garment sector was 27,760 Birr or $1,271 per worker in 2016, considerably lower than those in Vietnam or Bangladesh.

Based on these data, and ignoring differences in the precise year of data collection, the unit labor cost (labor cost per $1 of value creation) is calculated as follows: Vietnam $0.325, Bangladesh $0.178, and Ethiopia $0.065.

If these calculations are correct, we may conclude that Vietnam has the most expensive labor and Ethiopia the cheapest labor in terms of both nominal wage and unit labor cost, and Bangladesh comes in between. However, Ethiopia's low labor cost does not necessarily translate into global competitiveness. Competitiveness requires not just low labor costs but many other conditions. Three issues must be mentioned here.

First, the fact that labor contributes less and materials contribute more to the final product value in Ethiopia simply reflects its industrialization stage where unskilled labor-intensive production of relatively simple products is dominant. As skills and wages rise, cost shares will shift toward more labor and less physical inputs, and more sophisticated apparel will be manufactured.

[46] The basic monthly salary was $250 in Vietnam and $115 in Bangladesh, occupying 73% and 75% of total labor cost, respectively.

Second, the quality of labor is low in Ethiopia compared with Vietnam and Bangladesh. Many Ethiopian workers are new to urban areas and have never seen a factory before. Their educational achievement is also generally low. Such basics as punctuality, observing rules, personal hygiene, how to use a canteen or toilets, etc. must be taught before technical skills are learned. In Vietnam and Bangladesh, workers have graduated from this level and are asked to have a positive attitude, long-term perspective, teamwork spirit, problem-solving capability, aspiration to excellence, etc. which are higher requirements suitable for more advanced manufacturing.

Third, non-labor impediments to manufacturing are formidable in Ethiopia. The EIC-JICA survey of garment factories in Ethiopian industrial parks found many serious—and well-known—problems of foreign currency shortage, the lack of material inputs, inefficient logistics, bureaucratic customs clearance, difficulty in bank access, theft, power and internet interruptions, and water supply (EIC and JICA 2021). These are problems largely unheard of in Vietnam or Bangladesh[47]. But in Ethiopia, they halt and delay production more frequently than the labor problem.

The World Bank Doing Business ranking also confirms the problem of non-labor impediments, but only partially. The 2020 ranking results were as follows: Vietnam (70th), Ethiopia (159th), and Bangladesh (168th) among 190 economies. It is curious to see Bangladesh below Ethiopia. This is because Doing Business scores evaluate the efficiency of various procedures necessary to conduct a business, which constitutes only a small part of the overall business climate and attraction for investors.

Another important issue is worth mentioning. In such countries as Vietnam, Indonesia and Thailand, minimum wage—which also triggers overall wage—tended to be politically decided above labor productivity growth by pressure from labor unions or a government shortly facing an election. This reduced labor competitiveness in these countries and was bitterly criticized by both domestic and FDI firms. For any country, the two-track strategy should be adopted whereby labor productivity growth is accelerated as much as possible on the one hand and wage increase is kept within the bounds of labor productivity growth on the other hand. In some countries mentioned above, a balance between wage increase and labor productivity growth has been restored. More recently in 2020, JETRO (2020) reports that the ratio of Japanese firms that regard the minimum wage level of a particular nation as appropriate relative to its productivity level was 59.6% in Vietnam, 53.6% in Bangladesh, and 49.5% in Thailand while it was only 20.6% in Indonesia. Ethiopia is on the verge of instituting a minimum wage. The problem of wage-labor productivity nexus should be duly studied in advance.

[47] Bangladesh also faces a shortage of foreign currency and administers capital control, but garment firms are permitted to retain 10% of their export earnings which significantly eases the problem. As of August 2021, there is information that this privilege is about to increase to 15%.

6-9. Ethical correctness vs. product quality

Garment firms must fulfill certain conditions presented by buyers as a precondition for receiving any order. These conditions reflect the demand of consumers in the final market which is relayed to garment firms via buyers.

The EU and the US, which are the largest garment markets, impose strict rules on producers regarding the protection of workers and the environment. They cover many issues including the ban on child or forced labor, working hours and conditions, safety, health and living standards of workers, gender equality, freedom of collective bargaining as well as environment-friendly production methods, carbon neutrality, energy and material efficiency, proper treatment of wastes and sewage, and so on, which collectively define globally accepted conduct for all manufacturers. Western buyers also impose quality standards which are, however, less strict than Japanese quality standards[48]. Japan, which is a smaller market than the West, requires high—some say excessively high—standards on quality, cost reduction and on-time delivery (QCD). Japanese buyers mind both ethical correctness and QCD, but more attention and support are given to the latter as Japanese consumers are extremely sensitive to the perfection of physical conditions of the product.

For garment producers in developing countries, the question is how to satisfy imposed conditions under their budget and time constraints. Fulfillment requires management's attention, the introduction of new rules and methods, learning and training, and sometimes a large investment in equipment and facilities. External help is usually available from buyers, industry associations, government, bilateral donors or international organizations (section 6-10). Bilateral donors of targeted market countries often provide assistance to expedite learning and training. Needless to say, if garment producers sell only to domestic consumers, they are not obliged to comply with global ethical and product standards. This tends to widen the gap between garments for export and those sold domestically in terms of both production method and product quality, which perpetuates two totally separate garment subsectors within a national economy. FDI firms usually do not have problems with ethical and quality standards as they practice them as a normal part of the business all over the world.

In Bangladesh, where most garment exports are destined to the Western markets, ethical standards for labor and the environment are of paramount importance. Virtually all export-oriented garment firms must—and do—fulfill such requirements, but to different degrees as domestic producers are many and diverse. Strong producers have globally established methods but smaller firms may struggle to keep up with foreign demands. One special feature in Bangladesh is the sharp focus on fire and building safety, which became a critical issue after

[48] Upon inspecting garments or footwear destined to Western markets, Japanese garment buyers usually comment that many products which pass EU or US quality standards will be rejected as defects in Japan.

the collapse of the Rana Plaza in 2013 that killed 1,100 garment workers and wounded over 2,600. This drew great international attention to Bangladeshi's workplace safety and initiated two actions to redress and improve compliance, namely the Accord with the assistance of EU buyers and the Alliance with the assistance of US buyers. However, smaller producers often find it difficult to fully comply as that calls for additional investment (Hossain et al. 2020; Hossain 2021).

In Vietnam, a similar situation regarding compliance is observed, as all garment exporters must conform to external standards. For domestic firms, compliance requires additional investment to install required machines and equipment, upgrade the production process, and hire and train workers. On the other hand, the opening of new export markets enhances revenue and broadens the business scope, which is highly rewarding. Concern over building safety is not as prominent as in Bangladesh. Our survey in Vietnam finds that domestic firms targeting international markets are under pressure to comply with the International Organization for Standardization (ISO) 9000s and 14000s, the Social Accountability (SA)-8000, the Worldwide Responsible Apparel Production Certification (WRAP), and other codes of conduct. The perception of their importance for export is shared among all exporters regardless of size or ownership, but actual acquisition and practice of these standards are higher in large domestic firms and FDI firms. According to interviewed companies, buyers from Northern and Western Europe are most strict about compliance, followed by the US and Japan. Japanese buyers additionally require strict technical compliance[49]. Meanwhile, buyers from Korea, Russia and Poland are more lenient on both corporate social responsibility (CSR) and product quality (VDF 2021).

In Ethiopia where FDI garment firms dominate, compliance and quality are handled individually by internal rules of each FDI firm. All six of the surveyed FDI firms have an internal quality and standard department, consider quality maintenance as a collective effort of all staff, and participate in the International Labour Organization (ILO)'s Better Work. A concerted national effort is still embryonic even though ETIDI, the Industrial Parks Development Corporation (IPDC) and the Addis Ababa Chamber of Commerce and Sectoral Association (AACCSA) occasionally assist firms to obtain necessary certificates. Ethical and quality standards have not become the goals pursued vigorously by government or domestic businesses. Some development partners such as ILO, EU, Germany and Sweden support labor code compliance and labor union formation, together with FDI garment firms from these areas and countries. However, a Swedish aid official in Addis Ababa admitted in 2017 that workers' rights and labor unions were new concepts in Ethiopia. International cooperation must begin

[49] It is customary for Japanese garment buyers in any country to hire a third-party quality inspector at each factory to check the quality of *all* products before shipment (not random inspection). This includes a metal detector for a broken needle or any other foreign object in all products. This requirement is "challenging" to some Vietnamese producers.

with such basics as the definitions and significance of these rights and activities. On the environment front, Ethiopia adopted a novel and unestablished Indian technology of zero liquid discharge (ZLD) in all state-run industrial parks at an unknown but probably high operation and maintenance cost. Yet, overall environmental laws and compliance remain primitive nationwide. It will take some time before labor and environmental protection becomes an internally driven and nationally owned endeavor.

Two additional pieces of information may be useful.

Sri Lanka exports high-end apparel to Western markets with high-quality standards and ethical correctness. The industry is led by a handful of global contract manufacturers such as MAS, Brandix, Star Garment and Hirdaramani. The government also actively supports workers' rights. The Sri Lanka Institute of Textile and Apparel (SLITA) thinks its quality, labor and environmental standards are much higher than those in neighboring countries, and dispatches experts to or receives trainees from Vietnam, Bangladesh, Philippines, and other garment exporting countries.

Myanmar is a burgeoning garment exporter where Chinese (most numerous), Japanese and other firms operate. The Myanmar Garment Manufacturers Association (MGMA) counted about 500 exporting companies as its members in 2019. Myanmar's garment export is still modest. Japan was the largest market but the EU grew rapidly in recent years with the conferment of the EBA status. In both cases, development partners from Japan and the EU greatly helped Myanmar to export to their markets. Japan did so by establishing two training centers to teach and produce local trainers in industrial engineering, sewing skill, quality management and equipment maintenance. Germany assisted with trade exhibitions and buyer matching support, and the EU with environmental and social compliance support. Some Myanmar firms are shifting from Japanese to EU customers because Japanese quality standards are extremely strict while EU's compliance criteria are easier. Myanmar has no domestic fabric supply, and garment firms are engaged in CMP production. Entry-level workers are abundant but their mindset and discipline are problematic, with frequent job-hopping. While reliable statistics are missing, it is suspected that labor productivity is much lower than in China or Vietnam. Furthermore, Myanmar's political situation may hamper the development of its young garment industry.

6-10. Policy support

The government of Bangladesh has since the 1970s generously and continuously supported and protected the RMG sector to help it become the leading export sector of the nation. In this regard, the industrial promotion policy has been successful. The current policy menu includes

cash incentive equivalent to 5% of the use of domestic yarn for garment export[50], a measure highly appreciated by 65% of the firms in our Bangladesh survey. Some even want it to be increased to 10%. Other measures in support of RMG exporters are the Export Development Fund[51], the retention quota of 10% (or 15%--see footnote 47) of export receipt which alleviates foreign currency shortage particularly for garment exporters, exchange rate management which keeps the Taka undervalued, bonded warehouse facilities, and discouragement of FDI. The government's support was also critical for the RMG sector to overcome the difficulties following the termination of the MFA quotas in 2005, the Rana Plaza collapse in 2013, and the suspension of the generalized system of preferences (GSP) facility after this accident. However, Bangladeshi policy support is confined to non-technical areas rather than technical support (such as technology, kaizen, safety, quality, logistics, etc.) which many other governments offer. It must also be noted that the strong lobbying of BGMEA and BKMEA is behind these incentives and protection. At the same time, we should ask whether the current incentives and protection of the RMG sector are excessive privileges that discourage further development of technology and business scope and also prevent the diversification of economic structure, and whether they are not regarded as unfair by other countries[52]. Infant industry promotion cannot continue forever even though some garment firms demand more, not less, policy support. These will become critical issues when Bangladesh graduates from the LDC status, which is expected to occur in 2026.

In Vietnam, the garment is a significant, though not overwhelmingly important, export item accounting for 12% of total export in 2019. Moreover, the garment association (VITAS) is not as politically powerful as Bangladesh's. The development of Vietnam's garment industry appears to owe more to market forces than active government policies. Vietnamese market advantages include young workers famous for their dexterity and diligence, and foreign buyers and manufacturers attracted to this advantage. General policy actions such as economic liberalization, global integration, and membership in many trade arrangements certainly contributed to the sector's growth. At the micro-level, however, the Vietnamese government has introduced few effective measures to help domestic firms to climb up or expand along the Smile Curve. From the beginning (the 1990s), the government seemed more interested in "high-

[50] This cash incentive supports domestic spinning mills whose prices are higher than imported yarn. An RMG producer purchasing local yarn receives certificates against the use of local yarn (normally 50-60% of export value) but the government routinely reduces the claimed amount. Moreover, a 10% tax is levied on the certificate value of the assistance. We thank Mr. Akhter Hossain of BKMEA for clarifying this policy.

[51] The Export Development Fund is a short-term loan facility provided by the Bangladesh Bank (central bank) via commercial banks to exporters for preparing and facilitating shipments as well as for product development and access to international markets. In 2021, the Fund's lending size was expanded to Tk 5.5 billion, the repayment period was extended from 3 to 6 months, and the interest rate was reduced from 2.0% to 1.75% in October 2020 (it is currently 6-month LIBOR plus 2%) partly to ameliorate the impact of the COVID pandemic.

[52] Cash incentive and the Export Development Fund may constitute export subsidies which are prohibited by WTO. But we are unaware of any international complaint or action against these measures of Bangladesh.

tech" areas and less concerned about the garment which Ministry of Industry officials often regarded as "simple, low value, and passé for Vietnam." Vinatex, a group of "equitized" former state-owned large garment firms, supports its members by allocating foreign orders. But other garment firms do not benefit much from government policies. There is no effective national strategy to increase the domestic value creation of the garment. The existing supporting industry policy includes strengthening of domestic supply of garment materials and accessories but it is producing little impact. This policy detachment may partly explain the perpetuation of CMT in Vietnam (65%) in comparison with Bangladesh (30%).

In Ethiopia, the government has paid great attention to the garment sector in the last two decades in a drive to promote manufacturing, together with other priority sectors such as leather and food processing. The Monthly Export Steering Committee carefully monitored progress, a technical support center (ETIDI) was created to expedite technology absorption and training, and FDI and official development assistance (ODA) were vigorously mobilized to this sector. Moreover, several state-run industrial parks specializing in garment production were established where foreign buyers and development partners assisted operation. Despite these actions, the problem of Ethiopia's policy effort is that garment export remains disappointingly small. Reasons may include (i) support measures that do not match the industry's requirements; (ii) bureaucracy and policy ambiguity; (iii) the lack of enabling environments such as reliable labor, stable power supply and efficient logistics; and (iv) too optimistic expectation that assumed a great jump in export and foreign exchange earning once FDI started to arrive. So far, Ethiopian export is dominated by primary commodities such as coffee, flowers, gold, live animals, oilseeds and khat. Garment export remains small and stagnant, at about $300 million or 4% of total export. There is an internal debate on whether promotional measures for prioritized sectors, including garments, were cost-effective. Moreover, the government's demand or expectation that FDI firms should build big, employ many, export 100%, integrate vertically and transfer technology as a condition for license approval, incentives or foreign exchange allocation may go against the preferred global business model of individual foreign firms and may backfire. Policy reform seems inevitable if Ethiopia is to accelerate industrialization.

6-11. Impact of the COVID pandemic

The COVID pandemic began to seriously deter domestic and global human mobility in the early spring of 2020. Our three-country surveys, conducted in the last few months of 2020, contained questions on the impact of this pandemic on garment manufacturing.

