Running out of Thread:

Securing Bangladeshi ready-made garment factory safety given the looming cut-off for the Accord and the Alliance

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Abstract

In response to the tragic Rana Plaza building collapse in 2013, Western clothing brands launched initiatives to inspect their Bangladeshi ready-made garment (RMG) supplier factories and remediate violations of global electrical, fire, and structural standards. The Bangladesh Accord on Fire and Building Safety (Accord) and the Alliance for Bangladesh Worker Safety (Alliance) are scheduled to end in June, 2018. While significant progress has been made in the remediation of electrical and fire deficiencies, inspection data from the Accord show that about half of identified structural problems remain unsolved, including a large portion of structural repairs over two years past their deadlines. As brands have taken temporary responsibility for safety in much of the sector, this report considers policy options available to them given the near-impossibility that complete remediation will occur by the initiatives' deadline. Recommendations for decreasing the risk of death or injury borne by Bangladeshi RMG workers are provided.

Keywords: corporate social responsibility; labour rights; Bangladesh; apparel; governance; occupational safety

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List of Acronyms

BGMEA	Bangladesh Garment Manufacturers and Exporters Association
BKMEA	Bangladesh Knitwear Manufacturers and Exporters Association
CAP	corrective action plan
CSR	corporate social responsibility
DEA	detailed engineering assessment
DIFE	Department of Inspections for Factories and Establishments
ILO	International Labour Organization
RMG	ready-made garments

Glossary

Accord also known as the Bangladesh Accord on Building and Fire

Safety. Composed of over 200 mostly European clothing retailers, an inspection and safety improvement initiative

operating in Bangladesh.

also known as the Alliance for Bangladesh Worker Safety. Alliance

> Composed of about 30 North American clothing retailers, an inspection and safety improvement initiative operating in

Bangladesh.

Bangladesh Garment

Manufacturers and

Exporters Association major Bangladeshi trade body representing RMG factories and

selling agents, comprised of both woven and knit goods

producers/sellers.

Bangladesh Knitwear

Manufacturers and

Exporters Association major Bangladeshi trade body representing RMG factories and

selling agents, with a focus on knit goods.

Corporate social responsibility

the complex of practices whereby corporations voluntarily work to mitigate the harms of or distribute benefits through their business practices, especially in terms of supply chain ethics for this report's purposes. Other areas of CSR include

environmental sustainability, poverty alleviation, labour rights

and protections, and fairer pricing/wages.

Corrective action

plan

document outlining inspectors' observations of safety violations, plans for remediating those violations to which

factory owners have agreed, and – in the case of the Accord alone - results and addenda resulting from follow-up

inspections.

Detailed engineering

assessment

a second, in-depth inspection by a structural engineer made as assigned by the initial inspector. These inspections address

potential and complex structural problems such as cracked columns and make binding recommendations for retrofitting

and other remediation.

International Labour

Organization

multistakeholder United Nations body with the mission of improving workers' rights, benefits, and working conditions.

National Initiative

also known as the National Tripartite Plan of Action on Fire Safety and Structural Integrity in the Garment Sector of Bangladesh. A multistakeholder agreement outlining the

Bangladeshi government's efforts to improve factory safety.

Signatory

an entity which has signed either the Accord or Alliance. This term encompasses all signatories; retailers are specifically referred to as "signatory brands" or "brand signatories".

Executive Summary

Producers of ready-made garments in Bangladesh overwhelmingly face workplace hazards which can cause injury or death. Over 1,100 people died when Rana Plaza, a multi-storey building that housed ready-made garment factories, collapsed in April of 2013. Since then, two initiatives led by clothing brands have attempted to improve safety in the sector: the Bangladesh Accord on Building and Fire Safety and the Alliance for Bangladesh Worker Safety.

This study shows that the Accord, which applies to nearly half of the sector's workforce, has not achieved complete safety remediation and will not do so by the initiatives' sunset in June of 2018. At that point, the initiatives will hand responsibility to the government's newly-established Department of Inspections for Factories and Establishments. This department has responsibility for factories not covered by the brandled initiatives, and it has made much less progress toward safe factory environments. It cannot yet be relied upon to achieve a satisfactory sourcing environment.

Signatories to the Accord and Alliance include about 230 brands in Europe and North America, worker advocacy groups, Bangladeshi trade unions, and international unions. With the sunset approaching, they must choose what to do next. They can allow the initiatives to expire as initially planned, extend the initiatives as they are, extend the initiatives with more stringent requirements for factories, or create a pared-down version of the Accord.

This study analysed the Accord's factory inspection reports to determine the amount of progress that has been made toward the goal of complete remediation. It finds that significant progress has been made in improving electrical and fire safety in the factories under their responsibility. It is probable that all or nearly all fire and electrical problems which the Accord's engineers have identified will be corrected by June 2018. Although detailed data for the Alliance are not available, it operates similarly to the Accord, and the Accord's progress is taken as representative of the Alliance's progress.

Far too many structural problems remain uncorrected, including many problems which were expected to have been corrected in 2014. A large portion of these dangerous

issues will remain beyond the initiatives' sunset. This study finds that longer delays occur for issues for which financing has not been agreed-upon, in factories which share a building with other factories, and in smaller factories. The complexity of structural repairs and access to necessary capital appear to be major sources of factories' delay.

This study recommends that signatories extend the Accord and the Alliance as they are presently constituted for four years. As noted, nearly all fire and electrical problems will have been resolved by the current deadline. With additional time, structural problems can all or nearly all be addressed. This will require that signatories and foreign governments maintain their current level of financial assistance to factories, as structural issues often entail the most expensive repairs.

Extending the initiatives as they are will not only address the chief issue of worker safety. This recommendation will also make Bangladesh a less risky sourcing environment for clothing retailers, thereby maintaining the stability of the nation's main source of economic growth. The option will have great appeal for signatories to the initiatives, despite additional costs for brands and foreign governments.

This recommendation comes with a major caveat. It extends a situation in which factory safety regulation is overseen largely by foreign, profit-seeking institutions instead of workers' domestic government. Bangladeshi citizens need to have recourse to their own elected officials to guarantee safe working conditions and address other abuses. The Bangladeshi government is not yet prepared to take on these tasks satisfactorily, and it has a history of corruption and favouritism toward the ready-made garment industry. Signatories must urgently assist the government in preparing to take full responsibility for its citizens, or factory safety is unlikely to be maintained in the long run.

Although addressing an issue as complex as worker safety in international trade leaves many uncertainties, the Accord and Alliance have made a major positive impact on Bangladesh's industrial safety. They will also likely have a profound influence on future corporate social responsibility efforts. With the above caveat in mind, extending the initiatives is likely to have the greatest benefit for all parties involved.

Chapter 1.

Introduction: The 2013 Rana Plaza Building Collapse, Rana Plaza

On April 24, 2013, Rana Plaza, a building in Dhaka that housed factories producing clothes for Western retailers, collapsed. Initial reports pegged the death toll at less than one hundred (Manik and Yardley 2013), but by the time a full accounting had been made, 1,139 people had died and about 2,500 had been injured. This made the collapse the worst textile factory disaster in history in terms of fatalities (Bhattacharjee 2016). An engineering inspection the day before had identified structural flaws and misplaced generators in the building, yet factory owners urged their employees to return to work despite their concerns. Later that year, formal murder charges were brought against Sohel Rana, owner of the building, and 40 others (Manik and Najar 2015).

The Rana Plaza tragedy came just five months after a fatal fire at Tazreen Fashions, another garment factory in the region, which killed over 100 people (Bajaj 2012). Documents found at that site indicated that Tazreen Fashions supplied clothes for multiple Western retailers, most notably Walmart. Revelations that Walmart had recently pushed back against more stringent fire and electrical regulations for financial reasons had already resulted in significant public outcry (Greenhouse 2012). When Rana Plaza occurred, it became clear that steps must be taken to address factory safety.

The Government of Bangladesh, factory representatives, and workers' rights advocates had convened in response to the Tazreen tragedy. Their deliberations continued through the Rana Plaza disaster's aftermath, and in June of 2013 they adopted the National Tripartite Plan of Action on Fire Safety and Structural Integrity in the Garment Sector of Bangladesh (also called the National Initiative). This is a broad plan to bolster Bangladesh's theretofore inattentive and corrupt inspection regime. The Government also

adopted the Bangladesh Labour (Amendment) Act, 2013, which bolstered workers' rights, added regulations for trade unions, and provided new safety requirements (Government of Bangladesh 2013).

Retailers also responded to the Rana Plaza event. A set of largely European clothiers, beginning with Swedish retailer H&M (Hennes & Mauritz), signed The Bangladesh Accord on Fire and Building Safety (the Accord). Among the retailers to join the Accord is the Canadian firm Loblaw, which markets garments under the brand Joe Fresh. It had contracted with garment firms in Rana Plaza at the time of the building's collapse. Another set of North American companies joined the alternative Alliance for Bangladesh Worker Safety (the Alliance), which carries less stringent requirements. Both initiatives are five-year, binding plans to provide higher-quality building safety inspections for factories with close ties to the brand signatories of either initiative.

This report focuses on these brand-led initiatives. The Accord and the Alliance are ground-breaking efforts in improving worker safety throughout a supply chain, and policy makers will need to know, moving forward, to what extent efforts such as these substantively improve working conditions in contexts with weak governance.

By analysing the entire set of factory inspection reports made available by the Accord, this report analyses the extent of progress the initiative has made in correcting workplace hazards. This report also explores what barriers may stand in the way of achieving the initiatives' goals and provides recommendations for policy responses to the upcoming Accord and Alliance sunsets.

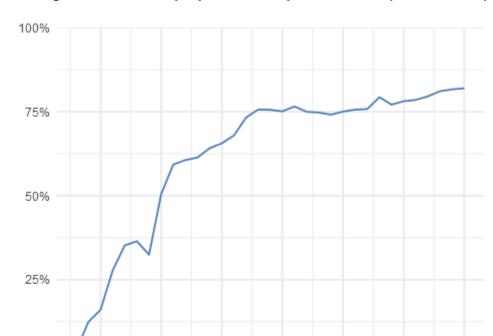
Chapter 2.

Background

The question for me is whether Rana Plaza and Bangladesh become a turning point in how the fashion industry thinks about its supply chain, and I guess the optimist in me hopes that it is at a turning point...and it will take a while to see. (Sarah Labowitz, co-director of NYU's Stern Center for Business and Human Rights, [quoted in Curry 2016)])

History of the Bangladeshi Ready-made Garment Industry

The ready-made garment (RMG) industry has been the basis for 75-80 percent of Bangladesh's export earnings over the last quarter-century (Basher 2009; Hassan 2014). Under the military regime in the late 1970s and early 1980s, Bangladesh began the process of denationalizing industries including the Bangladesh Textile Mills Corporation; there was as yet no exporting RMG industry. At the same time, Bangladesh received favourable quotas under the terms of the Multi Fibre Agreement (MFA), a structure of quotas intended to protect Western domestic garment industries. In the early 1970s Bangladeshi entrepreneurs began opening RMG factories and – after gaining expertise from South Korean RMG producers, then the leading RMG-producers – the industry grew rapidly (Hassan 2014). Exports began rising in 1983 and by 1998 RMG accounted for over three-quarters of the nation's exports. Figure 1 displays the industry's rapid growth.

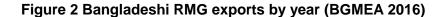


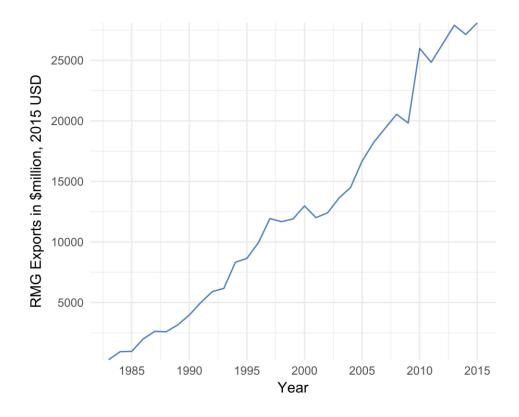
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Year

Figure 1 Bangladeshi RMG as proportion of export revenues (BGMEA 2016)

Trade liberalization continued in the 1990s under the Agreement on Textiles and Clothing, which sought to eliminate garment and textile quotas over a ten-year period. Although the Bangladeshi industry was terrified that the loss of their quota preference under the Multi-Fibre Agreement (MFA) would allow China to overwhelm the industry (Buerk 2004), Bangladesh continued to increase export value post-2005 despite China's gains. This strength may have been due to government support for the industry, a favourable exchange rate, and new markets for apparel (Joarder, Hossain, and Hakim 2010). Whatever the case, the industry continued to grow with little interruption as shown in Figure 2.





