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DISCUSSION
PAPER

Repeat, Repair or Renegotiate?

The Post-COVID Future of the Apparel Industry

JULY 2021

Jason Judd
J. Lowell Jackson



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International Labour Organization

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First published July 2021

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Printed by ILO

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The Post-COVID Future of the Apparel Industry

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July 2021

This discussion paper is also available as a Cornell University New Conversations Project Working paper at <https://www.ilr.cornell.edu/new-conversations-project>

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ACKNOWLEDGEMENTS

The authors thank the Cornell University New Conversations Project in the School of Industrial and Labor Relations. We are thankful to Arianna Rossi (ILO/IFC Better Work, Geneva), Christian Viegelahn (ILO Regional Economic and Social Analysis Unit, Bangkok) and David Williams (ILO Decent Work in Garment Supply Chains Asia, Bangkok) for their technical advice and support of this research as well as outside reviewers and experts who provided data, insights and technical comments. The views expressed in this paper do not necessarily represent those of the ILO.

INTRODUCTION

This paper outlines possible scenarios for a post-COVID-19 future of the global apparel industry, with special attention to the likely impacts for workers, employers and governments in the Asia and Pacific region.

This paper builds on the 2020 ILO/Cornell NCP Research Brief examining the ‘ripple effects’ of the COVID-19 pandemic for workers and employers in Asia’s apparel industry (ILO, 2020b). The first paper examines the particular vulnerabilities of the region’s apparel industry—accounting for 60 percent of the world’s exports—to short-term shocks. This complementary paper takes a longer view. The authors plot the decades-long, pre-pandemic trajectories of industry consolidation, automation, e-commerce, sourcing patterns, and governance of labor practices against possible changes in direction in the post-pandemic era. The paper defines possible long-term choices for buyers, employers, workers and regulators in the global apparel industry in three scenarios for the post-pandemic industry that go beyond the ‘COVID recovery’ reporting and recent scholarship on the future of the industry.

This study used a qualitative research methodology to explore long-term changes in the garment industry pre-pandemic and its post-pandemic future. A desk literature review was conducted to map existing academic, industry, and financial research related to the apparel industry. In addition, interviews were conducted with 29 apparel industry experts working in Asia and globally—regulators, apparel brands and retailers, employers and their organizations, unions and labor rights organizations, journalists—between August 2020 and March 2021.

Interviews used as guidance questions centered on the future of garment industry with particular attention to changes in sourcing patterns and practices and their impact for workers, buyer-supplier relationships, global governance of the apparel industry, and changing consumer behaviors. (A list of research topics and interviewees is provided in Appendix 1). The group of experts is not necessarily representative of the experiences of and judgements regarding the future of the industry in Asia. However, the group is composed of experts with long-lasting experience and different backgrounds in this industry, allowing this study to capture a diversity of opinions, business models and approaches to governance of work in global supply chains.

The findings are organized here in five sections. The first tracks the industry’s acceleration along familiar trajectories and contributes to the literature an analysis of apparel industry concentration which points toward large, well-capitalized suppliers in Asia receiving ever-larger orders from ever-larger buyers, allowing market concentration and consolidation, automation and digitalization to move together. Section 2 looks at long-term changes in sourcing patterns and practices—including a new analysis of climate change impacts on the geography of apparel production in Asia—and the distribution of risk and cost along global supply chains.

Section 3 anticipates the impacts of these long-term changes on working conditions, wages and industry employment levels with important implications for policymakers at both the producing and consuming ends of fashion’s supply chains. Section 4 examines the status and future of labor governance, both public and private, and their impacts for suppliers and workers, in particular. The concluding section looks at three progressively optimistic scenarios—Repeat, Repair or Renegotiate—for the future of the apparel industry in Asia and globally.

SECTION 1: EVOLUTION OF THE INDUSTRY’S STRUCTURE

In this section, the paper examines the business models and firm characteristics that the industry has rewarded over the last three decades and tracks their evolution (or staying power) in the post-pandemic fashion industry.

The 2020 ILO research brief on COVID’s impacts on the Asian apparel industry—from the same Cornell University and ILO authors of this paper—traced the short-term impacts for workers, suppliers and apparel buyers, and noted the damage wrought by the collapse of global apparel trade in the first half of 2020. Imports to major markets from Asia’s garment-producing countries fell by as much as 70 percent and the typical worker lost out on at least two to four weeks of work and faced only a 60 percent chance of being called back to the factory. (ILO, 2020b)

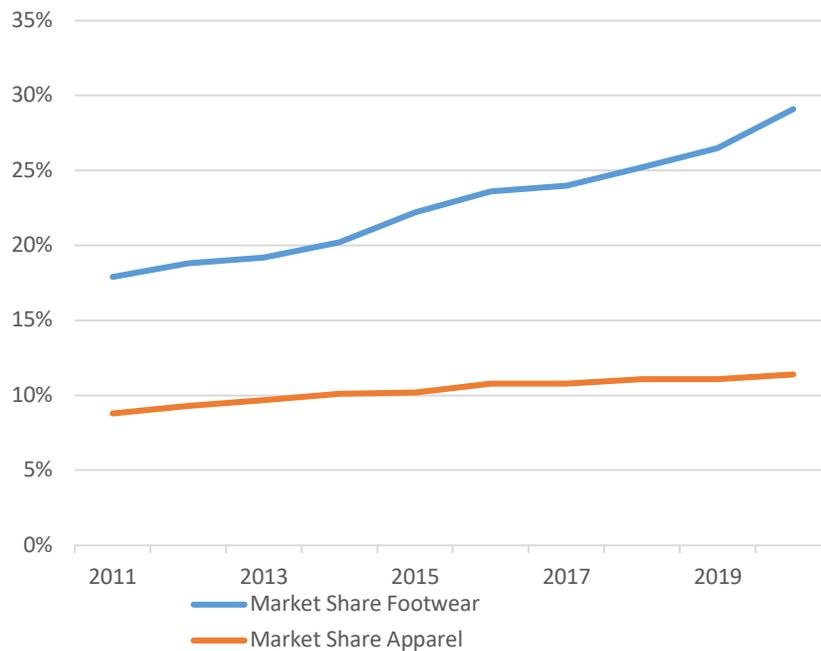
This paper distinguishes between industry changes that appear to be new directions brought on by the pandemic, and those that represent accelerations along long-term trajectories, including industry concentration and consolidation, automation, and digitalization and e-commerce for brands and retailers, their suppliers and workers.

1.1 Growing market concentration and consolidation

Growth in the fashion industry in the last two decades has been explosive and disruptive. Global apparel and footwear exports have increased by 173 percent from approximately USD 250.8 billion in 2001 to 684.3 billion in 2019.¹ The top ten apparel and footwear brands and retailers have steadily grown their collective share of global sales in the last ten years.

¹ Calculated using ITC data using HS codes 61 – 64.

Figure 1. Global market share of top 10 apparel and footwear companies by retail value, 2011-2020



Source: Passport Euromonitor International

The top ten apparel companies by global market share in 2020 included (in descending order) Inditex, Fast Retailing, H&M, Nike, Adidas, Gap Inc, PVH, Hanesbrands, Levi’s, and LVMH. The composition of this group has remained largely stable since 2011 and its overall market share increased from 8.8 percent in 2011 to 11.4 percent in 2020. Not seen in this data are two of the global industry’s largest apparel retailers—Amazon and Wal-Mart—whose growth and dominance only intensify the concentration in apparel’s sourcing and sales markets.²

The rate and magnitude of market concentration are greater still in the less crowded footwear sector where the collective market share of the top ten brands rose from 17.9 percent in 2011 to 29.1 percent in 2020. The top ten footwear companies by global market share in 2020 were (in descending order) Nike, Adidas, Skechers USA, VF, Asics, Puma, New Balance, Deckers Outdoor, Wolverine World Wide, and Deichmann. For comparison, these rates of change in footwear’s market concentration resemble those in luggage and bags in which LVMH (11.6 percent) and Kering (7.5 percent) dominate—travel goods analogs for Nike and Adidas. The

² See for example <https://www.cnbc.com/2021/03/17/amazon-unseats-walmart-to-become-the-no-1-apparel-retailer-in-the-us.html>.

global shares of top ten firms' global market share doubled from 19.1 percent in 2011 to more 38.1 percent in 2020 (Passport Euromonitor International, 2021).

In both apparel and footwear, there is no break in 2020 in the trend towards market concentration. The pandemic and the accelerating shift to e-commerce may reorder these lists in the coming years, but the analysis above shows an industry moving steadily towards greater market concentration, not less. A 2019 analysis of apparel industry profits by the consulting firm McKinsey found that “fully 97 percent of economic profits for the whole industry [were] earned by just 20 companies, most of them in the luxury segment. Notably, the top 20 group of companies has remained stable over time. Twelve of the top 20 have been a member of the group for the last decade” (McKinsey & BoF, 2020). As a sign of their market power and resilience, these “super winners had recovered [by August 2020] on aggregate to just 5 percent below pre-crisis [market values].”³

This market *concentration* has been complemented by *consolidation* of supplier bases by apparel buyers. This process picked up speed after the expiration of the global Multi-Fiber Arrangement (MFA)⁴ in 2005 and accelerated again in the aftermath of the 2008 financial crisis (Forstater, 2010).