Our surveyed firms in Vietnam reported no or little impact. None of them cut down on labor force, export volume or product items even though some work shift adjustments were needed

to comply with social distancing. On the supply side, the import of materials (mostly from Hong Kong/China) was interrupted in March 2020 but resumed in the following month, with no serious damage in input availability. Many producers had sufficient material inventory stocks to cope with such short-term problems. On the demand side, the survey conducted by Deloitte (2021) shows that, amid the pandemic, clothing was still a priority item of consumers after pharmaceuticals, food and savings. Consumption shifted from luxury to basic products, and global demand for casual clothing such as jackets, T-shirts, trousers, shorts and coats which Vietnam produces remained strong, unlike high-value suits and blazers whose demand declined. Producers who had long-term contracts with buyers were scarcely affected in order volume. No order cancellation was reported by our sample firms and many even had a backlog of unfilled orders several months ahead. Some manufacturers additionally produced face masks and personal protective equipment (PPE) whose demand skyrocketed. The Vietnamese government introduced many rescue measures for COVID-affected firms[53], but few garment firms used them because they were not seriously affected, because the reduction of taxes and land rents was of no use as they were already paid on an annual basis in advance, and/or because the application procedure was too cumbersome and time-consuming.

In Bangladesh, as of December 2020, about one-third of the responding firms suffered a substantial decline in export (ranging from 40% to 80%) and 57% of the firms reported that their exports declined slightly (ranging from 5% to 30%) in the face of the pandemic. These are in sharp contrast to Vietnam's case where the pandemic damage was slight to none. It is not clear what is behind such a dramatic difference between the two leading garment exporting countries. About 50% of the surveyed firms ventured into the production of face masks and PPE. The share of such COVID-related products in total sales was 1-10% for about 40% of the firms, 10-20% for 13% of the firms, and there was one firm whose COVID-related items occupied as high as 50% of its total production. This also suggests that Bangladeshi garment producers were more seriously affected by the pandemic than their Vietnamese counterparts.

In Ethiopia, the state of emergency due to the COVID pandemic was declared for five months from April to August 2020. During that time, discharge of labor force was prohibited, and all 32 firms in our survey observed this instruction (besides 10 garment firms, the survey also covered 22 firms in the food processing, automotive, and leather sectors). In return, the government promised to support all businesses, including FDI, by postponing tax and pension payments for three months. Our survey indicates that some local firms enjoyed this privilege but none of the interviewed FDI firms, regardless of sector, benefited from it. In terms of

[53] Measures introduced by the Vietnamese government include (i) financial support for unemployed workers with or without a labor contract; (ii) subsidies and loans for businesses for paying salary, debt, etc.; (iii) temporary reduction or postponement of business costs such as land rents, fees, airline-related fees, etc.; and (iv) suspension or postponement of social security contributions, value-added tax, corporate income tax, etc.; and (v) an order to commercial banks to conduct debt restructuring and interest exemption/reduction on enterprise loans (VDF 2021).

demand, four FDI garment firms were not affected by the pandemic or the state of emergency as they produced according to long-term contracts. By contrast, two FDI garment firms experienced export reduction and production cuts. After the state of emergency was lifted, two FDI firms retrenched some of their employees. One of them even faced a financial crisis and froze operations with a stock of 20,000 unsold shirts. Many firms reported that, rather than the pandemic, the chronic shortage of foreign currency and worsening political instability were the major causes of their business disruption. The pandemic also impacted exporting firms with schedule mismatches and delays at the Port of Djibouti, through which most goods are imported to and exported from Ethiopia. The survey of industrial parks (EIC and JICA 2021) shows that the export from Hawassa Industrial Park, which specializes in garments and accounts for half of the total export from all industrial parks, was about $8 million per month in August-October 2019 but fell to less than $3 million per month in April 2020, then recovered partially to $5-6 million by early 2021.

6-12. Concluding remarks

Comparing the three garment exporting countries, the most striking fact is that they are diverse in size, history, players, production mode, policy support, business associations, the way to secure markets, and even the COVID impact. Domestic situations are different from one country to another, and there seems no uniform path which all can follow to become a leading garment exporting nation. Each country has achievements and weaknesses, and there are many lessons they can learn from each other.

One evident fact is that Vietnam and Bangladesh are way ahead of Ethiopia which only recently joined the club of garment exporters. Ethiopia's initial difficulties and policy inexperience are understandable given its early stage. Our study could not determine whether Ethiopia's problems are common to all newcomers or unique to Ethiopia. If the latter is the case, solutions require policy innovation in addition to learning from others who went ahead.

While both Vietnam and Bangladesh are leading exporters of the garment, they are quite different in certain characteristics. Domestic private producers dominate in Bangladesh while Vietnam is home to more diverse producers including private, formerly state-owned and foreign. Vietnam is very skillful at joining bilateral and regional trade agreements that greatly matter to its export, a feature that Bangladesh lacks. The RMG sector of Bangladesh is effectively supported by its government and two garment associations, but the evolution of Vietnam's garment export is left more to market forces. During the COVID pandemic, Vietnam's garment exporters were much less affected in comparison with their competitors in Bangladesh or Ethiopia.

However, there are common factors as well. The most prominent is the challenge of

increasing domestic value creation by, starting from the bottom of the Smile Curve, raising productivity or encompassing more processes along the global value chain, or both. The movement from CMT to FOB, or material procurement at its own cost and risk, contributes to this effort, and Bangladesh has progressed more than Vietnam in this direction with the continued support of government and industry associations. But this is only a modest move relative to the total value created by the global apparel industry. A further evolution to ODM and OBM where manufacturers produce and sell their own designs and brands is extremely difficult, and whether that is an appropriate goal for latecomer garment exporting countries is also arguable.

This research study did not address the impact of automation, AI, IoT, robotics and other technological advances on the garment industry, an important issue that must be dealt with by another study.

Annex: Profile of Surveyed Garment Firms

Vietnam

No.	Ownership	Main products	Main markets	Employees
V1	Domestic	Cotton bag, eco bag	Japan, USA	85
V2	Domestic	Sweater	Eastern Europe, Korea	65
V3	Domestic	Knitted shirts, jackets, blankets, bed cover, face masks	USA, EU, Korea	6,200
V4	Domestic	Personal protective cloths	Europe(Spain, Poland, France)	1,000
V5	Domestic	Jackets, T-shirts, trousers and shorts, dress	France, Cuba, USA, Korea	47
V6	Domestic	T-shirts, shirts	USA, Korea	100
V7	Domestic	T-shirts, face masks	Japan, Eastern Europe	100
V8	Domestic	Children's wear	Vietnam	100
V9	Domestic	Jackets, T-shirts, coats	China, Taiwan, USA	135
V10	Domestic	Sport wear, coats	USA, EU, Korea	2,500
V11	Domestic	Knitted shirts	Poland, German, France, Czech	151
V12	Domestic	Denim cloths	Korea, USA	60
V13	Domestic	Knitted cloths, swimwear	EU, USA	500
V14	Domestic	Man's wear	Vietnam	1,000
V15	Domestic	T-shirts	EU, USA, Korea	200
V16	Domestic	Shirts	Korea, Rusia	150
V17	Domestic	Knitted cloths	USA, Czech, Hungary, Poland, Italy	200
V18	Domestic	Knitted cloths	Korea, EU, Latin America	120
V19	Domestic	Knitted cloths	USA	200
V20	Domestic	Shirts, traditional dress	Denmark, Malaysia, Korea	150
V21	Domestic	Shirts, trousers	USA, German, Korea	9,000
V22	Equitized former SOE	Shirts	Vietnam (Canifa, Aristino), Korea	300
V23	Equitized former SOE	Shirts, trousers, dress	USA, German	200
V24	Equitized former SOE	Children's wear, shirts	USA	158
V25	Equitized former SOE	Knitted cloths, underwear	USA, EU, Korea, Taiwan	139
V26	Equitized former SOE	Cotton towels (napkins, face towels, bath towels)	USA, Korea	317
V27	FDI	Sewing thread, Embroidery shirts	USA, Korea	47
V28	FDI	Knitted cloths	Korea, USA	118
V29	FDI	Carpets, blankets	USA, Korea	203
V30	FDI	Embroidery shirts	Korea, USA	110
V31	FDI	Knitted cloths	China, Korea	220

Note: “Equitized former SOE” means a former state-owned enterprise that was transformed into a joint stock company with a substantial state shareholding.

Bangladesh

No.	Ownership	Main products	Main markets	Employees
B1	100% domestic	Toursers		715
B2	100% domestic	Pants (male & female)		1,100
B3	100% domestic	All kind of pants, jackets		1,524
B4	100% domestic	Pants (male & female)		750
B5	100% domestic	Pants, jackets		187
B6	100% domestic	Pants, jackets		830
B7	100% domestic	Knit garments		1,300
B8	100% domestic	All kind of knit items		815
B9	100% domestic	Knit fabrics		1,200
B10	100% domestic	Bottoms		350
B11	100% domestic	Men's shirts, ladies' tops		190
B12	100% domestic	Knit items		600
B13	100% domestic	Knit tops and bottoms		6,250
B14	100% domestic	Under garments		2,000
B15	100% domestic	Sweaters		300
B16	100% domestic	Knit items		416
B17	100% domestic	Ladies', gentlemen's, kids'		4,838
B18	100% domestic	T shirts		830
B19	100% domestic	T shirts, polo shirts		1,020
B20	100% domestic	Sweaters		600
B21	100% domestic	Shirts, ladies' items		219
B22	100% domestic	Lingerie		1,000
B23	100% domestic	Woven tops		257
B24	100% domestic	T shirts, polo shirts		1,808
B25	100% domestic	T shirts, polo shirts		2,400
B26	Domestic 50% / foreign 50%	Pants, jackets, sports		550
B27	100% foreign	Tops and bottoms		3,460
B28	100% foreign	T shirts, polo shirts		1,067
B29	100% foreign	Sweaters		300
B30	100% foreign	T shirts		2,400

Note: the Bangladesh survey did not ask main markets of each company.

Ethiopia

No.	Ownership	Main products	Main markets	Employees
E1	FDI(100%)	Babywear	EU, USA	1,860
E2	FDI(100%)	Trousers, shirts, men underwear	India, EU, USA	1,900
E3	FDI(100%)	Children's wear	USA	1,500
E4	FDI(100%)	Jackets, T-shirts, shorts, pants, uniforms	EU, USA	699
E5	FDI(100%)	Safety clothes	USA	300
E6	FDI(100%)	Fleece jackets	Germany	500
E7	Domestic(100%)	Shirts	Domestic	289
E8	Domestic(100%)	T-shirt, pillow, sports cloth, Trousers, hoodies	Central Africa, EU	600
E9	Domestic(100%)	T-shirts, blankets	Domestic	547
E10	Domestic(100%)	Polyester, mattresses, bed sheets	Domestic	320

Note: besides these 10 garment firms, 20 firms belonging to the food processing, automotive and leather sectors were surveyed in Ethiopia.

Chapter 7

Pursuit of Product Quality and Ethical Correctness in Developing the Garment Industry

7-1. Introduction

The garment industry is a typical "starter" industry for low-income countries that promote export-oriented industrialization (Gereffi 1999; OECD/WTO/IDE-JETRO 2013). For latecomer countries, apparel production serves as the first entry point into global value chains (GVCs) with its low fixed costs and labor-intensive manufacturing (Fernandez-Stark et al. 2011). Moreover, as China relocates its labor-intensive industries to other countries due to rising domestic wages, many developing countries actively court garment factories leaving China to build their own garment industry and be a part of the apparel GVC. The recent US-China trade war has accelerated this trend of relocation and diversification of Chinese foreign direct investment (FDI). Sri Lanka, Bangladesh and Vietnam have been successful in attracting FDI and building their manufacturing capabilities for apparel production and export. More recently, Myanmar is emerging as a new location of apparel production in Asia, and Ethiopia is beginning to follow a similar path in Africa.

Because it is labor-intensive, the garment industry contributes greatly to job creation in low-income countries, especially for young female workers. On the other hand, if it is not properly managed, the industry may generate labor mistreatment and exploitation. Partly for this reason, and pushed by the growing interest in the sustainable development agenda, harsh working conditions at garment factories in several countries have been severely criticized by activists and consumers in developed countries. There is a rising awareness of the need to strengthen social and environmental compliance in the sector, in addition to conventional requirements for quality, cost reduction and on-time delivery (QCD).

Today, latecomer countries must satisfy the twin global standards—economic and industrial upgrading as well as social and environmental upgrading—to successfully participate in the apparel GVC. This requires different and complex sets of capabilities at both managerial and workers' levels. Investors, buyers and aid agencies in Asia led by Japan and South Korea have given high priority to QCD requirements to satisfy strict product standards demanded in their home markets. In the West, by contrast, European and American consumers who have traditionally been conscious about the sweatshop issue emphasize ethical correctness and adequate labor conditions. More recently, with increasing attention to the Sustainable

Development Goals (SDGs) and the ongoing global economic restructuring in response to the COVID-19 pandemic, there is a strong drive among international investors and buyers to give greater attention to labor conditions, human rights, and environmental standards. Both requirements are crucial in securing market access and raising productivity. At the same time, complex and proliferating standards set by lead firms, international organizations and non-governmental organizations (NGOs) are placing a considerable burden on apparel firms in developing countries that face resource and technical constraints.

Against this background, the current chapter studies how today's latecomers and their garment firms are coping with the global twin standards and identifies remaining challenges. Our analyses are based on the recent firm surveys conducted in Bangladesh, Vietnam and Ethiopia as well as the National Graduate Institute for Policy Studies (GRIPS) Development Forum (GDF) missions to Sri Lanka and Myanmar. They are supplemented by literature review and additional research.

The rest of the chapter is structured as follows. Section 7-2 introduces the concept of economic and social upgrading. Section 7-3 explains concrete standards and regulations that govern these twin requirements. Section 7-4 discusses the role of international development cooperation by various donors. The study then turns to concrete and diverse country cases. Section 7-5 compares the profiles of the five countries and gives two issue points. Sections 7-6 to 7-10 explain the experiences of Bangladesh, Vietnam, Ethiopia, Sri Lanka and Myanmar. Section 7-11 concludes with three implications for today's latecomer garment producers and the possible impact of the COVID pandemic on our problem.

7-2. Economic and social upgrading in the garment GVC

The apparel value chain is highly globalized and governed by a buyer-driven structure where foreign buyers and lead firms—large retailers, brand owners and brand manufacturers—have a strong power over producers on "how, when, and where manufacturing will take place, and how much profit accrues at each stage" (Fernandez-Stark et al. 2011). Labor cost advantages, favorable trade agreements and proximity to end markets are key factors to attract lead firms for their investment destination. The first task for low-income countries is to invite foreign buyers and lead firms for simple apparel production. Then, after entering into the apparel GVC, host countries must continue to sustain partnerships with buyers and lead firms which is an even more challenging task. It requires continuous economic and social upgrading of the production firm and workforce capabilities.

As will be explained below, economic upgrading is essential in remaining in and moving up the chain ladder to higher value-added stages, while social upgrading is a precondition for market entry in the first place. Many developing countries benefit from the Generalized System

of Preferences (GSP) to export including the African Growth Opportunity Act (AGOA) by the United States (US) and the Everything But Arms (EBA) privilege by the European Union (EU). However, if they cannot meet social compliance requirements, especially those concerning labor conditions, the benefits of preferential market access may be temporarily suspended even after initial entry.

7-2-1. Economic upgrading

Economic upgrading is defined as a move from low-value to higher-value activities in global production networks. There are four types of upgrading (Gereffi et al. 2001, 2005; Humphrey and Schmitz 2002; Kaplinsky and Morris 2001):

- Product upgrading—moving into more sophisticated or complex products lines with increased unit values;
- Process upgrading—transforming inputs into outputs more efficiently by reorganizing the production system or introducing superior technology;
- Functional upgrading—acquiring new, superior functions in the chain (or abandoning existing low value-added function) to increase higher-value tasks; and
- Chain upgrading—using the competence acquired in a particular chain to move into new sectors.

Some authors may propose additional types of economic upgrading (Gereffi and Frederick 2010; Fernandez-Stark et al. 2011).