Before the Rana Plaza incident, the Bangladeshi government's inspection regime was marked by corruption, a lack of vigilance, and underfunding (Clifford and Greenhouse 2013; Rahim and Alam 2013; Richards 2013; Zafarullah and Rahman 2008). A major reason for the low-cost structure, which attracted foreign garment importers, was extremely lax factory regulation. This enabled factory owners to avoid building maintenance costs. Anti-union laws enabled factory owners to set unduly low wages. The close comfortable association between elected politicians and factory owners, who are often one and the same, had assured the persistence of this environment. It remains to be seen whether the shock of Rana Plaza, the creation of the National Initiative, and the intervention of the Accord and Alliance will substantially change the regulatory environment.

To date, the Accord has identified about 125,000 violations of global safety standards among the higher-end exporting factories subject to inspections, and in May of 2015 they deemed all of the approximately 1,500 factories they had inspected to be "high

risk" (Loewen 2015). This is powerful evidence of government and employer negligence, as well as the apparent ineffectiveness of retailers' previous corporate social responsibility (CSR) attempts. Government regulators had been engaging in slipshod, checklist-style inspections that failed to defend workers' rights and improve working conditions. Indeed, reports of corruption surround the building and inspection of Rana Plaza itself (Al-Mahmood 2013), and the owner of the building was a leader of a local political youth group allied to the governing party.

Moving forward, the government's chief interest will be in protecting the industry's low cost structure in the global market while also making the case that image-conscious companies can source from Bangladesh without fearing tragedies in their supply chains. These interests are in some ways in conflict with one another in that safer buildings have higher costs; balancing these interests requires extensive changes to the status quo ante.

Current status of the Bangladeshi RMG sector

The true size of the RMG sector in Bangladesh is a controversial matter. The ILO and the Bangladesh Garment Manufacturers and Exporters Association (BGMEA) often claim that 4 million people, 80% of whom are women, work in the sector (2016; ILO 2016; Uddin 2014). These people are said to work in 4,500 factories (Manik and Yardley 2012). New York University's Stern Center for Business and Human Rights conducted an analysis (Labowitz and Baumann-Pauly 2015) that challenges these numbers. Using official lists from the National Initiative, BGMEA, BKMEA, the Accord, and the Alliance, they removed duplicate listings and arrive at a total of 7,165 factories, over 2,500 more than previously acknowledged. Using reported employment numbers for these factories, they estimate that 5.1 million people work in the official sector alone; of those factories that reported a gender breakdown, only 56% were women (though this is possibly not representative of those factories that did not report on gender).

These statistics do not account for a likely sizeable informal industry operating in much smaller operations. The same report (Labowitz and Baumann-Pauly 2015) presents results from a survey of two Dhaka districts in which 32% of factories were operating

informally (i.e. not accounted for in any of the official lists) and that 91% of these produced at least in part for export without authorization.

The Stern Center report is not without its flaws. The BGMEA recently culled their membership role of factories that are no longer active; many of these factories were included in the Stern estimate. Further, although Stern manually removed duplicate entries, many duplicates remain. Using my own procedure on the publicly available Stern dataset, detailed in Appendix A, I arrive at the more conservative estimate of 4.5 million workers in about 5,800 officially recognized factories. These estimates are very provisional, but they do rely on the only comprehensive dataset of factories available. At least 150,000 people may work at as many as 2,700 small informal subcontracting outfits, though this also relies on the assumption that the Stern Centre's results from the survey of two districts are representative of other districts, which is unlikely.¹ For the purposes of this analysis, these estimates will have to suffice.

Roughly 1.2 million of Bangladesh's 4.5 million RMG factory workers work in factories not covered by either the Alliance, the Accord, or the National Initiative. About 2.7 million work in a factory covered by either initiative, and an estimated 677,000 work in factories covered by the National Initiative (Anner and Bair 2016). For those who work in factories covered by any of the three, corrective action plans are being implemented for their factories. These plans aim to improve electrical, fire, and building safety. The extent to which capital-intensive improvements will be made remains unknown. After the agreements' sunset dates, CSR inspections are not guaranteed to continue; the National Initiative will come to encompass factories currently inspected by the Accord and Alliance. Democratic representation for workers to engage management with safety and health concerns is also being implemented – though reports indicate that these councils may be less representative than hoped (M. R. I. Khan and Wichterich 2015). A small minority of workers (i.e. those in the Accord's Tier 1 factories) are receiving fire safety training regularly.

A full accounting of the difficulties involved in counting the number of factories and workers in both the official and informal sectors is given in Appendix A, as well as all of the imperfections involved in forming these estimates.

Following the collapse of Rana Plaza, the minimum wage for Bangladeshi RMG workers rose 30% to BDT 5300, or about USD 68, per month. This increased production costs in the sector, with some factory owners reporting losses as a result (Quadir 2014). The Accord signatory brands have signalled their intent to maintain investment in Bangladesh for the remainder of the agreement, but if unit costs have significantly risen by the agreement's sunset, then sourcing from Bangladesh may decrease thereafter. African exporters may be competitive with the Bangladesh factories, and Vietnam, Indonesia, and Cambodia have proven strong new rivals in the market. Regardless, Western executive surveys indicate that Bangladesh will maintain its market share for the next several years (Hassan 2014; Lu 2015), so short-term employment changes in the sector are not expected.

Ethical Audit Regimes

The Accord and Alliance belong to a class of initiatives sometimes termed "ethical audit regimes" and are a form of CSR. These are generally voluntary arrangements whereby private corporations monitor their own supply chains' compliance with codes of conduct, whether in terms of worker safety, environmental stability, human rights, or other social goals. Often, corporations can certify their products' supply chains with an outside auditing service. Appendix B provides a broad history of these regimes and CSR generally. The remainder of this section assesses ethical audits' impacts historically and then describes the Accord and Alliance.

Previous ethical audits' impacts

Ethical audits have seen mixed results throughout their history. Nike's monitoring program produced disappointing outcomes, with 20% of supplier factories improving in compliance ratings but 36% worsening (Locke, Qin, and Brause 2007). HP's (Hewlett Packard) suppliers saw some limited improvement to compliance as a result of a private push for adherence to social and environmental standards, but local institutions and domestic wealth levels were much more salient predictors of greater compliance (Distelhorst et al. 2015). More frequent compliance monitoring and noncompliance warnings did not predict better compliance among Better Work (an ILO project) factories

in Cambodia, though the nature and duration of the supplier-buyer relationship did predict better compliance (Oka 2010). Compliance monitoring audits of factories in 14 countries improved compliance with chemical safety standards, but only among the small proportion of factories that experienced more than nine audits, with the rest seeing no impact (Lindholm, Egels-Zandén, and Rudén 2016). Conversely, a large set of audit records (44,383 audits of 21,836 suppliers in 47 nations) indicates more frequent audits do predict fewer compliance violations, controlling for a number of factors; there is concern, though, that increased compliance simply shows suppliers' learning to "game" audit protocols without truly making safety investments (Locke, Qin, and Brause 2007; Toffel, Short, and Ouellet 2015).

Perhaps most notably, nearly all of the factories covered by the Accord and Alliance were subject to CSR audits of some kind prior to Rana Plaza. In May of 2015, the Accord's Chief Safety Inspector informed signatories that every single factory inspected was considered "at high risk" (Loewen 2015). Rana Plaza itself had submitted to multiple audit inspections and was allowed to continue production. Taken together, the conclusion is that ethical audits do not reliably improve workplace conditions.

These limitations may not apply to the Accord and Alliance, though. While the ethical auditing regimes discussed above concern single transnational firms acting opaquely and with varying strategies and standards, the Accord and Alliance are consortia of over 200 retailers agreeing to a common standard, and they apply to over a third of a nation's factories in a concerted effort to enact change. Labour and civil society are at the table, and substantial capital investment is involved. The simultaneously enacted National Initiative could also bolster compliance among the remaining two-thirds of the nation's factories. These differences may suffice to make the Accord and Alliance more successful than previous CSR attempts to impose ethical standards on transnational supply chains.

Aside from ethical audits, there exist other factors that predict better compliance outcomes in supply chains. First and most notable is the strength of institutions in the supplier nation. Higher levels of press freedom, the presence of labour laws, and greater participation in international labour treaties are all associated with greater compliance (Distelhorst et al. 2015; Toffel, Short, and Ouellet 2015). A higher union presence

understandably predicts better labour standard compliance (Oka 2016). On the other side of the interaction, pro-social attitudes in *buyer* countries, as well as higher buyer country GDP per capita, also predicts higher compliance (Toffel, Short, and Ouellet 2015). Perhaps relatedly, in Cambodia's Better Work program more personal business relationships between buyer and supplier (i.e. as opposed to working through an incountry agent) predicts better compliance regardless of the number of audits (Oka 2010). Bangladesh's institutions are relatively weak; press freedom is limited; unions are regularly harassed by both the government and exporter associations (the BGMEA and BKMEA), and many brands purchase through Bangladeshi selling agents rather than factories. These realities may prove to be impediments to the Accord and Alliance's goals.

The following sections outline the basic structure and functioning of the two initiatives.

Accord on Fire and Building Safety in Bangladesh

Of the two importer associations, the requirements of the Accord are the more ambitious. The Accord is a legally binding agreement managed by The Bangladesh Accord Foundation in The Netherlands. Its development was overseen by the International Labour Organization (ILO) and several leading retailers and labour unions. It is governed by a six-member board with equal representation from signatory brands and international trade unions, as well as a chair chosen by the ILO. It was initially signed May 15, 2013 and began implementation in October of that year. It consists of the following:

- 1. A five year legally binding agreement between brands and trade unions to ensure a safe working environment in the Bangladeshi RMG industry;
- 2. An independent inspection program supported by brands in which workers and trade unions are involved;
- 3. Public disclosure of all factories, inspection reports and corrective action plans (CAP);
- 4. A commitment by signatory brands to ensure sufficient funds are available for remediation and to maintain sourcing relationships;

- 5. Democratically elected health and safety committees in all factories to identify and act on health and safety risks; and
- 6. Worker empowerment through an extensive training program, complaints mechanism and right to refuse unsafe work. (Accord 2017a)

The Accord applies to all Bangladeshi factories that produce garments for any of the 200 foreign signatory brands, and these factories consist of three tiers. Tier 1 includes factories in export processing zones, which must produce at least 30% of a signatory brand's volume in Bangladesh. These are subject to inspections, remediation plans, and fire safety training. Tier 2 factories are those outside of export processing zones dealing directly with signatory brands and which, with Tier 1 factories, must account for at least 65% of the signatory's production volume in Bangladesh. These are subject only to inspections and remediations. Tier 3 factories cannot produce more than 35% of a signatory's export volume. These factories are subject to limited initial inspections, and remediation only in cases of urgent need. Any subcontractors may also be subject to inspection and remediation of urgent issues (Accord 2013).

The Accord itself covers 1,601 factories (Accord 2017b), representing an estimated 2.4 million workers.² As of 15 October 2016 the Accord had completed initial inspections and uploaded corrective action plans (CAPs) for 1,473 of these factories. Table 2 describes the attributes of the differing tiers of all factories covered by the Accord.

Table 1 Reported Attributes of Accord Factories

Tier#	Number of Registered Factories	Mean Number of Workers/factory	Mean Number of Buildings/factory	Total Factories Housed in Multipurpose Buildings	Total Factories Housed in Multi-factory Buildings
Tier 1 or 2					
	1155	1688	2.5	64	165
Tier 3					
	410	1094	1.9	25	46
Tier not	•	242		•	•
reported	20	816	1	0	0

² Details on this estimation are found in Appendix A.

The Accord factories have on average about 1,700 workers each; tier 3 factories are smaller but still have sizeable average workforces at about 1,100. 15% of factories are housed in buildings housing multiple factories or other uses, which makes assignment of responsibility for corrective actions especially challenging.

Once the corrective action plans (CAPs) are created, factories are obligated to remedy the shortcomings identified, under threat of contract termination (by all signatory brands). Prior to termination, they receive several warning letters. As of mid-October 2016, 42 factories had been terminated due either to non-cooperation or to more urgent safety matters. For the remainder of the inspected factories, work has begun to correct safety lapses and structural deficiencies. Signatory brands are obligated to arrange financing with the factories for these corrections. Of these, 46 have completed remediation and been declared safe as of mid-October 2016.

Alliance for Bangladesh Worker Safety

Several North American retailers hesitated to join the Accord. Wal-Mart and Gap Inc. led the effort to create an alternative initiative. They created the Alliance with assistance from North American officials and politicians. Their chief concern with the Accord was the binding commitment to provide unknown future capital required for safety improvements. Some also expressed concern about class action liability in the American court system, but experts report this was never a likely potentiality (Greenhouse 2013a, 2013b). Unlike the Accord, which makes providing capital for remediations legally binding upon its members and enforceable through arbitration, the Alliance only makes an initial, set financial commitment enforceable through arbitration. Also, it permits signatories to resign for any reason upon payment of a fee (Alliance 2015); the Accord has no such provision. Finally, the board of the Alliance does not include representation for labour representatives.