Buyers have accelerated consolidation of their supplier bases

Brand data and interviews with senior staff from major apparel firms—leading outdoors brands, mid-market retailers, online retailers, general merchandise retailers—confirmed that consolidation of suppliers remains the long-term strategy and extends to coordinating new factory investments with familiar manufacturers. In interviews, the only variations on the consolidation theme were built around the threat (or promise, depending on geography) of growth in nearshoring by U.S. and European buyers. (These findings are described in the nearshoring discussion in Section 2).

The strategy of “streamlining one’s supply chain to include fewer, larger suppliers [to] help articulate end-to-end product journeys”⁵ can be seen at work across the industry over the last decade.

³ The industry also displayed stability in the 2008 financial crisis: “The global garment industry is in terrible trouble, but the pecking order seems little affected” (just-style.com, 2009).

⁴ The MFA was an international trade agreement in place from 1974 to 2004 which imposed quotas on the amount of clothing and textile exports from developing countries to developed countries (A. Hayes, 2020).

⁵ John Thorbeck of Chainge Capital, quoted in BoF, 2019.

Figure 2. Buyer consolidation of supplier bases (number of supplier factories), 2011 – 2020



Sources: Buyer 10-K and Annual Reports

Nike’s consolidation of sourcing from a sprawling network to a relative handful of strategic suppliers is one of several dramatic examples. In 2010, Nike sourced from 163 footwear factories and 631 apparel factories. In 2019, Nike sourced from 112 footwear and 334 apparel – a reduction of 31 and 47 percent in the number of factories respectively. In 2019, 93 percent of Nike’s footwear output came from three countries—Vietnam (49 percent), China (23) and Indonesia (21)—and a mere four suppliers produced 61 percent of its shoes. On the apparel side, a single factory produced 14 percent of Nike’s clothing, and five suppliers produced 49 percent of the total. China and Vietnam again dominated Nike’s production and, together with Thailand, accounted for 59 percent of the total (NIKE, Inc., 2011, 2019).

Adidas reported similarly dramatic shifts in its footwear and apparel supplier bases. In 2010, Adidas sourced from 1,236 independent factories for apparel and footwear; in 2019, the company sourced from 631 independent factories – a reduction of 49 percent. Adidas bought 39 percent of its footwear in 2010 from China but only 16 percent in 2019. Vietnam was a close second to China at 31 percent in 2010 but represented 43 percent of total Adidas volume in 2019. Adidas apparel came predominantly from China (36 percent) in 2010 but had dropped to 19 percent by 2019 while Cambodia and Vietnam together had leapt to 42 percent by 2019 (adidas, 2010, 2019).

Raw factory counts at both Puma and Gap Inc showed supply base consolidation over the last decade. Puma’s apparel and footwear count fell from 150 in 2011 to 131 in 2019. Gap Inc’s count decreased from 1,020 in 2010 spread across 50 countries to 800 in 2020 in 30 countries (GAP, Inc., 2010, 2020a; PUMA, 2011, 2019).

Sourcing shift away from China is accelerating

Although China remained in 2019 the chief source—more than one-third of total U.S. and E.U. apparel and footwear imports came from China—buyer and supplier representatives interviewed for this paper were largely uniform in their view that longtime reliance on mainland Chinese production is ending, accelerated since 2017 by U.S.-China trade disputes and in 2020 by trade sanctions for forced labor among Uyghurs in Western China. Chinese textiles however will remain the key ingredient in most global apparel and footwear production for years to come. In 2019, mainland Chinese textiles accounted for 39.2 percent of the global production (Turrillo, 2020). This complicates efforts at verticalization outside of China, as do the heavy capital requirements and long lead-times required to build profitable and large-scale textile industries (Lehr & Wu, 2021). It also significantly complicates efforts to identify and block imports of textiles that include cotton products linked to Xinjiang forced labor schemes.

Apparel export trade data since 2010 and interviews with senior trade regulators for this paper confirm this shift away from China. (See Table 1 below). Vietnam and Bangladesh have benefited most from this shift and in 2019 their combined share of apparel and footwear imports to the U.S. and European markets equaled half of China’s share. This growth of Bangladesh and Vietnam’s apparel exports is remarkable for its speed and scale given that their combined Gross Domestic Products in 2019 was less than four percent of China’s USD 14 trillion (Alam et al., 2019).

Table 1. Changes in U.S. and E.U. apparel and footwear imports from Bangladesh, Vietnam, and China 2010, 2015, and 2019⁶

Year	Bangladesh		Vietnam		China	
	US	EU	US	EU	US	EU
2010	3.5%	6.6%	6.6%	4.0%	50.7%	47.6%
2015	3.9%	11.3%	11.0%	5.7%	46.0%	41.3%
2019	4.3%	13.2%	14.9%	6.7%	37.9%	36.1%

Source: ITC, HS Codes 42, 43, 57, 58, 60, 61, 62, 63, 64, 65, 66.

Buyer representatives were divided on the prospects for rapid growth in emerging production countries such as Ethiopia and other countries in Africa. Industry analysts indicate that developing the garment industry in East and West Africa would require considerable time and

⁶ This paper uses trade data covering a broad swath of apparel, footwear and various textile categories under the Harmonized System (HS) codes established by the World Customs Organization in order to capture the breadth of apparel-related production and trade. The trade categories in use here (HS Codes 42, 43, 57, 58, 60, 61, 62, 63, 64, 65, 66) are dominated by the volumes of trade in core apparel (61 – 63) and footwear (64) categories.

investment in capacity and infrastructure, particularly considering the lack of textile manufacturing capacity in the region (Abdulla, 2021).

The spreading-out of apparel production work, even combined with higher rates of automation and near-shoring—both discussed below—in response to supply chain turmoil in the COVID-19 crisis will not reverse the long-term trend towards consolidation by buyers of their supplier bases. Hence the counter-intuitive dynamic of an industry that is consolidating and diversifying at the same time.

Market concentration is also happening among suppliers

Market concentration among suppliers (i.e. garment manufacturers) is harder to measure than concentration among buyers (see Table 1), but four trends indicate a similar direction of travel—toward greater market power for Asia’s leading suppliers.

First, the buyers’ supplier base data above (Figure 2) makes clear that the size of its main manufacturing partners has helped fuel (and been fueled by) the consolidation of buyers’ manufacturing supplier bases. The reliance of leading buyers’ on a diminishing number of factories (and manufacturing groups) in this period of intense growth in the apparel trade clearly points to growing market concentration among suppliers.

Table 2. 15 Major Apparel and Footwear Manufacturers Annual Revenues, 2015 and 2019

Company	2015 Annual Revenue (USD)	2019 Annual Revenue (USD)	% Change	Country
Pou Chen Corp.	\$ 8.45 billion	\$ 10.48 billion	24%	Taiwan
Yue Yuen Industrial (Holdings)	\$ 8.55 billion	\$ 10.22 billion	20%	Taiwan
Shenzhou International Group	\$ 1.98 billion	\$ 3.30 billion	66%	China
Jihua Group Corporation	\$ 3.45 billion	\$ 3.03 billion	-12%	China
Able Synthetic Leather	NA	\$ 3.00 billion	NA	Hong Kong
Shanshan Group	NA	\$ 2.98 billion	NA	China
Zhejiang Semir Garment	\$ 1.45 billion	\$ 2.75 billion	90%	China
LPP S.A.	\$ 1.32 billion	\$ 2.54 billion	93%	Poland
Feng Tay Enterprises Co.	\$ 1.72 billion	\$ 2.50 billion	46%	Taiwan
Ningbo Shenzhou Knitting	\$ 1.67 billion	\$ 2.49 billion	49%	China
Crystal International Group	\$ 1.69 billion	\$ 2.44 billion	44%	Hong Kong
Hansae Yes24 Holdings	\$ 1.78 billion	\$ 2.39 billion	35%	South Korea
Youngone Holdings	\$ 1.60 billion	\$ 2.36 billion	47%	South Korea
Taekwang Industrial	\$ 1.36 billion	\$ 2.29 billion	68%	South Korea
Onward Holdings	\$ 2.36 billion	\$ 2.27 billion	-4%	South Korea

Source: Orbis company information

The individual 2019 revenues of the largest supplier groups—footwear manufacturers Pou Chen at USD 10.5 b. and Yue Yuen at USD 10.2 b.—were approximately one quarter of Nike’s 2019 revenue (USD 39.1 b.), they were more than one-third of Adidas (USD 26.8 b.), two-thirds of Gap Inc (USD 16.6 b.) and one-third *larger* than Puma (USD 6.4 billion) (Orbis company information 2019).

Second, the academic literature has documented the ways in which global buyers used their market power following the end of the global Multi-Fiber Arrangement (MFA) in 2005 to “demand that manufacturers also develop and design products, in addition to handling inventory management, stock holding, logistics, and financing.” Buyers have gravitated toward these large strategic partners and helped to produce “a consolidation of the supply chain, reducing the number of supplier countries and firms within countries” (Kumar, 2020).

