



Financing for SMEs in Sustainable Global Value Chains



Federal Ministry for Economic Cooperation and Development

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66 ... Recognising the ongoing work of the Global Partnership for Financial Inclusion (GPFI), we promote better access to financing, technology, and training facilities that help improve the capacity of micro, small and medium enterprises to integrate into sustainable and inclusive global supply chains... ??

> G20 Leader's Summit Communique, Hamburg 2017

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Executive Summary

B y joining global value chains (GVCs), small and medium enterprises (SMEs) can contribute to development in emerging economies. There is evidence that countries and firms grow faster when they are integrated with GVCs.

GVC participation among emerging world SMEs is uneven. Lack of access to financial services is a major reason why. Although SMEs account for large shares of employment and GDP, they are often unable to get credit, and women-owned SMEs face particularly high obstacles.

Sustainability standards increasingly govern global value chains. Some of these standards are voluntary, while others are mandatory. Examples include national regulations covering environmental protection, and voluntary sustainability platforms such as fair trade or organic certification.

Lead firms often expect their suppliers to comply with labor and environmental criteria before joining their value chain. Some evidence suggests that meeting these standards makes firms more profitable. Workers and the environment might also benefit. Yet standards also impose costs, and as discussed in this paper, there is ongoing debate about whether standards ultimately benefit SMEs. A lack of financing is a major reason SMEs struggle to meet these costs.

Governments, lenders and businesses offer financial and technical assistance to help SMEs upgrade their sustainability performance.

- Development finance institutions offer lines of credit to banks in emerging countries so they can lend to local SMEs. Some development finance institutions also provide loan guarantees as well as technical advice for meeting standards.
- Investors and lenders provide loans or equity directly to SMEs. Nonprofit organizations offer affordable financing to SMEs to upgrade their sustainability practices. Some commercial banks screen applicants against sustainability criteria and offer better terms in exchange for strong performance. Investors of all kinds increasingly seek sustainability-related disclosures from investees. Sustainable stock indices reflect the growing business interest in sustainability.

By joining global value chains (GVCs), small and medium enterprises (SMEs) can contribute to development in emerging economies.

- Some large global buyers, such as businesses that lead GVCs, help their suppliers get access to financing. Buyers also frequently monitor their suppliers' compliance with labor and environmental regulations.
 - A select group of fashion retailers offer better terms on supply chain finance to suppliers that comply with sustainability regulations. Some retailers offer this financing as an incentive for their suppliers to make investments in more energy efficient equipment or better management systems to improve labor standards.
 - Non-governmental organizations work with lead firms and suppliers to improve supply chains. For example, some NGOs recommend ways to make factories more energy efficient, while others focus on helping farmers comply with international pesticide regulations.
 - There is a growing push for lead firms to source from companies owned by traditionally excluded groups such as women and disabled adults.

Governments and business could do more to help SMEs improve their sustainability practices. Relatively few companies currently offer effective financing for this purpose. While progress has been made in the following areas, more needs to be done:

- Governments could recommend basic social and environmental guidelines for SME lending. They could also provide technical assistance to help lenders assess standards. Encouraging publicly-traded companies to report on social and environmental risks in supply chains could provide an impetus for sustainability upgrading.
- Investors and lenders could develop tools to measure sustainability risks and the social and environmental impact of investments. They could also use sustainability performance to gauge credit eligibility as an indicator for longterm business performance.
- Businesses could be encouraged to track their suppliers' sustainability standards, and offer better terms and bigger orders in exchange for improved performance.
 - Digitizing supply chain documents, such as invoices, could speed up financial access for suppliers.

Governments and business could do more to help SMEs improve their sustainability practices.

Introduction



Increasing access to financing for small and medium enterprises (SMEs) has been a long-standing G20 priority under the Global Partnership for Financial Inclusion (GPFI). Strengthening SMEs in global value chains (GVCs) was highlighted as a G20 goal at the Hangzhou Summit in 2016, where G20 leaders reaffirmed their intention to support the development of SMEs and linkages to GVCs. Under its presidency in 2017, Germany has underscored the importance of SME finance in sustainable GVCs by further aligning this agenda with the G20's Sustainability Development Goals (SDGs), and by emphasizing the need for companies to adhere to basic labor, social and environmental standards.

This report demonstrates how governments, financial institutions and businesses can work together to support financing models that encourage SMEs to upgrade their production processes to comply with sustainability standards in GVCs.

Part 1 explores the importance of SMEs and GVCs for emerging economies. It also examines the rise of sustainability standards and the challenges and opportunities they pose for SMEs. A lack of financing is found to limit the ability of SMEs to meet these standards and realize their potential to spur growth, employment and innovation.

Part 2 reports findings from a stocktaking exercise conducted through a survey administered to governments, financial institutions, businesses and information technology platforms in G20 and non-G20 economies. The survey covers the study's key themes with a focus on the different financing models and support mechanisms. Interviews with key stakeholders supplement the survey. Case studies show that public and private actors are using several models to finance sustainability improvements in SMEs – but such models are still not widely used. The survey suggests that while most companies express support for social responsibility, relatively few provide their suppliers with financing or contractual incentives to improve sustainability.

Lastly, Part 3 outlines policy considerations for the various stakeholders, governments, financial institutions and businesses to develop new financing models to support sustainability-oriented SMEs in GVCSs. Governments can encourage harmonized standards and sustainability guidelines for SME lending.

Increasing access to financing for small and medium enterprises (SMEs) has been a long-standing G20 priority under the Global Partnership for Financial Inclusion (GPFI).

This report demonstrates how governments, financial institutions and businesses can work together to support financing models that encourage SMEs to upgrade their production processes to comply with sustainability standards in GVCs. Financial institutions could collect sustainability indicators on borrowers and use them to assess creditworthiness. Businesses can build sustainable supply chains by offering incentives for sustainability improvements, such as purchasing supplies and services at a higher price. Digitizing supply chain documents such as e-invoices could help SMEs get quicker access to financial services including supply chain finance.



Part 1

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Sustainability Standards in Global Value Chains: Implications for SMEs

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1.1: SMEs and GVCs

Recent decades saw rapid growth in global value chains – yet relatively few small and medium enterprises participate in GVCs, despite their importance for emerging economies.

Small and medium enterprises (SMEs) are the economic foundation of emerging countries. This study focuses on formal SMEs. Participating in global value chains (GVCs) requires these businesses to meet formal business requirements, such as registering with authorities to get a value-added tax identification number. In emerging economies, formal SMEs account for nearly half of total employment and roughly a third of GDP. When informal SMEs are included, the shares are even higher.¹ Although there is no consensus about what constitutes an SME, this paper uses the term to refer to any firm with between 10 and 250 employees.² The firms discussed in this paper tend to fall on the larger end of that range. But firm size varies by industry. In agribusiness supply chains, for example, many suppliers are relatively small farmers. In textile/garment chains, the suppliers tend to be large for SMEs, given that meeting large purchase orders and sustainability standards is often too expensive for smaller manufacturers.

GVCs are production networks that span countries. In the past, most companies concentrated their production in a single country. Now, production is spread across many nations. Only about a third of world exports are fully produced goods that can be sold to a final customer; the rest need further processing in a value chain before the final sale.³ This fragmentation of production gives SMEs in emerging economies more opportunities to link up with major global firms. Instead of building complete products on their own, SMEs can specialize in certain products and services along the value chain.

The rise of GVCsThepresents opportunitiescrfor SMEs to driveeaeconomic growth, jobgrcreation and innovation.free

The rise of GVCs presents opportunities for SMEs to drive economic growth, job creation and innovation. Since 1980, global gross exports of goods and service each increased roughly tenfold, while foreign direct investment net inflows grew about 34-fold.⁴ Emerging countries' GVC participation roughly doubled from 1995 to 2011, but these nations still account for a relatively small share of the global total, at 11 percent. SMEs' participation in GVCs varies widely across emerging nations. In the ASEAN economies, the share ranges from about 6 percent in Indonesia to almost 50 percent in Malaysia, according to one estimate.⁵ The nature of GVC participation also varies. While some SMEs

Small and medium enterprises (SMEs) are the economic foundation of emerging countries. directly supply lead firms, many more SMEs work with other supplier firms. In emerging countries, upstream GVC-linked SMEs are concentrated in agriculture as well as low-value added manufacturing and services.⁶

The G20 countries are increasingly connected through GVCs. Figure 1, below, measures two dimensions of GVC participation: use of imported goods in exports, and exports of unfinished goods that are finalized for export in another country. The figure shows that GVC participation has grown in most G20 countries since 1995, particularly in Asia. Participation is highest in Korea, where unfinished goods traded within GVCs make up about two-thirds of exports. In most other G20 countries, the share ranges from about 35 percent to 45 percent.⁷

The G20 countries are increasingly connected through GVCs.



Note: The index is calculated as a percentage of gross exports and has two components: the import content of exports and the exports of intermediate inputs (goods and services) used in third countries' exports.⁸

Source: OECD, WTO, and World Bank Group (2014).

GVC integration is deeper in high-income economies than emerging regions. GVC integration is deeper in high-income economies than emerging regions. As of 2011, GVCs accounted for more than half of exports among high-income economies. The share is below 50 percent in every emerging region except Europe and Central Asia. It is lowest in South Asia, at about 35 percent (Figure2). But GVC participation increased markedly between 2001-2011 in most emerging regions except the Middle East and North Africa, which saw only a slight rise. GVC participation also varies across regions. In the high-income group, as well as Southeast and East Asia, half or more of the countries send GVC-related exports to other countries within their region. Everywhere else, the vast majority of these exports are sent to countries in other regions.

5 1 1	2001-	<u> </u>					
High-income countries	2011	10	20	30	40	50	60
Europe and Central Asia	2001	10	20	20	40	50	60
Southeast and East Asia	2001	10	20	30	40	50	
Middle East and North Africa	2001	10	20	30	40	50	60
	2011 0 2001	10	20	30	40	50	60
West and Central Africa	2011 0	10	20	30	40	50	60
Eastern and Southern Africa	2001	10		20		50	
Latin America and the	2001	10	20	30	40	50	60
Canbbean	2001	10	20	30	40	50	60
South Asia	2011	10	20	30	40	50	60
			% of gross	exports			
	Extr	aregional GVC li	nks 🔳 Intro	aregional GVC l	inks		

Figure 2: GVC participation varies by region and income

Note: These figures show the combined GVC participation ratio. It combines information about the use of foreign goods and services as inputs into a country's exports as well as the intermediate goods and services firms supply for other countries' exports. The ratio is expressed as a share of gross exports. ⁹

Source: Kowalski et al. (2015), reproduced from Cusolito et al. (2016).

The spread of GVCs presents many opportunities for small firms – but also many challenges.

The next section examines this.

1.2: Opportunities and challenges for SMEs in GVCs

Limited credit access prevents SMEs from capitalizing on the benefits of GVC participation, including higher productivity, the opportunity to upgrade to higher valueadded production, and greater demand for products.

Participation in GVCs helps both firms and countries to develop. SMEs can leverage their relationships with large global buyers to access better financing terms. Big firms at the head of GVCs often provide suppliers with advanced training and equipment to ensure product quality. These transfers of skills and capital help suppliers become more competitive. They also help suppliers learn to produce more complex, lucrative goods.¹⁰ A recent study looked at the impact of GVCs on 13 sectors in 40 countries. The study spanned 15 years. The authors found that a 10 percent increase in GVC-related trade boosted labor productivity by almost 2 percent on average.¹¹ Preliminary results from a survey of farmers in Ghana, Kenya and Zambia suggest that GVC participation is positively correlated with labor productivity.¹² New research suggests that GVCs can spur industrial development. One study argued that GVC participation increases domestic value added and labor productivity regardless of how poor a country is.¹³ GVCs also have the potential to drive growth. In developing economies with the fastest growing GVC integration, GDP per capita growth rates are 2 percent higher than the average.¹⁴

Participation in GVCs helps both firms and countries to develop.



Lead firms increasingly expect their suppliers to meet sustainability standards before joining their value chain.

Some research argues that meeting standards improves a firm's financial performance.

Studies have argued that standardcompliant products benefit from higher demand. Lead firms increasingly expect their suppliers to meet sustainability standards before joining their value chain. A broad definition of sustainability standards is "... set[s] of criteria defining good social and environmental practices in an industry or product."¹⁵ Environmental standards, for example, might require supplier farms to meet sanitation requirements and ensure that food products are uncontaminated by pesticides or other hazards. Other standards might demand decent wages and working conditions for laborers. Many related studies focus on agricultural supply chains, because they tend to be relatively less complex than manufacturing supply chains.¹⁶Automobiles, for example, are assembled from tens of thousands of parts, making it difficult to track sustainability standards in the supply chain.¹⁷

1.2.1: Meeting international sustainability standards might make firms more competitive and improve life for workers

Some research argues that meeting standards improves a firm's financial performance. Yet there is always a degree of uncertainty about why. Do standards cause the improvements, or do high-performing firms choose to embrace standards? Although researchers try to control for firm characteristics to isolate the impact of standards, the question will remain. There is evidence that the cost of meeting standards is prohibitively high for some businesses. Other studies show that standards restrict trade between poor countries and rich countries. More research is needed on these questions, particularly in nonagricultural industries. This section reviews the debates and explores implications for SME financing.