The Alliance covers 683 factories, including 477 factories for which it shares responsibility with the Accord. In cases of shared responsibility, the Alliance accepts the Accord's inspection as sufficient. For the remaining 205 factories, it follows a remediation approach roughly similar to the Accord. Exporting factories that deal directly with signatory

brands are inspected and assigned CAPs under a common safety standard. The Alliance, like the Accord, makes its CAPs publicly available, but unlike the Accord these records do not include the results of follow-up inspections; this makes it impossible to know which specific remediations have been completed.

Capital may be made available to factories to implement changes, but as noted this is not a binding commitment on the part of the signatory brands beyond the initial set amount promised (NYT 2013; Alliance 2015). The nature of financing for specific remediations is not made clear, as in the Accord.

Current Situation of Stakeholder Groups

What follows is a survey of various stakeholder groups under consideration in this report. It attempts to outline the key statistics and concerns for each of the groups, as well as changes that may be taking place after the collapse of Rana Plaza.

Rana Plaza workers

Of the roughly 3,900 survivors of the Rana Plaza collapse, about 2,500 were injured. In 2016, a follow-up survey of 149 survivors, who had initially been hospitalized, found that 79% (95% confidence interval [CI]: 72%-85%) suffered from some residual physical morbidity and 52% (CI: 44%-61%) from some mental morbidities (Richards, Rahman, and Huda 2016).

The collection and dispersal of the USD30 million in compensation pledged by many signatories to the compensation fund took roughly two years. One year after the disaster, 57% of 181 survivor respondents to a follow-up survey reported receiving a quarter or less of the compensation promised, with 83% of the sample unemployed (Fitch et al. 2015). In May 2015 and after fears the fund would not be fully collected, the ILO reported that all promised funds had been secured and that victims would finally receive their "fair" compensation, in accordance with ILO's guidelines (International Trade Forum 2015; Butler and Burke 2015).

Trade unions

Trade unions appear to have responded favourably to the Accord's implementation. Interviews with four factories (two covered under the Accord and two by the National Initiative) suggest that union leaders are much more impressed with progress made due to the Accord than due to government inspectors. They report seeing remediation activity in their factories, though implementation of certain aspects (fire safety training, union funding, fire hotline awareness) has been spotty (M. R. I. Khan and Wichterich 2015).

Unions in factories covered by the Accord feel more connected to the global labour movement, and unions overall may have seen explosive growth post-2013. The government's Labour Ministry reported in August of 2015 that 326 of the then-extant 464 unions (about 70%) had been registered since the Rana Plaza tragedy (Ovi 2015). This is the result of the Labour Amendment Act (2013), which enacted registration and provided additional protection for collective bargaining rights.

While unions gained de jure recognition, rights, and benefits as a result of new legislation, the government and exporters have reacted with extreme hostility to increased labour activism. In December 2016, tens of thousands of workers went on strike in solidarity with over a hundred fired workers and to demand a higher minimum wage. Police clashed with some protestors and arrested 30 union leaders and workers. Factories fired over 1,500 workers in response, though the Bangladesh Garment and Industrial Workers Federation (an Accord signatory) puts the count closer to 3,500 (Wadud 2016). Reports of torture, union intimidation, and death threats have surrounded the aftermath of these events, and the situation remains tense and hostile (HRW 2017).

Government of Bangladesh

The government itself has committed to the National Initiative, which concerns exporting factories covered neither by the Accord nor the Alliance (i.e. factories selling chiefly to other retailers, although they may sell to Accord or Alliance brands if they do not do so at a volume sufficient to qualify for coverage). These commitments include converting the directorate responsible for industrial safety into a full-fledged department,

the Department of Inspections for Factories and Establishments (DIFE), and adding about 1,000 staff members to this department. Increased inspection vigilance, public inspection reports, and protection for bargaining rights are also included in the Action Plan, but few of the commitments have been achieved (M. R. I. Khan and Wichterich 2015; MoLE 2016). Observers have been sceptical that DIFE will become an effective enforcement body on par with the Accord and Alliance (Yasmin 2014; M. R. I. Khan and Wichterich 2015).

DIFE also asks factories to produce a CAP. These records are not made public, but initial inspections and recommendations are. They have completed inspections of 1,553 factories, of which only 300 have produced CAPs. The rate of remediation is unknown.

International organizations

The ILO has been involved in almost every aspect of the response to the Rana Plaza collapse, including managing the compensation fund for victims, assisting with the design and implementation of the Accord, and advising on government initiatives. Recent initiatives include the following: 1) Better Work Bangladesh Programme, a partnership between the ILO and the International Finance Corporation as a way to improve workers' lives and communities as well as maintain the competitiveness of the industry; 2) support for the Bangladeshi and German governments in creating an employment injury insurance program for RMG workers; and 3) promotion of employer-employee dialogue at the factory level.

IndustriALL Global Union asserts that the Accord is saving RMG workers' lives despite hiccups (IndustriALL 2016a). UNI Global Union is generally satisfied with the Accord and suspicious of the Alliance (UNI 2017). The Clean Clothes Campaign and others³ have expressed dissatisfaction with the Accord's and Alliance's rate of progress in remediating safety violations and assigns responsibility chiefly to signatory brands; they

³ Other important advocacy groups include the Maquila Solidarity Network, the International Labor Rights Forum, and the Workers Rights Consortium. They generally participate with the Clean Clothes Campaign on projects and share similar views, so this report focuses on the Clean Clothes Campaign.

have also criticized the Alliance for its lack of transparency and over-representation of signatory brands in its leadership (Miedema 2016b, 2016c, 2016a).

Retail consumers and their governments

Western consumers report overwhelmingly that they prefer products to be made by people paid a living wage, without child labour, and without undue health or safety risk in the workplace. Yet in discrete choice experiments (both in surveys and natural setting experiments), consumers exhibit quite limited demand for products marked with ethical audit certifications such as "Fair Trade". Demand is highly price elastic, meaning that most consumers will not opt for a product with "good" social features if it means more than a minor price increase relative to close substitutes without such social features (Devinney, Auger, and Eckhardt 2010; Hainmueller, Hiscox, and Sequeira 2014). This suggests that, while retail consumers can have poignant reactions to disasters such as Rana Plaza, such reactions may not actually impact their buying behaviour as drastically as some surveys suggest. Consumer boycotts tend to be short-lived affairs with limited impact on corporate performance (Koku 2012).

Consumers' governments do participate in the responses to Rana Plaza. The European Union, while initially considering harsh sanctions against Bangladesh in response to the Rana Plaza collapse (Spiegel, Wilson, and Jopson 2013), became a major proponent of the Accord. The US government assisted in the design and implementation of the Alliance, and former US and Canadian diplomats sit on its board. In the aftermath of Rana Plaza, the US government revoked Bangladesh's overall tariff privileges in order to pressure the Bangladeshi government into acting more quickly (Greenhouse 2013c). This revocation did not affect garment tariffs specifically, and garment imports were not detectably affected. Bangladesh's tariff privileges have not yet returned to pre-2013 levels, and Bangladeshi politicians have voiced frustration that the US is treating Bangladesh differently from other similarly placed nations. There are signs that Bangladeshi politicians will no longer focus on regaining their tariff privileges with the US (Labowitz 2016). Finally, the US and the EU released a "common understanding" document, which outlined their joint objectives for the future of the Bangladeshi RMG sector (ILO 2013).

Accord and Alliance sunsets

The greatest uncertainty lies in the post-2018 future, when signatories are no longer legally obligated to uphold the standards and practices set out in the Accord and Alliance. The endgame entails handing responsibility for maintaining the safer RMG sector to the newly bolstered government department.

Neither the Alliance nor the Accord will likely reach their goals of complete remediation by June 2018. Thus, some stakeholders are gearing up to extend provisions of the Accord. IndustriALL and UNI Global Union, the two original labour signatories to the Accord and instrumental in its design, have voiced commitments to maintain involvement until responsibility can be transferred successfully (IndustriALL 2016b). Discussion around an extension of the Accord is taking place among some Accord signatories and the global trade unions, but no firm plan has been announced. The BGMEA, for its part, is opposed to any continuation of a system of "redundant" inspections (Russell 2016). Instead, the BGMEA is reportedly proposing an extension dubbed "Version 2.0" in Bangladeshi news outlets (Haque 2017; Mirdha 2017).

There is, at present, no concrete plan for extending the Accord/Alliance audits after 2018, and signatory brands appear not to be involved in the development of the BGMEA proposal. Whether a formal extension will be designed and signed, informal relationships will be maintained.

Chapter 3.

Methodology

In order to inform the decision facing signatories in 2018, I evaluated the progress made by the more rigorous initiative, the Accord. We need to know to what extent the initiatives have made progress toward the goal of a safe working environment in order to decide how best to go about securing it.

I began by conducting a search of the literature on the effectiveness of ethical audit regimes. With that context, I analyzed the results of follow-up inspections as recorded in each factory's corrective action plan. Finally, I conducted interviews with members of various stakeholder groups.

Corrective action plan (CAP) analysis

According to the Accord, Alliance, and National Initiative, factories are required to submit to fire, structural, and electrical inspections. Factories then agree to a corrective action plan (CAP), which is binding. Because the Alliance and National Initiative do not provide public information about remediation completion, only the Accord's results were analyzed in this analysis.

The Accord's CAPs include narratives about remediations needed, any updates since the CAP was first issued and follow-up inspections that have taken place, timelines, and some factory information. As of mid-October, 2016, 1,601 CAPs exist, of which very few have been designated "completed" and even fewer have been marked "on track". The overwhelming majority are "behind schedule". Each CAP is composed of individual standards violations, each with its own remediation plan, deadline, and follow-up commentary (Accord 2016a).

The publicly available CAPs were downloaded and analyzed to determine which standards remain unmet, well after the final deadline. These CAPs included factories' names and locations, but factory-level data were kept in separate documentation, often

under slightly different name spellings (Accord 2017b). Using fuzzy string matching technology (van der Loo et al. 2016), factory names in the CAPs were paired with their closest match in the factory data documentation, and the two datasets were thereby merged.

The length of each remediation's "delinquency" – i.e., the number of days the remediation was behind schedule – was calculated by "subtracting" the most recent inspection date from the final deadline date and returning a duration in days. Exploratory analyses were undertaken to determine correlates of such delinquency and to assess the overall status and rate of remediations. These culminated in a linear mixed effects regression model, which is explained in greater detail in Chapter 4.

Interviews

Interviews were sought from academics, engineering professionals, and labour representatives close to the situation. Sarah Labowitz, then co-director of New York University's Stern Center for Business and Human Rights, and Rob Wayss, Executive Director & Acting Chief Safety Inspector of the Accord, agreed to participate. These interviews elicited important perspectives on the extent of the problem, hopes for progress by the 2018 sunset of the Accord, and answers to technical questions about the industry.

The interviews, by and large, provided little information about the issue beyond what could be found in the grey literature and interviewees' public statements. These interactions helped by pointing me in the direction of valuable information. They also helped confirm my analysis of the choices and concerns facing signatories. Quotations are included below as needed.

Chapter 4.

Results

The Accord's 1,601 CAPs contain 125,860 individual inspection observations and their respective remediations. Since the Accord's inception the factories have corrected 62,634 (50.6%) of the observed problems; factories have claimed that another 18,284 (14.7%) have been corrected but need Accord verification, and 43,779 (34.8%) remain uncorrected. 83,423 engineering observations (76.6%) are from 1,155 factories in either Tier 1 or 2, while 25,417 (23.4%) are from 430 Tier 3 factories. (The tier is unknown for 17,125 observations)

Figure 3 shows the total number of remediations corrected, pending verification, or incomplete (i.e. "In Progress"), disaggregated by type of remediation and also by factory tier (where data exist). Factories are listed as either "tier 1 or 2" or "tier 3"; it is impossible to know which factories are in tier 1.

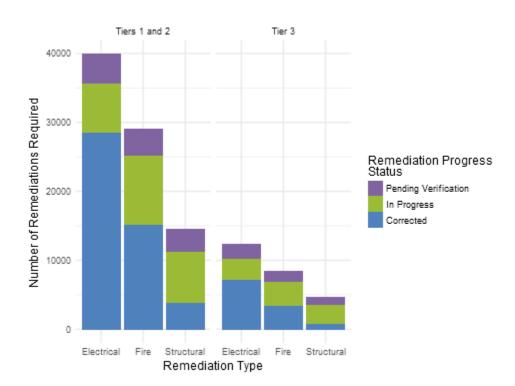


Figure 3 Remediation progress status, by factory tier and type of remediation

The distributions of progress between tiers are quite similar. Although the business relationship between brands and the factories in tiers 1 and 2 consist of much greater purchase volume and therefore are much stronger, both sets of factories have completed their remediations to a similar extent. Figure 3 shows that substantial progress has been made, especially in terms of fire and electrical issues. From this alone we can conclude that the Accord has had a significant impact on worker safety.