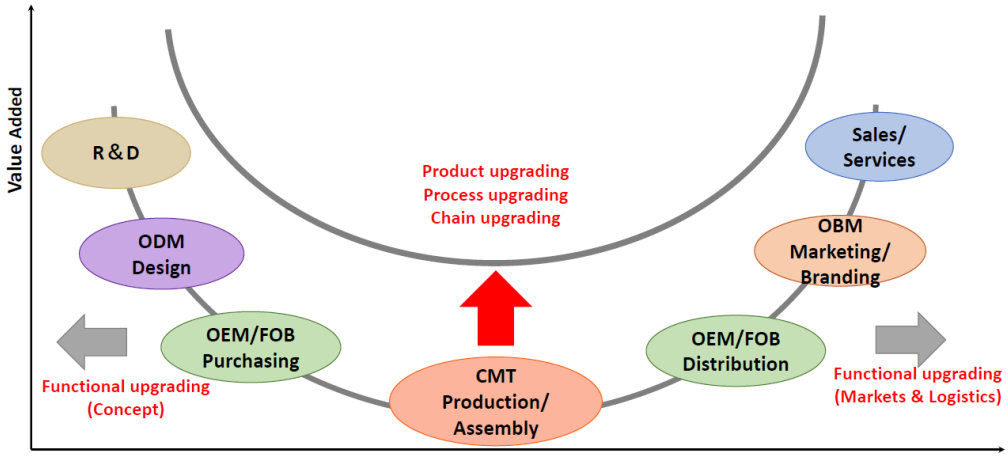
- Channel upgrading—diversifying buyers and geographical areas of product markets; and
- Supply chain upgrading—establishing backward and forward linkages within the supply chain.

Related to functional upgrading and supply chain upgrading, Figure 7-1 illustrates the curve of value-added stages in the apparel GVC which include R&D, design, purchasing and sourcing inputs and related inbound logistics, production and assembly, outbound distribution, marketing and branding (advertising and pricing), and sales and services. This figure also shows different business models in the garment industry, according to the stages of functional capabilities:

- Cut, make and trim (CMT)[54]: production and assembly of imported inputs;
- Original Equipment Manufacturing/Free on Board (OEM/FOB): local production, sourcing of materials and other inputs, and packaging for delivery to the retail outlet;
- Original design manufacturing (ODM): design of products sold under the brand names of other firms; and

[54] This is also called CM (cut-make) or CMP (cut-make-pack). See chapter 6.

Figure 7-1. The Curve of Value-Added Stages in the Apparel GVC



Source: elaborated by the authors based on Fernandez-Stark et al. (2011).

- Original brand manufacturing (OBM): upgrading to the sale of own-brand products in addition to product design and manufacturing.

Higher-value activities in the apparel value chain are normally associated with R&D, design, and marketing and branding of the products rather than manufacturing itself. These are often performed by lead firms, i.e., large global retailers and brand owners in the apparel industry. In most cases, lead firms outsource the manufacturing process to a global network of suppliers, and developing countries are in constant competition for attracting FDI and obtaining their contracts (Gereffi and Frederik 2010). It is important to note that CMT is only the entry point of GVC with the lowest value addition where manufacturers carry out cutting, sewing and finishing of products only. Suppliers in developing countries are forced to make great effort for functional upgrading or there is a risk of "the race to the bottom" and receiving only the lowest returns under intensive competitive pressures in GVC.

7-2-2. Social upgrading

Social upgrading is defined as improvement in the rights and entitlements of workers as social actors and enhancement of the quality of their employment (Gereffi and Lee 2016). It is composed of two broad elements (Barrientos et al. 2011; Barrientos and Smith 2007). The first element is measurable standards for social protection such as wages, working hours, health and safety conditions at the workplace, and employment security which are usually stipulated in the labor contract. The second is enabling rights such as freedom of association and collective bargaining, the right to freely choose employment, non-discrimination, and voice. Besides these,

but similar to the second element, there are other measurements of social upgrading that include formalization of employment, youth unemployment, education levels, overtime policies, and "decent work" standards, among others. The notion of "decent work" has been developed over the last ten years by the International Labour Organization (ILO). It comprises four aspects of work, namely, employment, social protection, workers' rights and social dialogue (Ghai 2003). Gender, environmental rights and the use of natural resources or land ownership are still other yet nowadays common dimensions of social upgrading.

The garment industry is divided into high-end and low-end production and brands (in terms of product value). High-end production is performed by factories that use better technology and more skilled workers. On the other hand, low-end production is governed primarily by price focus. It is in such production that social upgrading is not easy to achieve because it faces mounting pressure for cost reduction and regards labor as a cost factor. There are even cases where "social downgrading" has taken place in the face of intensification of competition (OECD/WTO/IDE-JETRO 2013).

The relationship between economic and social upgrading is not straightforward. An independent assessment of the ILO and International Finance Corporation (IFC)-supported "Better Work Programme" (see section 7-4) reports positive effects of improved compliance with labor standards on factory profitability, productivity and gender equality, and thus the two efforts are complementary (ILO and IFC 2016). However, existing literature suggests that economic upgrading does not automatically translate into social upgrading (OECD/WTO/IDE-JETRO 2013; Barrientos, Gereffi and Rossi 2011). This is so particularly when economic upgrading is pursued through cutting labor costs and forcing poor working conditions. There are also cases where temporary and casual workers are excluded from social upgrading. Gender bias has often been found, with female workers tending to be engaged in insecure and low-paid work, often in temporary and seasonal employment arrangements (Gereffi and Lee 2016). To address this concern, business organizations, donor agencies and Non-profit Organizations (NPOs) are increasingly engaged in a new development partnership to promote social upgrading (Ohno and Uesu 2020) (see section 7-4).

7-3. Standards and regulations for quality and sustainable GVC

Regulations and standards play a vital role in ensuring quality, reduced costs and on-time delivery, as well as meeting social and environmental compliance of products and production processes along the value chain. Recent decades have seen a growing number of standards and compliance requirements in pursuit of the Triple Bottom Line covering: (i) the economic bottom line to increase the efficiency of supply chains (QCD), (ii) the social bottom line such as working conditions; and (iii) the environmental bottom line such as sustainability, organic

standards, and so forth (Kaplinsky and Morris 2017). Traditionally, governments assumed responsibility for setting a regulatory framework for business activities. However, as global trade and production networks have expanded into developing countries where governments have weak regulatory and enforcement capabilities, multinational corporations face increasingly strong demand by consumers and civil society for sustainable and inclusive production and consumption.

Three points are worthy to note. First, there is a multitude of standards produced by different parties, such as firm-level codes of conduct, standards created by industry consortia or civil society actors, or those governed jointly by business, civil society, and international organizations and donor agencies. Second, the economic bottom line standards are primarily driven by lead firms while social and environmental standards often come from external pressures to the chain (Kaplinsky and Morris 2017). Third, there is a risk that small or marginal producers in developing countries who are unable to comply with standards may be excluded from participation in GVCs. Therefore, it is important to strengthen the capability of local suppliers and small firms and promote the skill development of their workforce.

Below we describe major international guidelines, standards, and codes of conduct that govern the economic and social upgrading of GVCs of the apparel industries. Compliance monitoring is conducted in various methods including internal auditing by buyers, lead firms and suppliers themselves; external auditing; and auditing by non-affiliated parties.

For economic upgrading, common standards in the apparel industry involve quantity produced, visual appearance, product specification, labeling and marking, packing and packaging, and various tests including needle detection, smell, colorfastness, seam strength, and restrictive use of chemical substances, among others. There are different approaches to achieving them. Acquiring the International Organization for Standardization (ISO) certificate is a widely recognized one. ISO 9001 series (ISO 9001: 2015) focus on the documentation of procedures to ensure the Quality Management System. It installs internationally uniform quality and document management systems in companies. The general practice is that garment producers in developing countries must be certified with ISO 9001 and additionally comply with standards specified by buyers and importing markets.

A package of productivity methods comprising kaizen, Total Quality Management (TQM), Lean Management, Six Sigma, etc. is another approach to quality improvement. It provides guiding principles and management tools that can be used to initiate and monitor the progress of improvement efforts within a firm and at its suppliers in the value chain. Among them, kaizen is the Japanese way of continuous improvement of quality and productivity featuring a participatory process involving the entire workforce from the top management to middle

managers and line workers[55]. It is frequently implemented in the production process (factory floors) but can also be applied to offices, services, schools and government bodies. Kaizen improves quality through an endless quest for zero defects and waste elimination. It also assists other dimensions of economic upgrading such as cost reduction and delivery time by reducing overproduction, excess motion, unnecessary processing and waiting, excess inventory, and so on.

Japanese consumers are said to be most demanding on quality, paying meticulous attention to details. Reflecting such a market feature, Japanese apparel buyers and lead firms request their suppliers to strictly conduct the third-party inspection, both in-line inspection and pre-shipment inspection based on the Acceptance Quality Limit (AQL). While the latter is widely practiced by international buyers, the in-line inspection is less so (JICA and T's Network 2018), which shows the extent to which Japanese buyers and firms are obsessed with quality.

Turning to social upgrading, the history of social responsibility and the formulation of the code of conduct by private firms date back to the 1970s, when several international organizations recognized the need to provide guidelines for the business conduct of multinational corporations operating in developing countries. During the 1980s, European NGOs started to alert on the poor labor condition of sweatshops in the garment sector and initiated templates for the code of conduct and systems for monitoring compliance. One of the earliest initiatives was the Clean Clothes Campaign (CCC) formed in 1989 by a European network of labor unions and NGOs. The Ethical Trading Initiative (ETI), a United Kingdom (UK)'s multi-stakeholder organization created in 1998, established a code of conduct based on the ILO convention. During the 1990s, the European civil society agreed on charters and codes of conduct for several sectors. For example, the European Trade Union Federation of Textiles, Clothing and Leather (ETUF/TCL)[56] adopted charters for the footwear industry in 1995, the textile and clothing industry in 1997, and the tanning industry in 2000 (Plasa 2015).

In the US, the Apparel Industry Partnership (AIP), a coalition of apparel and footwear companies, consumer groups, NGOs and universities to improve labor conditions was formed in 1996, and a code of conduct and monitoring principles were adopted in 1997. It became the base for another code of conduct by the Fair Labor Association (FLA) and the Worker Rights Consortium (WRC) with a tighter monitoring mechanism. In 1997, the American Apparel Manufacturers Association (now the American Apparel and Footwear Association) founded the Worldwide Responsible Apparel Production (now called the Worldwide Responsible

[55] Kaizen means continuous improvement involving the entire workforce from the top management to middle managers and line workers. Moreover, kaizen is an umbrella concept for a large number of Japanese business practices such as 5S, suggestion system, Quality Control Circle (QCC), Total Quality Management (TQM), the Toyota Production System, the Just-in-Time System, the Kanban System, etc. (Imai 1986, xxxii).

[56] Through the merger with other industry trade unions, ETUF/TCL was integrated into IndustriALL European Trade Union in 2012.

Accredited Production or WRAP) to serve as an independent facility for certifying social compliance. In the same year, the Social Accountability International (SAI) was established to advance human rights at work. It developed the SA 8000 standard based on the ILO convention. This was the first auditable standard in the field of corporate social responsibility (CSR) (Plasa 2015).

However, as individual codes and various certification and monitoring mechanisms proliferated, buyers and suppliers have started to face "monitoring fatigue" or "code overload"[57]. To solve this problem, the CCC, the FLA, the WRC, the AIP, and the ETI developed common definitions and concepts to standardize their codes. This convergence was pursued alongside the differences that remained across organizations. For instance, the WRC includes higher requirements while the SA 8000 standard and the ETI Basic Code include explicit references to human rights. The SAI created the Social Accountability Accreditation Services (SAAS), which accredits and trains third-party organizations that conduct audits for social compliance. The FLA and the WRAP also established the global auditing standards and started to train their own auditors[58.] In 2010, ISO 26000 was established to provide guidance and direction for all companies to follow in terms of social responsibility that includes human rights, labor practices, environmental responsibility, fair operating practice, consumer issues, and community involvement and development. The Global Social Compliance Programme (GSCP) of 2006 is another initiative to create a common platform of standards and codes that member companies agree to implement throughout their supply chain (Mayer and Pickles 2014).

In parallel, international organizations also began their initiatives. In 1998, ILO adopted the Declaration on Fundamental Principles and Rights at Work (ILO convention) in four areas, namely, freedom of association, elimination of forced labor, abolition of child labor, and elimination of discrimination of employment and occupation. Together with the United Nations (UN)'s The Global Compact launched in 2000 and the Organisation for Economic Co-operation Development (OECD)'s updated Guidelines for Multinational Enterprises[59], they set the norm for social compliances with stress on labor issues. Moreover, recent years have seen an increased emphasis on corporate responsibility to respect human rights. The UN Human Rights Council adopted The Guiding Principles on Business and Human Rights in 2011, which reaffirms the obligation of the state to protect human rights as well as business enterprises' responsibility to respect human rights in their corporate activities and value chain. The OECD

[57] Mayor and Pickles (2014) reports that some factories are subject to as many as 30-40 annual inspections and may be required to meet the requirements of different national governments and several brands for which they produce.

[58] However, Plasa (2015) notes that the impact of the code of conduct is somewhat limited and that the goals for social responsibility and the objective of maximizing profits may sometimes be in conflict.

[59] The OECD first formulated the Guidelines for Multinational Enterprises in 1976. Since then, the guidelines have been revised five times in 1979, 1984, 1991, 2000 and 2011.

Table 7-1. Social Standards that Regulate GVCs in Developing Countries

	Activity	Organizational features
Social responsibility & sustainability		
IndustriALL European Trade Union	Focus on working conditions. Adopted charters for footwear industry (1995), textile & clothing industry (1997) and tanning industry (2000).	Originally, the European Trade Union of Textiles, Clothing and Leather (ETUF/TCL); renamed in 2012.
SA 8000 (by SAI: Social Accountability International)	Created in 1997. The first auditable standard for decent work (human rights); separately provides the Social Accountability Accreditation Services (SAAS).	US-based NPO (with participation of private sector, governments, NGOs, labor unions, academia).
Ethical Trading Initiative (ETI)	Created in 1998. ETI Basic Code. Information sharing & training among members.	UK-based NPO. Created by private sector NGOs, trade unions, with the support of the Department for International Development (DFID).
Initiative for Compliance and Sustainability (ICS)	Created in 1998. Social & environmental code of conducts (voluntary system, not certification); audit working conditions across GVCs (retail, textile, footwear, food, furniture & electronics).	France-based initiative; members of French Federation of Commerce & Distribution (multilateral retailers & brands).
SEDEX Members Ethical Trade Audit (SMETA)	Created in 2004. Social compliance audits on labor standards, human rights, worker health & safety, environmental compliance, business ethics.	UK-based non-profit membership organization.
ISO 26000	International standard on social responsibility; adopted in 2010.	ISO as a worldwide federation of national standards bodies.
Textile & apparel industry-specific		
Worldwide Responsible Accredited Production (WRAP) certification	Created in 1997; incorporated in 2000. Independent facility that audits and certifies apparel industry on safety, social and ethical standards; focusing on operations at production facilities. Also provides training.	US-based NPO with a global network. Certification program for apparel, footwear and sewn products.
Global Organic Textile Standard (GOTS)	Established in 2008. Internationally recognized organic certification; requirements for ecological & labor conditions across GVCs.	Germany-based. Founding members are four organizations from Germany, Japan, US and UK.
Better Cotton Standard System (by BCI: Better Cotton Initiative)	Established in 2009. International voluntary sustainability standard system.	Switzerland-based. Global coalition of NGOs, cotton industry organizations, retailers and brands. Also supported by donors (mainly Europe & US).
Sustainable Apparel Coalition (SAC)	Incorporated in 2011. Developed standardized measurement "Higg Index," a set of five tools that assess social & environmental performance of value chain.	Netherlands-based. Global, multi-stakeholder non-profit alliance for fashion industry (brands, retailers, suppliers, service providers, trade associations, NGOs, academia).