There is evidence that standards make firms more competitive. For example, many European food retailers require their suppliers to meet standards set by the NGO GlobalGAP. This certification requires, among other things, that suppliers keep pollution to a minimum and ensure that farmhands are treated fairly. A study of fresh produce exporters in 10 Sub-Saharan African countries found that GlobalGAP-certified businesses had revenue that was roughly EUR 2.6 million higher than it would otherwise have been.¹⁸

Additional studies have argued that standard-compliant products benefit from higher demand. An analysis of the impact of pesticide residue regulations imposed by high-income economies belonging to the Organization for Economic Cooperation and Development found that while these standards imposed costs on poor country exporters, the costs were outweighed by stronger demand stemming from improved food safety.¹⁹ Meeting standards might also improve market access. In China, harmonizing one domestic standard with an international

standard was associated with an increase in agricultural exports ranging from 0.5 percent to 1.54 percent.²⁰ The International Organization for Standardization (ISO) is a private multi-stakeholder organization that develops norms for products, industries and sectors. A study of Chinese firms – most were involved in manufacturing – found that achieving ISO environmental certification helped firms secure bigger profits, market shares and per-worker sales volumes.²¹

Meeting standards might also force firms to upgrade their operations. A study of manufacturing firms in 59 countries looked at the impact of international quality and environmental certification. It found that certification boosted efficiency, leading to higher productivity and sales performance, with the largest gains found in countries with weak institutions.²² India's leather industry ultimately benefitted when Germany, a major importer, banned the use of Azo dyes and PCPs in leather production. The Indian government adjusted to the bans by outlawing imports and production of the same chemicals. India simultaneously cut tariffs on safer chemicals. Germany, meanwhile, helped India improve its research and development capabilities. The German development agency GTZ set up a state-of-the art leather testing and certification facility in India. Indian firms came up with better chemicals, and marketed them to their small suppliers. India was able to comply with the ban, and exports to Germany increased, even among small firms.²³ In Senegal, complying with European food standards spurred changes in the agricultural supply chain that reduced poverty and raised farmers' income.²⁴

Voluntary sustainability schemes such as fair trade and organic certification also can have a positive impact. A recent review of the evidence found that fair trade farmers typically receive higher prices for their goods, get better access to financing, and are more likely to use environmentally-friendly farming practices.²⁵ In Peru, fair trade-certified coffee farmers got substantially higher access to credit and larger loans by using fair trade delivery contracts as collateral.²⁶ Some evidence suggests that voluntary schemes can improve gender equality. Researchers studied the impact of fair trade, organic, and UTZ sustainable farming certification on smallholder coffee growers in Uganda. Women and men who participated in the schemes received training on coffee production and gender equity. The study found that certification reduced the probability that men alone controlled coffee revenues. Certified households saw higher income and consumption of nutritious food, which the authors partially attributed to improved gender equality.²⁷

Other voluntary sustainability standards aim to improve supply chains by increasing transparency. The Extractive Industries Transparency Initiative (EITI) standard covers oil, gas and mineral supply chains. Signatory countries must disclose information about each stage of the supply chain, including how revenues from extractive industries are used to benefit local communities. EITI governments

India's leather industry ultimately benefitted when Germany, a major importer, banned the use of Azo dyes and PCPs in leather production.

In Peru, fair tradecertified coffee farmers got substantially higher access to credit and larger loans by using fair trade delivery contracts as collateral. report on how much money they receive from extractive industry companies, and companies disclose how much they pay governments. Some research argues that EITI participation increases supply chain transparency and helps mitigate the spread of corruption in mineral-rich countries.²⁸ Another study found possible positive impacts on the quality of regulation as well as foreign direct investment, but no improvement in other governance and economic development metrics.²⁹

Complying with standards might make life better for workers. A recent study looked at how the ISO's management standards affected workers. Some of these standards have labor components, such as employee training and adherence to labor laws. The study found that certified firms pay higher wages and are more likely to offer formal contracts.³⁰ Employees of GVC suppliers also benefit from opportunities to get better access to the financial system by using formal bank accounts and digital payments. A randomized control trial in Bangladesh found that paying factory workers electronically instead of in cash increased their overall job satisfaction, likely due to the convenience and savings potential that formal bank accounts provide.³¹



1.2.2: A lack of credit, poor infrastructure and weak institutions make it harder for SMEs to join GVCs

Small firms, however, face a range of obstacles to realize the benefits of GVC participation. In 2013, the OECD and the World Trade Organization (WTO) surveyed lead firms and suppliers about the main barriers to entering value chains (Figure 3). Almost two-thirds of suppliers in low-income countries cited a lack of financing. Credit constraints was by far the biggest reported obstacle, possibly as an impact of the 2008 global financial crisis.³² This echoes empirical research showing that financially-constrained firms are significantly less likely to export, even after controlling for differences in firm size, age and industry.³³

Small firms, however, face a range of obstacles to realize the benefits of GVC participation.



The International Finance Corporation (IFC) estimated that SMEs in emerging countries suffer from a financing shortfall in excess of US \$2 trillion, reducing their ability to contribute to employment and economic growth.³⁵ The IFC estimates that up to 70 percent of formal SMEs in emerging economies are unserved or underserved by the formal financial sector (Map 1). SMEs have several characteristics that make them unappealing customers for commercial banks. Smaller firms, by their nature, are less likely than larger firms to have the collateral required for banks to make sound lending decisions. SMEs in emerging countries also typically lack formal credit histories, business plans, and other forms of documentation that banks require to assess credit risk.³⁶



Source: Stein, P., O. Pinar Ardic, and M. Hommes (2013).

Poor infrastructure and governance exacerbate the SME credit shortfall. In the OECD-WTO survey, more than a third of suppliers cited the business environment as a barrier to GVC participation, while an equivalent proportion cited costs and difficulties associated with transportation. In uncompetitive environments, banks hesitate to serve smaller customers such as SMEs. Financing constraints are also more severe in countries with weak rule of law and institutions,³⁸ because bankers are less likely to make risky loans if they believe courts will be unable to recover losses in a default. Another relevant finding for GVCs: Credit-squeezed firms in countries with weak legal standards likely face additional disadvantages when they try to enter foreign markets.³⁹ Corruption and complex regulations also contribute to the credit shortfall.⁴⁰ In addition to these obstacles, SMEs face added constraints in accessing green financing for sustainability upgrading. For example, banks lack data on SMEs' green financing needs and usually do not factor in environmental performance when assessing SME lending risks.⁴¹

The IFC estimates that up to 70 percent of women-owned SMEs in emerging countries are unserved or underserved by financial institutions.

Women-owned SMEs encounter even bigger obstacles. The IFC estimates that up to 70 percent of women-owned SMEs in emerging countries are unserved or underserved by financial institutions. That amounts to a global credit gap of US \$285 billion. On average, women-owned businesses are half the size of men-owned firms. Women also tend to specialize in less lucrative sectors, such as retail or food service. And women are less likely to own property or have savings. In addition, female entrepreneurs are constrained by nonfinancial factors, such as conservative cultural norms and expectations that women focus on household tasks.⁴²

1.2.3: Standards might impose costs on SMEs – and the credit gap makes it hard to meet those costs

The SME credit shortfall weakens the ability of firms to comply with international sustainability standards. As noted earlier, some research suggests that complying with standards makes firms more competitive. But another body of evidence shows that standards impose costs on firms – and such expenses can be especially burdensome for SMEs. The OECD-WTO survey found that about 15 percent of suppliers in emerging countries viewed meeting standards as a barrier to entering supply chains; among lead firms, the share was 25 percent.

Complying with environmental standards, for example, often requires firms to perform complex and expensive procedures, such as detecting or determining the absence of biological or chemical risks in food products. Safer waste management and better, more efficient machinery might require investments that SMEs cannot afford. And it is important to remember that these are not always one-time expenses: Firms must make ongoing investments in things like technology and staff to ensure standards are maintained.

In Bangladesh, fish exporters had to upgrade fish processing facilities and product testing laboratories in the 1990s to comply with U.S. and EU standards. The cost was equivalent to 2.3 percent of the total value of the country's shrimp exports, while the cost of maintaining the upgraded facilities was equivalent to 1.1 percent of exports.⁴³ Using firm-level data from manufacturing and agricultural firms in 16 emerging countries, researchers estimated the fixed cost of standards compliance for one year at about US \$425,000 per firm, mostly due to higher spending on labor and capital.⁴⁴ Voluntary sustainability certification also imposes high costs, often due to the audits needed to document ongoing compliance. A study of UTZ and Fairtrade certification in Kenya estimated that the annual costs were between EUR 700 and EUR 1,200.⁴⁵

There is also evidence that standards restrict exports from emerging countries, with smaller firms suffering the most.⁴⁶ European standards that were not harmonized with international norms were found to impose costs and reduce exports from African clothing and textile manufacturers.⁴⁷ Firms in emerging

The SME credit shortfall weakens the ability of firms to comply with international sustainability standards. countries often lack knowledge about standards, which often vary from country to country, making compliance more difficult. At the same time, receiving outside financial and technical assistance has been shown to increase firms' ability to satisfy standards.⁴⁸

Despite the challenges of meeting standards, producers pay the overwhelming majority of costs involved in sustainability upgrading. Data from the International Trade Center suggests that producers alone shoulder two-thirds of implementation costs and more than half of certification costs for voluntary sustainability standards certification. They also get some financial assistance from supply chain partners that contribute towards implementation and certification costs (figure 4).

All this points to a clear need for quality, affordable financing to help firms upgrade their sustainability performance and access the benefits of GVC participation. This need is becoming even greater. As the next section demonstrates, international standards are becoming more widespread as businesses and customers increasingly demand sustainably produced products.



International standards are becoming more widespread as businesses and customers increasingly demand sustainably produced products.

1.3: The increasing relevance of social and environmental standards in GVCs

SMEs need financing to meet a growing array of sustainability standards as consumers and businesses increasingly demand sustainably produced products.

1.3.1: Overview of sustainability standards in GVCs

Multiple sets of standards – public and private, mandatory and voluntary – exist to build sustainability in global value chains.

Social and environmental standards – also known as sustainability standards – have proliferated in recent years. There are both public and private sustainability standards. National governments or intergovernmental organizations introduce public standards, while civil society organizations, individual firms, and industry associations implement private standards.⁵⁰ As indicated in figure 5, a further distinction between standards is voluntary and involuntary.

Governments use regulations to protect the safety and health of their citizens as well as the environment by imposing restrictions on businesses. Examples include emissions standards in the automobile industry, and restrictions on pesticide use in food production. National laws are often based on international declarations

Social and environmental
standards – also
known as sustainability
standards – have
proliferated in recent
years.

	public	private
mandatory	regulations	legally-mandated private standards
	• example: emission standards (e.g. Euro 6, US Clean Air Act)	• example: reference to ISO 9000 in EU Directive on CE marking
	• origin: national governments, national standard-setting bodies	 origin: Voluntary Sustainability Standards & national governments
voluntary	public voluntary standards	private voluntary standards
	• example: ILO Tripartite Declaration of Principles concerning Multinational Enterprises and Social Policy	• example: Voluntary sustainability standards (e.g. Fairtrade, GlobalGAP.), CSR, ISO 26000.
	• origin: national standard-setting bodies, intergovernmental organizations, international initiatives, etc.	• origin: industry associations, CSR of individual firms, multi-stakeholder initiatives of civil society/ firms.

Figure 5: Classification of sustainability standards⁵¹

and agreements among intergovernmental bodies where global issues – most prominently climate change, decent work, and trade – are tackled.

Intergovernmental agreements have established a range of voluntary sustainability guidelines:

- The International Labor Organization's (ILO) principles on multinational enterprises and social policy call on businesses to offer the best possible wages, benefits and working conditions to employees in developing economies. The principles also urge governments and multinationals to respect collective bargaining rights and work together to ensure safe workplaces.
- The OECD's Guidelines for Multinational Enterprises were adopted by 42 governments in 2011. In addition to stressing fair labor practices, the guidelines encourage businesses to develop sustainable products and improve the environmental performance within their supply chains.
- The UN's Guiding Principles on Business and Human Rights assert that businesses have a responsibility to identify, mitigate, redress and prevent abuses that are directly linked to their business practices, either directly or through partners such as suppliers.
- The UN's Principles for Responsible Investment encourage investors to incorporate environmental, social, and governance considerations into investment decisions, while seeking sustainability-related disclosures from the entities they invest in.
- The Paris Agreement on climate change, which includes binding and nonbinding provisions, calls on governments to direct "finance flows" towards efforts to curb greenhouse gas emissions and climate change.

Private standards have emerged mainly as a reaction to globalization. Standardization became necessary as production became fragmented across countries. Initially, private standards focused on the compatibility and quality of products. The ISO did much of this work. More recently, the ISO has addressed sustainability issues. Issued in 2010, the ISO 26000 standard offers guidance on social responsibility in business conduct. It encourages businesses to uphold human rights, respect the environment, and follow good labor practices. In addition, most GVC lead firms have their own private supplier sustainability standards.

Civil society organizations started multi-stakeholder initiatives such as Fairtrade to increase transparency in global trade by labelling products that comply with established sustainability criteria, including decent wages and adherence to sustainable environmental practices. Such voluntary standards define sustainability practices and audit participating producers and firms through verification or third-party certification. Voluntary sustainability standards operate on the premise that any and all actors should adopt the standard. They generally apply to entire markets and across national borders.⁵² Yet the proliferation of standards also poses challenges. There is now competition for market share among the various standards schemes. This competition makes standards less interoperable and may lead to weaker sustainability requirements. The lack of harmonization also creates costs for SMEs, which might have to meet multiple different certifications if they want to sell to more than one buyer.⁵³

Many multinational firms participate in voluntary sustainability reporting through platforms like the Global Reporting Initiative (GRI). The GRI helps companies identify and disclose information about their impact on the environment, workers, corruption and other sustainability concerns. Such reporting can boost a company's image. But companies also see sustainability reporting as something that can help their business. It reduces uncertainties and lowers the probability of interruptions in the supply chain. A preliminary study of GRI data found that among multinational businesses producing consumer durables, two-thirds participate in voluntary sustainability reporting. The share sinks to about 50 percent for multinationals in textiles, apparel, mining, and energy.⁵⁴





1.3.2: Public pressure, rising demand, and business concerns push firms to address sustainability

Sustainability is a rising business concern as the media, civil society, investors and the general public demand reforms and seek sustainably-produced goods.