The Accord inspector assigns deadlines to remediations to which factory owners agree. For remediations where progress is slow, these deadlines are often subject to a single update to permit more time. This was done for nearly all remediations. Many remediations, though, have long passed both deadlines and are delinquent. There is a strong relationship between the overall type of remediation required and whether it is behind schedule. Figure 4 demonstrates the strength of this relationship.

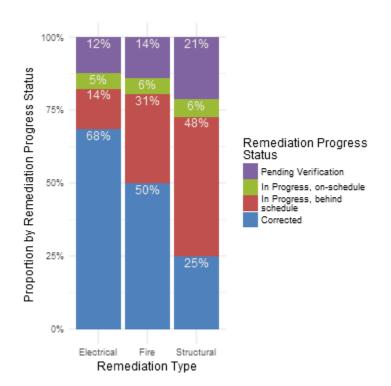


Figure 4 Corrective action progress status, by corrective action type

A large proportion of the remediations remain marked "in progress" past the updated deadline. Nearly half of the structural and a third of the fire remediations are past their deadlines. This is a strong indication that remediation is not proceeding nearly as quickly as hoped and that structural remediations are the most likely to pass their deadline uncompleted.

Adding the element of time demonstrates another important difference among the three types. Figure 5 shows the remediations divided across a number of dimensions: the date of the remediation's final deadline, its type, its progress status, and whether it was assigned in the original inspection or a later one.

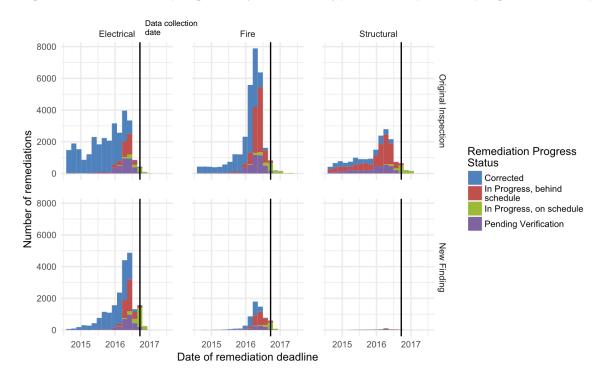


Figure 5 Remediation progress by deadline, type, and inspection (original vs. later)

Note: data collection date indicated by vertical rule

As shown, electrical remediations with deadlines before 2016 have nearly all been implemented, while those with recent deadlines show a greater tendency to pass their deadlines. Almost all of the remediations assigned in follow-up inspections were electrical, and these remediations fall behind schedule in a pattern similar to those assigned in the original inspection. The fact that electrical problems are identified so frequently in follow-up inspections suggests that new problems arise altogether, and electrical safety may be the most difficult element to maintain.

The vast majority of fire remediations have deadlines which fall in 2016. Those with deadlines before 2016, like their electrical counterparts, have nearly all been completed.

About half of the structural remediations whose deadlines were in 2014 have not been satisfactorily completed in 2017, three years past-due. The bulk of structural deadlines were in the year 2016, and more than half of these remediations are also

unfinished. If the remediations due in 2016 follow the pattern of those due in 2014, we can expect many to remain incomplete through 2022. This estimate is too generous. The remediations given deadlines in 2016 were assigned their deadlines in the same inspections as those remediations due in 2014, which suggests that these longer-term remediations were *expected* to be costly, time-consuming, and capital-intensive. If so, then many of these remediations will not occur even by 2022 under the current rate of remediation.

Based on this analysis, I project that electrical and fire remediation can be near complete by the initiatives' sunsets in June 2018. This is a significant stride in providing safer working conditions to factory workers. The failure, though, to remediate structural dangers is concerning; I believe the absolute soonest we could hope for complete structural remediation is 2022, but this is very optimistic.

To identify factors that may be contributing to these delays, a linear regression model with factory mixed effects was estimated according to the following equation, using the variables described in Table 2. Only remediations marked "in progress" are included in this model.

$$DaysDelinquent_i = X_i\beta + Z_ib_i + \epsilon_i$$

where $DaysDelinquent_i$ is the total number of days observations in factory i are delinquent, X_i is the matrix of predictor variables (found in Table 2) for each observation in factory i, β is the corresponding matrix of fixed effects regression coefficients for those predictor variables, Z_i is the matrix of factories, b_i is the vector of factory random effects, and ϵ_i is the vector of errors.

Table 2 Variable descriptions

Variable	Туре	Definition
Number of days delinquent, dependent variable	Continuous variable, in days	Number of days between remediation's final deadline and the most recent inspection
Remediation type	Dummy variable, with "electrical" as the reference group, also "fire" and "structural"	Classification of remediation by Accord engineer

Finance Plan	Binary variable, with 0 = "no", 1 = "yes"	Have and factory and brands agreed to a plan to finance the remediation?
Number of Floors	Dummy variable, with "6 or fewer" as the reference group, also "more than 6" and "unspecified"	How many floors comprise the factory buildings?
Tier 3	Binary variable, with 0 = "no", 1 = "yes"	Is the factory in tier 3?
District	Dummy variable, with "Dhaka" as the reference group, also "Gazipur", "Chittagong", "other", and "unspecified"	What administrative district is the factory located in?
Multipurpose Building	Binary variable, with 0 = "no", 1 = "yes"	Is the factory located in a building shared with non-factory elements?
Multi-factory Building	Binary variable, with 0 = "no", 1 = "yes"	Is the factory located in a building shared with other factories?

The dependent variable, the number of days delinquent, is explained in terms of the other variables in the table, accounting for repeated observations in each factory. Four mixed effects models are constructed. Model 1 demonstrates the univariate association between remediation type and length of delinquency. Model 2 uses a stepwise forward selection procedure that seeks to minimize the Akaike Information Criterion in order to identify a model with "best" fit; this procedure selected those variables displayed in Model 2. Model 3 builds on Model 2 by including interactions between remediation type and whether the factory shares a building and between remediation type and whether a finance plan has been agreed upon. Finally, Model 4 includes all variables and interactions of interest. All models include the date of original inspection and the most recent inspection date as fixed effect controls, as both variables impact the calculation of days delinquent. Although high between-group heteroscedasticity is observed in each model, within-group heteroscedasticity is not present, meaning that the standard errors used to determine significance are reliable for the fixed-effects coefficient estimates.

Table 3 Linear mixed effects regression assessing factors determining number of days delinquent for remediations "in progress". (N = 22,796[†])

Variable	N (%)	Model 1	Model 2	Model 3	Model 4
Type: structural (vs. electrical)	9,439 (41.4%)	124.04***	123.55***	168.97***	169.01***
Type: fire (vs. electrical)	9,873 (43.3%)	-14.06***	-14.41***	-10.17	-13.65

Variable	N (%)	Model 1	Model 2	Model 3	Model 4
Has more than 6 floors (vs. 6 or fewer)	7,780 (34.1%)		-14.55*	-15.16*	-16.17*
Unspecified number of floors (vs. 6 or fewer)	6,246 (27.3%)		-9.39	-8.81	-10.46
Has finance plan (vs. not)	20,750 (91.0%)		-40.64**	-15.31	-13.65
Multi-factory building (vs. not)	3,365 (13.5%)			-2.53	0.40
Interaction: Type Structural and Has finance plan	8,629 (37.9%)			-55.89***	-55.95***
Interaction: Type Fire and Has finance plan	9,076 (39.9%)			-5.93	-5.98
Interaction: Type Structural and Multi-factory building	1,354 (5.9%)			30.25***	30.26***
Interaction: Type Fire and Multi- factory building	1,255 (5.5%)			-0.60	0.55
District: Gazipur (vs. Dhaka)	7,097 (31.1%)				-11.90
District: Chittagong (vs. Dhaka)	2,429 (10.7%)				-16.35
District: Other (vs. Dhaka)	4,275 (18.8%)				0.56
District: Unspecified (vs. Dhaka)	2,083 (9.1%)				-5.15
Multi-purpose building (vs. not)	1,746 (7.0%)				-14.78
Tier 3 (vs. Tier 1 or 2)	6,285 (27.6%)				0.10
Pseudo- $R^{2\dagger\dagger}$ for fixed effects only		19.7%	20.4%	20.6%	20.8%
Pseudo-R ² for fixed and factory random effects		58.5%	58.8%	58.9%	58.9%
Likelihood ratio test: Improved fit over previous model?		6164.80†††***	109.93***	41.23***	5.44

Remediations' factories were modelled as a random effects grouping variable. All other variables were modelled as fixed effects.

^{*} significant at p < .05, ** significance at p < .01, *** significance at p < .001; † 2,194 observations lost due to missing factory data; †† An imperfect approximation of an unadjusted R^2 statistic (based on Johnson 2014); ††† Versus a model with only factory effects (pseudo- R^2 : 44.8%)

The bulk of the models' explanatory power lies in the remediation type (after factory random effects), as would be expected given the dramatic associations shown in Figures 4 and 5. This variable explains 19.7% of the variation in delinquency. The inclusion of the variables in Model 3 provide the greatest increase in explanatory power; Model 4 does not significantly differ from Model 3, meaning that its additional variables do not add substantial explanatory power. These include a factory's district, tier, and being in a multipurpose building.

The importance of having a finance plan cannot be overstated. Remediations with finance plans have, on average and controlling for other variables, shorter delinquencies by 41 days. The interaction between finance plans and remediation type is also notable, as a structural remediation can be expected to be 169 more days behind schedule (nearly six months) all else held constant, but this is reduced to 113 days if a finance plan is agreed upon.

Interestingly, remediations in factories with more than six floors can be expected to occur closer to their deadlines by about 15 days compared to smaller factories. One may suppose the opposite to be true, as larger factories probably have more and pricier structural problems needing repair. These findings suggest that larger factories may have better access to the capital needed for repairs and that this access outweighs having more structural repairs than smaller factories. If larger factory size implies access to larger product orders, stronger relationships with brands, or better resources for navigating the banking system, then this finding makes sense.

Structural remediations in buildings shared with other factories also suffer from longer bouts of delinquency, about 30 additional days. This may be due to the complexity involved in determining responsibility among factory owners, especially in cases where repairs must take place on floors owned by other factories (which can occur if, say, a different factory operates on the ground floor but the columns there are cracked).

Although a larger proportion of fire remediations are actually behind schedule compared to electrical ones, this model shows that, controlling for other factors, fire remediations are less behind schedule. This tendency is visible even in Figure 5, as the more recent electrical and fire deadlines have roughly similar completion rates, the main

difference being that more electrical deadlines occurred in the more distant past. This result is promising. It suggests that although many fire remediations are behind schedule, this could be an artefact of having so many deadlines occur more recently; if the previous rate of remediation for these issues holds in the future, then fire remediations could also be complete or nearly so by the initiatives' sunsets.

These models suffer from a lack of data. Some non-included relevant variables are: which brand signatories factories deal with, length of their relationships with said signatories, finance plan terms (factory self-financed, grants from signatories or governments, loan guarantees, guaranteed orders, favourable order pricing, etc.), estimated cost of remediation, number of follow-up inspections, Accord escalation (i.e. whether factory has been officially warned for noncompliance), factory age, trade group affiliation, employee union membership, and factory profit margin. All of these variables could reasonably be hypothesized to explain some of the variance in number of days behind schedule, of which Model 3 only explains a total of 58.9%.

Data limitations aside, these results support the idea that access to remediation financing strongly influences the rate of remediation, at least for structural repairs. This does not come as a great surprise, given previous research on this topic; a sharp difference exists between the cost of remediation for factories that require extensive structural retrofitting and those that do not (ILO and IFC 2016). Still, the finding that agreeing on a finance plan alone implies a near-two-month reduction in structural remediation delinquency highlights the difficulty factories could face in completing remediation without adequate capital (even after a finance plan is agreed upon).

If inspectors have concerns about the stability of the building's structure, (such as cracks in a column or inadequate floor load plans), factories are required to engage a qualified building engineer to conduct a detailed engineering assessment (DEA). These are much more in-depth than the initial inspection recorded in the CAP, and the DEA will result in further requirements for retrofitting and other remediations as determined by the engineer. Tellingly, 977 (61%) of factories' CAPs make mention in at least one remediation of a "detailed engineering assessment", suggesting that extensive structural repairs are required of the majority.

In all, these data make clear that significant progress has been made with regard to fire and electrical issues, but structural issues are being delayed – at least in part – by issues of financing and coordination. Efforts on the part of signatories to improve worker safety through factory improvement, then, will need to take these into account.