Third, functions such as factory-selection and multi-factory production planning are being redistributed among buyers and suppliers, and integrated. For example, H&M has packaged its supplier network and sourcing operation as a service—including product development, sourcing and logistics—for sale to the rest of the industry (See Fuller, 2020; Treadler, 2021). At least one major Asian apparel supplier group is building an online platform for distribution of production contracts to smaller suppliers certified for quality, labor compliance and environmental standards (Asia Apparel Manufacturer, interview). Both efforts come as the long-time leader among sourcing intermediaries, Hong Kong-based Li & Fung, was ‘privatized’ in 2020 at the beginning of the COVID-19 pandemic after three difficult years (See K, 2017; Ng & Yiu, 2020).

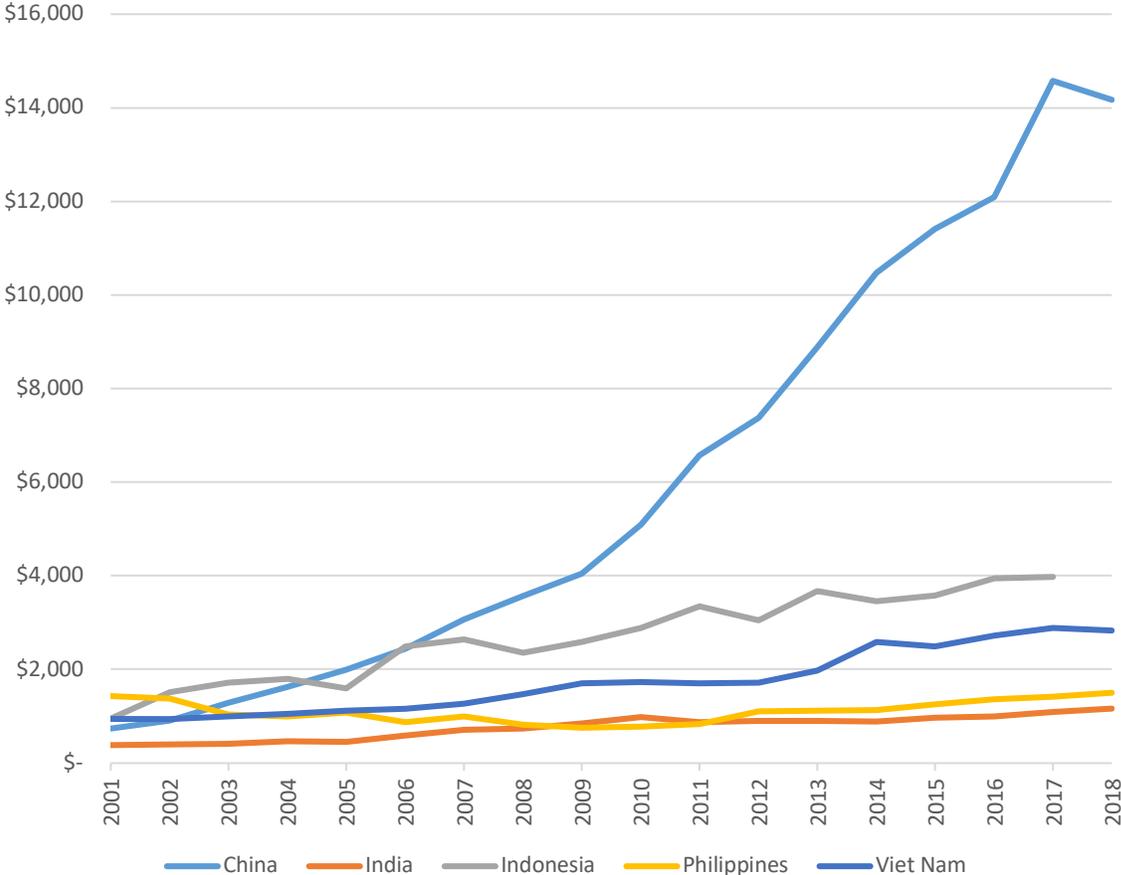
A fourth trend shows a counter-movement. Dramatic breakdowns in the import of inputs to apparel manufacturers in the early months of the COVID-19 pandemic pointed out an opening for new, small-scale producers in vertically integrated apparel industries (ILO, 2020c; Sherman, 2017). The ‘agile’ manufacturers attuned to the demands of speed-is-value, small-batch production are likely to grow in the post-pandemic period. Alibaba Group revealed in 2020 its Xunxi Digital Factory where, it claims, apparel lead times and inventory are reduced through ‘made-in-cloud’ technologies—“real-time resourcing, process and cost planning, [and] automated in-house logistics”—that will allow “small and medium sized businesses [to] stay competitive in the fast-moving fashion market” (Alibaba, 2020). Apparel supply chain experts interviewed for this paper confirmed this shift with examples of their own but noted too that the scaling-up of this end of the market will not rival the production of the giant supplier groups described above.

1.2 Rate of automation

Automation of apparel production has been slow in comparison with other manufacturing sectors. A 2020 study of robotics adoption rates from 1993 – 2016 showed that sales to “the textiles, apparel and footwear industries are dwarfed by sales in the automotive and electronics

industries” (Kucera & Bárcia de Mattos, 2020). China, again, is the exception. Its industry’s investments in labor-saving technologies and a shift to higher value-added goods following the end of the MFA in 2005 left lower-wage rivals far behind (Vandenbussche et al., 2013). Shifts from workers to automated sewing machines is slower in countries with lower wage rates including, among others Vietnam, Bangladesh, Indonesia, India and Cambodia. This is reflected in the analysis of Gross Value Added (GVA)—the value of apparel, etc. produced minus the value of the inputs used in their production—per worker in five key apparel-producing countries over the last two decades.⁷

Figure 3. Apparel, Textile, & Footwear GVA per Worker 2001 - 2018: China, India, Indonesia, Philippines, Vietnam



Sources: Cornell NCP analysis using UNIDO and ILOSTAT data

⁷ The OECD glossary defines gross value added as “the value of output less the value of intermediate consumption; it is a measure of the contribution to GDP made by an individual producer, industry or sector”. <https://stats.oecd.org/glossary/detail.asp?ID=1184>.

Credit for the enormous GVA per worker gap opened by China over competitors in the last decade belongs to automation but also to China's rapid ascent of the 'quality (and price) ladder' in some product categories (Vandenbussche et al., 2013).

In general, the decision to replace apparel or footwear workers with machines is chiefly a function of wage levels, new technologies, available capital and, of course, an expectation of constant or growing consumer demand. A 2016 ILO report on technology in the textile, clothing, and footwear industry in Southeast Asia found that "human labour can be up to 50 percent more expensive than sewbots [automated apparel-sewing machines] in China, and a break-even point could be reached in Thailand by 2025" (Chang et al., 2016).⁸

Wrinkles in the plan for apparel automation

Apparel and footwear workers in Asia are therefore vulnerable to joblessness from increasing rates of automation but there are two important wrinkles. The first is literal. The manipulation of fabrics for sewing requires dozens of complex motions to get and keep the pieces in place. Sewbots overcome this in the production of jeans, button-up shirts and even t-shirts, for example, the with use of cameras, mapping technologies, artificial intelligence and algorithms as well as complex mechanics using vacuums, robotic arms and rollers (Gerber Technology, 2019).

The second wrinkle is related: these systems are expensive and require new skills. A May 2020 paper by Bárcia de Mattos et al. argues that "[l]imited incentives—connected to whether there is a perceived need for change in production processes, large investment requirements and concerns in terms of skills availability, among others—need addressing before automation at scale can be adopted" (Bárcia de Mattos et al., 2020).

In footwear, production can take 60 to 80 steps and "as many as three different machines can be needed just to attach the toe and heel of a shoe with the sole" (Hernández, 2020). The complex processes push costs up and recent robotization campaigns by Adidas and Nike are Exhibits A and B in the case against rapid, large-scale automation. The Adidas 'super-factories' for robot-made shoes, one in Germany (2016) and another in the U.S. (2017) had been closed by 2019 (Coldewey, 2019). Nike partnered with manufacturer Flex in 2015 to integrate automated technologies in their shoe production process but the partnership had been wound up by 2019 and the plant shut down, citing lack of "sustainable return" (SGB Media, 2019).

⁸ See also Hernández, 2020: "Even with the help of robots, manufacturing shoes requires anywhere from 60 to 80 steps. In fact, as many as three different machines can be needed just to attach the toe and heel of a shoe with the sole. Too many steps keep production costs sky-high." Exhibits A and B in the case for rapid automation (and near-shoring) were the Adidas 'super-factories' for robot-made shoes, one in Germany (2016) and another in the U.S. (2017). Both had been closed by 2019 and the cause of robotization suffered a high-profile defeat (Coldewey, 2019)

Experts interviewed for this paper noted that while core processes (sewing) remain un-automated there have been advances in the processes surrounding sewing—cutting, fitting, and support services, for example—and that post-pandemic pressures in the industry would increase the up-take of new sewing technologies but offered no sense of the speed or scale. A longtime trade regulator offered a comparison with automobile manufacturing where jobs require higher skills and therefore pay higher wages. “These factories are more capital-intensive and thus slower to shift from country to country, less ‘competitive’” (U.S. Government Trade Official 2, interview). Apparel automation, in contrast, has remained low in part due to the anomalies in its production noted above and because apparel production is “relatively low-wage and not capital intensive. It’s easy to move” (Ibid.).