Abuses in GVCs highlight the continued importance of sustainability standards. *pportance*Companies linked to GVCs have been found to subject workers to forced overtime, sexual harassment, minimum wage violations and child labor. They also have been responsible for environmental degradation and pollution. Some companies exposed workers to toxic substances and dumped dangerous waste in environmentally sensitive areas.⁵⁵ Corporate greenhouse gas emissions are also overwhelmingly concentrated in value chains, not the head offices.⁵⁶

Recent high-profile tragedies have spurred calls for reform within GVCs. In April 2013, the collapse of the Rana Plaza factory building in Dhaka killed 1,136 workers and injured many more. With support from the ILO and IFC, the government of Bangladesh subsequently ramped up safety inspections, leading to the closure of dozens of factories. Bangladesh also raised the minimum wage and eased restrictions on registering trade unions, although the ILO continues to call for stronger regulations to encourage collective bargaining.⁵⁷

In 2014, Germany's Ministry for Economic Cooperation and Development (BMZ) launched the Partnership for Sustainable Textiles, which is aimed at improving the supply chain by promoting cooperation among industry, retailers, trade unions and civil society. The multi-stakeholder initiative has roughly 150 members. In addition to German ministries, NGOs, trade unions and standard organizations, a large number of the members come from companies and associations that together generate around half of Germany's retail trade turnover in the textile sector. A first significant success was reached when, in the first quarter of 2017, the members handed in a detailed analysis of their sustainability efforts – based on jointly defined indicators – and committed to implement individual sustainability measures and goals for 2017. An independent third party reviews these so-called "road maps."

Voluntary sustainability standards are also becoming more prominent in emerging economies. Between 2010 and 2015, more than a third of new voluntary sustainability standards were introduced in non-OECD economies, including Brazil, Colombia, India, Kenya and South Africa. The typical country has about 33 sustainability-related standards, and the largest number prevails in the EU, at 106⁵⁸

Abuses in GVCs highlight the continued importance of sustainability standards.

Voluntary sustainability standards are also becoming more prominent in emerging economies. Between 2010 and 2015, more than a third of new voluntary sustainability standards were introduced in non-OECD economies, including Brazil, Colombia, India, Kenya and South Africa. The spread of sustainability standards coincides with strong consumer demand for sustainable products. A Nielsen survey in 60 countries found that 55 percent of online shoppers are willing to pay more for goods and services that environmentally sensitive companies offer. Young people seem especially concerned about sustainability. In Asia-Pacific and the Middle East/Africa, millennials are three times more likely to support sustainable products than older people.⁵⁹ These responses, however, were hypothetical and may not completely reflect actual spending habits, especially at higher price points.

Sustainability is becoming a bigger priority for businesses as civil society and the media mobilize public opinion to demand reforms in GVCs. In the early 2000s, monitoring groups slammed Coca-Cola for using sugar produced with child labor in El Salvador. Coca-Cola responded with a set of guiding principles to curb abuses and ensure that its supply chain was sustainable. The government of El Salvador also passed laws to eradicate child labor, which dropped by 70 percent.⁶⁰ More recently, *The Washington Post* reported that cobalt mines in the Democratic Republic of Congo used child labor and polluted rivers. In response, Apple announced it would stop sourcing from the country's mines until it could verify that they complied with the company's own standards.⁶¹

In addition to pressure from the media and civil society, corporations are grappling with rising shareholder activism in support of sustainable practices. Despite objections from management, more than 60 percent of ExxonMobil's shareholders recently voted to call on the company to report on the financial impact of international agreements to curb greenhouse gasses. A Harvard Business School study found that the number of shareholder proposals addressing environmental, social and governance issues doubled from 1999 to 2013. About 40 percent of shareholder proposals now relate to such issues. During the same period, the share of votes supporting sustainability proposals nearly tripled, to 21 percent. Overall, the authors found that shareholder proposals often are associated with better corporate performance on sustainability.⁶²



A Nielsen survey in 60 countries found that 55 percent of online shoppers are willing to pay more for goods and services that environmentally sensitive companies offer.

A Harvard Business School study found that the number of shareholder proposals addressing environmental, social and governance issues doubled from 1999 to 2013. About 40 percent of shareholder proposals now relate to such issues. New research shows that firms with high sustainability investment get the most profitable returns on their stocks, even after controlling for firm characteristics such as investments in research and development, advertising and capital expenditures. There is growing evidence that sustainability is a smart business practice. New research shows that firms with high sustainability investment get the most profitable returns on their stocks, even after controlling for firm characteristics such as investments in research and development, advertising and capital expenditures.⁶³ A separate study compared the financial performance of firms that voluntarily disclose their carbon emissions to businesses that do not. The median market value of disclosing firms was roughly US \$2.3 billion higher. At the same time, firm value decreased by an average of US \$212,000 for each additional thousand metric tons of carbon emissions.⁶⁴

The positive link between firm performance and sustainability is one reason why executives are coming to see sustainability as a central business concern. A McKinsey & Company survey found that the share of CEOs citing sustainability as their top priority doubled between 2012 and 2014. At the same time, about a third of CEOs ranked sustainability among their top three concerns.⁶⁵ A separate survey of CEOs found that more than 91 percent agree that it is important for them to ensure the integrity of their supply chain.⁶⁶

GVC managers increasingly expect their suppliers to comply with sustainability standards. A survey of 500 supply chain experts at companies in Asia, Europe and North America found that two-thirds believe sustainability will play a bigger role in future supply chains. Several companies said they have begun investing in technologies to reduce greenhouse gas emissions, and they have severed relationships with supply chain partners that do not meet strict sustainability standards. Among companies that say sustainability is very important, more than 80 percent support collaborating with their partners to create a responsible supply chain. These business leaders offer several reasons for investing in supply chain sustainability, noting that it:

- Reduces the risk of environmental and social damage
- Manages the company's reputation and shareholder expectations
- Improves productivity and profits
- Enhances the corporate brand⁶⁷

As part of a joint World Economic Forum-World Bank Group project on sustainable business, the World Bank Group is studying how GVC lead firms view sustainability upgrading in value chains. Preliminary findings from Sub-Saharan Africa indicate that GVC lead firms see improved sustainability as good for efficiency, product quality, competitiveness and consumer appeal. But sustainability practices vary among firms. GVC lead firms are especially likely to support upgrading in countries with large consumer markets or 'conflict' commodities. In these countries, businesses focus on issues like promoting education, decent work, equal pay for women, and sustainable agriculture. In smaller countries and nations with fewer controversial commodities, businesses are less involved in sustainability upgrading. In these cases, it is particularly rare for businesses to be engaged in initiatives to stop climate change or raise wages.⁶⁸

The importance of sustainability is also evident in the rising share of companies involved in social responsibility projects. KPMG routinely surveys the 100 biggest companies in 45 countries about their corporate social responsibility reporting. In 2005, 41 percent of the companies issued corporate social responsibility reports. A decade later, that share jumped to 73 percent. Among the 250 biggest global firms, the share is even higher, at 92 percent. Companies in emerging countries are taking the lead: The world's highest reporting rates are found in India, Indonesia, Malaysia and South Africa, where reporting is mandatory. Regionally, corporate social responsibility reporting is most widespread in the Asia-Pacific, followed by the Americas and Europe.⁶⁹

The challenge for lead firms in GVCs is encouraging small firms to improve their standards, or providing these businesses with financial resources for upgrades. This is especially true in countries with weaker environmental and labor regulations, where small firms are less likely to face legal pressures to upgrade. Sustainability standards often entail large upfront investments in new production facilities. And these are not one-time expenses: Firms often incur ongoing costs to maintain higher standards over the long term. New machinery, for example, must be maintained. Documenting compliance with standards also requires investments. The next section discusses support programs, financing models and incentives that investors, lenders and buyers provide to help small firms access the funding they need to improve their labor and environmental standards.

The challenge for lead firms in GVCs is encouraging small firms to improve their standards, or providing these businesses with financial resources for upgrades.





Part 2

SME Financing Models for Sustainable Global Value Chains

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2.1: Overview of survey responses and findings

Although businesses voice support for sustainability, relatively few give their suppliers the financial support they need to improve social and environmental standards.

Part 1 demonstrated that a lack of financing helps prevent SMEs from upgrading their sustainability standards and joining global value chains. Now, however, public and private actors are starting to offer such financing. To take stock of the available financing options, the World Bank Group and German G20 Presidency launched an online survey for governments, businesses, financial institutions and IT platforms. We also conducted follow-up interviews with select respondents. An example survey is available in Appendix A. We received nearly 70 survey responses, with the majority coming from businesses and financial institutions in G20 economies, both high-income and emerging. The distribution of responses is shown in Figure 6, below.



More than two-thirds of businesses and financial services answered "yes" to a question about whether they offer financing or incentives to suppliers that meet sustainability standards. This reflects the private sector's growing focus on sustainability. However, the results must be treated with caution. Only a few respondents that answered "yes" provided information to substantiate their answer. Responses often covered vague corporate responsibility commitments and lacked detail about the financing or incentives offered for sustainability.

When financial institution respondents answered "yes" to the question about whether they offer financing or incentives to suppliers that meet sustainability standards, they were also asked about whether they link financing costs or interest rates to sustainable practices. Figure 7, below, shows that most answered "no." Similarly, businesses that answered "yes" to the question— whether they offer financing or incentives to suppliers that meet sustainability standards— were asked if they offer contractually-based incentives to improve sustainability standards. Only about 4 in 10 answered in the affirmative.

Although our survey was not random or representative, our findings echo the criticism that corporate sustainability commitments can be superficial. Most of the social and environmental threats posed by multinational business activities are concentrated in supply chains. As a result, offering suppliers financial support or other incentives is one of the most effective ways GVC lead firms can have an impact on sustainability. The remainder of Part 2 gives details of models used by public and private institutions to build sustainable supply chains.

Offering suppliers financial support or other incentives is one of the most effective ways GVC lead firms can have an impact on sustainability.

Figure 7: Most businesses and financial institutions say they offer financial services or incentives for sustainability upgrading – but few actually do



Figure 8: Financing costs not generally linked to sustainability performance

Of financial institutions answering "yes" to the question whether they offer financing or incentives to suppliers that meet sustainability standards, percent reporting whether they link costs/interest rates to sustainable processes





2.2: Governments and international development finance institutions

Governments can help SMEs join sustainable global value chains by establishing policies, offering affordable financing through development finance institutions, and helping commercial banks reduce the risk of SME lending.

More major global firms than ever are adopting their own sustainability standards. But the persistence of abuses in supply chains shows that voluntary solutions might be insufficient. Governments – including regulatory agencies – and international development finance institutions are enacting policies and promoting guidelines to curb abuses and encourage GVC lead firms to more actively manage sustainability in their supply chains. They are also offering financial and technical support to help SMEs upgrade their sustainability practices.

2.2.1: Rules and regulations

National regulators, including bank supervisors, encourage sustainability improvements by imposing minimum standards on loans to high-risk sectors like mining, manufacturing and agriculture. A degree of standardization in lending requirements brings clarity and contributes to institutional development at the country level. At the same time, it can make banks more accountable for the conduct of their borrowers.

Brazil uses several methods to regulate abuses in supply chains. Under the revised forest code, landowners who fail to list their property with the national anti-deforestation registry cannot get credit from financial institutions as of 2017. This comes on top of central bank regulations requiring agricultural producers in the Amazon region to meet environmental compliance standards to qualify for financing. A separate central bank regulation issued in 2014 requires financial institutions to identify, monitor, and mitigate socio-economic risks stemming from their operations.⁷⁰

More major global firms than ever are adopting their own sustainability standards. But the persistence of abuses in supply chains shows that voluntary solutions might be insufficient.

National regulators, including bank supervisors, encourage sustainability improvements by imposing minimum standards on loans to high-risk sectors like mining, manufacturing and agriculture.

2.2.2: Lines of credit to support SME lending

Given their importance to emerging economies, supporting SMEs is a big priority for international development agencies. Given their importance to emerging economies, supporting SMEs is a big priority for international development agencies. Emerging country banks are reluctant to lend to SMEs because they lack the information to gauge creditworthiness, such as accounts, collateral and credit histories. In addition, SMEs typically take out small loans.

With few exceptions, international development organizations usually do not lend directly to SMEs. Instead, they give loans to banks in emerging countries. In turn, these local banks provide credit to SMEs so they can invest in upgrading their production in line with sustainability standards. Development finance organizations typically require banks to meet established international sustainability standards to qualify for financial support. One such benchmark is the IFC's Performance Standards, which call on banks to identify and reduce environmental and social risks in their clients' operations. Requirements include preventing pollution, respecting biodiversity, promoting energy efficiency, and providing good working conditions.