Little is known about the finance plans to which factories and signatory brands agree. All that is made public is whether or not a finance plan exists, not the means whereby remediations are paid nor by which party. The factories and brands have each confirmed that they have agreed to financing for the overwhelming majority (93.4%) of remediations. Of course, while the majority of remediations have financing "planned for", this does not necessarily mean that those funds are readily available. As said, little is known – even to the Accord itself – about what these finance plans entail (Accord 2016b). Says Rob Wayss, "In most of them, the overwhelming majority of them (I estimate over 95%), the answer we get to the composition of the finance plan is the factory is going to pay for the remediation with their own resources." On a similar point, Sarah Labowitz states, "The thing that we have flagged from basically day one is who's going to pay. I think that at the end of the day it's not clear who's going to pay, but this is clear: the factory owners are going to pay. Absent a commitment from the brands to bear some of the cost, what you see is huge delays." The ILO and IFC have suggested that, because factories financing themselves may require loans at high interest rates and involving complex bureaucracies, factories have an incentive to delay obtaining the funds necessary for remediation. Foreign governments have provided facilities for obtaining lower-threshold capital, but probably not enough. An estimated gap between available lower-threshold capital and the capital that will be required for the remaining remediations stands at \$448 million (ILO and IFC 2016, 3). Clearly, financing these repairs will be difficult for factories, and substantive delays can be expected.

Factory safety remediation, when addressing numerous issues across an industry and in a context of weak governance, takes significantly more time than initially imagined. That said, the Accord's factories are substantially safer than they were before Rana Plaza's collapse due to pressure and capital from governments, signatory brands, and inspectors. Whether they are brought entirely in-line with global standards depends on decisions regarding the Accord and Alliance after their current sunsets in June 2018.

Chapter 5.

Policy Options

Several options face the signatories to the Accord and the Alliance. This report focuses on their choices because they have been among the most salient policy actors in the domain of Bangladeshi worker safety. Chapter 4 shows that the Accord has accomplished more in its lifetime than any previous CSR attempt to improve worker safety. Options available to other policy actors were not considered as they were deemed less feasible or had overall lower potential for addressing the problem at the core of this report. Some options available to other policy actors outside the Accord and Alliance signatories are described in Appendix C.

When the present agreements expire in 2018, signatories have the choice to terminate their formal, multilateral role in improving building safety, continue with the current system, bolster the current system, expand their focus to the unregulated informal sector, or participate in BGMEA's proposed alternate system. Each of these options is summarized below.

Status quo

The Accord and Alliance can be allowed to expire in 2018 without a formal followup system. Their factory inspections and remediation orders will transition to DIFE's jurisdiction completely, and DIFE will treat these factories similarly to those already under DIFE's regime.

The signatories have indicated that this option would still include an unspecified level of involvement to help DIFE take on the regulatory responsibility and to help factories remediate. These details have not been formalized, and this report assumes that they would be minimal efforts. Although signatory brands engaged in CSR audits of their supply chains' safety prior to Rana Plaza's collapse, under this option they are probably not going to pursue audits with as much rigour. The government initiative – with its much larger inspection staff and capacity – will justify a drawdown in brands' vigilance.

Extend current system

The current Accord and Alliance arrangements can be extended beyond their June 2018 sunsets until 2022. Under the current rate of remediation, four years is the absolute minimum time required for complete structural remediation. This extension would require another agreement from the ILO, signatory brands, trade unions, and the other stakeholders involved in the Alliance. Cooperation from global unions, RMG workers' advocates, and the government of Bangladesh would be helpful if not critical to this option.

This option would also require foreign aid agencies to make similar amounts of capital available for remediations as they have for the current initiatives. The analysis in Chapter 4 suggests that financing is a major hurdle for timely remediation. Without this option's additional low-threshold capital, factories may not remediate at the same rate as the initiatives' first five years.

Extend current system with credible termination and increased capital for remediation (Accord/Alliance Plus)

The Accord and Alliance can extend their activities until 2022 and also bolster their activities with the following additional provisions.

Signatories could implement a graded termination threat, whereby signatory brands agree to cap their purchase volume from delinquent factories in response to extended noncompliance and delays. The current system contains an all-or-nothing termination system following several official warnings; a graded termination would allow for more liberal penalization without crippling major portions of the sector. Multiple and declining purchase order caps could be implemented as remediation delays continue. The intent here is to provide a more credible threat of termination in an attempt to inspire more urgent compliance with building safety standards than are currently observed.

The risk inherent in declining purchase order caps is that many factories may delay remediations solely due to financial concerns, even if they appreciate the urgency of remediation. Increasing the threat of termination for these factories – which are otherwise willing to implement safety improvements – would be unproductive and could reduce the

number of safe workplaces eventually established. To compensate, signatories can push for increased contributions to loan guarantee programs similar to the USAID risk reduction funds, at a level above that seen in the initiatives' first five years. These are useful mechanisms for providing the necessary capital at reasonable interest rates to factories that would otherwise struggle to secure loans (ILO and IFC 2016).

Focus on informal sector

Many RMG firms undertake unauthorized subcontracting to the informal sector. Thus, many signatory brands rely on unregulated informal operations for product, often without their knowledge. There is little incentive for subcontractors to enter the formal market, as they would be unable to meet the stricter safety standards of factories that work directly with signatory brands. The median number of workers in these factories is 55 (Labowitz and Baumann-Pauly 2015, 27), which indicates operations highly unlikely to be able to afford global standards. Those working with brands can also be punished for indirect sourcing practices and are therefore unlikely to be transparent about their purchasing from the informal sector.

Signatories could launch another multi-stakeholder initiative. This would consist of an agreement to require informal operations that subcontract for exporters to submit to an abbreviated inspection regime by DIFE, similar to the Stern report's recommendations. Direct sourcing factories that are transparent to brands about their subcontracting can receive rewards, perhaps in terms of favourable orders. In addition to this change, signatories would assist government and other stakeholders with a major project to map out the informal sector via a comprehensive survey, implementation of an inter-factory safety mentorship system for subcontractors, and a push for government to take limited responsibility for the informal sector (Labowitz and Baumann-Pauly 2015).

BGMEA proposal

The current proposal from BGMEA essentially consists of a staged hand-off to the Bangladeshi government and the trade groups. This would entail a three-year program similar to the Accord with additional seats on the steering committee for the trade groups and DIFE. This is an evolving proposal, but it apparently entails the following:

- Creation of a single body headed by representatives from government, BGMEA, the ILO, trade unions, and brands;
- Dissolution of the Accord and Alliance;
- Elimination of the legally binding nature of the brands' commitments;
- Inspection and remediation on an as-needed basis;
- Lowering signatory brand contributions to 50% of their current amount⁴ for maintaining the new framework; and
- Complete transfer of responsibility to DIFE in 2021. (Haque 2017)

The intent here is to reduce costs for factory owners and brands, provide a more credible future system of remediation over the status quo, and increase the influence and responsibility of DIFE and BGMEA.

⁴ Brand signatories to the Accord and Alliance currently pay an annual fee to help maintain the inspection and training programs. These fees are based on a sliding scale informed by the size of the brand's exports from Bangladesh.

Chapter 6.

Criteria and Measures

The following criteria were established – informed by the literature and interviews conducted – to evaluate each policy alternative.

Primary Objective: Security and protection of persons

Policy alternatives must decrease, with a reasonable level of confidence, the likelihood that RMG factory workers in Bangladesh face bodily harm or death as a result of their occupation. This will be measured through the marginal number of workers estimated to work in factories that meet global standards as a result of a given policy option. Only options likely to expand this number, relative to the status quo, were considered.

Secondary Objectives

Development of Bangladeshi government's regulatory capacity and efficacy.

Bangladesh will benefit if its democratic institutions increase their ability to deliver services, enforce the law, and engage the public. This impact will be measured by 1) the proportion of factories DIFE inspects (capacity), and 2) the rate at which factories inspected by DIFE fully remediate safety violations (efficacy). If DIFE takes responsibility for inspecting rigorously a larger share of the RMG industry, it will begin establishing sustainable long-term relationships and expectations. This increased capacity, though, must be coupled with increased effectiveness on DIFE's part at facilitating factory safety improvements.

I follow Polanyi in framing the global economy as a historically determined pendulum swinging between *laissez-faire* self-regulating markets and state-run social protections against capitalism's harms (2001). The Accord and Alliance, as neither state

nor market actors per se, present an interesting development along these lines. While civil society organizations have historically performed certain regulatory functions, the Accord and Alliance both represent profit-generating brands in regulating factory safety. Morgan, Gomes, and Perez-Aleman (2016) summarize the problems inherent in such a development:

Recently, some authors have suggested the idea that transnational governance systems could work as substitutes for weak states in terms of building institutions in particular localities. However, this view further undermines the scope for populations to create their own spaces of governance. It could also lead to conflicts between Global South states and NGOs [brand-led initiatives, in our case], and Global North transnational social movements and states seeking to impose their agendas on the South. Whilst problems are global or transnational and impact broader populations, they are often specifically located in particular states. (pp. 377-8)

DIFE is the only RMG factory inspection regime in Bangladesh endowed with democratic legitimacy, even though many Bangladeshis question this legitimacy inasmuch as it is derived from a government criticized for excessive corruption and clientelism (Zafarullah and Rahman 2008). Given the importance of this objective, it will weigh more heavily in the proceeding analysis than any of the subsequent objectives, superseded only by factory workers' safety.

Export earnings of the industry.

Various policy alternatives may affect RMG export levels, both in absolute terms and per worker. As the industry is the nation's most important source of export earnings, as well as one of the best sources of economic advancement for Bangladeshi women, impacts to the industry's economic strength cannot be ignored. Export volume is considered to be dependent on the average cost of sourcing from Bangladesh relative to other sourcing jurisdictions; costs include the costs of product and labour, as well as risk of tragedy in image-conscious corporations' supply chains and transaction costs associated with shifting supply chains elsewhere.

Stakeholders' Concerns

The Government of Bangladesh.

The government is concerned with infringements on its influence and legitimacy. The government prefers less interference from outside actors such as foreign brands, foreign governments, and various advocacy groups. At the same time, it does not wish to lose the substantive benefits from the post-2013 intervention of the Accord and Alliance in terms of remediation funding, savings on inspections, and training. The government recognizes that, without the Accord and Alliance, it risked a major collapse of export earnings in the wake of the Rana Plaza collapse. This stakeholder has obviously great power, and can take actions that frustrate decisions taken by others in this domain.

Foreign governments in high-income countries.

Foreign governments are concerned with maintaining their citizens' access to Bangladeshi goods. Equally important are the goals of their international aid missions. The EU, the US, Canada, and others helped facilitate the establishment of the Accord and Alliance. A major foreign policy motivation, particularly on the part of the US and its allies, is to prevent political and economic instability and resultant threats to international security (H. A. Khan 2014; Coggins 2015). Since independence and especially in recent years, Bangladesh has displayed consistently less state fragility than Pakistan (Fund for Peace 2017), a situation interested foreign governments hope to maintain. They have provided access to capital for RMG factory safety improvements, trained DIFE inspectors and administrators, and conducted other programs targeting factory safety. They would prefer an option that improves worker safety at lower costs but are prepared to support extension of industrial safety interventions. They have high interest and high power, as they can choose to slow remediation through decreased future funding.

Accord and Alliance brand signatories.

Over 230 foreign brands have joined the initiatives. They prefer to source from countries with both low costs and a low likelihood for tragic scandals on the level of Rana Plaza. While the membership fees and provision of capital for remediation impose costs

on signatory brands to the Accord and Alliance, the post-2013 initiatives also give them a reasonably firm guarantee that their goods will be produced without incident. Any threat to that guarantee, as well as changes to their direct costs for maintaining the initiatives, remediating factories, and Bangladeshi goods, will concern the brands. This is a highly interested and powerful set of stakeholders, though they vary in their degree of image-consciousness.

The Accord and Alliance themselves.

The Accord and Alliance have become institutions in their own right, composed of representatives from labour, the RMG industry, governments, the ILO, and brands. They have facilitated all of the inspection and remediation work conducted over the initiatives' lifetimes, built the industry's capacity in other ways, and spoken out against government abuses of labour organizers. They are highly interested but have very little autonomous power. They themselves have little official say in what occurs after the 2018 sunset.

Bangladeshi trade unions.

In the wake of Rana Plaza and the Labour Amendment Act (2013), trade unions have gained new official recognition and were granted additional rights to associate and collectively bargain. These rights have not been fully respected. They are concerned with worker safety but also with defending said rights, increasing workers' wages and other benefits, and expanding their own influence. They are highly interested but have low to medium power.

Bangladeshi RMG exporter associations, BGMEA and BKMEA.