Source: elaborated by the authors based on the website information of respective organizations.

updated the guidelines in 2011 by adding a human rights chapter, and the ILO also revised the Tripartite Declaration of Principles concerning Multinational Enterprises and Social Policy in 2017 by addressing decent work and forced labor issues. Following the 2011 UN Guiding Principles, member countries are encouraged to formulate the National Action Plans on Business and Human Rights (NAP)[60].

Table 7-1 shows a selection of social standards and compliances mentioned above. They are diverse in terms of functions (certification or voluntary system), organizational features (variously initiated by business associations, trade unions, or NPO in alliance with multi-stakeholders), and scope (sector-specific or theme-specific).

7-4. International development cooperation

The apparel industry in developing countries has been assisted by governments, foreign buyers, donors, and NPOs in such areas as technical and skill training, quality and productivity improvement, and social and environmental compliance. As explained in the previous sections, the recent decades have seen an increasing number of corporate and sectoral actors and issue-specific alliances among the private sector, NPOs, donor agencies and international organizations which set, certify and monitor criteria for social and environmental compliance and, if necessary, provide assistance for capacity development of local institutions and people. Each country and organization provide services that are of great interest to that country or organization and that can most professionally be rendered by it.

In economic upgrading, Japan has traditionally promoted public-private partnerships to enable local suppliers to meet high Japanese QCD requirements and become long-term manufacturing partners with Japanese FDI. Germany also has a long experience in skill development and manages large cooperation programs for technical and vocational education and training (TVET) in developing countries. The German Corporation for International Cooperation (GIZ), the German Foundation for Economic Development and Vocational Training (SEQUA), and chambers of commerce and industry are actively engaged in promoting TVET.

For example, the Japan International Cooperation Agency (JICA) and the Association for Overseas Technical Cooperation for Sustainable Partnership (AOTS), a public-private body set up in 1959 for human resource development in developing countries, have for several decades been supporting the training and education of skilled workers, technicians and engineers in Asia

[60] Following the UK (2013), more than 20 countries have already formulated NAPs. In October 2020, the Japanese government formulated the NAP to encourage Japanese companies to take further action in light of the recent increase in public demand regarding corporate activities and human rights (Ministry of Economy, Trade and Industry HP: https://www.meti.go.jp/english/policy/economy/biz_human_rights/index.html).

so local workers and experts can familiarize themselves with Japanese-style production and management emphasizing quality and productivity. This can be done through either on-the-job training (OJT) or formal education. Examples include support to TVET at the Thai-Nichi Institute of Technology (Thailand) and the Hanoi University of Industry (Vietnam). In addition, Japanese public and private institutions have supported the introduction and diffusion of kaizen in factories and the fostering of kaizen trainers in the public and private sectors. Starting with Singapore in 1983, JICA has implemented various projects to promote the kaizen method not only in Asia but also elsewhere. For instance, since 2006, JICA has implemented kaizen projects in nine African countries and has promoted the Africa Kaizen Initiative (AKI) in collaboration with the African Union Development Agency of the New Partnership for Africa's Development (AUDA-NEPAD) and the Pan-African Productivity Association (PAPA).

In the area of social upgrading, the ILO and the IFC introduced the "Better Work Programme" in 2006 to improve labor standards and competitiveness in GVCs, especially for labor-intensive industries in developing countries. It assists companies to improve practices through the application of core ILO labor standards and national labor laws, and the provision of technical assistance in such areas as worker-management cooperation, working conditions and social dialogue. The Better Work Programme is supported by Australia, Denmark, Germany, Netherlands, the US and other bilateral donors as well as by major apparel brands, civil society organizations (CSOs) and the governments of developing countries. Regarding cotton production, there are multi-stakeholder platforms including the "Better Cotton Initiative (BCI)" initiated by the World Wildlife Fund in 2005 and established in 2009 as an alliance of NGOs, cotton industry organizations, and retailers and brands. It sets criteria for environmental, economic and social sustainability, trains farmers in cultivation methods, and implements third-party verification. Similarly, the "Global Organic Textile Standard (GOTS)," initiated in 2002 and established in 2008 by four NPOs from Germany, Japan, the US and the UK, sets the processing, ecological and social standards for organic fibers which are backed by independent third-party certification over the entire textile supply chain.

Business and human rights issues became widely known to the international community after the Tazreen fire tragedy in 2012 and the Rana Plaza collapse in 2013 killing over 1,000 local workers in Bangladesh. These incidents raised consumer awareness of the poor working conditions at garment factories in developing countries. In response, the Accord and Alliance were established as legally-binding agreements between brands and trade unions to address fire, electrical and structural (building) safety standards in the ready-made garment (RMG) factories in Bangladesh[61]. The German government also launched the Partnership for Sustainable

[61] The Accord on Fire and Building Safety in Bangladesh (2013-18, extended to 2020) was formed by European RMG retailers. The Alliance for Bangladesh Workers Safety (2013-18) was formed by American RMG retailers. In June 2020, a national supply chain initiative (RMG Sustainability Council) was formed in BGMEA to take over

Textiles in 2014, a multi-stakeholder platform including the business community, to foster a continuous improvement of social, environmental and economic sustainability along the entire textile value chain. With GIZ serving as a secretariat, the Partnership for Sustainable Textiles developed its Plan of Action, which laid down binding partnership standards for the production of raw materials, textiles and clothing.

As noted above, relatively speaking, Asian buyers and donors including Japanese and Koreans emphasize "quality over anything else" (El-Shahat and di Canossa 2018) while European buyers and donors give a greater focus on social and environmental issues. However, this does not mean that European buyers neglect quality or technical issues, nor do Japanese buyers solely work on quality and cost reduction. There is much overlapping between their concerns. Moreover, we can also detect a converging global trend. With the advancement of the sustainable development agenda, there is a tendency to reorganize and manage the value chain more sustainably. Environmental management is increasingly incorporated in TQM or Lean Management, and skill upgrading and labor issues are addressed for productivity improvement. Kaizen traditionally and always addresses the improvement of quality, productivity, safety and sustainability in a holistic way, and is thus expected to reinforce cooperation between managers and workers as well as among workers (Hosono, Page and Shimada 2020). This is particularly important in the current COVID-19 crisis which has increased the vulnerability of workers at small and medium-sized enterprises and local suppliers in developing countries.

7-5. Comparison of five garment exporting countries: an overview

This and subsequent sections explain the experiences of selected apparel exporting countries—Bangladesh, Vietnam, Ethiopia, Sri Lanka and Myanmar—regarding how these countries and their apparel sectors have coped with the simultaneous challenges of economic and social upgrading of the apparel GVC. These countries are at different stages of garment industry development with Sri Lanka, Bangladesh and Vietnam far ahead of Myanmar and Ethiopia. The analyses are based on the results of firm surveys conducted by researchers in Vietnam, Bangladesh and Ethiopia during November 2020-January 2021 (see Chapter 6) and findings from the GDF missions to Sri Lanka in October 2017 and Myanmar in November 2019. They are supplemented by additional interviews, data research and literature review.

In the three-country survey, the general questions asked to apparel producers in Bangladesh, Vietnam and Ethiopia are: (i) quality and social compliance standards required by buyers and implemented by firms; (ii) nature of interaction with buyers, governments and industry associations concerning inspection, document submission, guidance, technical support and

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the work of the Accord.

training; and (iii) ongoing efforts to meet buyers' requirements and any challenges with meeting both quality and social compliance standards.

Table 7-2 provides basic information on the five selected countries. Bangladesh and Vietnam are the largest garment exporters in the world after China. In Bangladesh, the ready-made garment (RMG) sector continuously accounts for over 80% of exports contributing significantly to the country's foreign currency earning and job creation. Vietnam's reliance on apparel in total export is much lower at 9% in 2020. For both Bangladesh and Vietnam, domestic private firms are dominant in the garment industry. In Bangladesh, an increasing number of firms are moving up from CMT to OEM/FOB production, sourcing raw materials independently instead of being given by the buyer. In Vietnam, CMT continues to be the main mode of production and the shift to OEM/FOB remains limited.

Sri Lanka is a South Asian country that liberalized the economy and successfully attracted FDI to develop high-end segments of the garment industry. The volume of Sri Lankan garment exports is smaller than Bangladesh or Vietnam, but the country has secured a leading position as OEM supplier to European and American markets which are seriously concerned with labor rights and environment protection. It has gained a reputation for strict adherence to both quality and ethical standards, and top local firms are moving up to the ODM and OBM stages.

Myanmar's garment export is small but rapidly rising, driven by tariff-free privileges of EBA (EU) and ASEAN free trade, at least until the military coup d'etat in February 2021. The country currently focuses on CMT, the first stage in the apparel GVC. Ethiopia's garment export

Table 7-2. Key Indicators of Garment Industry in Selected Countries

	Bangladesh	Vietnam	Ethiopia	Sri Lanka	Myanmar
GNI per capita (current US$, 2020) 1/	$2,010	$2,660	$890	$3,720	$1,260
Textiles and clothing exports (1,000 US$) 2/	$28,332,567 (2015)	$39,428,374 (2019)	$60,174 (2018)	$5,208,801 (2017)	$5,095,427 (2019)
Export product share 2/	89.3% (2015)	14.9% (2019)	3.9% (2018)	44.4% (2017)	28.1% (2019)
Formal labor force in apparel manufacturing (before COVID-19) 3/	3,315,100 (2017)	2,658,700 (2020)	39,000 (2013)	445,300 (2018)	904,300 (2019)
Number of Garment Factories (before COVID-19)	4620 (2019)	6000 (2017)	177	850 (2010)	600 (2020)
Main export destinations	US, Germany, UK, Spain, France	US, EU, Japan, China, Korea	US, Italy, Germany, China	US, UK, Italy, Germany	Japan, EU, Korea, US
Preferential schemes (2020)	(developed under MFA), EU-GSP	GSP	AGOA, EU/EBA	(developed under MFA), GSP +	EU/EBA
Vaue-added stages of production	CMT, OEM, ODM	CMT, FOB/ limited OEM	CMT	ODM/OBM	CMP→gradual move to OEM

Source: elaborated by the authors based on the data from the World Bank's *World Development Indicators* (1/), the World Bank's *World Integrated Trade Solution* (2/), and the ILO's ILOSTAT (3/). The data on the other items are compiled by the authors from publicly available information.

is even smaller, as it has just begun to receive FDI for CMT production. Foreign firms investing in Ethiopia include leading apparel firms in Sri Lanka and Bangladesh in addition to China, India and Turkey.

The following sections explain how the five countries cope with the twin global standards. Information on Sri Lanka and Myanmar was gathered by policy missions for another purpose and is therefore more limited than information on Bangladesh, Vietnam and Ethiopia based on our recent surveys. Two points deserve prior mention.

First, it is clear from the discussions above that relative weights placed on quality obligation and ethical correctness differ from one buyer country to another. It is the buyer country that decides what standards are needed to what degree, and this must be fulfilled by all suppliers that export to that country. Nonetheless, once imposed, each standard is applied to all producers uniformly. Buyers do not distinguish producers by giving stricter requirements to some and permitting leniency on others. Thus, a buyer country can mind only a few standards set by itself but producers must cope with a large number of standards. Partly because of this, there are many common answers among producing firms in five countries concerning the need to satisfy externally imposed requirements and difficulties arising therefrom.

Second, given this situation, different responses to a growing number of standards arise from diverse capacity and constraints on the producers' side, not from global policies on the buyers' side. Countries in different stages of garment industry development in terms of private capacity and policy competency, with different historic backgrounds and social structures, must deal with the proliferation of standards in different ways most suitable for their reality. Furthermore, each producer country and company may select a particular strategy for business survival and expansion concerning, for example, a shift from CMT to more value creation, targeted garment segments and markets, degree of vertical integration, etc.

7-6. Bangladesh

The survey in Bangladesh focused on 30 garment firms (25 domestic, 1 joint venture, and 4 FDI). The largest market is the EU accounting for 70-80% of the export share followed by the US, Canada, the UK, South Africa and Japan (Hossain 2021). The Korean connection was critical in starting the export-oriented RMG industry in Bangladesh. Industry associations have also played an important role in strengthening the position of local firms in GVCs in collaboration with international buyers and donor agencies.

Historically, Bangladesh's export-oriented RMG sector was triggered by a joint venture between Desh Garments (a local firm founded in 1974) and Daewoo Corporation of South Korea (Kathuria and Malouche 2016) which was formalized in 1978. Desh Garments sent 130 new employees to Daewoo's factory in South Korea where they received eight-month intensive

training covering sewing skills, factory management and international marketing. Within two years of training, most trainees left Desh to start their own garment businesses. By the late 1990s, there were many garment companies started by ex-Desh workers generating substantial export earnings for the country. Other ex-Desh workers became garment traders intermediating buyers and manufacturers. South Korea and other newly industrialized countries continued to invest in the Export Processing Zones in Dhaka and Chittagong and send local trainees to home countries for training. After returning to Bangladesh, trainees again moved to other factories or started their own factories or trading houses (Khondoker and Sonobe 2009). This was how knowledge and skill were diffused broadly in the sector.

As for apparel industry associations, the two powerful associations are the Bangladesh Garment Manufacturers and Exporters Association (BGMEA) and the Bangladesh Knitwear Manufacturer and Exporters Association (BKMEA). According to BKMEA, quality-related standards and regulations that most of their member firms follow are ISO 9001: 2015 (Quality Management System), ISO 14000 (IT Service Management System), TQM, ASTM International[62], and AQL as required by buyers. Some firms have established technical departments which implement Industrial Engineering (IE) and Lean tools and techniques such as Work Study, 5S, kaizen and kanban[63].

With the phasing out of the Multi-Fiber Agreement (MFA) quota in 2004[64], productivity enhancement became a major concern among local exporting firms. Assisted by ILO and German Technical Cooperation Agency (GTZ) (currently GIZ), the garment sector and industry associations (BGMEA and BKMEA) initiated skill upgrading programs for local factories. GIZ supported the establishment of the Productivity Improvement Cell (PIC) within BKMEA. PIC runs the Productivity Enhancement Program, training and consultancy services with a focus on the Lean Manufacturing System and various lean techniques. Since 2006, it has introduced such modern manufacturing systems as Industrial Engineering (IE), Lean Manufacturing, TQM, fabric optimization and cutting technology, and supply chain management which had a significant impact on productivity at member factories. PIC collaborates with international organizations including GIZ, the United Nations Industrial Development Organization (UNIDO) and ILO, buyers such as Primark, as well as the Ministry of Finance, the Ministry of

[62] Formerly known as the American Society for Testing and Materials, ASTM is an international standards organization that develops and publishes voluntary consensus technical standards in a wide range of materials, products, systems and services.

[63] Based on online interviews and supplementary email communications with BKMEA in July/August 2021.

[64] MFA was effective from 1974 to 2004 as a quota system to regulate textile trade from developing countries to advanced ones. It was intended to prevent excessive export of developing country products, but some producer countries may have benefited from it by increased output and FDI inflow if rival countries had already exhausted their quotas. After the expiration of MFA, textile and garment trade was determined more by competitiveness than political allocation, and economics began to rule over the international competition as well as domestic competition among exporting firms.

Commerce, the Ministry of Industry, the National Productivity Organization, the Export Promotion Bureau, etc.

BGMEA and BKMEA also manage various skill development programs in partnership with donors. The Skills and Training Enhancement Project (STEP), financed by the World Bank in 2010-2019, supported the training of operator-level workers into a more skilled workforce. The Skills for Employment Investment Program (SEIP), financed by the Asian Development Bank (ADB), has since 2014 strengthened skill development institutions in priority industries including RMG in partnership with industry associations[65].

According to BKMEA, most factories were initially doing CMT production. Currently, some factories develop designs and products on their own (OEM and ODM). In the knitwear industry, Bangladesh local firms are almost "self-sufficient" as they import cotton from abroad but other processes are done within the country. This implies that functional upgrading has been taken place in the RMG sector.