- France has taken this approach. The French Development Agency AFD upholds the IFC's Performance Standards and other international benchmarks such as OECD guidelines on multinational businesses and ILO labor rules. In 2014, AFD offered a 20-million-euro line of credit to Turkey's Odeabank so it could finance investments in clean energy and energy efficiency by medium-sized Turkish firms.⁷¹
 - DEG, the German development finance institution, provides financing to SME via financial institutions and funds. All of DEG's clients are contractually obliged to install an Environmental and Social Management System (ESMS) to manage its portfolio. DEG monitors the implementation and supports with a targeted technical assistance program. One example of DEG's portfolio clients is Banco Promerica, a bank in El Salvador. DEG required and supported the bank to implement a formal ESMS. As part of the system, Banco Promerica had to assign staff to monitor sustainability in the bank portfolio. The bank was also required to refuse funding for socially and environmentally destructive projects, such as those involving child labor. Economically, the new system helped to reduce late loan payments and both the bank and its clients got better access to affordable loans from additional sources. Banco Proamerica is currently supporting two other banks to implement their ESMS. This case study is part of a wider DEG evaluation.⁷²
The Industrial Development Bank of Turkey uses its own assessment system to gauge the social and environmental impacts of its lending. It routinely monitors firms' compliance with sustainability requirements and has a list of activities it refuses to underwrite, such as logging operations in rain forests, the arms trade, and anything involving forced labor. In partnership with the IFC, the bank has funded projects to improve energy efficiency and curb pollution.⁷³

The Industrial Development Bank of Turkey uses its own assessment system to gauge the social and environmental impacts of its lending. In partnership with the International Finance Corporation, the bank has funded projects to improve energy efficiency and curb pollution.

With its Sustainable Energy Finance program, the IFC offers banks credit and technical assistance to spur investments in clean energy. The IFC gave funding to Peru's BBVA bank to support lending to SMEs interested in energy efficiency and hydropower projects.

2.2.3: Direct loans

A limited number of international development finance institutions lend directly to SMEs. Some of these loans are relevant for SMEs looking to improve their sustainability performance and join global value chains. However, direct SME loans account for only a small share of international development finance lending.

Over the last decade, the Inter-American Investment Corporation (IIC) provided about US \$219 million in direct SME financing. Its FINPYME Credit program offers loans ranging from US \$100,000 to US \$600,000, with a median fixed interest rate of 7.6 percent and terms ranging from three to seven years. The loans can be used to meet short-term needs as well as long-term investments in equipment. SMEs from all industries, including manufacturing and agriculture, are encouraged to apply. Preference is given to companies whose operations have no negative environmental impact. IIC also offers SMEs technical assistance to improve energy efficiency and achieve standards certification. To better meet the needs of SMEs, some loans are offered without collateral. A recent impact evaluation found that most FINPYME Credit program recipients reported the loan helped them access credit from new sources at better interest rates than before. Most beneficiaries also reported increased sales. Yet the impact evaluation added that the results could not necessarily be attributed to the FINPYME program. The evaluation

also found that direct SME lending was not financially sustainable for IIC, because money earned from the loans failed to cover the cost of lending.⁷⁴

The Inter-American Investment Corporation (IIC) provides direct SME financing to meet short-term needs and long-term investments in equipment. Preference is given to companies whose operations have no negative environmental impact and IIC offers SMEs technical assistance to improve energy efficiency and achieve standards certification.

The African Agriculture Trade Investment Fund (AATIF) offers direct financing to cooperatives, commercial farms and processing companies. Its goal is to help African Farmers increase their income, employment, food security, and integration into the value chain. Loans are on the high side for SMEs, usually ranging from US \$5 million to US \$15 million, and they carry terms of up to 12 years. To qualify for financing, borrowers are expected to comply with the AATIF's social and environmental guidelines, which ban forced labor, commercial logging in environmentally sensitive forests, and projects leading to forced resettlement. The AATIF is backed by international development agencies such as Germany's KfW and BMZ. The ILO monitors compliance with labor standards in AATIF-funded projects, both before and after loans are issued.

The Better Work program is another example of international agencies partnering to improve global value chain sustainability through a mix of financing and technical assistance (see box 1).



Box 1: The Better Work Program: Building Sustainability in the Global Garment Value Chain

The ILO and IFC Better Work program aims to improve the global apparel industry's working conditions and competitiveness. Better Work currently operates in almost 1,500 factories employing nearly 2 million workers in Bangladesh, Cambodia, Haiti, Indonesia, Jordan, Nicaragua and Vietnam. The ILO advises factories on how to respect labor rights, while the IFC provides direct loans and supply chain financing to help factories buy safer and more energy-efficient equipment. Better financing terms are offered to factories with good social and environmental indicators.

A Tufts University study found that the program has significantly improved factory employees' work environment. Workers said they earned higher wages and were less likely to be yelled at or otherwise abused by their supervisors after their factories joined Better Work. As a result, workers were better able to support their families. During Better Work's first year in Indonesia, about four in 10 workers reported sending money to relatives. That number nearly doubled by the third year. The program delivered notable gains for women via more equal pay and less harassment. In Jordan, reports of sexual harassment dropped by nearly a fifth.

Workers were not the only ones to benefit. Improved employee morale resulted in higher productivity and earnings for the factories. Better Work factories in Vietnam increased their productivity by 22 percent over the course of the program, and workers hit their production targets 1 hour and 18 minutes sooner than before the program. In Indonesia, Better Work training for female supervisors boosted productivity by more than a fifth.

Participating businesses also improved their position in the global garment value chain. Factory managers in all countries said joining Better Work helped them receive larger orders from buyers. Satisfying Better Work's sustainability criteria also improves a company's reputation. In Vietnam, factories said they were less likely to face audits from other customers after receiving positive Better Work compliance assessments.⁷⁵

The ILO and IFC want to build on these successes. Over the next five years, they plan to open Better Work offices in new countries and serve millions more workers.

2.2.4: Risk mitigation services

Development finance institutions use various tools to lower the risks of SME lending for commercial banks, resulting in increased credit access for SMEs. Part 1 of this paper noted that commercial banks tend to see SMEs as risky customers. Development finance institutions use various tools to lower the risks of SME lending for commercial banks, resulting in increased credit access for SMEs.

- BNP Paribas signed a 50-50 risk sharing agreement with the African Development Bank (AfDB) in 2014. The agreement saw BNP Paribas and AfDB use their superior credit to send up to EUR 500 million worth of trade financing to agribusinesses and manufacturers. The main beneficiaries were intended to be SMEs and indigenous African firms.⁷⁶
- Loan guarantees are one method for spurring private SME lending. For example, commercial lenders are often hesitant to underwrite sustainable energy investments by SMEs. They lack the knowledge to assess climate change risk across regions or sectors. Private lenders also see little collateral value in equipment used for energy efficiency upgrades. Government-backed guarantees can facilitate lending in these situations by lowering risk for banks.⁷⁷ The IFC has provided bank guarantees for energy-efficiency loans and technical assistance in China since 2006. The CHUEE SME risk-sharing program has helped Chinese banks lend more than US \$625 million and build green portfolios of more than US \$170 billion. Public-private cofounding agreements could also facilitate provision of credit.
- The International Development Association (IDA), the World Bank lender that works with the world's poorest countries, recently launched a US \$2.5 billion private-sector window, including a designated SME guarantee facility. One of the goals is to use blended finance funding from the private sector as well as philanthropies to channel funds to credit-constrained SMEs along the agriculture supply chain. An example of a project that the new private sector window might support is the Global Agriculture and Food Security Program, which was set up by international lenders to fulfill G20 pledges to improve food security. Worth US \$308 million, this program offers loans, risk-sharing facilities, partial credit guarantees, equity and other services to agricultural suppliers in countries threatened by food insecurity.⁷⁸

2.3: Investors and lenders

Investment funds and commercial banks have started offering better access to financing to businesses that meet sustainability standards.

2.3.1: Investment funds: Direct loans and equity

Growing public interest in sustainability is reflected in the emergence of sustainability-oriented investment funds. These funds pool money from many people so they can benefit from investing as a group, including better terms and higher potential returns. An investment manager takes the money and invests it based on the group's goals. For example, environmentally-conscious investors might seek out an investment fund that backs clean energy technologies. Some investment firms lend to SMEs. Others provide equity – up-front funding in exchange for a share of future profits – including early-stage financing to facilitate initial investments in sustainable production.

Investors increasingly expect companies to disclose information about their exposure to social and environmental risk. BlackRock – the world's largest asset manager, with US \$5.4 trillion under its purview – announced that it will ratchet up pressure on companies to reveal how climate change could affect their businesses.⁷⁹ Making these disclosures public and transparent would help other investors make informed choices. Media reports suggested that BlackRock and other major fund managers – including Vanguard and State Street – joined the New York and California state pension funds in voting for an ExxonMobil shareholder resolution demanding greater disclosure of climate-related risks.⁸⁰



Growing public interest in sustainability is reflected in the emergence of sustainability-oriented investment funds.

BlackRock – the world's largest asset manager, with US \$5.4 trillion under its purview – announced that it will ratchet up pressure on companies to reveal how climate change could affect their businesses. This push for transparency followed a report by the G20's Financial Stability Board setting guidelines for financial disclosure of climate-related risks and opportunities. The report warned that sudden changes in energy consumption, or new regulations aimed at curbing climate change, could have a significant business impact. Extreme weather also threatens to disrupt business operations. Although regulations in many countries already require some degree of reporting on climate risks, increased transparency would be good for sustainability. If companies reveal information about their vulnerability to climate change, it will be easier for investors to find green investment opportunities. Climate disclosures will also put financial pressure on companies to mitigate their environmental impact.⁸¹

At the regional level, the European Commission has appointed a high-level expert group to develop an EU strategy to promote sustainable finance. The group – which consists of experts from academia, civil society, and the financial sector – is charged with proposing ways to facilitate capital flows toward sustainable investments, safeguard financial stability against environmental risks, and promote sustainable financial policies across the EU.⁸² Although the group's final report will not be published until December 2017, early recommendations include strengthening sustainability reporting requirements, and enhancing the role of regulators in assessing sustainability-related risks.⁸³

The growing enthusiasm for sustainable investments presents opportunities for lead firms and SMEs. This section reviews some of the different types of investment funds that provide financing to improve environmental and social standards in global value chains.

Private investment funds bring together small groups of highly wealthy investors. Switzerland-based responsAbility Investments is an example of a private investment fund that finances businesses run by low-income people. The company -- which has more than US \$3 billion worth of assets under management from about 20,00 investors -- also invests in SMEs participating in global value chains. In agricultural value chains, responsAbility backs producers' organizations or processing companies that provide decent wages and working conditions and use environmentally-friendly farming practices. ResponsAbility also provides funding to financial institutions to support lending to SMEs for energy-efficiency projects. Through a combination of debt financing, equity investments, and technical assistance, responsAbility also supports small businesses looking to lower their impact on climate change by reducing greenhouse gas emissions.⁸⁴

Institutional investors pool investments from a large group of people. Pension funds, for example, make investments using the retirement savings of employees at a given company or institution. Foundations are another example. Institutional investors place a growing emphasis on sustainable businesses. According to Moody's, investment is surging in businesses that have endorsed the UN's Principles for Responsible Investment. As of April 2016, these firms managed US \$62 trillion in assets – roughly triple the share in 2010.⁸⁵ An example of a sustainability-oriented institutional investor is the pension fund for public employees in the U.S. state of California (see box 2).

Box 2: California Invests in Lower Carbon Emissions

Investors in the United States are putting more money into socially responsible enterprises and funds that seek to have a positive social impact, such as mitigating climate change, including along businesses' supply chains. Between 2014 and 2016, investments in sustainable, responsible, and impact investing increased by roughly a third, reaching US \$8.72 trillion.⁸⁶ The California teachers' pension fund, which totals more than US \$200 billion, recently invested US \$2.5 billion in an index composed of businesses with low greenhouse gas emissions.⁸⁷

Nonprofit organizations operate investment funds that offer lowcost financing to credit-starved businesses that can have a positive social impact, such as fair trade producers and organic farming cooperatives. Their operations tend to be modest compared to private investment funds. Although the nonprofit funds usually charge interest on their loans, their rates are supposed to be much cheaper than the alternatives offered by commercial banks, and they typically work with people who are not served by the traditional banking system. Nonprofit organizations also help big companies disburse financing to improve their value chain's sustainability practices. Root Capital is an example (see box 3). According to Moody's, investment is surging in businesses that have endorsed the UN's Principles for Responsible Investment. As of April 2016, these firms managed US \$62 trillion in assets – roughly triple the share in 2010.

Box 3: Root Capital: Supporting Small Farmers in Global Value Chains

Root Capital is a U.S.-based social investment fund. Since 1999, it has provided credit and financial management training to agricultural SMEs in emerging economies, primarily in Sub-Saharan Africa and Latin America. As a nonprofit organization, Root Capital relies on donor support to cover costs. The group has received backing from international agencies including the U.S. Overseas Private Investment Corporation (OPIC) and the German development lender KfW. Root Capital customers, like other small businesses, are often unable to secure credit from commercial banks.

The nonprofit offers loans ranging from US \$50,000 to US \$2 million. Its short-term loans carry terms of up to one year. Businesses typically use the loans for working capital to buy products from the farmers who supply them. Root Capital also provides long-term loans lasting up to five years. Borrowers use these loans to invest in better equipment and infrastructure. In 2016, Root Capital loaned 288 businesses worldwide US \$117.5 million.

Before lending, Root Capital screens applicants against a set of labor and environmental standards. Many of its clients specialize in fair trade and organic production. Using a set of scorecards, Root Capital compares applicants' sustainability performance with prevailing norms in the industry and region. Applicants are more likely to qualify for loans if they pay employees competitive wages, offer good benefits, include women in their management, and use organic products and clean energy. Root Capital also offers advisory services to help noncompliant applicants upgrade their operations.

Root Capital's services help integrate SMEs into sustainable global value chains. Its borrowers serve more than 120 major global buyers, including Starbucks, Whole Foods and General Mills. Companies also partner with Root Capital to finance improved sustainability in their value chains. Starbucks, for example, has distributed loans through Root Capital to help coffee farmers adapt to climate change. Root Capital charges about 10 percent interest on the loans and returns about 1 percent to 3 percent of the investment value to Starbucks.⁸⁸

2.3.2: Commercial lenders: Direct loans

In recent years a small number of commercial banks have started to offer lower rates to firms with high sustainability performance. Commercial banks are also incorporating sustainability into their lending decisions amid pressure from regulators as well as the public, and emerging evidence linking profitability and sustainability.