1.3 Digitalization, e-commerce and ‘circular fashion’

The pandemic has also acted as an accelerant for the third long-term trajectory on our list: digitalization and the integration of e-commerce.

The pandemic drove the collapse of in-person retail in early 2020 but the signs of a bubble—too many different products, too many retail outlets and too much inventory—had been visible for years.⁹ Designer Marc Jacobs complained in early 2020, “We’ve done everything to such excess that there is no consumer for all of it” (Aleksander, 2020).

The bursting of the retail bubble has forced brands and retailers to cut years out of their e-commerce plans, and to speed the integration and digitalization of the design, planning and production in buyer and supplier operations.

In sales, the growth of e-commerce in all U.S. apparel sales was steady but relatively leisurely in the run-up to the pandemic: 30 percent of all apparel sales in 2017, 34 percent in 2018 and nearly 39 percent in 2019 (Digital Commerce, 2020). A post-pandemic survey of consumers by Deloitte (June 2020) in six of the world’s largest apparel markets promise much higher shares for online apparel and footwear by 2030: 46 percent in France, 50 percent in Indonesia, 51 percent in the U.S., 56 percent in Brazil, 64 percent in China and 68 percent in India (Deloitte, 2020). This increase matches a general trend of increasing global e-commerce sales across retail overall (UNCTAD, 2020).

⁹ See for example <https://fashionunited.uk/news/fashion/has-the-retail-bubble-burst/2017030823815>.

BOX 1. HOW SOON IS NOW?

The pandemic experiences of four diverse brands—Uniqlo/Fast Retailing, PVH (Hilfiger, Calvin Klein), GAP, adidas and U.K.-based ASOS—reviewed for this paper help to illustrate the speed, violence and rewards of the shift from traditional retail outlets to e-commerce.

In 2020, Uniqlo/Fast Retailing reported a 12.3 percent year on year drop in revenue. However, the company reported a considerable increase in e-commerce with online sales topping JPY 300 billion (USD 2.8 billion), representing approximately 15 percent of total sales (Fast Retailing, 2020).

PVH's third quarter 2020 reporting to the SEC showed sales revenue via wholesalers down by 22 percent over the same period a year earlier, and an 11 percent decline in its direct-to-consumer retail operation, but a 70 percent increase in e-commerce (PVH Corp., 2020).

GAP Inc.'s 2020 year-to-date reporting showed a 43 percent decline in store sales over 2019 but a 56 percent surge in online sales which by the end of October 2020 accounted for 45 percent of all sales, up from 23 percent in 2019 (GAP, Inc., 2020b).

Adidas reported that while year-to-date global sales in October 2020 were down nearly 20 percent over 2019, there was “exceptional growth in the company's e-commerce channel continued at a currency-neutral rate of 51 percent” in the third quarter and noted an important e-commerce upside: growth of full-price sales (adidas, 2020).

ASOS—an online-only fast-fashion retailer founded in 2000 in London—is literally on another level. With a virtual short-cut to locked-down customers, no retail real estate to worry about and maximum control of inventories, ASOS boosted its revenues by 19 percent (to GBP 3.26 billion) in the first eight months of 2020. Before-tax profits jumped 329 percent (ASOS, 2020). (Financials like these among online retailers have naturally drawn the attention of venture capital funds, and investors more generally. See the Boohoo case study in Section 4 ('Governance') below) (See Chen, 2020).

Brand and supplier representatives, industry experts and journalists interviewed for this report remarked on the significant shift in the COVID-19 crisis to e-commerce and direct-to-consumer sales. Employer association representatives noted that this shift chiefly benefits larger suppliers capable of the transformation to digitalized production that brands have adopted during the pandemic. In the analysis of one major Southeast Asian supplier interviewed for this paper, the coming shake-out among brands will mean wins for platforms like Amazon and Alibaba and e-commerce-focused brands like Adidas able to

gather and exploit intelligence on their customers.¹⁰ The supplier argued that in apparel's future, good data scientists will matter more than good designers or industrial engineers, and the brands that fail to make the transition will likely sell their brands to their Asian suppliers.¹¹

How big is the 'shift to thrift'?

Re-sale, subscription and rental of clothes—design, production and consumption that increases use and re-use of apparel, and uses safe and renewable materials—is growing and the pandemic appears to have accelerated the consumer's 'shift to thrift'. Together, these modes accounted for six percent of the U.S. apparel market in 2018 and were estimated in June 2020 to grow to nine percent by 2023 (Deloitte, 2020). Both European and American buyers interviewed for this report indicated a significant increase in the apparel resale market. Industry experts and journalists echoed this, pointing to the emergence of major second-hand retailers such as thredUP and Poshmark in the U.S., and Vinted and Depop in Europe. A major U.S. buyer interviewed for this paper said that “the second-hand market is on fire [post-pandemic]... and [the company] feels that growing this will offset environmental impact so it wants to double down.”

Data from thredUP's “2020 Resale Report” confirms that apparel resale revenues—starting from a very low level—grew 25 times faster than those in the overall apparel market, and Cowen's post-pandemic U.S. consumer survey data shows “purchasing on resale marketplaces increased +28% for Gen Z consumers [born after 1996] and +19% [year-on-year] for Millennials [1981 – 1996] to 33% of each population having purchased (COWEN, 2020; ThredUp, 2020). According to a March 2020 survey by the resale app Mercar, millennials and Gen-Zers are buying secondhand clothing at a 250 percent rate faster than other age groups. “Half of all millennial and Gen Z respondents ... would rather own fewer, high-end designer brand items than more inexpensive, mass-produced clothing” (Delisio, 2020).

But a Deloitte estimate of 10 – 30 percent growth in 'alternative commerce' by 2030 underlines the apparel industry's uncertainty about its path and the industry observer's difficulty in making meaningful medium-term projections (Deloitte, 2020). To illustrate, one brand leader

¹⁰ Another evident winner is the general merchandizer—Target and Wal-Mart, for example, in the U.S. Along with Amazon, these three retailers accounted for 26 percent of all apparel sales in 2019, and post-pandemic consumer patterns have only strengthened them. See Digital Commerce, 2020.

¹¹ Examples of these phenomena include Youngone with its purchase of a license to sell Northface in South Korea, and the emergence of Li-Ning, a longtime supplier in China, and Delta Galil in Israel as leading brands (See Pulse, 2016).

interviewed for this paper said that a push into rental—initially estimated to grow to half of all apparel revenues in the coming years—was largely abandoned after an assessment showed that likely climate impacts of air-freighting rented clothing to customers and back again outweighed ‘circular’ economy benefits (U.S. Buyer, interview).

The growth of customization (or personalization) in apparel can be read as a corollary to fashion’s new rules about online retailing, automation and near-shoring (discussed in the ‘Sourcing’ section below). From a 2019 survey of apparel brands, *Sourcing Journal* reported that only 20 percent of companies “are investing in improvements that will facilitate mass customization” which requires “modifying one’s own factory or finding a sourcing partner willing to take on one-off or very small production runs” (Hayes, 2019). But a former apparel executive consulted in 2021 for this paper described the surge of customization in European luxury goods as an example of “Trojan Horse potential”.

Long-term changes in habits of dress—post-COVID casual in emblematic—are also speeding up customization; Amazon rolled out a value custom-clothing service in late 2020 (see Perez, 2020). The higher regulatory and labor costs that come with production in or near these markets can be offset by “small batch or on-demand models that increase efficiency and also margins”, algorithmic fitting for customers and 3-D weaving. For more traditional retailers, these new models also reduce losses due to inventory mismanagements that result in markdowns and stockouts (Industry journalist, interview).

From linear to circular

Re-imagining, re-thinking, re-setting and re-wiring. The future-of-fashion sub-genre in the industry and popular media reported excitedly in 2020 on these emerging markets and modes that appear to lead away from the dominant ‘linear’ model of apparel marketing, production and consumption. This is exemplified by the ‘take-make-dispose’ fast-fashion model in which hundreds of billions of dollars’ of clothing are produced, consumed and discarded annually.

The industry has promoted the concept of ‘circular fashion’ that according to *Vogue Business* will “reuse and recycle all materials, eliminating waste and pollution and regenerating the environment” via “a [digital and] product-centric, rather than consumer-centric approach... to make fashion traceable, transparent and more sustainable for businesses, consumers — and the planet” (Vogue, 2020). The broad concept also rolls up customization and 3D-printing, eco-fibers and the resale markets described above.