In social compliance, the unique feature of Bangladesh is a high priority given to the issue of workplace safety. This reflects lessons from past accidents. Most RMG firms participated in the EU-initiated Accord and the US-initiated Alliance, two major safety initiatives started in 2013 just after the Rana Plaza collapse which killed over 1,000 workers. They expired in 2020 and 2018, respectively. Most of the interviewed firms agreed that these initiatives helped improve compliance standards in their factories despite the high costs associated with them. However, a few firms did not find these compliance initiatives useful because they had already observed them even before Accord and Alliance were launched. An assessment made by the Bangladesh Institute of Development Studies (BIDS) points out that these initiatives have contributed to increasing confidence among workers on workplace safety and reducing labor unrest, but there was no visible increase in output or revenue at least in the short run (Hossain et al. 2020).

After the completion of safety upgrading support of Accord and Alliance, the RMG Sustainability Council (RSC) was formed under the leadership of BGMEA in 2020 to carry forward the significant accomplishments made on workplace safety. It has equal numbers of representatives from industry, brands and labor unions. Besides that, workers are more aware than ever of their safety thanks to awareness campaigns and training[66]. The interviewed firms stated that maintaining all three compliance standards—building safety, fire safety and social

[65] SEIP has been supporting skill development of priority industries in three tranches (tranche 1: 2014-2018, tranche 2: 2017-2021 and tranche 3: 2020-2024) (ADB website). For example, under SEIP, BKMEA has been conducting training at its five institutes and factory-based outsourced training institutes in various areas: social compliance & CSR, IE & lean manufacturing, production planning & supply chain management, textile testing & lab. Management, fire safety management & risk assessment, market analysis & export promotion, and others (BKMEA website).

[66] BGMEA Press Release dated August 29, 2021. https://www.bgmea.com.bd/page/BGMEA_Press_Release

compliance for workers' well-being—contributed to their better business performance (Hossain 2021).

All BGMEA member factories maintain international safety and compliance which are assessed by BSCI, WRAP, SMETA, ICS, Higg index, GTW, RTM, Join Life, ZDHC, Blue Sign, ISO 14000, OCS, GOTS and OEKO-TEX[67]. The key challenge for local suppliers is the need to meet different standards and compliance requirements set by buyers from diverse regions and countries. This creates a huge workload and delays at factories and often results in increased costs. Regarding quality standards, American companies use the American Association of Textile Chemists and Colorists (AATCC) while the EU is more familiar with the ISO and Japan applies the Japanese Industrial Standards (JIS). Regarding chemical standards, the US and Japan follow the Manufacturing Restricted Substances List (MRSL) and Restricted Substances List (RSL) while the EU more frequently uses the General Product Safety Directive (GPSD) and Registration, Evaluation, Authorization and Restriction of Chemicals (REACH).

Similarly, there is no uniformity in the social and environmental standards. Because different buyers demand different standards, factories need to maintain several certifications including BSCI, OEKO-TEX, WRAP, SEDEX, GOTS and Higg Index, which is costly. Factories have to assign an additional human resource to maintain these certifications. Also, managing different wage requirements for the same workers is impractical and poses a serious administrative burden (Kathuria and Malouche 2016).

In partial response to this problem, the Bangladeshi government updated and consolidated the old laws into a uniform code of conduct in 2006. Furthermore, the industry has invested a lot of money to address social and environmental compliance by offering decent wages for workers, introducing group insurance, ensuring a healthy work environment, maintaining safety and integrity of structures, installing green buildings, and embracing eco-friendly technology and techniques. Today, the Bangladesh RMG sector is regarded as a role model for chemicals and the labor-intensive manufacturing industry. Currently, Bangladesh has 91 green garment factories certified by the Leadership in Energy and Environmental Design (LEED) of the US Green Building Council (USGBC), which is the largest in the world. It is also home to the highest number of platinum-rated garment factories in the world. 25 Bangladeshi factories have achieved this highest honor of USGBC, with six out of the top 10 LEED-certified factories being Bangladeshi. Over 500 RMG local factories are registered with USGBC for LEED

[67] Website of BGMEA. The meanings of these acronyms are as follows: BSCI (Business Social Compliance Initiative), WRAP (Worldwide Responsible Accredited Production), SMETA (SEDEX Members Ethical Trade Audit), ICS (Initiative for Compliance and Sustainability), Higg index, GTW (Green to Wear), RTM (Recyclable Textile Management), Join Life (social and environmental sustainability), ZDHC (Zero Discharge of Hazardous Chemicals), Blue Sign (sustainable textile), OCS (Organic Content Standard), GOTS (Global Organic Textile Standard), OEKO-TEX (safety and environmental sustainability of textile leather). See also Table 7-1 for WRAP, SMETA, ICS, Higg index and GOTS.

certification (ADB 2020)[68].

However, there are views that the cost of installing these best practices has not fully paid off as foreign buyers are not offering reasonable product prices in response to local efforts. Satisfying the quality and ethical requirements while responding to cost pressure from buyers is a big challenge for local suppliers. This underscores the importance of enhancing productivity and upgrading products, processes, and value chain functions for higher-value addition when labor and environmental correctness is pursued.

7-7. Vietnam

In Vietnam, 31 garment firms (21 domestic private, 5 FDI and 5 former state-owned enterprises) were surveyed, among which 29 were engaged in export activities. Main overseas markets are the US, Western Europe, Eastern Europe and South Korea. Only two companies said they exported to Japan. All surveyed firms are CMT manufacturers on a sub-contracting basis with none of them engaged in OEM or ODM. They consider technical and capital constraints as the main challenge for exports in addition to required compliance with technical and social standards set by buyers (VDF 2021).

Exporting firms consider certification of international quality standards, typically ISO 9001, as the pre-condition for penetrating and expanding apparel markets in developed countries such as the US, the EU and Japan. In addition, the products must meet health and safety requirements which are a top concern of consumers in those markets. Foreign buyers and lead firms set strict standards and regulations on apparel exports including flame resistance, needle detection test, labeling, the use of chemicals, etc. Buyers often provide on-site quality controllers (QCs) or hire an independent outside inspector of product quality in local factories. Once approved by QCs or independent inspectors, products are exported in the name of the buyer. While garment exporters may be aware of technical details of products as stipulated by contracts or orders, they are usually unaware of the bigger picture regarding the rules and regulations in importing countries. According to some respondents, QCs and independent inspectors often inspect only certain random samples (except Japanese buyers who demand inspection of all items—see below). As a result, buyers occasionally find non-compliance after products have reached import destinations, and send back the entire consignment to Vietnam to be repaired or removed. In such cases, local garment companies have to bear all the costs incurred.

Turning to social compliance, the CSR principle is widely understood and adopted in the textile and garment industry. Garment exporting firms normally adhere to the following social and environmental standards: ISO 14001 (environmental management system), eco-labeling

[68] Cited from "Bangladesh Leads World in Green Production," *The Daily Star,* dated September 19, 2020.

standards to ensure health and safety of users, environment protection and pollution prevention, SA 8000 (social accountability standards) and WRAP. While not legally binding, these are *de facto* mandatory because firms cannot export to developed markets in case of non-compliance. Suppliers are required or encouraged to adopt one or more of them. Industry associations such as the Vietnam Textile and Apparel Association (VITAS) and the Vietnam Leather and Footwear Association (LEFASO) offer basic information and CSR requirements to suppliers.

The survey in Vietnam revealed two interesting trends. First, there is a significant difference in awareness of and compliance with quality, environmental and social standards between local firms that export and local firms that sell only in the domestic market. Local firms targeting the international market are under strong pressure to comply with such standards as the pre-condition for export and must adopt the standards and codes of conduct decided by buyers. The incentive to embrace quality and CSR standards is stronger among FDI and Vietnamese large companies. About two-thirds of the interviewed firms have applied for and been acknowledged as in full compliance with ISO 9001, ISO 14001 and so on, and one-third of them have been granted the WRAP certificate. By contrast, none of the firms targeting the domestic market have obtained quality standards or certifications. They are also reluctant to disclose their financial records and environmental reports. This may be because domestic consumers pay little attention to such standards and information. Some interviewed firms recognized that their products needed to be certified in order to expand their market and especially to initiate export, but they did not have any concrete idea about how to address this challenge. Others, especially small local garment firms without export experience, rarely pay attention to global quality standards and only try to comply with the minimum legal requirements set by the Vietnamese government. Many Vietnamese garment producers continue to operate in low-value segments of GVC and heavily depend on foreign buyers for required information even when they export.

Second, while there are common requirements across markets, there are also differences by the nationality of buyers regarding the emphasis placed on certain categories of standards and compliance. Relatively speaking, buyers and lead firms from Nordic and Western Europe (especially Germany) are strict on CSR including working conditions, living standards, working time and gender equality. They are concerned not only about the legal minimum wage, but the minimum income workers need to receive to meet their basic needs. The Vietnamese companies found it most difficult to acquire SA 8000 and WRAP certifications when exporting to the Nordic and EU markets. These two standards have very high and strict provisions regarding child labor, forced labor, health and safety, freedom of collective bargaining, discrimination, disciplinary forms, working hours and payrolls. By comparison, the buyers and lead firms from Russia, Poland and Korea tend to be more tolerant of both CRS and product quality. The surveyed firms stated that Japan and the US were far more demanding and Japanese technical requirements were particularly difficult to meet compared to those for other markets. The needle

detector test for all items required by Japanese buyers is among the most challenging for Vietnamese garment companies. The Japanese Needle Inspection Law orders all textiles and all wearing items which touch human skin to be tested for any sharp metal matters before retailing.

7-8. Ethiopia

The survey in Ethiopia covered 30 firms in four sectors including ten garment firms (4 domestic, 6 FDI) in the garment sector. The main export markets are the US, the EU (especially the Netherlands, Italy, and Germany), the UK, China, India and some parts of Africa (PSI 2021). FDI garment factories export to firms and buyers with whom they have had long-term contract orders. On the other hand, local firms do not have such contractual agreements with customers abroad, and their export markets are decided on an *ad hoc* basis (see Chapter 5).

Compared to Bangladesh and Vietnam, the garment industry in Ethiopia is in the early stage of obtaining international standards and certificates. This is probably because of the country's relatively short history of joining the apparel GVC. Regarding quality standards, two of the six foreign firms surveyed are in the process of obtaining ISO 9000, and nearly half of the local firms have obtained ISO 9000 and are said to practice TQM. The other foreign firms stated that their factories and process were arranged as per standard layout approved by their customers, the Ethiopian Textile Industry Development Institute (ETIDI) and the Industrial Park Development Corporation (IPDC), although they did not yet have formal certificates.

In Ethiopia, social standards and compliance seem to be more observed than quality standards. Five of the six factories surveyed have already joined the ILO Better Work Programme, while the remaining one has completed 90% of the registration process. They also have other CSR-related certificates such as SEDEX and WRAP. Some local firms have registered for the ILO Better Work Programme by their initiative.

Both foreign and local firms stated that standards for product quality contributed to improving their performance in procurement and production processes. They consider such standards useful to (i) understand what is required by buyers and focus their efforts on specific requirements, (ii) facilitate processing orders and interacting with customers, (iii) avoid product rejection by buyers, and (iv) minimize costs and achieve efficiency by focusing on a particular quality standard. There is a general perception among supplier factories that meeting quality standards is essential to compete and succeed in export markets while satisfying other standards and requirements in such areas as lobar codes and environmental protection are mandatory obligations. Firms clearly distinguish between quality standards and ethical requirements.

All six foreign firms surveyed explained that, for export, they must satisfy specific standards and quality specifications which were checked by buyers through annual quality and standard evaluation documents. If they fail to do so, they will be automatically rejected by buyers. They

have quality and standard departments that regularly test their products, purchased inputs and raw materials, and machinery, as well as check whether trained workers have the required skills. One interviewee at a foreign firm stated that "textile manufacturing is a collective responsibility where all factory staff must work in a coordinated manner to achieve and maintain quality and standards." Some foreign firms mentioned a trade-off (cost burden) in implementing different standards, while others considered it less significant than the benefits in easing the export process and creating smooth linkage with customers.

Most of the local firms also stated that quality standards could affect their performance but in a different way. They said that meeting such standards contributed to maximizing their overall reputation and hence increasing profits. Some local firms have already considered quality standards as part of their business philosophy, accepting and welcoming them as part of doing business. Nevertheless, other local firms consider standards costly and difficult to obtain. For these firms, quality standards do not matter within their market domain. Most of the local firms surveyed also have internal units or persons to implement standards though methods for implementation differ from one firm to another. Multiple approaches are used such as setting internal rules and procedures, purchasing testing equipment, training staff on monitoring, evaluation, and promotion either in a coordinated manner or by a specialized unit. The responsible unit or person regularly monitors activities to ensure that production takes place as per standards and adopt corrective measures whenever necessary. At the same time, many local firms said that implementing several standards creates a trade-off between costs and capacity.

The majority of the foreign firms (five out of six) responded that they have not received any support from buyers to comply with quality specifications and standards. The same applies to all local firms. Moreover, many firms (foreign and local) indicated that they have not received any support from either the government or an industry association on quality standards. One respondent pointed out that: "except for the rare awareness creation program by ETIDI and IPDC to adopt and comply with standards, there is nothing in this edge." There was one exception where a foreign firm responded that it received support from more than 10 customers to comply with requirements such as document processing, early warning and evaluation. This firm stated that it also received training from ETIDI and IPDC to comply with standards.

Local firms indicated that aid agencies such as GIZ sometimes provided technical assistance to help them adopt and comply with standards and that it was up to respective firms whether and how to use this knowledge. Technical assistance mainly focuses on the skill development of technical staff responsible for quality standards. The Ethiopian Kaizen Institute (EKI) has also supported local firms through technical and capacity-building intervention for standards compliance. Apart from these, there are business associations such as the Addis Ababa Chamber of Commerce and Sectoral Association (AACCSA) which sometimes assist firms in getting quality standards and certifications.

7-9. Sri Lanka[69]

The history of Sri Lanka's export-oriented garment industry dates back to the late 1970s when the country liberalized the economy and succeeded in attracting FDI from Asia, Europe and the US to develop the local apparel industry. Sri Lanka in those days faced low wages and high unemployment, but literacy was high and workers spoke English. The government created Export Processing Zones (EPZs), constructed industrial infrastructure and provided tax incentives. Foreign best practices were combined with strict Sri Lankan labor codes, leading to the development of a unique apparel industry with top performance in quality and productivity as well as protection of workers' rights. Initially, FDI and joint ventures with foreigners accounted for about 50% of total investment in the garment sector in the early 2000s (USITC 2004). They brought crucial technology, know-how and skills to Sri Lanka which enabled the local industry to climb up the ladder from CMT of simple products to a producer of ladies' underwear and other complex products. Over time, about a dozen domestic knitted product manufacturers emerged with international competitiveness.

MAS Holdings, the largest apparel producer in Sri Lanka, had the first joint venture with MAST Industries, a US-based clothing supplier, in 1986. This allowed MAS to learn the manufacturing of fine fashion lingerie of Victoria's Secret. Brandix, another leading firm, had a joint venture with the UK's Textured Jersey in 2000, which sent ten managers to train local counterparts for three to five years (Staritz and Frederick 2013). The company was later bought by Pacific Textiles of Hong Kong, which sent seconded personnel full-time to transfer best practices and technical expertise.

Sri Lanka currently specializes in high-end, niche, downstream and knitted garment segments including lingerie and swimsuit which require high skill and attention of workers. Upstream cotton and textile are not prioritized as the country concentrates on the production segment of GVC. With the end of MFA in 2004, many experts predicted that the Sri Lankan apparel industry, which was not vertically integrated, would decline. To anticipate and cope with this crisis, the Joint Apparel Association Forum Sri Lanka (JAAFSL), a public-private partnership forum, was created in 2002 with the leadership of the chairman of MAS. A strategy was drafted with eight initiatives covering taxes, backward linkage, labor market, and so on. Its execution doubled export within five years. The second five-year strategy followed. Through these efforts, a mechanism was established where the apparel industry acted as one to overcome challenges instead of individual firms or processes implementing separate actions, and where the private sector led the government.