These institutions determine which factories are able to export. The Accord and the Alliance essentially undercut this authority by exercising their ability to terminate purchasing relationships between the largest Western brands and factories that BGMEA or BKMEA otherwise permit to export. BGMEA and BKMEA are interested in decreasing costs to their members (i.e., factory owners), regaining their authority over export permissions, and expanding their influence in other ways. They have high interest but

medium power, as they have large influence with the government and press but cannot trump choices by foreign brands.

International Labour Organization.

The ILO appoints the neutral chair in the Accord and has facilitated factory safety improvements through funding training programs, research, and advocating government on behalf of workers. It has a particular interest in facilitating an option that increases worker safety, rights, and benefits, but they also prefer options that involve as many relevant stakeholders as possible. The ILO tends to be deferential to governments. It has medium interest and medium power.

Advocacy groups.

These groups include the Clean Clothes Campaign, Maquila Solidarity Network, International Labor Rights Forum, Workers Rights Consortium, IndustriALL Global Union, and UNI Global Union. They are witnesses to the Accord, and they and similar international RMG worker advocacy groups communicate conditions in supply chains to interested consumers and activists in the West. They attempt to hold brands accountable for supply chain practices, build domestic unions' capacity, and advocate governments. They have variously criticized and supported efforts by the Accord and Alliance and have been especially critical of signatory brands and exporters. They have high interest but low to medium power.

Chapter 7.

Policy Analysis

The options were each compared to the status quo, in which the Accord and Alliance expire in 2018. Each option's marginal performance was evaluated across the set of criteria described in Chapter 6. This chapter describes that performance, which leads to the recommendations found in Chapter 8. A matrix which summarizes each option's performance on each criterion, relative to the status quo, can be found at the end of this chapter and may be useful for gaining a broad view of this report's reasoning.

Status quo

In the status quo situation, remediation will not likely stop upon termination of the Accord/Alliance. As DIFE takes responsibility for these factories, it will probably uphold building standards at a level above pre-Rana Plaza levels. Given the brands' threat to pull sourcing from Bangladesh in Rana Plaza's wake, DIFE has a greater incentive to maintain standards than before.

The exporting factories DIFE inherits from the Accord/Alliance will, as suggested in Chapter 4, likely have resolved the majority of their fire violations. A large proportion of structural issues, though, will remain unresolved, and these issues pose the greatest threat to injure and kill many people. Further, electrical issues will likely continue cropping up, which requires vigilance on the part of the inspection regime.

Because DIFE has only recently begun creating CAPs for the factories under its jurisdiction (DIFE 2016) – over two years after the Accord and Alliance finished creating their CAPs – probably DIFE's resources will be stretched thin when the major exporting factories come under its jurisdiction. While signatories have indicated a willingness to continue less formal remediation efforts (perhaps similar to their previous CSR regimes), the rate and stringency of remediation will likely slow dramatically after DIFE takes control. It is impossible to predict whether and how quickly DIFE grows into its new role. In short, the status quo situation will allow the risk of death and injury to remain unacceptably high

for a longer period of time than an extension plan would. Further, given the willingness of members of the government to accommodate factory owners, "less urgent" matters will probably be left unresolved for the long-term. Risk to workers will be reduced, but not by as much as in the other options.

Even though the remediation rate would slow, the government would become the authority responsible for upholding workers' safety. In the current situation, brands answerable chiefly to their shareholders operate a regulatory regime intended to replace ineffective government regulation. Ultimately, workers need to be able to hold their own government (rather than purchasers of their products) accountable for upholding the law and decent working conditions. This option best fulfills this criterion.

Export levels are threatened under this option. While safety improvements have occurred, especially in terms of fire and electrical safety, many signatory brands are image-conscious and may opt for other source countries after the Accord and Alliance sunsets. If this option's higher risk to worker safety results in higher accident incidence, even more flight will occur.

Flight is probable also because the landscape for international market share has changed. Competitive sourcing countries such as Cambodia, Vietnam, Myanmar, and Ghana are developing their capacity. Bangladesh can no longer rely merely on its plentiful cheap labour and lax regulations and labour protections to attract foreign buyers. In the wake of reforms post-Rana Plaza, Bangladesh has sought to bill itself as a safe sourcing destination for foreign buyers (c.f. Hossain 2017). Unfortunately, it does not yet have the regulatory capacity itself for this claim to be credible, and buyers will weigh their desire for cheap goods against their appetite for risk reduction. Some will decide that the transaction costs associated with shifting away from Bangladesh are worthwhile.

As in all options, the stakeholder response will be mixed. The domestic government and BGMEA would prefer the lesser foreign oversight in this option, even though the government would immediately bear the cost of additional inspections. Interested foreign governments would fear additional instability stemming from negative impacts to the industry. Signatory brands would dislike the decrease in their own influence over factory safety, even for those that continue sourcing from Bangladesh. Domestic

trade unions would lose their representation on the Accord board: a significant drop in influence. The ILO and global advocacy groups will have concerns around DIFE's ability to maintain worker safety; advocacy groups in particular applaud the Accord as a mechanism for better safety and will object to its loss.

In all, the status quo transitions authority to the long-term, domestic inspection authority. It also leaves the project of complete remediation unfinished for much longer, threatening worker safety and export levels. Foreign stakeholders and domestic unions will object to such a choice, and the domestic government and BGMEA will applaud it.

Extend current system

If the Accord and Alliance are extended as-is, complete remediation by 2022 is possible, though not likely. Structural remediations can be expected to take longer than four additional years. Still, if the Accord and Alliance extend their remediation activities by four years, many more remediations will have occurred than under the status quo, extending safe work environments to an estimated additional 2 million workers.

Such a delay in transitioning responsibility to DIFE will provide DIFE more time to build its capacity. If the Accord and Alliance use an extension to complete many more factory remediations, and if the stakeholders work successfully with DIFE to prepare better for the transition, then a better-prepared DIFE will inherit responsibility for a set of factories with fewer safety violations. This provides a greater chance for long-term sustainability.

There is another consideration, though. If the foreign brands continue their present role post-2018, they will continue to occupy regulatory space over which a domestic government wishes control. Historically in the global South, Western governments, NGOs, and corporations have filled regulatory spaces reserved (in high-income states) for democratically elected governments. If this dynamic intensifies through extension, the domestic government may attempt to undermine the initiatives as a way to assert its authority (c.f. Dupuy, Ron, and Prakash 2016).

Extension for four years would credibly guarantee a safe sourcing environment for the duration, which will in the short run reduce the threat of firms sourcing imports from

other countries instead. In addition to concerns over absolute export levels, there is some evidence that RMG factories providing protection for workers (including safety protection) are more competitive and long-lived (Jetha and Linsen 2015). While this has only been shown in the case of intra-country competition, better worker protection could create a somewhat more productive RMG industry.

Foreign governments likely prefer either extension plan to the status quo or BGMEA's proposal, even though they would need to maintain the same rate of remediation funding. The Accord and Alliance have had a positive impact on worker safety, which in turn improves the industry's stability. Bangladeshi trade unions also would prefer to extend the initiatives. They have representation on the Accord's board, and they hope to see factory safety improvements and worker representation on health and safety committees persist. Other advocacy groups and the ILO would also prefer to extend agreements.

The brand signatories likely prefer the extension options as these would solidify the guarantee that sourcing from Bangladesh will not further tarnish their reputations as ethical buyers. The Accord and Alliance have given them collective influence over the industry, influence that they would need to share with BGMEA and DIFE under the BGMEA plan or diminish overall under the status quo. Although the initiatives have been costly to brands – and extending them would extend those costs – we can assume that they valued the benefits over the costs once and still do.

Extend current system with credible termination and increased capital for remediation (Accord/Alliance Plus)

This option responds to the risk of worker injury and death by further facilitating remediation and making penalties for delay more actionable. In the current situation, nearly every factory in the Accord and Alliance is "behind schedule" and has been so for quite some time. Few factories have been terminated for noncompliance. Presumably, the Accord and Alliance retain factories that are behind schedule because slow progress is being made and terminating such factories would decrease the export potential of a large portion of the sector too quickly. Nearly half of these factories have already received their official warnings of noncompliance, and since mass termination appears unlikely from all

parties' perspectives, the present penalty may seem not credible except in cases of obvious recalcitrance.

With the Plus option's graded penalty structure, credible penalties can be applied to recalcitrant. In addition, expanded capital will be made available by foreign aid agencies and brands. These two provisions should hasten the remediation rate. For this reason, the Plus option will perform best of all options in terms of worker safety. It will also more likely extend safe working conditions to all 2.6 million workers covered by the initiatives (minus those in additional factories whose contracts with signatories are fully terminated).

The tradeoffs, in terms of DIFE's governance and efficacy, apply to this as well as to the previous option.

This option may see somewhat fewer exports if less-compliant factories are penalized with smaller export orders. This will be difficult to detect, though, and will not likely impact the industry to a great extent. Compared to the status quo, it does much more to guarantee long-term export levels.

All stakeholders are likely to respond similarly to this option as in the mere extension option, with the exception of BGMEA. They will object even more loudly to any further penalties applied to their members, despite additional capital, and the domestic government will likely stand alongside them.

BGMEA proposal

The BGMEA proposal's performance in improving worker safety lies somewhere between the status quo and the simple extension of the initiatives. It will cut back on the scope of remediations. Further, BGMEA will be involved in the board of the initiatives (which is not currently the case), and it will most likely help factories it represents to avoid remediation unless blatantly necessary. This will almost certainly slow remediation, but brands' and trade unions' sustained presence in the new initiative could keep the rate above what we can expect from DIFE working alone.

In terms of government's capacity and efficacy, this could be the best option. Kolben (2011) argues that, in contexts of weak governance, an approach integrating private transnational and government domestic regulation can have the best regulatory results. A joint venture between current signatories and the government would reduce the "damage" to DIFE's legitimacy and even provide for more cooperation and capacity building.

The BGMEA proposal may also create a more credibly safe sourcing environment than the status quo, which could limit a reduction in exports to image-conscious retailers. Scepticism would remain, though.

The Government of Bangladesh is likely to prefer the BGMEA option even to the status quo as it would reduce the influence of foreign actors, expand its own influence, and maintain a limited flow of financial resources from signatory brands to sustain the inspection and remediation of the factories currently under the Accord and Alliance. BGMEA also prefers its own plan, and BKMEA would likely prefer it as well. At least for a time, BGMEA would share authority with brands and the government over inspecting major exporters in the industry, in addition to their own audits.

Foreign governments may be sceptical about this option's ability to deliver a reliably safe industry, though they will prefer it to the status quo. The ILO probably would appreciate this option because it emphasizes tripartism and deferral to domestic governments. The BGMEA plan may appeal to the ILO, especially if it can maintain its position as neutral chair over the unified system. The more certain worker safety gained through the current initiatives likely appeal more, though. Domestic trade unions and other advocates will be deeply sceptical of a system such as this, in which factory owners have significant influence.

Focus on informal sector

The informal sector option would expand the number of RMG operations receiving oversight to include the small informal firms producing goods for export. This has the potential to add at least 150,000 workers to the pool of workers affected by safety

improvements. Because it focuses solely on operations not now receiving oversight, it does not affect the factories currently under the Accord and Alliance's umbrella.

These factories would be inspected by DIFE, so its capacity and legitimacy are not diminished but rather increase. As these inspections would be bolstered by mentorship from exporting factories and other remediation assistance, these operations would implement safety improvements more readily than otherwise.

The industry's performance is not likely to be affected in any detectable way by an increased focus on the informal sector. Informal operations do not produce a large portion of the export products, nor would an increased focus on this sector imply a dramatic change in the number or productivity of these operations.

Advocacy groups have spoken critically about informal subcontracting in the sector, so increased transparency and safety improvements in that regard would also appeal to them as well as the ILO. Brands would feel more secure in their sourcing decisions than they are currently, as their sourcing factories do rely on contracts to unregulated operations. Increased transparency and oversight in the informal sector may threaten BGMEA's claim to control over the export market, but their members already depend on informal subcontractors so BGMEA will be conflicted about this option. Other stakeholders are unlikely to object to this option.