- Brazil's Banco Votorantim offers better financing terms to clients that maintain high social and environmental standards. Using its own procedures, Banco Votorantim rates borrowers based on their environmental and labor performance. It monitors sustainability performance through yearly renewals of borrowers' credit limits. Borrowers with better ratings qualify for lower interest rates and higher credit limits. The bank also reserves the right to suspend credit to borrowers who flout agreed standards or participate in banned activities such as slave labor or environmental destruction.
- Sri Lanka's Commercial Bank of Ceylon recently launched "green development loans" worth up to US \$165,000. Aimed at SMEs, the loans are available at below-market rates and repayable over seven years with a grace period of one year. Eligible applicants include SMEs which aim to reduce energy consumption by at least 10 percent, and SMEs that are shouldering expenses to comply with environmental standards.

2.3.3: Sustainable stock market indices

Companies that respect labor rights and the environment have wider opportunities to raise funds through the stock market. A growing number of stock exchanges offer sustainability indices where companies can be listed based on their performance on social, environmental and governance indicators. These indices inform socially conscious investors about a company's sustainability performance. By linking a company's value with their sustainability performance, they also provide a strong incentive for businesses to adopt socially responsible business practices. Higher stock prices can encourage multinational companies to improve sustainable standards throughout their supply chain. Globally, 58 stock exchanges with a market capitalization of more than US \$55 trillion have publicly committed to advancing sustainability.⁸⁹

The Johannesburg stock exchange launched one of the first sustainability indices in 2004. Other emerging economies have followed. The Sao Paolo stock exchange unveiled its corporate sustainability index in 2005 with the support of the IFC. Participants are selected based on a company's commitment to labor rights and In recent years a small number of commercial banks have started to offer lower rates to firms with high sustainability performance. Commercial banks are also incorporating sustainability into their lending decisions amid pressure from regulators as well as the public, and emerging evidence linking profitability and sustainability.

Companies that respect labor rights and the environment have wider opportunities to raise funds through the stock market.

Globally, 58 stock exchanges with a market capitalization of more than US \$55 trillion have publicly committed to advancing sustainability. environmental standards. Transparency about social and environmental impacts are also considered. Companies that violate the sustainability criteria can be expelled from the index.⁹⁰ The index covered 80 firms as of 2016.

In 2014, the Istanbul stock exchange set up a sustainability index in cooperation with Ethical Investment Research Services Limited (EIRIS), a London firm that provides environmental, social and governance research to investors and corporations. EIRIS screens dozens of the largest companies on the Istanbul exchange against sustainability criteria, and adds the strongest performers to the sustainability index. The criteria cover respect for the environment, health and safety standards, and responsible supply chain management. For example, EIRIS examines whether companies require their suppliers to meet ILO standards governing collective bargaining rights and a prohibition against child or forced labor. Companies receive a higher score if they have specific policies for reducing their impact on climate change.⁹¹ As of 2017, the index includes 42 eligible firms.

To raise money for development projects, the World Bank recently issued bonds linked to the stock performance of an index of companies that advance the UN's Sustainable Development Goals. The index consists of 50 companies that devote at least one fifth of their activities to sustainable products, or are considered sustainability leaders in their respective industries. The Vigeo Eiris' Equitics rating service designed the index's methodology. Issued in the spring of 2017, the bonds raised EUR 163 million from institutional investors in France and Italy.



2.4: Businesses and buyers

SMEs can access financing for sustainability upgrades through large global buyers and civil society groups that advocate for improvements in supply chains.

2.4.1: Working capital models

Working capital is short-term financing designed to help businesses meet dayto-day expenses. When suppliers deliver an order to a GVC lead firm, they often need to wait 30 days to 90 days to get paid. The long wait strains the supplier's business operations and hinders long-term investments. Smaller suppliers lack the collateral and credit history to get affordable working capital from commercial banks. But suppliers can take advantage of their relationships with major global businesses, like big fashion retailers, to get access to working capital. The rise of financial technology, or fintech, is making the process quicker and easier than it used to be. Although working capital is not designed to underwrite long-term sustainability investments, it can provide an incentive for suppliers to improve their standards.

- Supply chain finance is a powerful tool for suppliers to access working capital. Under this arrangement, a supplier serves an order to a lead firm, and records the outstanding payment balance as "accounts receivable." A supplier then sells its accounts receivables to a third-party bank or financial institution – called a "factor" – at a discount. In return, the factor immediately pays the supplier cash, typically the value of the receivable minus interest and service fees. After paying a supplier, the factor collects the full cost of the order from the global buyer.⁹²
- In traditional factoring arrangements, the supplier initiates the transaction by posting its own receivable. In supply chain finance, an important difference is that the receivable is posted by the buyer, which reduces the risk of fraud. Another difference is that supply chain financiers only purchase receivables from high-quality buyers, such as GVC lead firms. This means the factor only needs to assess the credit risk of a few big firms, rather than the supplier's complete portfolio of buyer relationships. Supply chain finance is a major business. According to one estimate, there is US \$2 trillion in financeable highly secure payables globally, with a potential revenue pool of \$20 billion. Revenue grew by 20 percent annually between 2010 and 2015.⁹³

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Supply chain finance is a powerful tool for suppliers to access working capital.

- Supply chain finance is important for SMEs that serve as suppliers to a large global buyer: These suppliers often are strapped for cash, because they typically must wait up to 90 days to be paid. These arrangements allow smaller suppliers to get access to funding that can be used as working capital even if they lack collateral or a credit history. Supply chain finance is not a loan and there are no additional liabilities on the supplier's balance sheet. Moreover, the supplier benefits from the global buyer's strong credit standing.
- Supply chain finance transactions can be difficult to execute because they involve complex contracts and lots of paperwork. But fintech is making the process simpler, and some transactions can be processed almost instantly via software-based platforms. Fintech supply chain financier Tungsten reports that eight in 10 of its customers are SMEs,⁹⁴ and fintech now accounts for up to 15 percent of the global supply chain finance market.⁹⁵ Over time, suppliers can qualify for better terms as fintech firms collect data on their payment history.⁹⁶
- Major global buyers have started offering better supply chain financing terms to their suppliers in exchange for meeting higher sustainability standards. German footwear and clothing manufacturer Puma recently launched such an arrangement with BNP Paribas bank and the fintech firm GT Nexus. If suppliers get a high score on Puma's social and environmental audit, they get a higher share of the invoice upfront. There is evidence that these types of incentives can motivate suppliers to improve their sustainability standards (see box 4).



Box 4: Supply Chain Financing for Higher Sustainability in Pakistan

U.S. clothing company Levi Strauss & Co. facilitates supply chain financing for some of its suppliers through the IFC's Global Trade Supplier Finance program. By offering lower interest rates tied to a supplier's performance on Levi's environmental, labor, health and safety standards, the company provides a strong incentive for suppliers to upgrade their sustainability practices. US Apparel & Textiles – a supplier based in Pakistan – enrolled in the program in January 2015. The company invested in its factories to qualify for better financing. For example, US Apparel spent US \$950,000 on a new wastewater treatment plant to curb pollution from its operations. The company also installed solar panels so it could power factories without dirty fossil fuels. Workers were trained on safe workplace practices to reduce health risks. As a result of these and other upgrades, US Apparel cut its financing fees by US \$40,000 annually. Overall, US Apparel's cost of getting working capital has shrunk by 10 percent per year, and the company is paid on average 55 days sooner than it was previously.⁹⁷

- In addition to financing, some global buyers provide technical assistance to help suppliers meet labor and environmental standards. The existence of multiple overlapping sets of standards across firms and countries raises the costs of compliance for SMEs. Technical assistance from buyers can ease the burden.
 - IKEA's guidelines require suppliers to submit an annual report on efforts to curb their environmental impact. All workers must receive at least the minimum wage and be covered by accident insurance.⁹⁸ There are consequences for violating the standards. In 2007, IKEA cancelled contracts with more than 50 suppliers for falling short on product quality or sustainability. The Swedish furniture manufacturer provides both technical and financial assistance to help suppliers meet their standards. For example, the company offers support designing and building energyefficient factories, as well as advice on selecting suitable equipment and machinery. IKEA also facilitates knowledge sharing between its suppliers, and invites suppliers to visit IKEA's own production facilities. In addition, IKEA provides favorable loans to finance capital investments such as factory improvements. The company also offers up-front payments to help suppliers purchase raw materials they need to satisfy orders. In 2008, these financing tools were used to supply 10 percent to 15 percent of IKEA's production in China.99

Tchibo is a German wholesale retailer. In addition to coffee, the company sells a broad variety of non-food consumer goods. With its most important suppliers, Tchibo signs contracts that include provide long-term cooperation as well as a framework for qualification and sustainability. The company conducts initial factory audits to ensure suppliers are complying with minimum social and environmental requirements. To further develop the regular factories, Tchibo runs training programs with suppliers in 10 countries. The training aims to promote dialogue between workers and managers, as well as suppliers and buyers. The moderated dialogue between the different stakeholders enables a changemanagement process addressing human rights and environmental issues, such as decent working conditions and workers' empowerment. Training also cover issues related to quality and efficiency.¹⁰⁰

2.4.2: Access to term credit and technical assistance through sustainability platforms

Suppliers can access financing through sustainability platforms - such as NGOs focused on improving value chains for certain commodities, including the Environmental Defense Fund and Fairtrade International. International development agencies give money to some of these platforms to help poor farmers defray the costs of upgrading their standards. Sustainability platforms often pair financing with technical assistance to help suppliers improve their business operations. There is evidence that firms in emerging countries suffer from a lack of technical expertise.¹⁰¹ Training, however, can lead to better performance. For example, researchers partnered with a global consulting firm to see if management advice would make a difference for manufacturing firms in India. Most of the firms had about 270 employees and annual sales of approximately US \$7.5 million. Firms that received consulting services for four months cut quality defects by 50 percent, increased productivity by more than 16 percent, and saw annual profits grow by about US \$325,000 annually.¹⁰² A study of 852 small firms in South Africa found that intensive 10-week courses in finance and marketing skills resulted in higher sales, profits and employment.¹⁰³

There is evidence that firms in emerging countries suffer from a lack of technical expertise. A study of 852 small firms in South Africa found that intensive 10-week courses in finance and marketing skills resulted in higher sales, profits and employment.

Suppliers can access financing through sustainability platforms – such as NGOs focused on improving value chains for certain commodities, including the Environmental Defense Fund and Fairtrade International.

- The Environmental Defense Fund (EDF) is an NGO that advises major companies on how to make their supply chains more sustainable. EDF's collaboration with Walmart takes on many dimensions. EDF experts visit Walmart suppliers in China and recommend ways to make factories more efficient. In the agricultural supply chain, EDF helps Walmart suppliers reduce greenhouse gas emissions from fertilizers. The organization also helped Walmart start an investment fund that gives preferable loans to help companies build recycling infrastructure. EDF estimates that from 2005-2015 Walmart's emissions reductions were equivalent to taking almost six million cars off the road.¹⁰⁴
- Fairtrade International is a sustainability platform that offers financial and technical assistance to suppliers of coffee and other commodities. Buyers of fair trade coffee are required to pay suppliers a price high enough to cover the costs of sustainable production, such as environmentally friendly fertilizers, efficient water use, and decent working conditions. On top of the price, buyers pay an additional premium into a fund that suppliers can use to invest in better social, economic or environmental conditions. With support from the German development agency KfW and the U.S. Overseas Private Investment Corporation, Fairtrade International offers low-cost financing to credit-strapped farmers. The Fairtrade Access Fund provides short-term loans - both working capital and term finance of up to one year - to cover harvest expenses such as seeds, labor costs and fertilizer. The fund also offers long-term loans – from one to five years – for farm equipment, new facilities, and the costs of meeting fair trade certification. Loan amounts typically range from US \$150,000 to US \$1 million. Suppliers can receive technical assistance through the fund, including training on financial management and using mobile technology to track prices, weather and production data. Fairtrade International rules also require buyers to make financing available to suppliers before the harvest. Upon request from suppliers, buyers must pay up to 60 percent of the contract value to provide pre-financing.¹⁰⁵

Some certification programs have been shown to boost suppliers' earnings. Yet the benefits are not always shared by small producers, and maintaining standards can be difficult without long-term financial support (see Box 5).

Box 5: Promises and Challenges of Sustainability Platforms: The Case of GlobalGAP

Founded by European retailers in 1997, the Global Partnership for Safe and Sustainable Agriculture (GlobalGAP) is an NGO that certifies compliance with good agricultural practices among agricultural suppliers. To get GlobalGAP certification, producers must meet strict criteria for food safety, sustainable production methods, efficient use of water, and worker and animal welfare. For example, GlobalGAP producers are required to provide decent conditions for farmers, including quality housing, drinking water and the national minimum wage. They also must limit use of dangerous chemicals such as pesticides. GlobalGAP currently has about 160,000 certified producers in more than 120 countries worldwide, and European supermarkets have widely adopted its standards.¹⁰⁶ The NGO provides technical support to suppliers during the certification process. International donors such as the United States Agency for International Development (USAID) and the German development agency GIZ have provided financial support to help farmers in poor countries upgrade their sustainability practices to qualify for certification.