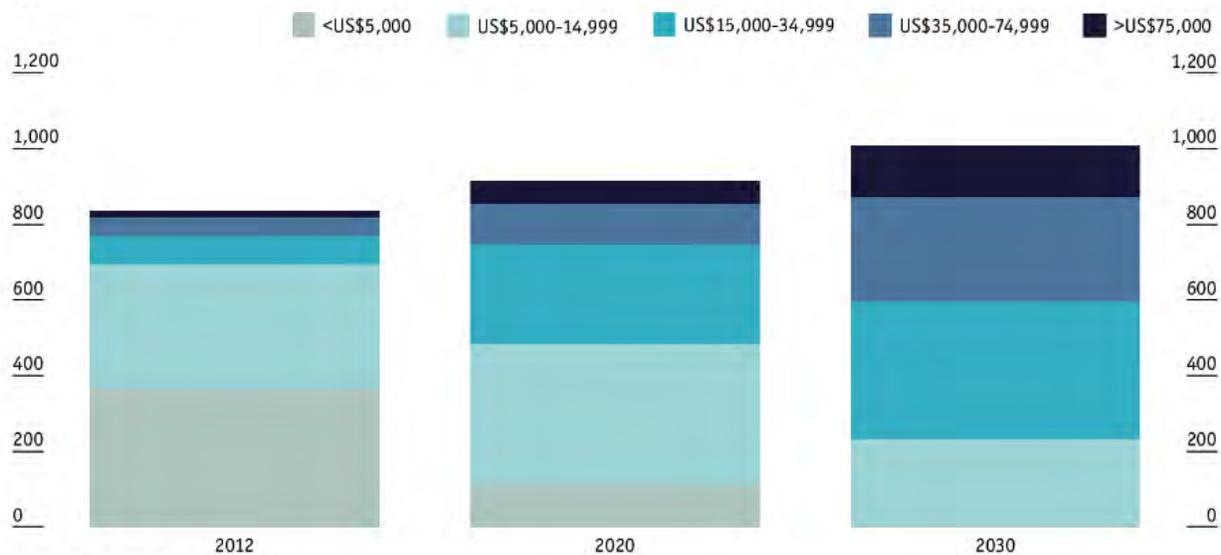
The dominant apparel industry model, however, remains stubbornly linear. The industry’s Global Fashion Agenda research disclosed in 2019 that:

the pace of sustainability progress in the fashion industry has slowed by a third in the past year and is not moving fast enough to counterbalance the harmful

impact of the fashion industry’s rapid growth.¹² Unless the current trend [slows or reverses] fashion will continue to be a net contributor to climate change, increasing the risk that the Paris Agreement’s objective of keeping global warming below 1.5 degrees Celsius during the remainder of this century will not be achieved (Global Fashion Agenda et al., 2019).

Add to those pressures the pre-pandemic projections of rapid income growth among Asia’s 4.3 billion consumers and 4 – 5 percent annual global growth in (new) apparel sales would overwhelm increases in its re-use and re-sale (EIU, 2013; Global Fashion Agenda et al., 2019). The 2019 ILO apparel report notes that “[in] Asia the rapidly growing demand for clothing is predicted to increase sales by 6 per cent each year, and it is estimated that the region will account for about 40 per cent of global sales by 2025... [and many] Chinese manufactures have already started to produce for domestic and regional markets in Asia” where sustainable production and consumption habits lag behind U.S. and E.U. markets (Hall, 2017).

Figure 4. Annual Household income and projections (USD m.), Asia, 2012 - 2030



Source: Economist Intelligence Unit

The science and the infrastructure for measurement and disclosure of progress on environmental commitments to regenerative agriculture and use of synthetic fibers, for

¹² Apparel’s private regulation of sustainability is the norm but an exception is the 2020 French law (“Bill on the fight against waste and on the circular economy”) that prohibits destruction of unsold apparel, inspired in part by reports that H&M, like other brands, incinerates tons of its unsold apparel. H&M’s unsold inventory was reportedly worth USD 4.3 billion in 2018 on revenues of approximately USD 23 billion (See Paton, 2018; TFL, 2020).

example, are better developed. But recent aggregate analyses of these efforts and their results point to a 'de-coupling' between industry goals, practices and results:

[R]esearch over the last four years has shown that even the most advanced industry initiatives for sustainability such as the Sustainable Apparel Coalition's Higg Index—which measures an apparel facility's environmental management capabilities, procedures and plans—have been limited in their impact in the face of downward economic pressure on the industry (Lollo and O'Rourke, 2020a).

(Industry, regulator, union and civil society responses to these challenges are discussed in the 'Governance' section below).

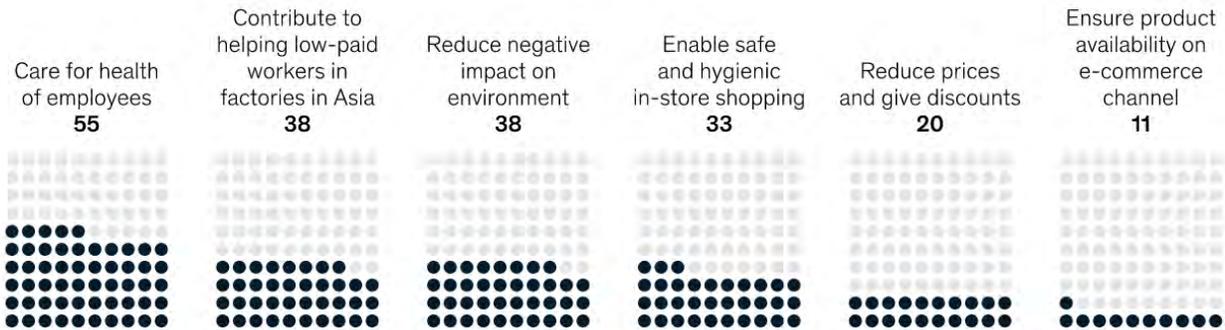
But will they buy it?

Recent surveys of Gen Z and Millennial consumers in the U.S. however show significant shifts in their perceptions: “[fashion’s] sustainability and social impact are cited when purchasing apparel, footwear and accessories as being either “very important” or “somewhat important” by 76% for 18 - 34 year olds (+13% in two years of data) versus only 45% for the 35 - 55+ demographic” (COWEN, 2020).

Data reveals a chronic 'intention-action gap' between consumer sustainability sentiment—that is, what they say—and their actual spending—what they do (White et al., 2019). But what about the younger consumers who dominate the attention of the industry? How do they understand these gaps between the industry's sustainability pronouncements and their real-world results? How do they rate the importance of sustainable production, both social and environmental, and sustainable consumption? How does this affect their behavior?

A 2020 McKinsey survey reported that “57 percent [of U.K. and E.U. apparel consumers surveyed] have made significant changes to their lifestyles to lessen their environmental impact, and more than 60 percent report going out of their way to recycle and purchase products in environmentally friendly packaging” (McKinsey, 2020b). A brand's support in the pandemic for “low-paid workers in factories in Asia” ranked second as a priority for consumers (38 percent), behind care for the health of a brand's employees and ahead of environmental impact. Market research firm A.T. Kearney's 2020 Future Consumer report found that 57 percent of Gen Z consumers “put a high priority on sustainability and eco-friendly products ... but [we found that] the group is unwilling to pay.” That is, Gen Z consumers expect “eco-friendly and econ considerations to be built into the design”, and the notion that companies would have a 'premium' set of sustainable products does not appear to hold for this demographic (Salfino, 2020).

Figure 5. Fashion brand responses to COVID-19 crisis, percentage selecting action as a top two priority



Source: McKinsey (2020a)

Opinion among industry experts interviewed for this paper about the social and environmental mores of buyers, suppliers and consumers was divided. A longtime E.U. brand sourcing director instead predicted that brands had been “disinvesting and pivoting away” from labor issues for lack of consumer interest in favor of environmental concerns: “[some brands] care more about goats than people.” (E.U. Buyer 1, interview) A veteran worker rights campaigner in Asia, however, sees that consumer concern about environmental and human costs of apparel is growing—“the pandemic has revealed so many stories of workers' suffering”—after years of “unilateralism by brands in their dealings with suppliers and the flouting of buyers’ responsibility to workers that [historically] have been under-exposed” (Labor NGO Representative, interview).

SECTION 2: FUTURE OF SOURCING AND PRODUCTION

In interviews for this paper, buyers generally called for greater ‘supply flexibility’ in the post-pandemic industry, including shorter design and production cycles, and shorter shipments. Apparel suppliers and workers, on the other hand, called for greater stability following the panicked cancelling of orders in 2020, and for buyers to take on a greater share of the industry’s risks and costs.

Is the industry serious about achieving these seemingly opposed goals—accelerating design, planning and production cycles, improving planning and stabilizing income for suppliers, and improving wages and working conditions—all at the same time? How does a post-pandemic campaign for greater ‘supply flexibility’ avoid turning into more of the same: more pressure and risk for suppliers and their workers?

This section examines forces that are re-shaping the ‘partnership’ between buyer and supplier. Buyers’ desire for ‘supply flexibility’ in production and the prospects for near-shoring are

examined first. The need for more sustainable modes of production (and consumption) is and the direct impacts for apparel of climate change are taken up next. Finally, the nature of partnership in apparel and footwear production is examined along with an analysis of how these changes in buyer-supplier sourcing relationships are likely to impact workers.

2.1 Supply flexibility: ‘speed and control’

Brands and their manufacturers that used to spend up to 65 weeks backing-and-forthing over materials, color, quality issues and order mix were under pressure to reduce time-to-market long before the COVID-19 pandemic (Berg et al., 2018). Pandemic workplace and travel restrictions have sped up digitalization of the planning and production processes. This is speeding up time-to-market, a crucial measure for the industry of its nimbleness: trend-responsiveness, efficiency and flexibility. The fastest of the fast-fashion brands have whittled the cycle down to a month or so (Berg et al., 2018).