Policy Analysis Matrix

Table 4 Policy analysis legend

Relative to the status quo:	Score
Option will provide major benefit	2
Option may provide major benefit	1.5
Option will provide some benefit	1
Option may provide some benefit	0.5
Option will perform similarly to status quo	0
Option may perform similarly to status quo	0
Option may provide some cost	-0.5
Option will provide some cost	-1
Option may provide major cost	-1.5
Option will provide major cost	-2

What follows is the matrix used to analyze the options, as summarized above. Scoring of each option was done according to the legend in Table 4. Criteria are found in rows, and options are found in columns as follows:

- Status quo: same as described in Chapter 6, initiatives expire in 2018
- Option A: Extend Accord/Alliance as-is
- Option B: Accord/Alliance Plus
- Option C: Focus on informal subcontracting
- Option D: BGMEA proposal

Table 5 Policy analysis matrix

Objectives/Impacts	Measures	Status quo	Option A	Option B	Option C	Option D
Primary Objective: Reduce risk of bodily harm or death for Bangladeshi RMG workers (scores weighted ×3)	Number of workers in factories maintained at global standards	Some norms will have changed, and investment in government inspection regime will yield certain improvements over the pre-Rana Plaza conditions; remediation in most factories is likely to remain incomplete, despite signatory commitments to persist	The absolute earliest we could hope for complete remediation, given the current rate, is late 2022. Without changes, this date is also likely quite optimistic. Still, much more will have been done, and more workers (up to 2 million) will then work in remediated factories	This is likely to hasten the rate of remediation relative to merely extending the initiatives, given the combination of incentives and penalties for noncompliance, will result in more workers safe and sooner	At least 150,000 additional workers will potentially receive DIFE inspection and remediation oversight, assistance from larger factories	Inspection standards are likely to slacken, funding for inspections decreased, unlikely to result in significant remediation
Development: Bangladeshi government's capacity and efficacy (scores weighted ×2)	Proportion of inspections performed by DIFE	Transition to government will immediately begin	Delays significantly DIFE's involvement in initiatives' factories	Delays significantly DIFE's involvement in initiatives' factories	Expands number of inspections performed by DIFE as well as DIFE's proportion	DIFE will enjoy seats on board of Accord-like initiative suggested by BGMEA

Objectives/Impacts	Measures	Status quo	Option A	Option B	Option C	Option D
	Rate of remediation of factories under DIFE jurisdiction	Remediation under DIFE has been slow to begin, and it is uncertain to what extent it will occur successfully after 2018	Allows more time for DIFE to develop as an institution, plus longer involvement and investment from signatory brands	Allows more time for DIFE to develop as an institution, plus longer involvement and investment from signatory brands	Assistance from formal sector, plus relaxed regulations make for more effective remediations	Joint effort may be opportunity for increased capacity building, more reliable remediation
Efficiency: Export earnings of Bangladeshi RMG industry (scores weighted ×1)	Exports in dollars	Image-conscious garment importers are less willing to incur risk for events like Rana Plaza; without credible improvements to worker safety, they may flee Bangladesh as a sourcing country	Increased investment from signatory brands implies commitment to continued exports, plus increased desirability as a sourcing nation	If factories are already remediating at the rate they can afford, increased threats of termination could cause more closures; might counteract exports as a result of BD's increased desirability and increased investment by signatory brands	Does make for a somewhat safer industry, which is appealing, but unclear if this would have detectable effects on exports	Less guarantee of compliance than current arrangement, but greater guarantee than complete disengagement therefore perhaps some increased desirability
Interested foreign governments (scores weighted ×0.25)	Expense	Some investment in aid programs to assist in remediation likely (e.g. through the US Department of Labor, CIDA, etc.)	Current levels of assistance	Even more assistance than current levels	Trivial marginal contributions	Some investment in aid programs to assist in remediation likely (e.g. through the US Department of Labor, CIDA, etc.)

Objectives/Impacts	Measures	Status quo	Option A	Option B	Option C	Option D
	Fit with foreign governments' diplomatic goals for Bangladesh	Foreign governments likely concerned about industry, political instability	Current levels of concern	Current levels of concern	Foreign governments likely concerned about industry, political instability	Somewhat less concern due to dialogue between actors, better remediation
Bangladeshi government (scores weighted ×0.25)	Expenditure on regulatory activities	Government spending on inspection and remediation likely to increase the soonest	Government spending on inspection and remediation delayed for many factories	Government spending on inspection and remediation delayed for many factories	Increased costs for inspection program	Government spending on inspection and remediation increases sooner, albeit to a lesser extent
	Theoretical change in influence	Immediate increase in authority, legitimacy	Current level of influence	Perhaps less than current level of influence, due to stronger signatory stance	Gain in influence, legitimacy	Shared influence with signatories, unions, exporters, etc.
Accord and Alliance signatory brands (scores weighted ×0.25)	Expenses	No Foundation contributions, quick reduction in remediation assistance, loss of some relationships with brands, unclear what change to CSR costs would occur (as some companies may opt to independently verify safety as now)	Same costs as now	Same costs as now, perhaps more if signatory brands choose to bear more remediation costs/capital risk	Trivial increased costs for mapping project, some outlays for facilitating interfactory cooperation, rewards for transparent factories	Contributions reduced by 50%

Objectives/Impacts	Measures	Status quo	Option A	Option B	Option C	Option D
	Theoretical change in influence	Abrupt end of Accord implies a sharp reduction in influence	Same influence as now	Same influence as now, perhaps more due to stronger stance	Little to no change in influence from status quo	Influence shared with additional actors in Foundation
Bangladeshi trade unions (scores weighted ×0.5)	Theoretical change in influence	Uncertain, may increase or decrease depending on signatory brand involvement	Maintain representation on Accord board	Maintain representation on Accord board	No change, though may increase unionization at informal operations	Deeply suspicious of BGMEA and Bangladeshi gov't currently
International Labour Organization (scores weighted ×0.25)	Theoretical alignment with mission	Likely no stand, typically deferential	Likely to participate as neutral chair	Likely to participate as neutral chair	Likely to approve due to increased safety, multilateral approach	ILO prefers tripartism and supporting local actors
Advocacy Groups (i.e. Clean Clothes Campaign) (scores weighted ×0.25)	Theoretical alignment with mission	Has expressed disappointment with progress, would be strongly critical of quick disinvolvement	Likely pleased with additional efforts	Likely pleased with additional efforts	Has expressed concern about informal subcontracting in past	Deeply suspicious of BGMEA and Bangladeshi gov't currently
BGMEA and BKMEA (scores weighted ×0.5)	Theoretical change in influence	Immediate increase in influence relative to signatory brands, trade unions	Was expecting less foreign interference by 2018	Likely very much opposed as they strongly dislike to members	Unclear; may object to legitimizing informal sector, but members often depend on informal sector	Will receive seats on the board, despite continued signatory brand and trade union influence
Total score		0	+5.5	+4.25	+7.375	+3.375

The scores above are a fairly arbitrary way to analyze the relative merits of the options. There is no objective way to defend valuing worker safety three times the value of increased export earnings. Nor, for that matter, is it reasonable to truly consider such stakeholders as the Clean Clothes Campaign equivalent to foreign governments in considering which option is best. Still, this matrix provides a broad view of the options' tradeoffs, as well as the uncertainty around many of the options' effects.

Chapter 8.

Recommendations

The analysis performed above leads to a dual recommendation. First, at a minimum the Accord and Alliance should be extended as-is for four years. Second, signatories should focus on the informal subcontracting sector of the industry, as outlined earlier.

I acknowledge the presence of many uncertainties in making these recommendations, but I believe these two options will have the greatest positive impact on worker safety and DIFE's efficacy in the long run, benefits that justify their negative consequences in terms of signatories' expense and delays in the government's proper assumption of the regulatory role, as well as likely negative reactions from the Bangladeshi government and the exporter associations. Although previous CSR strategies failed to improve workplace conditions consistently, the Accord has motivated the correction of over 60,000 workplace safety violations, and the Alliance alleges that they have verified the correction of about 30,000 (though this includes significant overlap with Accord factories). While they have fallen short of their goals for complete remediation, they have done far more than any previous CSR attempt to improve Bangladeshi factory safety.

All of the other options are preferable to the status quo. The status quo implies the immediate transition of regulatory power to DIFE. However, the government is likely unable to sustain a satisfactory rate of remediation. This will threaten export contracts to image-conscious companies wary of future tragedy in their supply chains. It will be costly for the government to take on the entire regulatory responsibility, and signatory brands, the ILO, trade unions, and other advocacy groups would object to this option's underwhelming prospects for worker safety.

While the Plus option would hasten the rate of remediation, it is unclear that this rate increase would be worth the additional factory terminations implied. Once a factory is excluded from the Accord/Alliance regime, it continues to operate under DIFE's auspices, albeit with fewer potential buyers, and the affected workers are subject to a lower standard of factory safety. This option would antagonize the BGMEA and factory owners to a degree perhaps not justified by the accelerated remediation. The BGMEA has immense power in framing the domestic discourse around the exporting industry, and positive relationships between brands and factory owners are helpful in sustaining safety improvements in the future (Oka 2010).

While it performs better than the status quo, the BGMEA option will generate too limited an increase in worker safety. This makes it an unappealing option, even though it presents a more comfortable compromise in terms of government participation and legitimacy.

Finally, expanding knowledge of and responsibility for the informal subcontracting sector is an important improvement over the status quo. While the risk associated with these workplaces may not be as severe as in the larger exporting factories (Appelbaum 2014), labour and safety violations have been documented therein, and these factories are subject to very little to no oversight (Labowitz and Baumann-Pauly 2015). Few stakeholders would object vociferously to expanding protections for and awareness of these workers, and the costs of such a venture would be small relative to other options considered here and well worth the benefits.

Chapter 9.

Further Considerations

While the recommendations in this report are the most feasible and effective options for signatories to increase worker safety in brands' supply chains, care must be taken to involve as many stakeholders in these decisions as possible. Significant relationships have been built since the implementation of the Accord and the Alliance: between signatory brands and their supplier factories; among the ILO and the Bangladeshi government, trade unions, and foreign states; and among workers. In other words, significant social capital has been created in the wake of the Rana Plaza tragedy. Further initiatives should make use of these relationships, seek to build even more trust and reciprocity, and minimize offense.

That said, significant pushback can be expected for extending the initiatives. BGMEA objects to additional scrutiny of its members, and it has strong influence over how the initiatives are treated politically.

Finally, and only somewhat tangentially, brands can and should do something to address poor labour protection in Bangladesh. Labour organizing, wages, gender equity, and environmental sustainability are pressing issues. The arrest and torture of labour organizers in January 2017 indicates the urgency with which these issues require attention; indeed, long-term sustainability of workplace safety could partly depend on the vigilance and advocacy of unions. Without a robust union presence, when the initiatives expire there will be significantly fewer powerful figures to check the behaviour of BGMEA and the government.

One option signatories should consider is a unified social audit, parallel to the Accord and Alliance. Per the core objective of this report, this option would possibly make workplaces safer, as some research shows a connection between increased social protections and better industrial safety; perhaps a more engaged workforce and union presence will put pressure on owners to comply (Oka 2016). It could, though, displace or at least overlap with existing government labour inspection regimes, which could decrease

the government's overall level of responsibility in these areas (similar to our extension options). That said, increased union presence and pressure could have the effect of speeding DIFE-issued remediations, thereby increasing the government's capacity and effectiveness.

Contrary to the current hostile relationship between unions on one side and employers and the government on the other, a unified social audit could decrease instances of union and worker intimidation and arrests. These improved conditions could make Bangladesh a more attractive sourcing nation in domains other than factory safety. This would be especially true for more image-conscious brands and those who have expressed solidarity with the arrested union leaders. Other potential benefits include:

- Factories that provide workers with better social protections appear to be more competitive (Jetha and Linsen 2015); if this is due to productivity increases, Bangladesh's RMG sector could become more competitive overall.
- Although signatory brands would need to bear the cost of social inspection and some remediation (perhaps in the form of training and other workplace programs), this cost may be offset by the savings to their own individual CSR audits. Savings are especially likely in cases where factories sell to multiple brands and are subject to each brand's CSR audits.
- The influence of Bangladeshi trade unions would increase substantially, and workers overall would approve of the measure.
- As advocacy groups have loudly criticized the current relationship between government, employers, and unions, as well as other wrongs perpetuated against workers (lost wages, forced overtime, gender inequity, environmental degradation, and so forth), this option is likely to please them.

The Bangladeshi government and the exporter unions, on the other hand, would likely strongly disapprove of what could be seen as a hostile overreach by foreign companies. While they could not, in 2013, protest greatly against the Accord and Alliance, they could claim that the current social protections situation is not nearly so bad as to justify an intervention on this scale.

In sum, the hostility between foreign brands and Bangladeshi institutions which has developed over the last several years must be resolved even as worker safety is guaranteed. This could be a monumental challenge for those at the negotiating table, and

concessions and investments should be made to retain the government and BGMEA as allies in the overall effort to improve worker wellbeing.

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Appendix A.

Estimating the Size of the Bangladesh RMG Sector

Official sector

As mentioned in the body, the Stern report draws from the five organizations which maintain registries of factories: BGMEA, BKMEA, the Accord, the Alliance, and DIFE. As pointed out in the Center for Global Workers' Rights, the final database still contains many duplicates, despite Stern's efforts. Using the "stringdist" package for R (van der Loo et al. 2016), I passed each factory name to a function which calculates the similarity that factory's name has to each other factory name in the dataset; a potential duplicate is chosen if either the "longest common substring" or "full Damerau-Levenshtein distance" were above or equal to 0.95 (out of 1). This yields 385 potential duplicates. I did not follow Anner and Bair (2016) in including the factory address in this consideration, as it seems reasonable for two factories to share a plot and have only one character of difference in their names (as many factory names are merely initialisms).