Studies have linked GlobalGAP certification with good outcomes for firms in emerging economies. A study of small-scale export farmers in Kenya found significant health benefits. Among farmers who adopted standards, acute pesticide-related illnesses were 70 percent less widespread, and health expenditures were 50 percent to 60 percent lower.¹⁰⁷ In Senegal, certified companies had higher market shares and export volumes, while workers enjoyed 13 percent higher wages.¹⁰⁸

Most studies that find positive results also come with caveats. Some research argues that most benefits primarily go to large successful firms, because small firms are unable to bear the costs of standards compliance. In Madagascar, international donors helped lychee farmers meet GlobalGAP standards. A study found that certification resulted in higher exports – but only among farmers who already were able to sell larger volumes, transport their goods to the regional capital, and maintain long-term relationships with buyers. The authors disputed the argument that certification was worthwhile for small farmers.¹⁰⁹

Researchers also found big differences in Thailand based on a farmer's business practices. Because of GlobalGAP certification, Thai farmers that sold to local buyers were able to start selling to a domestic supermarket, boosting average incomes by US \$14,687, with most gains going to larger producers. But export-oriented farmers were unable to upgrade their marketing relationships or get better prices, and there was no significant impact on their income. For the exporters, however, certification did help them retain market share. The study also found that certification was unsustainable without long-term external support. All farmers received money and training to meet the initial costs of certification. When certification was achieved, the support was withdrawn. Of the 72 farmers who were certified, only 18 successfully renewed their certificate the next year. The most important factor in recertification was support from an exporter. To maintain certification, producers had to conduct audits and laboratory analyses, as well as maintain a quality management system. The costs totaled nearly US \$800 annually per farmer – and that was too expensive for many.¹¹⁰ These findings underscore the importance of fair, long-term financing to help SMEs comply with sustainability standards.

2.4.3: Promotion of supplier diversity

Policy debates on sustainability in global value chains focus on labor and environmental standards. Supplier diversity is a less appreciated aspect of sustainability. GVC lead firms might contribute to economic inequality and exclusion if they only source from men-owned suppliers. Large buyers can encourage shared growth by sourcing from businesses owned by more marginalized populations, such as women, ethnic minorities, indigenous peoples, LGBT people and the disabled. Research by WEConnect International estimated that women-owned businesses collect less than 1 percent of money spent on products and services by major corporations and governments.

USAID, together with Australia's Department of Foreign Affairs and Trade, provided a loan guarantee for a Women's Livelihood Bond. The goal is to raise up to US \$15.25 million in private capital to fund women-owned small businesses in Cambodia, the Philippines and Vietnam. Microfinance firms will issue the loans, which could help women build credit histories and expand their businesses.¹¹¹

Policy debates on sustainability in global value chains focus on labor and environmental standards. Supplier diversity is a less appreciated aspect of sustainability. International consumer goods company Unilever partners with Oxfam and the Ford Foundation to provide financing and training to female cucumber farmers in India.

U.S.-based car manufacturer General Motors (GM) was the first automotive company to establish a structured minority supplier diversity program to create jobs for the local community – specifically women.

- International consumer goods company Unilever partners with Oxfam and the Ford Foundation to provide financing and training to female cucumber farmers in India. Unilever offers suppliers loans, guarantees and matching grants to empower women and improve agricultural sustainability and productivity.¹¹²
- Intel is one of a growing number of companies making an effort to purchase from suppliers owned by traditionally excluded populations. In collaboration with WEConnect International, Intel launched a supplier diversity program in China. The tech company seeks out suppliers run by women and ethnic minorities. Since 2014, Intel has doubled its number of diverse suppliers and increased spending on such suppliers by 60 percent. Globally, Intel wants to source US \$1 billion from diverse suppliers by 2020.
- U.S.-based car manufacturer General Motors (GM) was the first automotive company to establish a structured minority supplier diversity program to create jobs for the local community – specifically women. Since its creation in 1958, the program has had a positive impact on more than 200 womenand minority-owned businesses that supply GM. The auto company has purchased nearly \$62 billion in goods and services from these direct and indirect minority suppliers.
- Coca-Cola Company operates several initiatives to support women working in its value chain. 5by20 is the beverage company's global commitment to enable the economic empowerment of 5 million women entrepreneurs across the company's value chain by 2020, with the focus currently on Brazil, South Africa, the Philippines and India. Through 5by20, the company enables women's access to markets, business skills training courses, financial services, confidence, and connections with peers and mentors. 5by20 focuses on women's involvement along six elements of the value chain. As: producers, suppliers, distributors, retailers, recyclers, and artisans.¹¹³

Part 3

Policy Considerations: Expanding Financial Support for SMEs in Sustainable GVCs

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3. Policy considerations

Section 1 explored the ways that integration into global value chains can make SMEs more profitable and help drive growth and employment in emerging economies. Section 2 outlined ways that governments and businesses are helping SMEs upgrade their production processes to satisfy increasingly stringent sustainability standards in global value chains. This section proposes policy considerations for helping SMEs access the financing they need to improve their sustainability compliance.

Recent studies offer suggestions for making global value chains more sustainable. Governments can encourage GVC lead firms to respect basic international standards on decent work and environmental protection. This includes protecting collective bargaining rights and paying decent wages. Governments could partner with watchdog groups and international organizations, like the ILO, to monitor compliance with sustainability standards.¹¹⁴

Other research for the G20 has highlighted ways to ensure that SMEs in emerging economies benefit from global value chains. Capacity building is one of the most important ways G20 economies can help. Many G20 member states are home to governments and firms with experience establishing sustainability standards. Emerging economies often lack the capacity and expertise to comply with international standards. G20 governments and firms could share their experiences and resources with their counterparts in emerging countries.¹¹⁵

This section builds on these previous studies. It focuses specifically on ways to help SMEs access financing to improve sustainability compliance so they can join sustainable global value chains.



Recent studies offer suggestions for making global value chains more sustainable. Governments can encourage GVC lead firms to respect basic international standards on decent work and environmental protection.

3.1: Governments and international development finance institutions

Coordinate basic social and environmental guidelines for SME lending. Central banks in G20 member states including Brazil have already taken steps in this direction. The existence of clear sustainability guidelines would offer banks an incentive to monitor their borrowers' labor and environmental compliance. Such guidelines could also provide a benchmark for borrowers who are uncertain about which sustainability upgrades they should make in order to qualify for better credit access. In addition to the economic benefits, clear sustainability guidelines could help fulfill the Sustainable Development Goals, particularly goal 12 – ensuring sustainable consumption and production patterns.

Establish minimum sustainability guidelines in government procurement at the national level. Governments could use their substantial purchasing power to encourage suppliers to comply with labor and environmental standards.

Offer technical assistance to help SME lenders implement standards assessments. Development finance institutions typically require banks to meet established international sustainability standards to qualify for financial support. These provisions could be better enforced by providing technical assistance to lenders to implement systems to monitor sustainable standards among borrowers. Development finance institutions could also share best practices with lenders on designing appropriate financial products for SMEs to meet sustainability standards.

Create platforms for peer-to-peer learning between banks on the implementation of environmental and social management systems. Because of mounting regulatory pressure and growing evidence that sustainability is positively linked with financial performance, banks are becoming more eager to monitor their borrowers' sustainability practices. Yet banks often lack the necessary knowledge and skills. Development finance institutions could help banks in emerging countries exchange information about designing systems for managing the environmental and social impacts of lending.

In order to improve the willingness of commercial banks to finance energyefficient projects of SMEs, governments and institutional development finance institutions can use, in association with technical assistance, a range of financial products (e.g. subsidies, directed loans via commercial banks or credit guarantees). In order to have a positive long term impact, financial sustainability of these products is important and they should be designed in a ways that they support the lending banks in improving SME finance. For example, governments can provide Coordinate basic social and environmental guidelines for SME lending.

Establish minimum sustainability guidelines in government procurement at the national level.

Offer technical assistance to help SME lenders implement standards assessments.

Create platforms for peer-to-peer learning between banks on the implementation of environmental and social management systems.

Governments and institutional development finance institutions can use, in association with technical assistance, a range of financial products. appropriate bank guarantees for (portfolio-level) energy-efficiency projects. Banks are reluctant to fund SMEs' energy-efficiency upgrades. Borrowers often want to post complex equipment – such as a heating, ventilation, and air conditioning (HVAC) system – as collateral. Commercial banks are reluctant to accept this, because it would be expensive and difficult to remove such machinery in the event of default. Typically, however, energy-efficiency projects are small, ranging from US \$50,000 to US \$5 million. Bundling smaller projects into a portfolio could make them into a more enticing investment prospect for banks and other investors.¹¹⁶

Help lead firms support sustainability upgrading among SMEs in their supply chain. Donor assistance has helped small firms achieve GlobalGAP certification and other types of sustainability certification. As explained in the box on GlobalGAP in section 2 of this paper, small firms often need continual assistance to meet the costs of maintaining standards. Although buyers have the biggest role to play in enabling sustainable supply chains, donors and lead firms should explore opportunities to share the cost of sustainability upgrading among suppliers. Major emerging countries are taking this approach. The South African Bureau of Standards, for example, helps SMEs meet 15 percent of the cost of sustainable mining certification, while the lead firms meet 80 percent and the SMEs meet 5 percent. India also offers subsidies and reimbursements to encourage certification by the ISO and other international and national bodies.¹¹⁷

Partner with firms to map production networks and quantify the full economic, social and environmental impact of business activities. Supply chains are often extensive and difficult to track. Mapping out production networks would help reveal the points where sustainability shortcomings are most prevalent. That, in turn, would make it easier to formulate sustainability guidelines and monitor progress. PUMA shows how this could happen. The footwear and clothing company designed an environmental profit and loss system to better understand its environmental impact. The results showed that PUMA's core operations – including its corporate offices, warehouses, and stores – made up only 6 percent of its environmental footprint. The remaining 94 percent was concentrated in its supply chain. PUMA later used the data as the basis for its program offering suppliers better financing terms in exchange for better sustainability performance.¹¹⁸

Encourage publicly traded companies to report on the social and environmental risks of supply chains. Market regulators can mandate greater disclosure to investors and shareholders on the sustainable practices of public companies' supply-chains.

Help lead firms support sustainability upgrading among SMEs in their supply chain.

Partner with firms to map production networks and quantify the full economic, social and environmental impact of business activities.

Encourage publicly traded companies to report on the social and environmental risks of supply chains.

3.2: Businesses and buyers

Track suppliers' sustainability standards. Monitoring suppliers can help lead firms avoid violating labor and environmental standards. Lead firms could offer their suppliers clear information on sustainability expectations and any rewards for compliance. If suppliers violate standards, lead firms could offer technical and financial assistance to solve the problem.

It can be challenging for lead firms to monitor sub-suppliers embedded deep in supply chains. Technological advancements such as blockchain technology might help. Civil society groups are exploring ways to use blockchain technologies to monitor value chains. Blockchains are peer-to-peer networks where people can directly exchange information without third-party intervention. Data uploaded to the blockchain cannot be modified after it is posted. A British technology firm recently partnered with Indonesian fisherman on a pilot project using blockchain technology to track the seafood supply chain. Fishermen registered their catches on the blockchain by sending simple text messages. New blockchain information entries were posted as the catch was passed along to suppliers and processed for sale. The supply chain records are available to consumers, lead firms, and anyone else with a blockchain identifier, opening new possibilities to build supply chain transparency.¹¹⁹

Digitize supply-chain documents, such as e-invoices. GVC lead firms can use digital technology to help suppliers get quicker access to supply chain finance. They could also provide lenders with digital records of suppliers' sustainability performance. This would help suppliers build a reputation and potentially qualify for more and better financing. Some financial institutions in India and Tanzania have started using sales and delivery data to analyze SMEs' creditworthiness in supply chains.¹²⁰ Firms could also explore opportunities to use blockchain technology to monitor value chains and speed up transactions with suppliers.

Offer suppliers better terms and bigger orders in exchange for sustainability upgrading. Most major firms' social and environmental impact takes place in their value chain. Offering suppliers financial rewards – such as larger orders or higher prices – for meeting standards could be a straightforward way to meet corporate social responsibility commitments. Longer term contracts can incentivize suppliers to make financing investments in sustainability upgrades.

Track suppliers' sustainability standards.

Digitize supply-chain documents, such as e-invoices.

Offer suppliers better terms and bigger orders in exchange for sustainability upgrading.

3.3: Investors and lenders

Develop tools to measure the social and environmental impact of investments.

Use sustainability performance to assess credit eligibility as an indicator for long-term business performance. Develop tools to measure the social and environmental impact of investments. Investors could require sustainability management plans and disclosures from investees. The Global Reporting Initiative, Sustainability Accounting Standards Board, and the International Integrated Reporting Council are developing sustainability disclosure frameworks. These groups help firms establish and monitor sustainability targets and key performance indicators. A challenge is to coordinate disclosure frameworks with relevant regulators and standard setters.¹²¹

Use sustainability performance to assess credit eligibility as an indicator for long-term business performance. Evidence presented in this paper shows that sustainability upgrading can lead to higher demand, productivity, price premiums and earnings for firms. There is also evidence that firms with high sustainability investment get the most profitable stock returns.¹²² In China, compliance with labor and environmental standards was associated with better financial performance. The positive effects of better standards were found to come through lower turnover rates, larger market shares, and better access to external financing.¹²³ Preliminary research from the United States suggests that sustainable SMEs – defined as those with a certification or organizational commitment to high environmental, social, and governance standards – are much less likely than typical companies to be considered at risk of going out of business or becoming inactive.¹²⁴

- Although more research is needed to establish the link between sustainability and improved financial performance, lenders could explore opportunities to use sustainability indicators as an alternative source of credit information and risk assessment. This makes sense intuitively. For example, energyefficient manufacturing firms are more productive and require fewer inputs. Therefore, they should be more profitable and better able to replay loans. Agricultural suppliers could qualify for better financing if they attain sustainability certification. Farmers could also be allowed to borrow against drought-resistant seeds – which have been shown to substantially increase yields for small agricultural producers¹²⁵ – though such seeds are not riskfree.¹²⁶ To achieve sustainability certification from schemes like fair trade, SMEs often need to produce detailed business documentation. Lenders could draw on that sustainability data to gauge creditworthiness.
 - Malaysia considers international certification when determining which SMEs are eligible for government assistance. The government uses a SME Competitiveness Rating for Enhancement to identify SMEs that have high growth potential and would benefit from government support.