The 2010 study “Fast Fashion: Quantifying the Benefits” modeled the Zara/Inditex ‘supply flexibility’ or ‘postponement’ strategy for improving revenue by reducing losses from markdown of unsold apparel and stock shortages. With a five percent bump in revenue, “estimates of [buyer] profit percent increases range from 22 to 28%... [and] percentage increases in market cap ranging from 30 to 37%; these increase even further to 35–43% if one anticipates a 15% reduction in inventory levels due to improved supply flexibility” (Hausman & Thorbeck, 2010).

Those are significant potential gains for buyers, but this report notes that the strategy requires:

- Assessing demand risk and forecast learning by stock-keeping unit (SKU)
- Pre-positioning materials (not yet committed to individual SKUs)
- Pre-committing manufacturing capacity
- Pre-committing transportation capacity
- Postponing SKU quantity decisions as late as possible

Buyer representatives noted a shift in brands partnering with larger suppliers with the capacity to take on sampling and design capabilities – processes controlled by brands for much of the industry’s history. Furthermore, employer association representatives echo this shift of responsibilities to larger suppliers as more and more development and design work is being shifted to the production country. A major Asian apparel supplier confirmed that where suppliers have taken on more buyers’ tasks including production planning and product design, the time and money savings can be significant (Asia Apparel Manufacturer, interview).

But ten years after the publication of the Zara study, how many other buyers and suppliers have faithfully and successfully adopted the Zara strategy? Along with Inditex and a handful of

notable exceptions, this kind of data-savvy and disciplined planning is manifestly absent among apparel brands. This record is laid bare by recent reporting initiatives—‘supplier voice’—that track changes in buyer purchasing practices including planning, costing and their impacts on management and workers (Yoon et al, 2020; Hammer and Plugor, 2019).¹³ In an interview for this paper ten years after the publication of the Zara/Inditex study, John Thorbeck described other apparel buyers’ processes as wasteful and slow to change when compared with the automobile (Toyota) and consumer electronics (Hewlett-Packard) industries. This analysis was seconded by a senior outside industry consultant: looking at end-to-end processes, the apparel industry as a whole is inefficient in comparison to other industries with widely distributed manufacturing (Garment Industry Consultant, interview).

Where will new value come from?

Thorbeck argued that most buyers can still wring an additional 70-plus percent in value where they are willing to re-organize their internal processes. Industry experts interviewed note that brands lose a tremendous amount of value from markdowns, unused inventories, and poor forecasting. Rather than focusing on reducing these real losses, brands in the pre-pandemic industry manipulated production processes and prices, squeezing workers and suppliers to maintain margins (See Robinson et al., 2019).

Is it likely? Even assuming that technical problems can be solved at scale and at the same time, industry and outside observers interviewed for this paper doubted the industry’s collective will to re-organize its priorities and processes.¹⁴ A senior labor regulator noted that there is no evidence of shifts “in the [industry’s] economics or finances that would change buyers’ economic incentives to [continue to] shift costs to suppliers” (Industry expert, interview). A longtime private compliance executive sees little prospect of industry-wide change: “Labor continues to be so cheap in Southeast Asia that [we] see two supply chains: a premium group making technology investments—not the majority—and the rest are fly-by-night enterprises with low barriers to entry that will survive for a long time” (Audit firm executive, interview). Finally, a senior European brand representative noted that on global labor governance issues “the largest brands will put pressure on the rest not to do something new or big on living wages, for example.” (E.U. buyer, interview).

The starting point for industry discussions about changes in buyer sourcing and labor practices since 2000 has focused largely on voluntary private regulation. But industry disasters such as

¹³ See <https://betterbuying.org/our-ratings/>

¹⁴ Also see van der Weerd's (2021) description of the shift in functions and pressure on price: “Remaining in the game also required assuming increasing amounts of overhead. More and more customers expected a full service: In addition to the manufacturing, we found ourselves having to acquire expertise in product development, sourcing and logistics. None of this justified a higher price. If anything, despite significant (and needed) increases in minimum wages, we were having to reduce prices year on year — without increases in volume.”

the building collapse at Rana Plaza in 2013, long-running apparel worker campaigns and, more recently, data-based findings on the aggregate failings of voluntary regulation are shifting the debate about how best to regulate buyers' practices and the distribution of supply chain risk and cost (See Kuruvilla, 2021). The possible shape of and prospects for closer public regulation of supply chain practices in the post-pandemic period is taken up in the 'Governance' section below.

BOX 2. FASHION'S HUNDRED-YEAR FLOOD

Assessments and disclosures of risks to the business are mandated for publicly-traded companies in the U.S. These 'safe harbor statements' are often pro-forma exercises, changing very little from year-to-year. A typical—albeit detailed—statement from a major U.S. buyer notes that risk depends on:

the levels of sales of our apparel, footwear and related products, both to our wholesale customers and in our retail stores and our directly operated digital commerce sites, the levels of sales of our licensees at wholesale and retail, and the extent of discounts and promotional pricing in which we and our licensees and other business partners are required to engage, all of which can be affected by weather conditions, changes in the economy, fuel prices, reductions in travel, fashion trends, consolidations, repositionings and bankruptcies in the retail industries, repositionings of brands by our licensors [and] consumer sentiment...¹⁵

With the exception of a fall in fuel prices, all of the above seemed to be happening everywhere and all at once in 2020.¹⁶ Even the weather conspired against predictability; as a labor rights advocate interviewed for this paper noted, the second wave of the pandemic was paired with a cyclone in the Philippines in November 2020, an earthquake in Turkey in October 2020, and two hurricanes Honduras and Nicaragua in December 2020 (Labor NGO Representative 3, interview).

¹⁵ 10-Q 'Safe Harbor Statement' (PVH 1 Nov 2020). Here is the same section in the same firm's 2019 (and 2018) 10-K risk statement: "the levels of sales of our apparel, footwear and related products, both to our wholesale customers and in our retail stores, the levels of sales of our licensees at wholesale and retail, and the extent of discounts and promotional pricing in which we and our licensees and other business partners are required to engage, all of which can be affected by weather conditions, changes in the economy, fuel prices, reductions in travel, fashion trends, consolidations, repositionings and bankruptcies in the retail industries, repositionings of brands by our licensors, and other factors".

¹⁶ See U.S. Bureau of Labor Statistics on reductions in 2020 oil demand and prices. <https://www.bls.gov/opub/mlr/2020/article/from-the-barrel-to-the-pump.htm>

The same firm's February 2019 statement flagged other major worries, including the risk of "disease epidemics" that could close factories and scare away shoppers:

- our ability to manage our growth and inventory
- quota restrictions, the imposition of safeguard controls and the imposition of duties or tariffs on goods from the countries where we or our licensees produce goods under our trademarks, any of which, among other things, could limit the ability to produce products in cost-effective countries, or in countries that have the labor and technical expertise needed
- the availability and cost of raw materials
- our ability to adjust timely to changes in trade regulations and the migration and development of manufacturers (which can affect where our products can best be produced)
- changes in available factory and shipping capacity, wage and shipping cost escalation, civil conflict, war or terrorist acts, the threat of any of the foregoing, or political or labor instability in any of the countries where our or our licensees' or other business partners' products are sold, produced or are planned to be sold or produced
- disease epidemics and health related concerns, which could result in closed factories, reduced workforces, scarcity of raw materials and scrutiny or embargoing of goods produced in infected areas, as well as reduced consumer traffic and purchasing, as consumers become ill or limit or cease shopping in order to avoid exposure.

In reviews for this paper of several apparel buyer disclosures, the routinized risk warnings read instead like reporting on the impacts of the 2020 pandemic. They are remarkable for their predictive power and for what they reveal about the lack of preparation for the combination of risks—including pandemics—identified in the statements. Note, for example, the widespread exercise by buyers of force majeure clauses against their suppliers to cancel completed orders. The post-pandemic fashion industry will likely broaden its risk analyses and tighten its planning, 'gaming out' scenarios that include simultaneous blows to the business.

Do new allies mean new sourcing dynamics?

The COVID-19 economic crisis pushed together two often opposing forces: activist apparel worker unions and employer associations. In the abstract, an alliance between suppliers and workers makes sense: “If suppliers earn lower unit rates over time, workers also tend to receive lower wages. If suppliers must reduce lead times, workers will have to engage in overtime work. Thus, the optimum point for suppliers and workers is inherently linked.” (Lund-Thomsen and Lindgreen 2018 quoted in Kumar, 2020).

Leaders of both worker and employer organizations interviewed for this paper confirmed that regional alliances built around shared opposition to buyer practices were forming. The PayUpFashion campaign against cancelled contracts in early 2020 in Bangladesh is the most prominent example among several in the Asian apparel industry (Asia apparel employer association representative, Labor NGO representative, interviews). The temporary collapse in apparel production also helped push to prominence a network of producer association known as the Sustainable Textile of the Asia Region (STAR Network). In January 2021, the network launched a new initiative aimed at securing better purchasing practices for the sector.¹⁷ The initiative on ‘Manufacturers Payment and Delivery Terms’ seeks to draft a set of minimum expectations and outline best practices related to payment and delivery conditions for brands. (IAF, 2021).