385 duplicates is a conservative estimate as this figure includes factory entries for which a second unit has been recorded. The true number of duplicates is most likely to be fewer than this number.

The BGMEA reported that, according to a survey of their membership, about a quarter of the factories on their rolls are no longer active (Munni 2016). Thus, a reduction from 2014's total of 3,498 to 2015's 3,133 (subtracting 1,163 inactive factories from the reported total of 4,296) yields a "loss" of 365 factories from the 2014 total and highlights significant turnover and difficulty with record-keeping in the industry (Labowitz 2016).

Assuming, likely somewhat wrongly, that these factories were inactive in 2014 when the Stern figure was calculated, I randomly selected 365 BGMEA factories to drop from the list. This also assumes that factory inactivity is distributed evenly among factory sizes, which is conservative because larger factories are probably more likely to remain active year-to-year (given their increased market share, capital, etc.). No BKMEA factories were removed, though it is possible that BKMEA also leaves inactive factories on their roll. If a similar proportion of BKMEA factories to the factories contributed by BGMEA to the dataset were inactive, a further 231 factories would be removed yielding 6,205 factories. Although we do not know much about BKMEA's record-keeping, I randomly selected 231 factories for removal in order to be conservative.

Removing the remaining 732 factories with no recorded employment data yields 5,473. This may make sense because factories which no longer exist would not have updated their employment data. Unfortunately, we know that many of these factories are still operating because they have submitted to Accord, Alliance, or DIFE inspections recently. Still, 5,473 could be considered the lowest bound we could accept, so this report will use the midpoints between the estimates: 5,839.

The final figure of 5,839 factories is much higher than previous estimates of 3,500. One may be surprised to see this level of inaccuracy in such an important industry. DIFE's website currently (in March 2017) lists 4,809 factories; some may not be operating, some

may be operating without a license, and the database does not even include all Accord and Alliance factories yet (short by 172). Some difference, too, may be in definitions of what constitutes a single "factory", i.e., would a factory consisting of multiple buildings in a single plot be one factory or more? In short, as DIFE's official list grows, a figure of 5,800 factories may become more and more plausible, and I believe it better expresses the size of the sector.

I disagree with Anner and Bair (2016) in that it does seem appropriate to use the highest reported estimate of a factory's employment because, as noted in Labowitz and Baumann-Pauly (2015, 36, footnote 51), factories often register with the BGMEA or BKMEA early in their existence, so higher numbers reported to DIFE, the Accord, or the Alliance (which are typically much higher estimates where they exist) likely reflect a more recent figure after business growth. Therefore, I use the highest reported employment figure for each factory. The final employee estimate of 4,541,916 remains conservative because a total of 366 of the remaining 5,839 factories did not have reported employment data and may yet be operating.

In all, it is clear that Stern's estimate of 5.1 million workers was based on some faults in data procedures, but correcting somewhat for this still yields numbers of factories and workers well above previous estimates, and this does not account for official factories for whom employment data are not recorded (yet which may still be operating).

Informal sector

The Stern survey is the only estimate we have for the concentration of informal RMG operations. In their survey of two districts (Tongi and Rampura), 32% of the RMG operations they identified were in the informal sector and therefore not on any of the official lists.

Applying this 32% figure to all of Bangladesh is inappropriate for a variety of reasons, most notably being that both Tongi and Rampura are sub-districts of Dhaka while many factories are in other urban areas entirely and data from Dhaka may not represent them. Further, because these operations are so much smaller than the official ones (with a median of 55 employees versus 364.5 for the official lists [author's calculation]), these operations may exist in a higher concentration in areas with lower population densities. Lacking better evidence, we can use the 32% figure to create a working estimate of 2,747 informal operations, but this may be quite different from the true amount.

I follow Anner and Bair (2016) in using the Stern-reported average of 55 to calculate my estimate of total employment in the informal sector, though Stern in another place refers to this figure as the median (p. 27). This means that my estimate of 151,085 workers may be overly conservative as the informal sector may be similar to the official sector in having a very right-skewed distribution of employment levels, which would indicate an average

¹ I also did not find, as in Anner and Bair (2016), that massive data entry errors reporting factories with outlier employment levels of up to 120,000 exist in the employment data (though they are present under "Tier 1 or 2 factories"), nor were they required to replicate Stern's original estimate of 5.1 million. Without my adjustments (for duplication and reductions from BGMEA and BKMEA), and using the maximum reported number of employees for each factory, I find about 5.1 million employees.

employee count much higher than the median in the informal sector. Anner and Bair are correct that these informal operations would represent a very small amount of the total RMG employment, though my > 3.2% is higher than their 1.3%.

Given all of the caveats contained in this appendix, my working estimates are based on inadequate data, serious gaps in our knowledge, and potentially error-prone computing procedures. Taken together, these problems are more likely to bias my estimates lower than the true population values as opposed to higher, so they can stand in quite well as minima until better data are collected.

Initiative responsibilities

Similar to the Stern report, I find that about less than two-thirds of the RMG workers in Bangladesh work in factories covered by the Accord or the Alliance, while Stern argues it is only half. Anner and Bair (2016) argued that as much as 71.4% of the workforce was covered. The number of workers covered by only the Alliance is 246,114, per my calculations using their factory list (Alliance 2016). This, in addition to the Accord's estimated 2,414,213 (95% CI: 2,378,325 – 2,450,101), yields 2,660,327 or about 58.6% of my estimate for the size of the entire workforce (or 69.1% of Anner and Bair's workforce estimate). Including the 677,000 Anner and Bair estimate to be covered under the National Initiative, I find that only 73.5% of the formal workforce (or 86.7% of their estimate) works in a factory covered by one of the three new initiatives. Either way, there are indeed troubling gaps in coverage, record-keeping, and worker recognition.

Appendix B.

A brief history of ethical audit regimes

The ethical audit has its roots in the increasing self-regulation in the 1980s and 90s, as barriers to trade were dismantled and companies began sourcing in earnest from institutionally weak nations such as Bangladesh. Transnational corporations' international affairs occupied a space with murky legal status (Johns 1993). The Canadian government, for example, does not ensure that a Canadian transnational corporation purchase clothing from a supplier in Bangladesh that follows the ethical guidelines expected of a Canadian firm.

Public discontent with the nature of global supply chains grew in the 1990s, in the wake of repeated revelations that workers were producing goods in unsatisfactory conditions, for example using child labour or by severely contaminating the local environment. Corporate social responsibility (CSR), which had existed as a paradigm for business ethics previously, gained prominence as the response to globalization's growing negative impacts (Goodpaster et al. 2005; Richards 2013).

Ethical audit regimes are a form of CSR that seeks to provide ethical legitimacy for corporations' supply chains. Corporations commit, often through external organizations, to perform audits of their supply chains for adherence to "global standards". These certifications may then be incorporated into a brand. Fairtrade Certification is an example of ethical branding, whereby importing corporations pay a fee to Fairtrade and purchase products from Fairtrade-certified producers, which have been vetted according to Fairtrade's standards. Importers may then display the Fairtrade logo on their packaging (Lebaron and Lister 2015).

On the other hand, corporations may engage in major audit initiatives not incorporated into their brand, as is the case with the Accord and Alliance. These initiatives are two in a long line of attempts at achieving ethical supply chains, many of which have been criticized for failing to achieve improved working conditions (Lebaron and Lister 2015; Clifford and Greenhouse 2013). The Accord and Alliance, though, signal an important shift in the way transnational corporations view their responsibilities.

In the past, transnational companies have been reluctant to accept responsibility for the behaviour of their suppliers overseas. In earlier decades, in the wake of tragedy, they were not widely considered responsible for reparations or due diligence. They would point to their ethical audits and codes of conduct, but "true" responsibility (in the eyes of most) always remained with factory owners and their respective government regulators. In the mid-2000s, activist groups (especially the Clean Clothes Campaign) began encouraging consumers to contact their retailers and express outrage about lapses in safety and human rights in the retailers' supply chains. Though they refused responsibility for tragedies, companies began to pay into funds for victims as donations made in solidarity. For instance, a Bangladeshi garment factory with illegally added floors collapsed in 2005, killing 64 people. After the incident, a sustainable development officer at a European clothier rationalized his company's sourcing decisions:

That's why in our social audit we included a clause demanding that at the very least all the building permits be produced. Even so, it's useless; when you know that in countries like this [i.e., Bangladesh] they can be bought, it's useless. ... You can't just be held responsible for everything because the local government doesn't do its share. (quoted in Barraud de Lagerie 2016)

For the clothiers in this period, responsibility remained with government regulators. More recently, though, Barraud de Lagerie (2016) argues that responsibility has shifted due to activist groups reframing of the issue, and corporations have taken on more and more responsibility for their supply chains.

With the Accord and Alliance, the response of transnational companies appears to have changed profoundly. First, companies paid into the so-called Rana Plaza Compensation Fund. The title implies that payments are closer to reparations than, in the past, when companies characterized monies paid as donations. Further, companies in the Accord have made themselves legally responsible for securing capital necessary for large-scale safety improvements in their Bangladeshi supply chain, surely an unprecedented move. Finally, and although the Bangladeshi government has bolstered its own regulatory capacities in preparation for the Accord and Alliance's sunsets, some Bangladeshi politicians have placed responsibility for the tragedy on transnational corporations for choosing noncompliant suppliers (Al-Mahmood 2013). Therefore, while transnational corporations have accepted unprecedented legal and non-legal responsibility, the government has off-loaded some of theirs.

Appendix C.

Options Available for Other Policy Portfolios

This appendix describes some options which could be considered by those outside of the signatories to the Accord and Alliance and which may be supportive of the recommendations made in this report.

Western Legislation

Western legislation, such as The Decent Working Conditions and Fair Competition Act

In 2007, committees in the US Congress reviewed bills titled the "Decent Working Conditions and Fair Competition Act" (Dorgan 2007). These bills would outlaw any products from entering the US which were produced in factories or workshops that violate core labour standards. Core labour standards are defined as "(1) the right of association; (2) the right to organize and bargain collectively; (3) a prohibition on the use of any form of forced or compulsory labor; (4) a minimum age for the employment of children; and (5) acceptable conditions of work with respect to minimum wages, hours of work, and occupational safety and health." Civil penalties of at least \$10,000 per violation would apply to any company successfully sued by either a competitor or an investor for violating the statute. A similar statute could be proposed in Canada or elsewhere, modified as necessary.

Supply chain transparency act

Modeled after California's attempts to target human trafficking and slavery, this act would require larger companies to disclose their corporate social responsibility practices. This could be seen as a "softer touch" compared to the more punitive Decent Working Conditions Act.

Make Accord- and Alliance-style interventions policy

The Accord and Alliance have acted as important pilots in massive multi-stakeholder responses to supply chain issues. Although the government has supported the Alliance through diplomacy, it has only provided funding for factory safety improvements through the ILO (Wingrove 2013). Moving forward, both with regard to Bangladeshi RMG factories and other important sourcing jurisdictions and industries, the government can officially commend efforts such as these and encourage them as the new standard in CSR. Within this option are sub-options with regard to the specific makeup of these initiatives, whether to favour the more stringent requirements associated with the Accord (the status quo in Europe), even more stringent and far-reaching requirements, or the Alliance's more relaxed requirements (the status quo in Canada and the US).

An important issue facing the RMG industry in Bangladesh is labour organization and collective bargaining rights. In light of recent government crackdowns on worker unrest and labour organizers, the next opportunity to improve working conditions (and, perhaps

indirectly, further improve factory safety) will be for corporations to create a uniform social audit initiative for their supply chains.

International Trade

Tariff reduction for Accord-produced goods coming from Bangladesh.

Accord- and Alliance-affiliated companies can receive a tariff rebate if they are in good standing with the Accord. This rebate would function as a tariff reduction either to incentivize companies not currently affiliated with either initiative to do so or to incentivize companies to honour their commitments to those initiatives. This would especially add an incentive to remain affiliated with the Alliance, with whom companies are not legally bound in the long-term.

Tariff reduction for Accord-produced goods coming from Bangladesh.

Importer nations can tie future RMG tariff reductions to "good behaviour" in the Bangladeshi RMG industry. Upon verification of substantially improved factory safety and other social goals such as workers' rights, environmental sustainability, and gender equity, Bangladesh could be rewarded with lower duties on all their RMG goods. Importer countries could require that these improvements be sustained over time in order for Bangladesh to continue receiving the benefit.