SMEs rank higher if they achieve ISO certification on product safety or good management practices. Malaysia's SME Corporation helps high-ranking firms link with bigger companies, the national development agency MIDA, and the official trade promotion agency MATRADE.¹²⁷

- The rise of bonds labeled as "green" for large infrastructure projects opens new possibilities to design portfolios of smaller loans for credit-strapped SMEs interested in building new factories or upgrading machinery to become more environmentally friendly. Green bonds work like traditional bonds. But a major difference is that green bonds secure third-party certification to prove that the proceeds support projects with environmental benefits.¹²⁸ As of 2016, there was US \$118 billion in labelled green bonds outstanding. The biggest challenge to creating portfolios of SME loans for such projects is developing a mechanism to determine a portfolio's credit rating. Performance on sustainability indicators could be considered when credit ratings are assessed.
 - Banks could help compile evidence on sustainability and financial performance by applying green tags to their lending. Many countries use green tags to rank the energy efficiency of homes or automobiles. If banks tagged their loans according to the energy performance of the underlying SME asset, for example, they could create data that could be used to evaluate the performance of energy-efficient loans against inefficient loans.⁹² If there was a proven link between energy efficiency and loan performance, that data could be used to determine credit ratings for portfolios of SME loans and scale up green finance.





Conclusion



Goldstein to foster growth, employment, and innovation in emerging economies. Lead firms increasingly expect suppliers to meet labor and environmental criteria before joining their value chain. But a new survey conducted by the World Bank Group and German G20 Presidency finds that while largest buyers express a commitment to environmental protections and labor rights, relatively few provide financial services or incentives for businesses to upgrade their sustainability standards. Evidence presented in this paper shows that sustainability compliance can help firms become more competitive while making life better for workers and protecting the environment. Research also suggests that the costs of meeting standards can be prohibitive for SMEs, which often lack access to financing and technical expertise. Governments can help SMEs join sustainable global value chains by offering the financial resources and technical support they need to improve their sustainability performance.





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Survey: Leveraging Financial Services for SMEs in Sustainable Global Value Chains

This survey was distributed electronically in March, 2017 and modified for governments, businesses, financial institutions, and digital platform service providers. In total, 67 responses were received.

The goal of this survey was to catalog various initiatives to help firms linked to global value chains (GVCs) finance more sustainable production processes to comply with environmental and social standards. Environmental standards such as safer waste management, non-toxic production materials, reduced use of pesticides, energy efficiency measures or others. Social standards such as health and safety measures, exclusion of child labor, better working conditions or others.

Part A: General Characteristics

1. Does your business offer any financial instrument(s) or support any initiatives or schemes for suppliers, locally or abroad, to improve the sustainability of production processes and compliance with social and environmental standards?

No Yes

If yes, please provide a brief explanation of the link to compliance with social and environmental standards:

2. Product name:

3. Year of beginning of activities:

4. Do you provide financing directly to businesses or via financial institutions or a fund structure? (multiple answers permitted)
 Directly to businesses via financial institutions via fund structure
5. Type of financing instrument (multiple choices permitted):
 Factoring/ receivable financing (discounted receivables) directly to businesses Collateralized (fixed assets) credit/loans directly to businesses Uncollateralized credit/loans directly to businesses Loans/lines of credit to financial institutions Loan guarantees to financial institutions: Individual loans Loan guarantees to financial institutions: Portfolio - Equity
6. Is eligibility restricted to compliance with the following standards? (<u>multiple</u> <u>choices permitted</u>)
 No/voluntary Labor standards Environmental standards
7. Which standards are required (multiple answers permitted)?
 Domestic standards International standards Please name the required standards:

8. Is the cost/interest rate for this financing linked to sustainable practices?

	No
	Yes; please explain:
. Is el	igibility restricted by linkage to a global value chain?
	No
	Yes: please explain:
	100, preude emploinin
0. Is e	ligibility restricted to certain countries?
	No
	Yes; please list eligible countries:
1. Is e	ligibility restricted by sector of activity?
	No
	Yes: please list eligible sectors:
2 Is a	ligibility restricted by number of employees or sales/turnover?
2.150	inglointy restricted by number of employees of sales/turnover?
	No
	Yes; please list size restrictions:

13. Please describe any other eligibility restrictions:

14. Does the program provide the borrower training or guidance on compliance with environmental and social standards?
 No Yes; please explain:
15. Does the program use an online platform?
🗌 No
Yes
Additional comments:
16. Does the program require sustainability ratings or third party audits of the borrower?
🗌 No
Sustainability ratings
Third party audits of the borrower Additional comments:
17. If the program requires sustainability ratings or third party audits, how frequently are these updated?
Quarterly - Annually
Other (please specify):

18. Is the environmental and social performance of borrowers monitored in any other ways?

No
 Yes; please explain additional monitoring activities:

19. Are there consequences for non-compliance with agreed social and environmental standards?

No
 Yes; please explain the consequences for non-compliance with standards

Part B: Monitoring

In this section, please enter "NA" if data is not available.

20. Number of employees working on this product:

21. Total funding provided directly to business (specify currency):

□ N	one
-----	-----

Please specify amount and currency:

22. Total number of businesses served directly:

None None

Please specify number of businesses:

23.	Total	funding	provided	to	financial	institutions	(s	pecify	currency	<i>i</i>):
		0	1				· ·		2	

None

Please specify amount and currency:

24. Total number of financial institutions served:

- None None
- Please specify number of financial institutions:
- 25. Total number of businesses assisted via financial institutions:
 - None
 - Please specify number of businesses:

26. Businesses assisted per size (please define classifications):

] Large:
] Medium:
] Small:
27. B	usinesses assisted by sector:
	Accommodation & food services:
	Manufacturing:
	Whatesets & retail trade:
	Othern

28. Outcomes:

Number of loans made:_____

Number of defaulted loans:

29. For the las fiscal year, please estimate the total contribution of your institution to the program:

Part C: Planned financial instruments

Please describe any <u>planned</u> initiatives or provide additional comments:



Appendix B



Drivers and Constraints for Adopting Sustainability Standards in Small and Medium-sized Enterprises (SMEs)

This appendix contextualizes the World Bank Group stocktaking study on "Leveraging Financial Services for Small and Medium-sized Enterprises (SMEs) in Sustainable Global Value Chains (GVCs)" by complementing the supply-side analysis with the perspectives of SMEs from the demand side. It addresses the incentives and barriers that SMEs integrated - or seeking to be integrated - into sustainable GVCs face with regard to adopting social and environmental standards. Access to finance is one of these potential incentives and this section attempts to set it in the broader context of additional drivers and constraints influencing the implementation of standards by SMEs. The section builds on existing literature and five country case studies that were conducted in Brazil, China, India, Indonesia, and South Africa.^a

An overview of incentives (drivers) and disincentives (constraints) for SMEs to adopt sustainability standards is presented in Figure A.1. The diagram accounts for factors that may motivate a push towards sustainability in some cases but impede it in others through the overlapping of the circles. The diagram further distinguishes between driving factors, that encompass direct motives for sustainability compliance, and facilitating factors, that are best described as components of an enabling environment that do not directly incentivize, but ease the adoption of standards.

Drivers for the Implementation of Sustainability Standards

An important driver for the adoption of standards is the subsequent access to GVCs and lucrative markets that often comes with a price premium.

a. The country case studies are available in full length on the DIE homepage. They are published collectively as: German Development Institute / Deutsches Institut für Entwicklungspolitik (DIE) (Ed.). 2017. "Drivers and constraints for adopting sustainability standards in small and medium-sized enterprises (SMEs) and the demand for finance." DIE, Bonn.

Furthermore, sustainability-compliant intermediaries and goods may provide certainty with regard to sales and thus allow production to expand. Sometimes the implementation of standards is associated with technical assistance, training, and productivity gains. Lastly, sustainability-oriented SMEs may benefit from better access to finance. These incentives will be explained in detail below.

Market access and increase in sales

Over the last 15 years, markets for sustainable products have grown considerably. A prominent example is the agricultural sector whose standards-compliant production grew by 41 percent compared to a growth of 2 percent in the corresponding conventional commodity markets, resulting in significant market penetration.¹ Continuous growth is ensured by the commitments of global lead firms such as Mars, Mondelez, Unilever, H&M, McDonalds, PepsiCo, IKEA, Nestle and others to buy up to 100 percent of certain supplies from sustainable sources.² Sustainable sourcing guarantees that there will be a market for standards-compliant products and services, which incentivizes suppliers to adopt

Figure B.1: Drivers, constraints, and facilitators for the implementation of sustainability standards



sustainability standards in order to gain access to these lucrative markets with (potential) price premium.³ In fact, the progressive incorporation of sustainability into corporate social responsibility (CSR) strategies by the lead firms of GVCs may effectively render standards implementation a prerequisite for SMEs to integrate into supply chains and GVCs. In addition, sound economic reasons, such as market access, increasing returns, as well as productivity and efficiency gains, may create a business case around this prerequisite.

All country cases document acquisition of bigger companies as buyers and access to GVCs and (export) markets as important motives for SMEs to adopt sustainability standards (see Table A.1 for an overview of the drivers and constraints of the individual country case studies). The Brazilian case sheds further light on an additional opportunity for **market access** through standards compliance. Since public institutions in Brazil are bound by law to purchase products and services with minimal adverse effects on the environment, public procurement rewards sustainable practices. In 2013, SMEs earned 57 percent of the 40 billion Brazilian real (about 22 billion USD) spent by the Federal Government for public procurement.

Standards-compliant SMEs can tap expanding new markets. In China, for example, the local markets for quality food and other commodities is booming because of rising demand from high-end consumers from the growing middle class. Certification functions as a means of product differentiation and allows firms to enter and benefit from high-value segments of the market. Growing consumer awareness creates similar opportunities for organic food in Brazil and in South Africa. Yet the other two case studies suggest that local demand for certified products is often limited due to lack of consumer awareness and/or the lack of a thriving middle class. The incentive provided by market access may be further compromised by market separation such that only products for European and US export markets adhere to social and environmental standards while the other produce is sold domestically or shipped to less stringent export markets.

The Indonesian case study raises the concern that incentives through market access and integration into GVCs may only apply to a small fraction of SMEs. In Indonesia, less than 14 percent of SMEs are engaged either directly or indirectly in export. The majority of SMEs serve the local market, which is characterized by low awareness for eco-labels and fierce price competition. The Indonesian government steps in with various measures to encourage sustainable practices among SMEs. Several government programs provide **technical assistance and training** through various different public institutions that especially target SMEs. The most ambitious one is the Master Plan of National Industry Development that aims at developing a green industry, strengthening the institutional capacity and providing facilities for SMEs that assist firms to benefit from information

interventions, technical assistance, capacity-building, certification and additional financial incentives. The government also grants tax reductions and exemptions, for instance for pollution control equipment and the cost of waste treatment.

In South Africa, many SMEs participate in public tenders. Often SMEs are unaware that validation of the award depends on compliance with standards. Nevertheless, once standards are implemented and contracts are signed, South African SMEs share the experience of SMEs in Brazil and India that such deals provide certainty, security and **increases in sales**.^b Expansions of sales constitutes another economic reason for adopting standards.⁴ The quantity increase may result from more optimistic assessments of the sales market due to improved buyer relations or access to GVCs and lucrative markets so that standard-compliant firms decide to augment production.

SMEs that implement sustainability standards may also enjoy **more stable buyer relationships**, which grants SMEs certainty about sales. Brazilian, Indian, and South African SMEs witnessed that sustainability standards may serve as a means to achieve fixed contracts that provide more certainty about the future. Since increased planning certainty mitigates some risk, investments in standards implementation becomes more feasible for SMEs. It is noteworthy that stable buyer relationships are more likely to evolve when SMEs obtain training, capacity-building services or financial support for implementation or certification from buyers.⁵ Once the buyer has committed to his suppliers through financial investments and knowledge-sharing, it is in the buyer's own interest to maintain long-term relationships. Such a situation is beneficial for both – buyers *and* suppliers. In this spirit, some lead firms in Brazil and South Africa offer supplier development programs or subsidize standard adoption.

Productivity increase

Implementation of standards is associated with adaptations in the production technology and process, which promises improvements in efficiency. Productivity boosts are often stimulated by technical assistance and capacity-building for suppliers.⁶ The Brazilian case underlines, however, that **productivity gains** through investments in new machinery and technology is beyond the financial capabilities of many SMEs. The case study present two additional ways to gain in productivity. First, integration into GVCs and cooperation with large corporations fosters the dissemination of knowledge and skills on the production

b. The Indonesian Timber Entrepreneurs Associations (APHI) claims that certification has contributed to increased sales in international markets. As most certified exporters are larger firms, it is not clear whether these benefits also accrued to SMEs.

and management level so that the productivity and competitiveness of SMEs are raised. Second, small adjustments in daily business routines, i.e. behavioral changes such as the rationalization of water consumption, more efficient use of energy, and better management of production inputs and outputs may reduce costs of production and enhance efficiency. The Indian case also finds that sustainable practices and standards compliance lead to reduced waste and to cost savings.

Whether new technologies and sustainable practices are adopted so that improved productivity materializes depends heavily on leadership and management. For SMEs, strategic planning is often concentrated in the person of the manager/ entrepreneur. The Brazilian case shows that growing social and environmental awareness among the younger generation of entrepreneurs fosters orientation towards sustainability. The Indian case study emphasizes that, beyond personal preferences, it is higher levels of education and knowledge that allow entrepreneurs in India to undertake far-reaching overhauls of the business strategy and production technology in order to achieve certification.