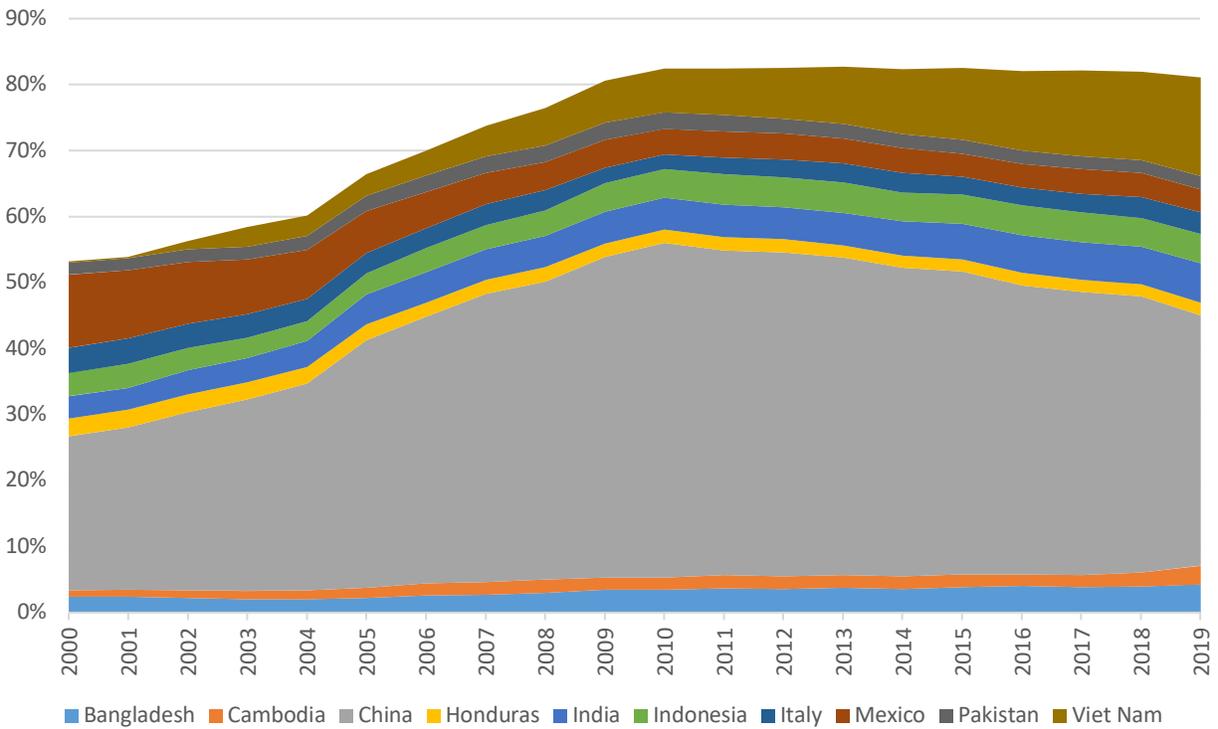
The tensions inherent in these alliances—unions with suppliers, and regional supplier associations—make it hard to gauge their durability but their emergence marks a shift in the public relationship between brands and retailers and their suppliers.

2.2 Near-shoring capacity is limited

A close relative of the ‘supply flexibility’ question is, How likely is near-shoring of production by U.S. and E.U. buyers, and how will it affect apparel suppliers workers in Asia? This paper looks first at the changes in apparel sourcing patterns since 2000.

¹⁷ The group included in 2021 producing associations from Bangladesh, Cambodia, China, Myanmar, Pakistan and Vietnam. See <http://www.asiatex.org/en/about/184.html>

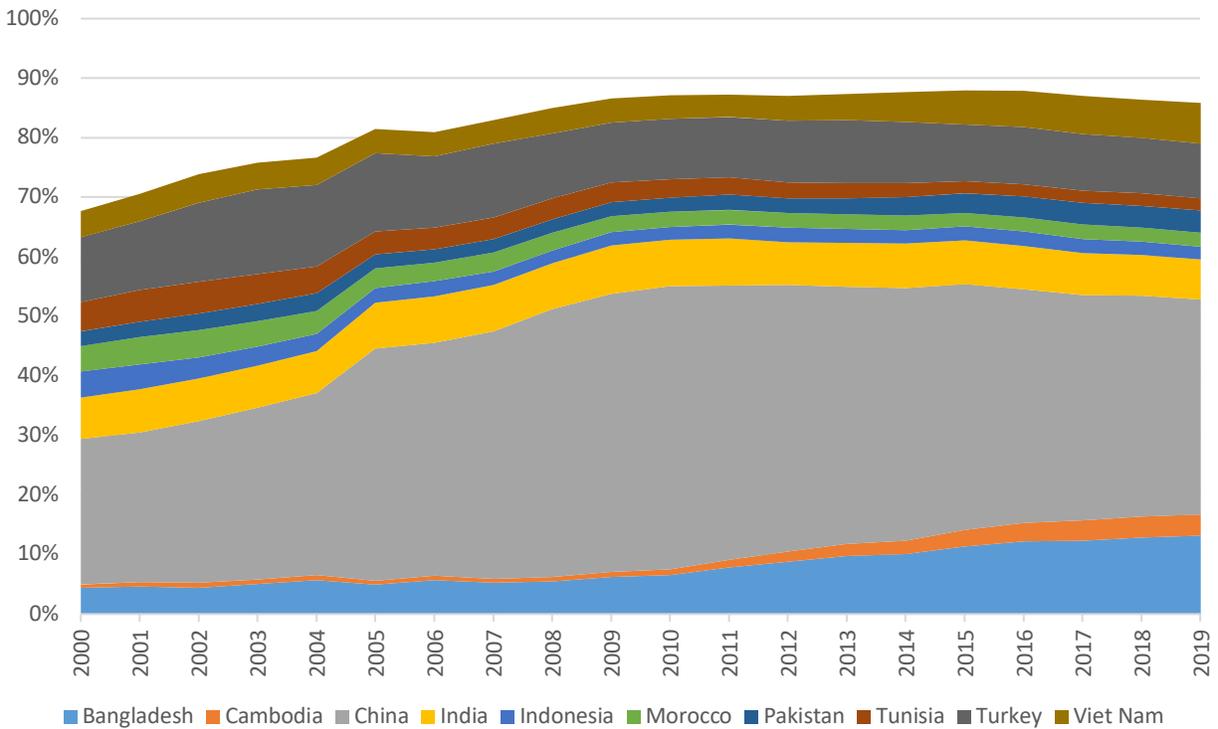
Figure 6. United States Apparel, Footwear, and Textile Imports 2000-2019.
 Share of 2019 Top 10 Sourcing Countries by Trade Value



Source: UN Comtrade HS Codes 42, 43, 57, 58, 60, 61, 62, 63, 64, 65, 66

As noted above, the Asia-Pacific region has long been the largest source of U.S. apparel and footwear imports, representing 72 percent of imports in 2019 to Central America’s 5 percent.

Figure 7. European Union Apparel, Footwear, and Textile Imports 2000-2019, Share of 2019 Top 10 Sourcing Countries by Trade Value



Source: UN Comtrade HS Codes: 42, 43, 57, 58, 60, 61, 62, 63, 64, 65, 66

As in the United States, China remained the E.U.’s largest source of textile, apparel, and footwear imports from 2000 - 2019. As noted above, imports from Vietnam and Bangladesh have climbed consistently since 2000 while Turkey’s share has fluctuated between 9 and 14 percent.

The gradual movement away from the Chinese apparel production noted above was underway before the recent US-China trade battles and 2021 forced labor sanctions but these developments and supply disruptions in the COVID pandemic have revived talk of ‘near-shoring’ of some apparel production.¹⁸ Will diversification bring production closer to the US and European markets?

¹⁸ The Trump administration adopted a more aggressive stance than its predecessor in the U.S.-China bilateral relationship, instituting three rounds of tariffs in 2018. China retaliated with tariffs on U.S. products (See Morrison, 2018). In January 2021, U.S. Customs and Border Protection (CBP) issued Withhold Release Orders (WRO) on cotton and tomato products grown in China’s Xinjiang Autonomous Region under state-sponsored forced labor (See CBP, 2021).

Near-shoring prospects easy to overstate for Europe and the U.S.

E.U. buyers and the European Commission are behaving as if apparel near-shoring is a strategy with a 2020 plan to revise trade agreements with most of the pan-Euro-Med (PEM) trading zone including Bulgaria, Egypt, Morocco and Turkey—all sources for E.U. brands—that eliminates trade duties on the finished apparel (Arnett, 2020). However, European brand representatives and industry experts interviewed for this paper argued that capacity for near-shoring in Europe or countries close to Europe such as Turkey and Morocco is limited and that capacity in those markets has nearly or already been reached.

For the U.S. market—already in long-term trade agreements with Guatemala, Haiti, Honduras, Mexico and Nicaragua—the shift may be less pronounced but a recent comparison of ‘landed’ costs for apparel made in Mexico, Bangladesh and China shows a part of the industry’s calculus.¹⁹ An obstacle to near shoring in Central America, however, as described by industry experts interviewed, are significant capacity constraints in the region, particularly with limited fabric production infrastructure (See also *fibre2fashion*, 2020).

Opinion of industry actors interviewed for this paper bent toward a bump in near-shoring focused chiefly on highly automated production of high-value-added clothing and shoes while essentials and basics such as socks and underwear would continue to be produced in ‘traditional’ production markets as there is less of a demand for speed for basic items. A longtime industry consultant pointed to “great near-shoring options in the European Union, and high-volume sourcing of basics in Mexico and Honduras for the U.S.”