MAS Holdings, as the top company with 90,000 employees in 17 countries, still leads

[69] This section extracts relevant information from the GDF mission report to Sri Lanka in October 2017 (GRIPS Development Forum 2017).

JAAFSL. It has an integrated process to produce high-quality garments through design, weaving, cutting and sewing (ODM), and is currently strengthening R&D and innovation to upgrade its global business capability. The company has developed innovative training and marketing systems of its own. MAS has also introduced the Japanese management system such as the Toyota Production System, and regularly sends staff to AOTS training courses. Internally developed capabilities such as direct access to buyers, strong management, technical skills, quality and delivery standards, product development and creativity have been the factors that elevated its status within GVC (Cattaneo et al. 2010).

Ethical practices have long been a great concern of Sri Lankan industries and government. They are also adopted fully in the apparel industry. Labor standards and employment relations are strictly regulated and monitored by the government. The Industrial Relations Department of the Board of Investment facilitates labor-management cooperation and harmony, and provides advisory service and guidance to employers and employees. Sri Lanka is also known for environmental excellence and has won many green manufacturing awards such as LEED Platinum and Gold Certificates. This unique combination of social correctness and environmental distinction has attracted many global brands such as Victoria's Secret, Gap, Nike, Tommy Hilfiger, H&M, M&S and others which have built a longstanding partnership with Sri Lankan apparel companies. Sri Lanka received "GSP Plus," a duty-free export privilege with the EU for countries strictly observing labor and environmental standards. This was suspended in 2010 but resumed in 2017.

7-10. Myanmar[70]

Another interesting case is the garment industry in Myanmar, which has grown rapidly after the lifting of economic sanctions of the West and the start of economic liberalization in 2012. Until the military coup d'etat in February 2021, the EU was Myanmar's largest and fastest-growing export market, followed by Japan and South Korea. The industry works on a Cut-Make-Package (CMP) pricing model, which means a nascent stage in the participation in GVC.

When Myanmar was shut out from the Western market about a decade ago, it turned to Asian markets for garment export. Two training centers were established under the Myanmar Garment Manufacturers Association (MGMA)[71] with Japanese assistance. Training equipment was provided by the Japanese Embassy (Grant Assistance for Grass-Roots Human Security Project). Initially, the Japanese Ministry of Economy, Trade and Industry (METI) and later the

[70] This section is largely drawn from the GDF mission report to Myanmar in November 2019 (GRIPS Development Forum 2020).

[71] MGMA has 560 member firms, many of which are Chinese. About 500 engage in garment production and export. The revenue of MGMA consists of membership and license fees which are large enough to subsidize students and university professors who take MGMA-organized courses for free.

Japan External Trade Organization (JETRO) dispatched Japanese experts for training of trainers. Courses included IE, sewing skills, quality control and maintenance of JUKI machines[72]. After a few years of training, Myanmar garment firms made good progress in economic upgrading and greatly increased export to Japan by 2010. By now Japanese cooperation has ended.

The EU offered the EBA status to Myanmar in 2013, which opened up the EU market. This was followed by the restoration of American GSP in 2016. The EU cooperated to satisfy the required compliance conditions of Myanmar firms. This included environmental support for the proper treatment of dyes, chemicals and disposed materials. The EU also created the Social Compliance Academy whose courses were taught at one of the MGMA's two training centers as well as at the Ministry of Education's Training Institute (at the level of industrial college). At both places, instructors were dispatched by MGMA. MGMA also cooperates with the Ministry of Education to establish a Garment Module and Textile Module at the School of Fashion Technology.

Both Japan and the EU thus provided the necessary support for Myanmar firms to export to their home markets. El-Shahat and di Canossa (2018) report a common view that Myanmar's export presence during the past decade in the Japanese and Korean markets where quality was strongly emphasized contributed greatly to improvements in the production capability of the country. On the shop floor, Japanese investors and managers taught local employees the importance of product quality and piece-by-piece inspection. It should be noted, however, that Myanmar garment producers have recently shifted from the Japanese market to the EU market because the EU's compliance requirement is easier to fulfill than Japan's requirement for high product quality[73].

7-11. Three implications for latecomer garment producers

The above case studies have shown country variation in adopting standards and compliance measures and the degree of their implementation by garment factories. Sri Lanka is an exemplary model achieving both high quality and ethical standards. The Bangladeshi RMG sector has a special focus on the fire and safety of buildings following the 2013 Rana Plaza collapse and has also accumulated experiences in quality improvement to cope with the post-MFA era. In Vietnam, significant differences exist between firms targeting international markets and those staying in the domestic market, with the former fully conscious of global quality and ethical requirements while the latter is less so. Myanmar started to learn quality control and

[72] JUKI is a Japanese company specializing in the production and sales of industrial and home sewing machines. It is a global company whose products are used by customers in more than 180 countries, and 80% of its total sales come from overseas business.

[73] Interview with the Secretary General of MGMA at the time of the GDF mission in November 2019.

technical skills of garment production first through Japanese cooperation, which provided the basis for subsequent learning of social compliance measures through EU cooperation. As a beginner, Ethiopia has just started to learn both quality improvement and social compliance. As remarked earlier, these differences reflect diverse circumstances and readiness of producer countries rather than intentional differentiation by global apparel brands and buyers.

Despite such country variations, there are common issues that have emerged from our study. This final section extracts such cross-cutting issues which should be relevant to Ethiopia and other latecomer garment producers promoting both economic and social upgrading.

7-11-1. Differences and proliferation of required standards

The country cases indicate that garment factories need to take an integrated and balanced approach to acquire and continue to upgrade export capability in the face of many required standards. Three points are worth noting.

First, garment firms clearly recognize and distinguish the nature of the twin standards for quality and social compliance. In Vietnam and Ethiopia, the surveyed firms understand that meeting quality standard is essential for enhancing their competitiveness, while social compliance is mandatory for their entry into the apparel GVC. With increased global awareness for inclusiveness and sustainability, the latter can be regarded as “the social license to operate” for garment production.

Second, many requirements for advanced markets are common but there are also differences between Western and Japanese markets in emphasized standards. European and American consumers are highly conscious of the labor and environmental conditions of garment production in developing countries and oblige international buyers and brands to purchase from manufacturers that adhere to global standards and conventions. In contrast, as the Vietnamese and Myanmar cases show, Japanese consumers are very strict about the physical quality of products. They do not accept clothes with even tiniest frays and request a needle detection test and inspections of all products before shipment from the factory.

Third, there is a problem of the proliferation of standards and compliance measures. In Bangladesh, there is “compliance fatigue” as firms face mounting workloads and costs to cope with similar but slightly different procedures of certification, inspection, auditing, and so on. In Ethiopia, local firms reported a trade-off between capacity and responsibility in implementing several standards. There is a need for harmonization efforts among buyers and the international business and development community and for supporting the capacity building of producers in developing countries.

7-11-2. Importance of public-private partnership and the role of industry associations

The study also suggests an important role industry associations can play in developing the capacity of local garment producers in quality and productivity improvement as well as social and environmental compliance. They can also promote the skill development of workers and engage governments to improve business conditions and foster economic and social upgrading through a public-private partnership.

Sri Lanka and Bangladesh provide good examples. Their garment industry associations actively and competently support local firms in achieving the twin global standards. In Sri Lanka, JAAFSL, a joint public-private partnership initiated by the private sector, was instrumental in introducing concrete measures to overcome the industry's challenges. JAAFSL continues to work closely with the government. In Bangladesh, BGMEA and BKMEA, the two powerful industrial associations, support member firms with skill development, factory-based consultancy, sharing of global and sectoral information, and policy discussion with the government. Some training programs are supported by donors. In advancing workplace safety, a national mechanism was established by BGMEA in 2020 to replace the foreign-initiated Accord and Alliance. In Myanmar, MGMA organizes various training courses for skill upgrading of member firms which build on the support it received from donors.

Vietnamese industry associations provide their member firms with basic information on CSR requirements. In Ethiopia, industry associations are in an early stage of development. Most surveyed firms did not receive any support from either the government or industry associations. Latecomers should learn the experiences of more advanced countries in such aspects as the concrete menu of support services and the formation of an effective public-private partnership. Industry associations must also establish a close working relationship with the government and its support agencies.

7-11-3. External support from buyers, lead firms and donors

In Sri Lanka and Bangladesh, knowledge and technology transfer from FDI partners and buyers was critically important in establishing a modern export-oriented apparel sector. In Myanmar, the sequenced support by Japan and the EU to MGMA in enhancing the technical skills and social compliance of its member firms contributed greatly to expanding the country's apparel exports to these markets. This shows the importance of external support by buyers, lead firms and donor agencies in upgrading industry associations and local factories.

In our surveys, varying degrees of buyer support to local firms were detected. Some firms responded that buyers only gave them information on standards and proceeded to inspection without providing any practical support to local factories. On the other hand, in Vietnam, some

buyers provide on-site quality controllers in local factories or hire independent third-party inspectors to ensure the quality of products. In Bangladesh, the Accord and Alliance for fire and building safety were initiated by foreign buyers but it was local factories that were responsible for necessary investment for safety, which meant additional compliance costs.

7-11-4. Final thoughts: preparing for the future

In concluding this chapter, it is important to consider the implications of the COVID-19 crisis for the future of the garment industry. Apart from its immediate impacts (see Chapter 6), COVID-19 will likely have a long-lasting effect on the social and environmental sustainability of the garment sector. Especially, the pandemic has heightened the need for a human-centered approach and green recovery.

Governments and garment factories are under increasing pressure to bolster economic resilience and extend social measures to safeguard workers from future shocks. Furthermore, green recovery from COVID-19 is emphasized, which makes such issues as carbon emission, energy and resource efficiency, and waste management critically important for factories, buyers and lead firms (ILO 2020a). In the post-COVID-19 era, current global trends for inclusive, sustainable and resilient industrial development are likely to be accelerated. There will also be greater demand for transparency, flexibility and agility in production processes, which requires the introduction of advanced technology and sophisticated production management. Moreover, after the crisis, the perception of workers will be activated toward their working conditions including wages, working hours, safety, healthcare and social benefits. This will enhance the productivity of workers and the firm in the long run. This in turn will help producers to gain buyers' confidence as responsible producers.

At the same time, it should be noted that such social and environmental gains can be sustained only if firms successfully keep upgrading their products and processes in the economic sphere because enhanced standards require investments in human capital, technology and machinery. Some investments, for example, for fire and building safety and green recovery, may incur significant costs and affect the financial viability of firms. Therefore, a parallel effort is necessary to combine social and environmental upgrading with improvement in productivity, products, processes and value chain participation for higher value addition. An integrated and comprehensive approach will be more keenly needed in the post-COVID-19 world.

Chapter 8
FDI Strategy in the Age of Industry 4.0 and Post COVID-19

8-1. Introduction

Industry 4.0 is expected to bring rapid changes to manufacturing and other industries, by utilizing emerging technologies such as the Internet of Things (IoT), Artificial Intelligence (AI), big data, robotics, 3D printer, Virtual Reality (VR)/Augmented Reality (AR), blockchain, and so on. Because it requires a lot of advanced technologies, knowledge, human resource and financial inflow which are not readily available in the least developing countries, there is a high potential that foreign direct investment (FDI) can act as an important pathway to bring the benefits of Industry 4.0 to them. Ethiopia is no exception. This chapter discusses how FDI strategy should be reoriented in the age of Industry 4.0, from a viewpoint of developing countries.

Industry 4.0 poses various questions on FDI strategy in developing countries. For instance, what are the priority/promising FDI sectors? How can local firms get benefits from Industry 4.0 which FDI might bring? What is the best use of Industry 4.0 technologies or information and communication technology (ICT) for investment promotion and facilitation including RegTech (Regulation x Technology)? How can startups and entrepreneurs contribute to making these happen? How can African nations and Ethiopia accommodate Industry 4.0 in their development strategies? How can development partners work together? Among such research questions, a most debatable topic can be whether Industry 4.0 is harmful or helpful for job creation.

This chapter attempts to respond to these questions, based on the experiences of selected Asian countries. Many Asian countries such as Japan, Malaysia, Thailand and Indonesia have developed respective industrial advancement strategies of Industry 4.0-type tailored to their own ecosystems. It further considers how Industry 4.0 might work in the context of Ethiopia, which currently focuses on labor-intensive and light manufacturing industries, and how Ethiopia should cope with the above-mentioned questions. An analysis of Ethiopia deserves attention because Kaizen, which has been implemented in the country for a decade or more, could provide a good link to Industry 4.0.

The chapter also discusses the likely impact of the Coronavirus Disease 2019 (COVID-19) pandemic on Industry 4.0-based development and FDI. As the pandemic has brought the largest

socio-economic impact since the Great Depression of 1929, many foresee a big paradigm change in the post-COVID-19 era as the New Normal. There is ample room where Industry 4.0 could contribute to mitigating the negative impacts of the pandemic and creating innovative and inclusive societies and economies in the post-COVID-19 world including Ethiopia.

8-2. Evolution of Industry 4.0 in the world

Since the era of the First Industrial Revolution in the 18th and 19th centuries when steam-driven production methods were introduced and disseminated, the industry has been evolving (Schwab 2016). The landscape of industrial development has again changed significantly in the first twenty years of the 21st century, with the emergence of distinct megatrends such as globalization, digitalization, a series of unexpected giant external shocks including the COVID-19 pandemic, and growing international concerns about the environmental and social impacts of development (Homma 2021).

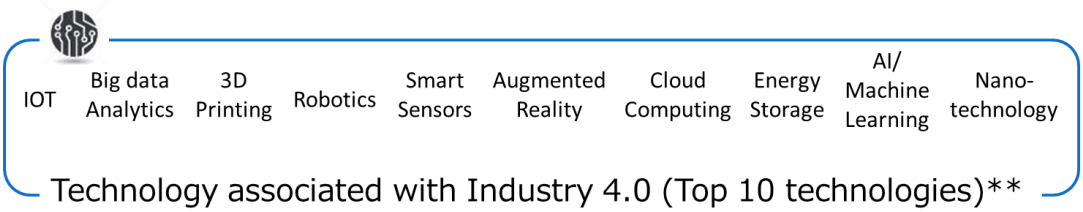
The shape of the industry is radically changing with new technologies, globalized production processes and diversification of product needs coming to the fore. The rapid evolution of electronic technology and the consequent emergence of ICT have changed the shape of industries in developed and developing countries at the same time. Many innovations, new industries, and epoch-making business models are emerging, as represented by global giant platforms. Existing industries are also experiencing significant changes through digital transformation (DX). The Fourth Industrial Revolution (4IR) is characterized by virtually networked production systems, represented by Industry 4.0, and is associated with up-to-date technologies such as IoT, AI, robotics, 3D printing and big data.

8-2-1. Overview of the Fourth Industrial Revolution (4IR)

The 4IR is recognized as introducing “smart applications that integrate virtual and physical production systems,” following the First Industrial Revolution (1760-1900, the use of steam and mechanically driven production facilities), the Second Industrial Revolution (1900-70, mass production driven by electricity and based on division of labor), and the Third Industrial Revolution (1970-present, extensive use of controls, information technology, and electronics for an automated and high-productivity environment) (ADB 2018, based on Schwab 2016).

The overall concept of Industry 4.0 (Industrie 4.0 in German) was established in Germany around 2013 through the initiatives of German manufacturing and other industries backed by its government. Putting the IoT and Cyber Physical System (CPS) as its core, Industry 4.0 harnesses the three concepts of connecting, replacing and creating to achieve more efficient production and productivity improvement (Nagashima 2015). The overall concept of Industry

Figure 8-1. Technology Associated with Industry 4.0



Source: World Bank (2017) as cited by Hallward-Driemeier and Nayyar (2017).

4.0 is sometimes interchangeably used with the term 4IR. The United States (US) followed the German movement, and the Industrial Internet Consortium was created by the US industries.