Price premium

Even though standards-compliant produce targets high-value segments of the market and thus promises **price premium**, the country cases do not confirm this mechanism as a relevant driver. This is in line with the literature that remains inconclusive, too. There is mixed evidence whether higher prices of the final product trickle down to price premium for upstream producers in the supply chain. It is generally accepted that implementation of standards translates into higher prices and revenues along the value chain.⁷ In some cases, smallholders and SMEs realized higher prices,⁸ which, of course, strongly encourage SMEs to adopt sustainability standards. Yet it has been documented as well that the structure and governance of the value chain may unevenly allocate additional revenues to retailers and processors and thus cast doubt on significant price premium for upstream producers.⁹

Access to finance

Some standard schemes and sustainability-oriented lead firms enhance the attractiveness of compliance with sustainability standards by providing finance beyond the support for implementation and certification costs.¹⁰ There has been no clear evidence of a link between standard compliance and preferential **access to finance** in the given country case studies.^c This is not surprising as

c. One exception is the soft loan program in Indonesia that grants access to finance for firms that invest in sustainable practices such as emission reduction.

such mechanisms are still at an early stage and are expected to spread more widely. As more and more development banks, impact investors and funds include sustainability criteria in their terms and conditions for lending, it is expected that adoption of standards will lift SMEs into a favorable position to access financing. Even commercial banks may want to consider certification as a criterion for the loan-screening process, as certification is an extremely strong indication for (export) market access, good governance, and a robust financial basis.^d In addition, certification facilitates the assessment of creditworthiness, as standards-compliant firms are more likely to provide relevant documentation. A study finds that 90 percent of certified producers keep financial records compared to 31 percent of non-certified producers.¹¹ Therefore, implementation of sustainability standards may also indirectly improve SMEs' access to finance.

National regulation

If economic incentives such as market access, increase of sales, rise in productivity, more stable buyer relationships, price premium and/or improved access to finance are not strong enough to create a business case for adopting sustainability standards, national governments may intervene and require implementation of certain minimum standards by **national regulation**. In Brazil and India for instance, although environmental awareness is generally low among SMEs, mandatory regulations prove effective in making SMEs implement standards, as SMEs are very sensitive with respect to the severe penalties of legal retaliation. China and Indonesia have developed national standards such as the China Forest Certification Scheme (CFCS) and the Indonesian Sustainable Palm Oil (ISPO) standard that are mandatory for national producers and thus drive up standard implementation.^e

Constraints for the Implementation of Sustainability Standards

Most of the constraints are related to incremental costs for SMEs to adopt standards, beginning with costly information retrieval about requirements, business potential, and the operability of different standards. Implementation

d. This indirect contribution of standards in accessing finance has been observed on a small scale in South Africa.

e. While such mandatory national standards may enhance take-up of standards, there are serious disadvantages. One of the associated problems is briefly discussed under 'Inoperability of standards' in the subsection 'Constraints for the Implementation of Sustainability Standards'.

costs arise due to necessary investments to meet requirements, while proving compliance results in certification costs. The poor infrastructure of testing facilities and certification services, for instance, raises costs further. Many SMEs do not have the size, productivity and technology to profitably implement sustainability standards or anticipate that only lead firms will acquire additional revenues from sustainability upgrades. Lastly, lax national social and environmental regulations discourage the adoption of standards, as implementation of more stringent voluntary standards results in steep cost increases relative to non-compliant competitors.

Lack of awareness and access to information

Many SMEs and potential suppliers suffer from a **lack of awareness of sustainability standards**. This could be a general lack of awareness by the SME's management so that social and environmental standards will not make it into the company's strategic planning (e.g. in Brazil, China, India). SMEs in India, Indonesia, and South Africa are often unaware of the value that sustainability standards could bring to their businesses; implementation of social and environmental standards may be a prerequisite for the next step in the firm's development, which is access to GVCs in order to grow beyond the local market.

However, even the awareness of relevant standards leaves a myriad of questions open. SMEs often do not know about the next practical steps of how and where to apply for certification, e.g. in the case of India and Indonesia. Available time and resources are bound to decide whether a standard should be implemented.¹² Furthermore, the strategic choice is complicated by the hidden, indirect costs of compliance and by benefits that are not easily monetized.¹³ The South African case shows that SMEs are often left alone with these problems, although they would need technical assistance and guidance during the entire process of choosing a suitable standard through cost-benefit analyses, of adopting the standard and of complying with the standard. The South African Bureau of Standards (SABS) is struggling to provide SMEs with **access to relevant information** as SMEs are widely dispersed and language barriers, lack of internet access, and limited literacy further impede successful information interventions.^f In Brazil and India, SMEs would need to hire a consultant to analyze which standard to adopt and

f. In South Africa, other stakeholders sometimes cater for the training costs of SMEs as long as they have a vested interest in the SMEs. For instance, lead firms may cover training costs in order to enable suppliers to uphold their company codes. Unfortunately, this is rather an exception as many corporations leave it to government agencies to promote capacity-building for local SMEs.

how to best implement it. But, as SMEs generally do not have the necessary financial capacities, they do not get access to this crucial information.^g

In addition, SMEs that are already integrated into GVCs face a different kind of information gap. **Inadequate transparency of standards** about its content, requirements, and verification imposes extra transaction costs upon SMEs.¹⁴ To Brazilian SMEs it is often not clear which practices are of importance and where to prioritize changes towards sustainable practices. Another problem is the ineffective supervision by lead firms turning a blind eye to some non-compliant suppliers, which undermines the motivation of the other suppliers to adhere to the sustainability requirements.

Inoperability of standards

On the one hand, international standards are sometimes ignorant of local environmental and technical conditions, which means that the standards, norms and regulations may not be applicable to the local context. The applicant or local NGOs have to work around the issue of how to implement the standard, e.g. in the case of Indonesia. On the other hand, standards are often dysfunctional with respect to interoperability: Sustainability-oriented SMEs may be confronted with various standards from different buyers, financial institutions, and other business partners that encompass differing requirements. Due to lack of harmonization, SMEs face parallel procedures of implementation, documentation, and multiple certifications, which shoots up the costs of compliance.¹⁵ The situations in China and Indonesia constitute special cases as the governments have developed national standards (CFCS and ISPO standard) instead of endorsing international ones. Producers within these countries have to adopt the national standard, while exporting firms in most cases have to bear the costs of additionally implementing a more stringent international standard (FSC and RSPO) in order to access export markets.

Implementation and certification costs

The five different country cases come to the consensus that the crucial determinants of the overall costs for SMEs to adopt sustainability standards are the **implementation and certification costs**. Standard implementation often requires new investments to adapt the production technology and process and may even raise the running costs because of more expensive production methods.

g. The need of technical assistance and consultancy implies that managerial skills, qualification of employees and the absorption by day-to-day operations is an issue as well (e.g. in China, India, Indonesia).

Certification comprises administrative costs due to documentation requirements as well as costs for third-party verification or certification. These costs recur regularly as certification needs to be renewed and staff have to be retrained in certain procedures. Since implementation and certification can be more or less described as fixed costs, smaller firms in particular perceive these costs as prohibitively high.¹⁶ For this reason, it is not uncommon in Brazil and India to find SMEs that adopt most of the required practices without being officially certified.

In order to control incremental costs, small-scale producers and SMEs can organize themselves into collectives and cooperatives or use group certification to handle implementation and certification costs.¹⁷ Another cost-mitigating strategy is to share costs between producers and buyers. This is applied in 36 percent of the cases for implementation costs and in 45 percent of the cases for certification, even though such schemes may create dependencies and power imbalances.¹⁸ In South Africa, there is a capacity-building initiative by the SABS in place that covers 15 percent, leaving 5 percent to SMEs and 80 percent to participating corporations in GVCs such as the mining houses. The Indian government has installed various subsidy and reimbursement schemes for the certification costs of selected national and international standards.

Infrastructure

Organizations for international standards strategically decide in which countries to run offices and thus standards vary in their presence and visibility across different countries. Developing and emerging countries are systematically underserved as standards availability is strongly linked to GDP, logistics performance, quality of institutions, and WTO membership.¹⁹ Even if standards operate in developing and emerging countries, the poor **infrastructure** of testing facilities often impedes or significantly raises time and costs for certification;²⁰ this is partly a problem in China. While logistical and ICT infrastructure may not directly motivate adoption of sustainability standards, it surely does facilitate standards implementation, and the poor quality of such basic infrastructure respectively hurts sustainability efforts – as observed, for instance, in Indonesia and South Africa.

Scale and productivity

Lack of access to finance and modern technologies is a major constraint in Brazil, China, and India, and may – in combination with the limited size of local markets for sustainable produce – dwarf the **size and productivity** of certain firms.²¹ Consequently, SMEs are neither big nor productive enough to sustainably

fulfil and maintain standards requirements as for example in the Indian case. The Brazilian case underlines that scale is also an issue for SMEs as many of the processes and technologies, such as in-house recycling, waste management, and green energy production, are only financially and operationally feasible for firms of a certain size. Another disincentive following from insufficient size and productivity is the impotence of SMEs vis-à-vis the large corporations that control and dominate the market and the GVCs, e.g. in the case of South Africa. SMEs may be discouraged from entering the market and even abstain from competition with suppliers as these usually enjoy long-term contracts. Consequently, many SMEs are discouraged from taking any steps towards integration into GVCs and thus do not adopt sustainability standards.^h

In India, SMEs have been organized into homogeneous clusters to mitigate diseconomy of scale faced by individual SMEs. Industrial clusters and associated networks provide a unique environment for specialization and innovation. Small firms can essentially combine the advantages of running a small unit with the benefits of scale provided by large units, i.e. improvements in production technologies, access to finance, competitiveness, and market power.

National regulation and enforcement

If legislative regulation or enforcement of labor and environment issues is lax, the gap between firms complying with voluntary sustainability standards and non-compliant competitors is large with respect to implemented standards and associated costs. Thus, standards-compliant SMEs face a higher burden and cost disadvantages compared to non-compliant national competitors.²² In South Africa, the absence of mandatory standards concerning workplace conditions or environmental management within certain sectors is associated with low take-up of voluntary standards. Regulation needs to set the baseline or floor for minimum requirements. Passiveness of the regulator can also lead to lax enforcement of existing legislation. Even though mandatory standards have been introduced in Indonesia and India, adoption rates, especially among SMEs, are relatively low. One reason might be the fact that responsible government bodies often fail to sue non-compliant smaller firms that consequently evade fines and more severe legal consequences and thus feel no pressure to become certified. Understaffed government agencies aggravate this problem in India.

h. The South African case indicates that SMEs may risk losing their intellectual property rights if they integrate into GVCs, because large corporations often assimilate SMEs on a long-term basis. Anticipation of intellectual property loss may deter South African SMEs from entering GVCs. Similar concerns with regard to loss of intellectual property rights are raised for Indonesian SMEs.

		Brazil	China	India	Indonesia	South Africa
	awareness	(-)	-	-	-	-
NTS	access to information	-		-	-	-
STRAI	transparency of standards	-				
CON	operability of standards		-		-	
	implementation & certification costs	-	-	-	-	-
TA- NTS	national regulations & enforcement	_/+	(+)	(-)/+	_/+	-
CILI	infrastructure		(-)		-	(-)
'FAC NST	scale & productivity	-/(+)		-/(+)		-
RS/ COl	access to finance	-	-	-	(+)	(+)
DRIVE TORS /	training & technical assistance	+			+	_/+
	GVC/market access	+	+	+	(+)	+
ERS	price premium					
RIV	more secure markets	(+)		(+)		(+)
Ц	increase of sales	(+)		(+)	(+)	(+)

Table A.1: Overview of drivers, constraints and facilitators in the country cases

Note: Differentiation and overlap of drivers, constraints, and facilitators as introduced in Figure A.1. If certain factors act as drivers (marked with "+") in some cases and as constraints ("-") in other cases, this is captured by "-/+". If drivers or constraints have been recorded in country cases, but their relevance is limited, symbols are set in brackets: "(+)" or "(-)".

Endnotes

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AB InBev **AB** Lindex AeroFarms African Social Entrepreneurs Network ALDI SUD AMP Credit Technologies Argentinian Chamber of Commerce and Services Banco Central do Brasil Banco Santander SA Banco Triangulo SA Banco Votorantim SA Bank of Italy **Baolide Holding Group BBVA Business Partners International** Caixa Economica Federal Cenfri Council of Europe Development Bank Deuter Sport GmbH Development Bank of Rwanda Esprit European Bank for Reconstruction and Development Finance Alliance for Sustainable Trade Finance in Motion F. O. BAGS GmbH German-Armenian Fund GMU Group HAVEP Hessplast Packaging Industry Hormel Foods Corporation Inter-American Development Bank Group International Fund for Agricultural Development International Labor Organization, Social Finance Program Investissement Quebec KiK Textilien & Nonfood GmbH Kiva.org KfW

Kountable Lanka Impact Investing Network Li & Fung Los Alamos National Lab METRO National Bank of Belgium Octet Old Mutual Emerging Markets People's Bank of China responsAbility Root Capital Schoffel Sportbekleidung GmbH Sicredi Siemens Special Secretariat of Micro and Small Enterprises, Brazil Standard Chartered Tchibo GmbH Tee Yih Jia Food Mfg Pte Ltd TradeKey.com Trans Capital Finance **Triple Jump** Turkish Industry and Business Association Undersecretariat of Treasury, Turkey U.S. OPIC Vermeer Corporation Visa, Inc WEBER Rescue XSML Capital





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