A World Bank Group publication by Hallward-Driemeier and Nayyar (2017) shows that the top 10 technologies associated with Industry 4.0 are: IoT, big data analytics, 3D printing, robotics, smart sensors, AR, cloud computing, energy storage, AI/machine learning, and nano-technology (Figure 8-1). Utilizing such digital technologies, the idea of 4IR/Industry 4.0 is being tested and/or has already materialized in the global industry.

While these trends originated in developed countries, developing countries, in particular relatively advanced ones, are also getting involved in Industry 4.0. Mischke (2019) demonstrates that developing economies are beginning to close the gap through rapid adoption of new technologies starting from a low base as shown in the growth of the Country Digital Adoption Index. Some of the technologies with Industry 4.0 such as AI become more easily available even in the least developed countries including those in Sub-Saharan Africa. On the other hand, close to 50% of tasks could be automated by 2030 affecting 760 million workers in emerging economies (Mischke 2019). Furthermore, the digital divide, which means 4 billion people in the world being outside the digital economy, may be becoming more serious especially in developing countries. It is important to analyze the pros and cons of the impacts of 4IR on the future of the industries in developing countries.

8-2-2. Industrial policies in developing countries concerning Industry 4.0

Several countries in Asia have been attempting to accommodate 4IR into respective industrial policies in response to rapidly growing interest in this movement in western countries. In 2015, China set forth ‘Made in China 2025,’ which contains innovation of manufacturing as a target utilizing digital technologies. In 2016, Japan advocated the concept of ‘Society 5.0’ in its science and technology plan as the cyber-physical integrated social system for a human-centered society, which fully utilizes IoT, AI and robotics to provide solutions. Society 5.0 is considered as the next society following Society 1.0 (hunting), Society 2.0 (agriculture), Society 3.0 (manufacturing) and Society 4.0 (information). It is considered that Japanese

industry has strength in 'integral architecture' on manufacturing products from numerous parts with optimal adjustment thanks to its technological capability. However, "modular architecture," which represents a simple assembly of units with less coordination than the "integral architecture" becomes more mainstream under the global digitalization era (Lim and Fujimoto 2019). Japan needs to reconsider how to survive in the era of 4IR with digital technology and a systemic approach.

Meanwhile, several Southeast Asian countries have published national industrial policies inspired by Industry 4.0. These include Thailand 4.0 in 2015, Making Indonesia 4.0 in 2018 and Malaysia's National Policy on Industry 4.0 (Industry 4WRD) in 2018 (Figure 8-2). While these policies have the contents and flavor of Industry 4.0, they are considered as updated versions of more comprehensive national industrial policies.

Such national industrial policies essentially demonstrate the positive impacts of Industry 4.0 as a key driver to create innovation, raise efficiency and improve the productivity of the industry. However, negative concerns such as job opportunity loss due to the introduction of up-to-date automation technologies, and safety and data security issues caused by new technologies, tend to be left out of their consideration. The Donor Committee for Enterprise Development (DCED) Annual Conference held in 2019 discussed as its main topic the effect of Industry 4.0 on private sector development in the age of digitalization. The Conference summarized great opportunities for developing countries' development through innovation in the private sector including startups geared by digitalization and Industry 4.0-type technologies. At the same time, it voiced concerns about the possible negative effects on job markets caused by AI and automation and stressed the need for education and vocational training to meet the emerging requirements for digital skills. The United Nations Industrial Development Organization (UNIDO) suggests 4IR technical cooperation including convening/awareness-raising, road mapping and policy advice, readiness analysis and industry 4.0 observatory, demonstration, learning and innovation centers, Industry 4.0 absorptive capacity building, and international twinning (Memedovic 2019).

Figure 8-2. National Industrial Policies Inspired by Industry 4.0 in Southeast Asia (Thailand, Indonesia and Malaysia)

Source: Board of Investment, Thailand (2015), Ministry of Industry, Indonesia (2018), and Ministry of International Trade and Industry, Malaysia (2018).

In general, renewed industrial human resource development should be the key for developing countries. Advanced Southeast Asian countries such as Thailand, Malaysia and Indonesia are already faced with rapid increases in the cost of labor and the emerging necessity for accelerating automation and factory IoT (JICA and NRI 2019). Industrial human resource development is required to support human resource shifts from simple labor-intensive workers to advanced technological engineers. In many developing countries including those in Sub-Saharan Africa, there is also increasing demand for fostering entrepreneurs who can initiate digital technology-driven businesses utilizing AI, IoT and big data. However, this requires early education and training in advanced ICT. Industrial policy should accelerate this dynamic shift of industrial human resources by providing learning opportunities for digital technology and system engineering at higher education or Technical and Vocational Education and Training (TVET) level and the skill development opportunities for technicians in the industry, and establishing a fiscal and non-fiscal incentive framework for enhancing such opportunities.

8-2-3. Japan's possible intervention in Industry 4.0

Introducing Industry 4.0 is still new even to Japan, particularly in its technical cooperation for developing countries. Under such a situation, it is important what Japan and the Japan International Cooperation Agency (JICA) can contribute to adding value in this area. JICA commenced the "Data Collection Survey on Upgrading Manufacturing Industry using the Latest Technology" in 2019 with some field surveys in the target countries such as Thailand, Vietnam, Indonesia, Malaysia and Myanmar, as well as literature surveys on the benchmark countries such as Germany, the US, China, India and Japan. The Survey's purposes are: (i) analyzing the impact of rapidly advancing new technologies in industrial development; (ii) mapping out the current situation of Industry 4.0 in selected Asian countries; and (iii) proposing plans for the cooperation program of JICA in this area.

The Survey so far has found that the industries in the target countries are generally not fully equipped to accommodate Industry 4.0 developments such as IoT in their industry. Nevertheless, it has identified some trial cases and potential needs. The Survey has also found that Industry 4.0 has an affinity with Kaizen[74] which (i) has the distinct feature of data visualization, (ii) originates from statistical quality control, and (iii) is fairly well disseminated in the surveyed Southeast Asian countries (Homma 2020a). Furthermore, Japan may have a comparative advantage over other countries in certain areas of manufacturing industries, in particular robotics and factory automation where hardware technology and software technology are

[74] Kaizen is an inclusive and participatory approach to the continuous improvement of quality and productivity, resting on a distinctive philosophy, tools and methods. It forms the basis of multiple management systems including Total Quality Management (TQM) and Toyota Production System (TPS) developed in Japan and adapted for use in other countries (Hosono et al. 2020).

integrated. These areas could be prioritized and promoted.

As was implied previously, Industry 4.0 is still new even in Japan, especially from the viewpoint of technical cooperation. While there is a great potential for Japan to contribute to this area, it has not yet developed policies on how to make this future concept a reality. To realize this potential, it would be good to accumulate experiences in finding solutions together for industrialization challenges in developing countries. Therefore, it seems that a co-learning and co-creation approach is needed and suitable rather than the traditional type of one-way technology transfer. It should be appropriate for Japan to think together and learn together about how to accommodate Industry 4.0 in host developing countries, utilizing a hands-on approach with a problem-solving methodology such as Kaizen.

8-3. Paradigm change in the post-COVID-19 era

8-3-1. Overview of the COVID-19 pandemic

The COVID-19 pandemic brought huge unexpected impacts on the world economy in 2020 and beyond. The World Bank Group (2021a and 2021b) projects that world real GDP growth in 2020 declined by 3.5% and that COVID-19 is likely to cause a global recession whose depth is surpassed only by the two World Wars and the Great Depression over the past century and a half. World trade volume in 2020 decreased by 8.3% compared with the previous year. The International Labour Organization (ILO) (2021) confirms the massive impact that labor markets suffered in 2020 with 8.8% of global working hours being lost in the whole year (relative to the fourth quarter of 2019), equivalent to 255 million full-time jobs or approximately four times greater than the number lost during the 2008 global financial crisis.

Industry in the world has heavily suffered from COVID-19 through a massive economic slump, huge demand losses, trade volume losses, liquidity losses, job opportunity losses and difficulties in access to finance. Developing countries faced all these problems even before the COVID-19 but the picture has become worse, up to a fatal situation, due to COVID-19. The ILO (2020b) reveals that enterprises in the surveyed developing countries claim they stopped operations due to COVID-19 (70% of respondents), experienced a shortage of cash flow (86%), and received less than half the number of orders compared with before-COVID-19 (33%). Furthermore, global value chains (GVCs) are damaged or interrupted due to massive lockdowns affecting national borders and factories, less human mobility, a mismatch in demand and supply, a logistics slump due to demand loss, and concern for the rise of protectionism against free trade regimes. Thus, the benefits of GVCs for developing countries have deteriorated.

Meanwhile, this unprecedented global crisis also provides positive impacts for the industry. First, extra-ordinary immediate demands are created for certain products including medical

products such as masks, gloves, personal protective equipment (PPE) and ventilators. Second, digitalization and DX have accelerated to meet the huge demand for remote working, contactless procedures and automated production. Third, a wide variety of new technologies called 'Corona-Tech' are being rapidly developed especially by startups to solve the huge social issues created by COVID-19. Fourth, due to the interruption of GVCs and general trade, local production with tailor-made technology and home-grown solutions are being enhanced.

8-3-2. Policy support in response to COVID-19

The world is being forced to devote massive resources to alleviate the negative impacts caused by COVID-19. The World Bank Group (2021c) suggests three-stage policy support: (i) relief, (ii) restructuring; and (iii) resilient recovery. Initially, immediate actions are required to mitigate shocks, and short-term financial schemes should be provided for mainly small and medium enterprises (SMEs) and for job security. On this point, the ILO (2020b) reveals that enterprises in the surveyed developing countries need support in the form of business continuity advice (50% of respondents), advice on export and logistics restrictions and requirements (38%), and other information. In the restructuring stage, policy support for restoring their businesses and accelerating their reopening through policies to enhance demand is required. Finally, in a resilient recovery stage, there is a need to secure a firm foundation and "build back better."

JICA has formulated a framework for supporting its private sector development (PSD) program in response to COVID-19 (JICA Private Sector Development Group (2020), cited in Homma (2020b)). This identifies four major consequences of COVID-19 to PSD, namely: (i) lost cash flow, (ii) damaged supply chains, (iii) emerging demand for medical and sanitary products and business continuity planning (BCP) or business contingency planning of local SMEs, and (iv) demand for a "new normal." In response, JICA has been providing: (i) emergency financial support, (ii) support for supply chain rebuilding by business development services (BDS) and new technology, (iii) support for BDS and Kaizen, and (iv) innovative startup support.

An example to associate with (iv) above is the JICA NINJA[75] Business Plan Competition in response to COVID-19, based on its startup support "Project NINJA." This is essentially a business contest in 19 African countries to provide support for startups and the acceleration of new businesses in response to COVID-19 such as remote medical services, infection information delivery, remote business or education tool, online sales, logistics and delivery system, and other Corona-Tech-based business. It supports proof of concept (POC) for the winners for their business ideas and attracted 2,713 applicants by August 2020 from 19 African

[75] NINJA stands for 'Next Innovation with Japan' (JICA's startup support activities).

countries, including 127 applicants from Ethiopia. In Ethiopia, JICA conducted a similar kind of business competition and incubation program for startups called the "SolveIT 2019" program from December 2018 to August 2019 prior to the NINJA program. More than 2,000 applicants participated in SolveIT 2019, and this experience in Ethiopia formed the basis of the COVID-19 NINJA program for 19 African countries.

Each donor agency has created a COVID-19 specialized website. DCED created one of the fastest knowledge portals on its website called "Private Sector Development and COVID-19" immediately after the pandemic declaration in March 2020. The portal provides useful content such as (i) information on socio-economic impacts and national responses, (ii) how to adjust PSD interventions in the short term with a greater focus on (a) conducive investment policies and procedures, (b) tax relief or other measures to ease the financial burden on businesses, and (c) digitalizing administrative procedures, (iii) promoting economic recovery and resilience, and (iv) building agency knowledge portals, statements and funding activities.

8-3-3. Resilience and future pandemic and other challenges

As discussed above, COVID-19 has presented tremendous challenges as well as new opportunities such as the possibility of Corona Tech-based businesses. In either case, "resilience" is critically important to cope with these impacts.

COVID-19 is indeed one of the heaviest shocks in a century. Nevertheless, similar pandemics and other unexpected external shocks including natural disasters may hit the industry again in the future. To prepare for such anticipated events, it is necessary to enhance the resilience of industries. To strengthen resilience, the recovery process is quite critical. This is why many donors call for "building back better" post-pandemic. The European Union (EU)'s recent policy on green recovery is a typical example. It is crucial for the world including the governments of developing countries to draw up comprehensive recovery plans involving various sectors horizontally and deepening each sector vertically.

Furthermore, it is likely that the pandemic will greatly affect the Industry 4.0-based development and FDI and may lead to a great paradigm change. There is a great potential for Industry 4.0 to mitigate its negative impact and create an innovative and inclusive society and economy under the post-COVID-19 world.

In a nutshell, the COVID-19 experience suggests that the governments of developing countries should take this opportunity to accelerate transformation in the short run and to strengthen the resilience of industries in the long run through well-articulated industrial policies.

8-4. Impact of Industry 4.0 and COVID-19 on FDI and possible FDI strategy

8-4-1. Impact of Industry 4.0 on FDI

As the United Nations Conference on Trade and Development (UNCTAD) (2017) recognizes, the digital economy has important implications for investment, and investment is crucial for digital development. Likewise, Industry 4.0 has important implications for FDI and vice versa. Such technologies will have profound effects on the forms of international production. Depending on the project scale and ecosystem, these could range from centralized large-scale production utilizing big-data technology to nimbler and distributed 3D printing technology.

Some argue that Industry 4.0 could bring distinct impacts on FDI, particularly in terms of the decision on the location of labor-intensive FDI. Strachan (2020) notes that cheap labor costs are no longer a strong incentive for greenfield investors to select factory locations in developing countries because Industry 4.0's excelled automation will level the playing field between developing and developed countries. This could affect negatively less-developed countries which are endeavoring to attract FDI by taking advantage of their cheaper labor costs.

Industry 4.0 requires a significant amount of inflow of technologies, facilities and investment. 4IR-related technologies and their markets are expanding rapidly. Therefore, it is possible to consider Industry 4.0 itself as a promising FDI sector. UNCTAD (2020b) estimates the combined market of IoT (IoT and analytics revenues) to be more than doubling in five years from $240 billion in 2017 to $520 billion in 2021; the stock of industrial robots tripling in 10

Table 8-1. High-level Classification of New Industrial Revolution Technologies

	Industry focus	Prospects
Digitalization: • IoT • Cloud • Artificial reality and virtual reality • Platforms (blockchain, e-commerce, fintech) • Big Data analytics	Applied to **all industries**	The combined market of the IoT (IoT and analytics revenues) **more than doubling in five years,** from $240 billion in 2017 to $520 billion in 2021.
	Focus on **data** and **intangible services;** servicification of manufacturing	
Automation: • Advanced industrial robotics • AI-enabled robotics	Mainly **manufacturing and low-value services**	Stock of **industrial robots tripling in 10 years,** from 1.3 million in 2013 to 4.0 million in 2022.
	Application to higher-value services at the early stage, with potential for future growth	Stock of professional service robots **nearly quadrupling in four years,** from 270,000 units in 2018 to 1 million units in 2022 (mainly logistical and medical robots).
3D printing	**Niche manufacturing** products (rubber and plastics products, specific components)	The market size of **additive manufacturing growing 10 times in 10 years** from $5 billion in 2015 to $50 billion in 2025, up to over $350 billion in 2035 (CAGR 2015-2035: > 20%).
	Application to mainstream industries (food, pharmaceuticals, textiles, electronics) very limited, with potential for future growth	

Source: Figures on IoT from Bain & Company (2018); on industrial and service robots from the International Federation of Robotics (2019a; b); on additive manufacturing from The Boston Consulting Group (2017).

Source: UNCTAD (2020b).

years from 1.3 million in 2013 to 4.0 million in 2022; and the market size of additive manufacturing (such as 3D printing) growing 10 times in 10 years from $5 billion in 2015 to $50 billion in 2025, up to over $350 billion in 2035 (Table 8-1).

This suggests that FDI investors may seek partners with more knowledge-intensive and highly-skilled human resources rather than those with abundant unskilled labor. In light of their limited capacity for mobilizing knowledge and digital skills, developing countries may start with small-scale technologies (such as 3D printing and AI) and then go up to a larger scale (such as robotics and IoT). There is more room for technology-driven startups and entrepreneurs to contribute to small-scale but highly knowledge-intensive activities.

8-4-2. Impact of COVID-19 and beyond on FDI

The COVID-19 pandemic caused a dramatic fall in FDI in 2020. According to the UNCTAD report, the global FDI flows dropped by 35% from $1.5 trillion to $1 trillion in 2019 (UNCTAD 2021). This is almost 20% below the 2009 trough after the global financial crisis. In developing countries, the number of newly announced greenfield projects fell by 42%, much more than a drop in global FDI flows. In particular, Africa experienced a sharp drop in greenfield projects by 75% in the same period. This compares to a 19% decline in greenfield investment in developed economies.

On the other hand, there is a rapidly growing demand for FDI in emerging sectors in response to the pandemic such as the medical, health and food sector. The UNCTAD report projects that global FDI flows are expected to bottom out in 2021 and recover some lost ground with an increase of 10-15% thereafter (UNCTAD 2021).

Looking ahead towards the post-COVID-19 era, the ICT sector is considered as one of the most associated and required sectors in the New Normal world. Fully utilizing a further advanced digital network, e-commerce, remote technology, and Industry 4.0-related technology and industry are considered to be targeted sectors for attracting FDI.

8-4-3. Implications for FDI strategy in developing countries

The previous sections discussed how Industry 4.0 and COVID-19 could affect FDI and considered its possible implications. The governments of developing countries should also take account of these movements in respective national strategies to promote FDI.

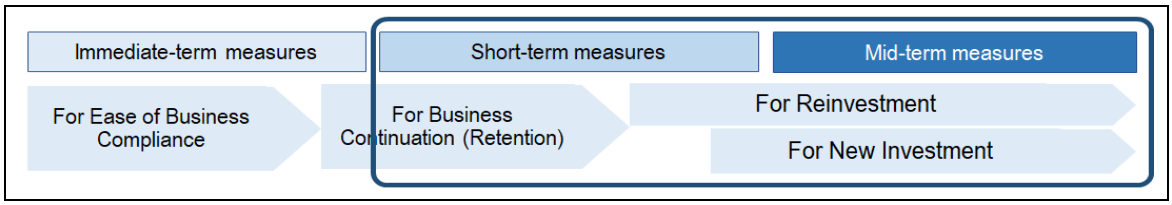
One obvious change in FDI strategy is an increased focus on ICT and the new technology sector. Strachan (2020) argues that governments should recognize this change toward ICT and new technology and consider policies to prioritize technological literacy through their education

system to foster a new workforce that is technically competent so that this becomes a key to attracting inward investment. Meanwhile, UNCTAD (2017) cautions that many digital development strategies either fail to address investment needs or discuss them only at a very general level. According to this report, less than 25% of digital development strategies contain details on investment requirements for infrastructure, and only below 5% of such strategies include details on investment needs beyond infrastructure including for the development of digital industries. Investment Promotion Agencies (IPAs) are rarely involved in the formulation of digital development strategies.

In response to COVID-19 and a sharp decrease in newly announced greenfield investment due to economic turmoil and difficulties of traffic, many IPAs in the world have attempted to tackle this situation. In the initial phase of COVID-19, IPAs were required to take care of existing investors to secure their businesses by facilitating their daily activities which were heavily affected by the COVID-19 pandemic by, for example, labor management, visa extension for home country staff and other immediate means. In the next phase of the pandemic, fresh greenfield investment is still difficult. But, as a short-term measure, IPAs might consider working with some of the existing investors who have already roots in the host country and are interested in reinvestment or investment extension to capture rapidly growing demand for certain commodities and provide home-grown solutions to address cross-border trade difficulties. After surviving these phases, IPAs could consider, as mid-term measures, greenfield investment attraction for those who seek business information on a remote basis. A JICA project in support of investment promotion in Bangladesh has been taking these staged approaches (Figure 8-3). The previously mentioned 3-step phased approach of the World Bank Group (2021c) ((i) relief, (ii) restructuring, and (iii) resilient recovery) is based on a similar idea.

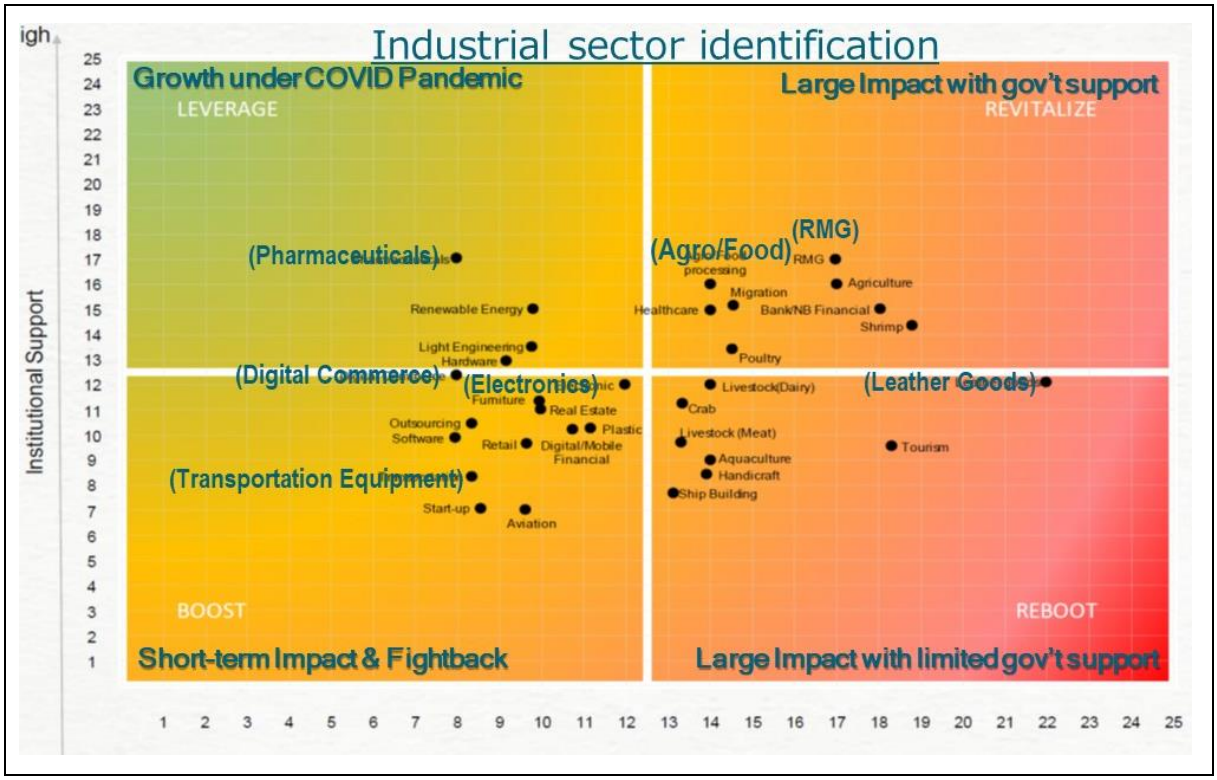
It is important to identify priority investment sectors in light of new demand in the era of COVID-19 and beyond. It is also useful to identify strategically important sectors which may provide a larger impact on people's lives and need emergency assistance by the government. The JICA investment promotion project in Bangladesh provides analysis and suggestions for identifying investment sectors (Figure 8-4).

Figure 8-3. Mode of Measures for Targets for Investment Promotion during and after COVID-19



Source: JICA Project for Promoting Investment and Enhancing Industrial Competitiveness in Bangladesh (2021).

Figure 8-4. FDI Industrial Sector Identification during and after COVID-19



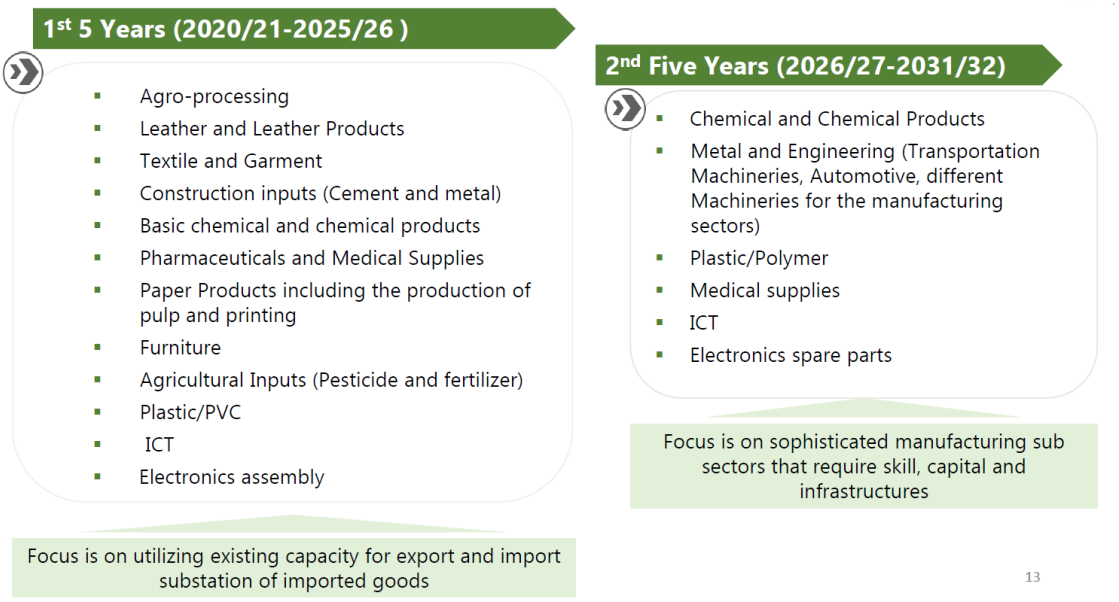
Source: JICA Project for Promoting Investment and Enhancing Industrial Competitiveness in Bangladesh (2021).

8-5. Industry 4.0 / COVID-19 and FDI in the context of Ethiopia

Industry 4.0 has not been discussed yet in the policy documents of the Ethiopian government. Neither "Ten Years Development Plan: A Pathway to Prosperity 2021-2030" by the Planning and Development Commission (PDC) of the government of Ethiopia (PDC 2021) nor "10 Year Perspective Plan Priorities (2020/21-2030/31): Major Reform Agendas and Support Areas" by the Ministry of Trade and Industry (MOTI 2021) explicitly refers to Industry 4.0 or the Fourth Industrial Revolution. Digitalization and the ICT sector are well captured in the above long-term policy documents as one of the most distinct areas for priority. However, these sectors are not necessarily linked with industry, in particular the manufacturing industry. No significant influence of Industry 4.0 or digitalization is observed on the list of priority manufacturing sectors and other parts of the MOTI's 10 Year Perspective Plan Priorities (Figure 8-5).

On the other hand, it is worth noting that certain Industry 4.0 technologies such as AI are partially utilized well by the private sector. For example, iCog Labs is a well-known Addis Ababa-based R&D and software development company, which is collaborating with international AI research groups and serving customers around the world. There might be private sector-driven development of Industry 4.0.

Figure 8-5. Manufacturing Sub Sector Prioritization for the Coming 10 years



Source: Ministry of Trade and Industry of Ethiopia (2021), "10 Year Perspective Plan Priorities (2020/21-2030/31): Major Reform Agendas and Support Areas."

Ethiopia lacks a well-developed digital infrastructure which provides an essential basis for Industry 4.0. As Pathak and Zewdie (2019) suggests, "Industry 4.0 can be used for sustainable changes in country for solving many problems" (page 4) in Ethiopia. Considering Ethiopia as one of the potential African countries, they further suggest the importance of infrastructure and effective policies to create a favorable environment for the development of Industry 4.0 in Ethiopia.

In this sense, it is a positive development that the telecom sector is being liberalized and that the first private telecom operator license is given to an international consortium formed by Vodafone, Safaricom and Sumitomo Corporation to meet international standard telecom network. Ethio ICT Park is also a prospective attempt. Misikir (2020) reported that "four new data center companies have secured land to make their home at Ethio ICT Park, which is called Ethiopia's Silicon Valley" (page 1). One of the data center companies revealed that it received interest from multinational companies. This implies that data centers or other forms of ICT platforms might further attract FDI.

Dissemination of Kaizen could also work advantageously for Ethiopia to contribute to digitalized industrial development and readiness for Industry 4.0. This is because Kaizen is a digital-friendly approach as it originates from statistical quality control (SQC) and has strong features of data-drivenness and visualization (Cirera and Maloney (2017); JICA/JDS/Abeam (2022 forthcoming); Homma (2021)).

Ethiopia is a typical developing country that has a distinct comparative advantage in light

manufacturing, such as garment, shoes and leather products, which fully utilizes its low-cost labor. As the previous section implies, Ethiopia might lose this labor cost advantage in the global competition in the era of Industry 4.0. At this moment, it is not clear whether there are any alarming signals on the future of Ethiopian light manufacturing development. Meanwhile, there might be a future potential to upgrade these light manufacturing industries utilizing Industry 4.0-type technology without losing cost competitiveness. Less expensive hardware technology such as sensors and software technology such as locally-available AI technology may provide solutions for quality and productivity improvement at light manufacturing factories and create rooms for the large workforce to work on extended production.

In terms of the IPA's response, the World Bank Group (2021c) collected information on the efforts of several IPAs in the world to retain existing foreign investors. This includes Ethiopia's efforts in immediate response to COVID-19 such as:

- Using social media to communicate closely with investors to gather feedbacks, share the latest initiatives and best practices; and
- Facilitating the expansion of companies that receive FDI into new production lines in light of COVID-19 by supporting local suppliers' business continuity and strategic reorientation to products and services most in demand.

8-6. Conclusions and the way forward

This chapter has attempted to capture the concept of Industry 4.0 or 4IR and assess the impacts of COVID-19 to obtain insights into industrial development in the post-COVID-19 era. Then, it has considered their implications for FDI promotion strategies from the perspective of developing countries including Ethiopia.

Due to limited prior research and quantitative evidence, it is premature to judge from this initial attempt and draw concrete implications for Ethiopia's FDI strategy in the age of Industry 4.0 and post-COVID-19. However, the following points are worth noting for further studies.

First, it is not clear yet what would be potential positive and negative impacts of Industry 4.0 on FDI attraction in Ethiopia. The government should study the potential impacts of Industry 4.0 on Ethiopia's industrial development and incorporate the analysis into its national policy in general and industrial policy in particular so that hidden threats can be transformed into opportunities. History shows that labor-cost advantage cannot last long and that the next step beyond labor-intensive industrialization should be thoroughly analyzed including testing of the Industry 4.0 concept towards the digital economy. It is also important to analyze how the Ethiopian garment industry can be associated with or benefit from Industry 4.0.

Second, it is important to build "resilience" in response to the future pandemic and other types of external giant shocks. FDI strategy, national industrial policy and their action plans

need to aim at strengthening the fundamental capacity to be ready for unexpected negative shocks. To achieve this, the government must formulate a proper industrial strategy and establish the foundation for the digital economy.

Third, “learning” is quite meaningful for Ethiopian policymakers and the private sector to familiarize themselves with a less-experienced concept such as Industry 4.0. There are several useful ways to learn Industry 4.0. Attracting FDI is one of them as it is expected to facilitate the transfer of technology that does not exist in a host country. Kaizen is another approach to learning and applying the new concept in the workplace.

Finally, as this chapter offers only preliminary thoughts, it is suggested that further studies on the nexus among Industry 4.0, post-COVID-19 and FDI strategy be conducted in Ethiopia to secure these trends as advantages of the industrial sector of Ethiopia.

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