But there were notable dissents. A veteran labor NGO representative noted that brand-owned production was relatively well-developed in the Central American region, and was pessimistic about new investment. Apparel industry analysts likewise found that the share of US apparel imports from Central American countries actually fell to 9.1 percent in 2020 from 10.3 percent in 2019 (*fibre2fashion*, 2020). And a senior apparel trade expert argued that while Central America—that is, not Mexico—and the Dominican Republic would get fresh attention, two counter-forces would reduce the effect. First, the combination of Chinese control over most inputs and plenty of capacity in low-wage South and Southeast Asia apparel centers would remain hard to beat. In 2019, China’s textile exports were approximately seven times greater (by value) than the next largest textile manufacturer, India. Furthermore, China’s Xinjiang region accounts for approximately 20 percent of the world’s cotton (Abdulla, 2021). Second,

¹⁹ Robinson et al., 2019. Another part of the industry’s calculus suggests a return to the familiar: a November 2020 Ernst & Young survey found that 37 percent of business leaders were considering bringing manufacturing services back to Europe, down from 83 percent in May. As Asia recovers from the pandemic, businesses have decided “not to cause further disruptions to their supply chain” (Alderman, 2020).

accelerated investments in automation—except for the “lights-out operation such as yarns and fabrics untouched by human hand”—does not necessarily equal a return to the U.S. or the region (industry expert, interview).

2.3 Climate change and the geography of sourcing

Re-shoring in apparel typically refers to the return of production to high-cost labor markets in the U.S. and Europe. In interviews for this paper, policy and apparel production experts downplayed the scale of post-COVID re-shoring. But literal re-shoring—the moving of shorelines due to sea level rise—may profoundly affect the geography of apparel and footwear sourcing.

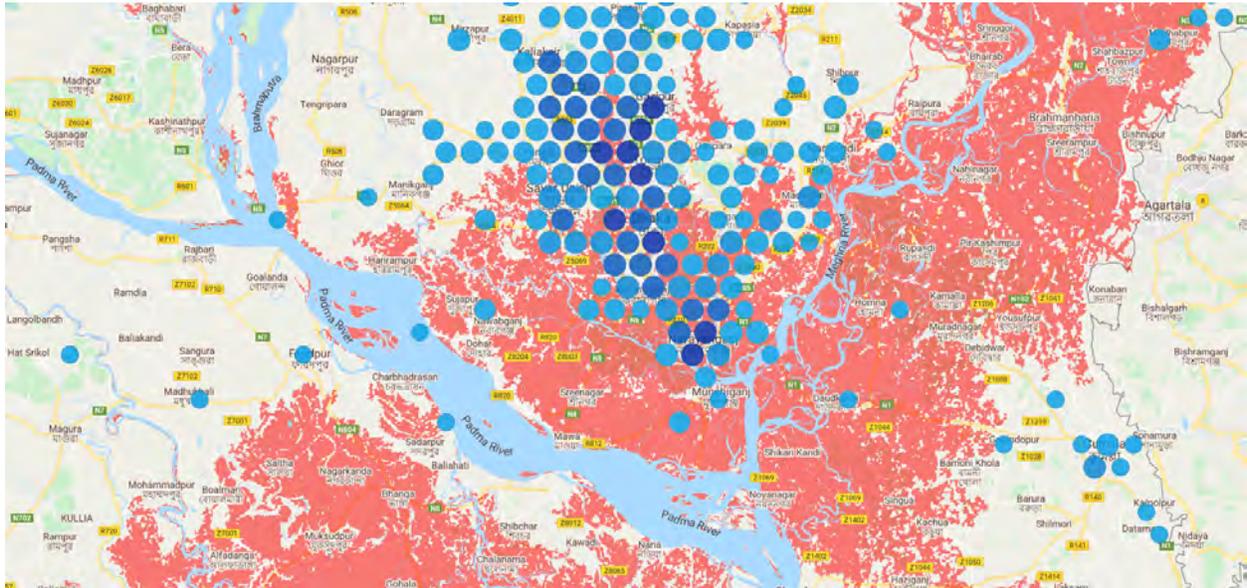
Rapid increases in sea level rise and heat that will affect many of Asia’s apparel workers directly have received little attention. The apparel industry’s sustainability work has focused largely on fashion’s massive carbon footprint, vast over-production and under-utilization of clothing, use and mis-use of water, and micro-fibers in the oceans. These are now being measured and, in some places, rationed and reduced (See for example, Ellen MacArthur Foundation, 2017).

In interviews conducted for this paper, buyers had no plans to mitigate possible large-scale losses of jobs and income due to sea level changes. Suppliers in apparel-producing areas such as Dhaka, Ho Chi Minh City and Jakarta revealed little anxiety about the threat of flooding and dangerously high temperatures.

Projections of sea levels (red) in key apparel-producing areas of Asia are overlaid below with apparel and footwear factory production areas (blue) available through the Open Apparel Registry (OAR).²⁰ Blue circles represent clusters of factories with darker blue circles indicating greater factory density. The sea level rise map is generated by Climate Central and uses “global-scale datasets for elevation, tides, and coastal flood likelihoods” in their projections. The merging of these two maps for this paper shows that major apparel-producing areas will be under-water by 2030. Figure 10 below, for example, shows Ho Chi Minh City’s projected 2030 sea levels (in red) pushing into nearly 55 percent of the mapped apparel factories, in blue.

²⁰ The factories mapped on OAR are compiled from lists submitted by contributors: brands, NGOs, MSIs, and so on. The representation of factories is therefore not a comprehensive mapping of apparel and footwear factories, and is necessarily impressionistic but sufficient for the purposes of this paper showing macro-level impacts of changes in sea levels. More information on the OAR methodology is at <https://info.openapparel.org/faq/>. More information on the Climate Central map methodology (‘Details and limitations’) is at <https://coastal.climatecentral.org/mapview/9/28.6087/44.9157/558cd2335bb2d6c85eb6693f4f4ba5da0d3cf30df9ddeb540a8faccb98d1b583>.

Figure 8. Apparel and Footwear Manufacturing Sites and 2030 Projected Sea Level Rise in the Dhaka, Bangladesh region.



Sources: Open Apparel Registry, Climate Central Sea Level Rise Map

Figure 9. Apparel and Footwear Manufacturing Sites and 2030 Projected Sea Level Rise in the Guangzhou, China region.

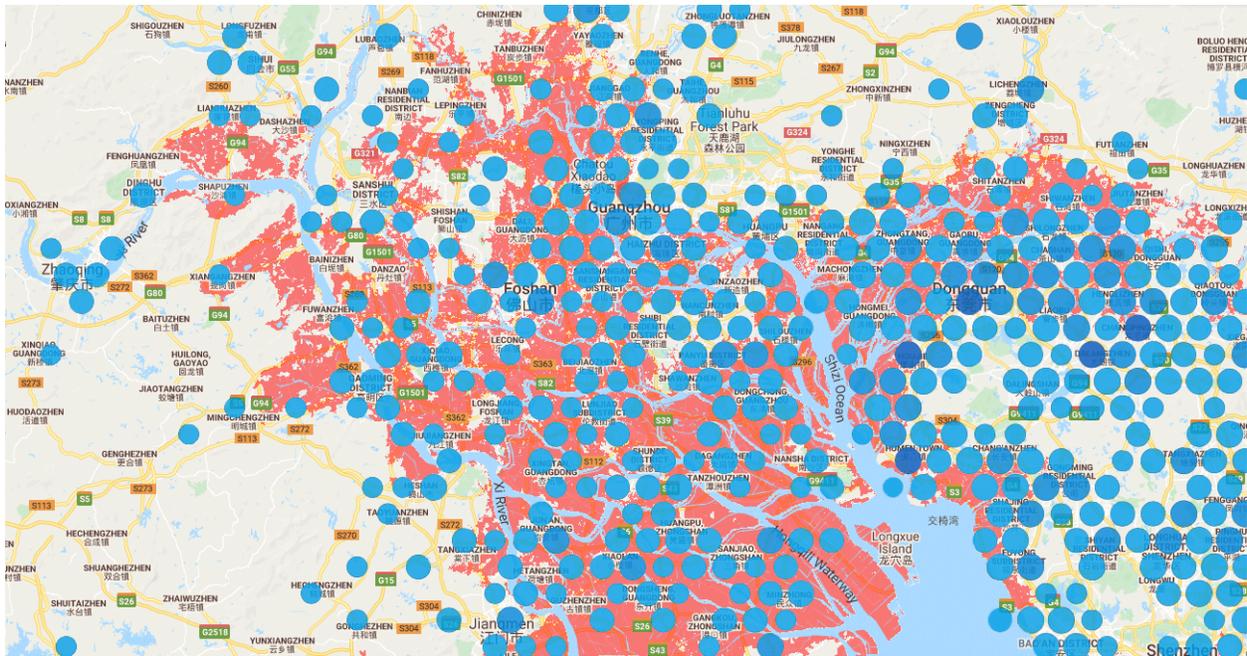


Figure 10. Apparel and Footwear Manufacturing Sites and 2030 Projected Sea Level Rise in the Ho Chi Minh City, Vietnam and Mekong Delta region.

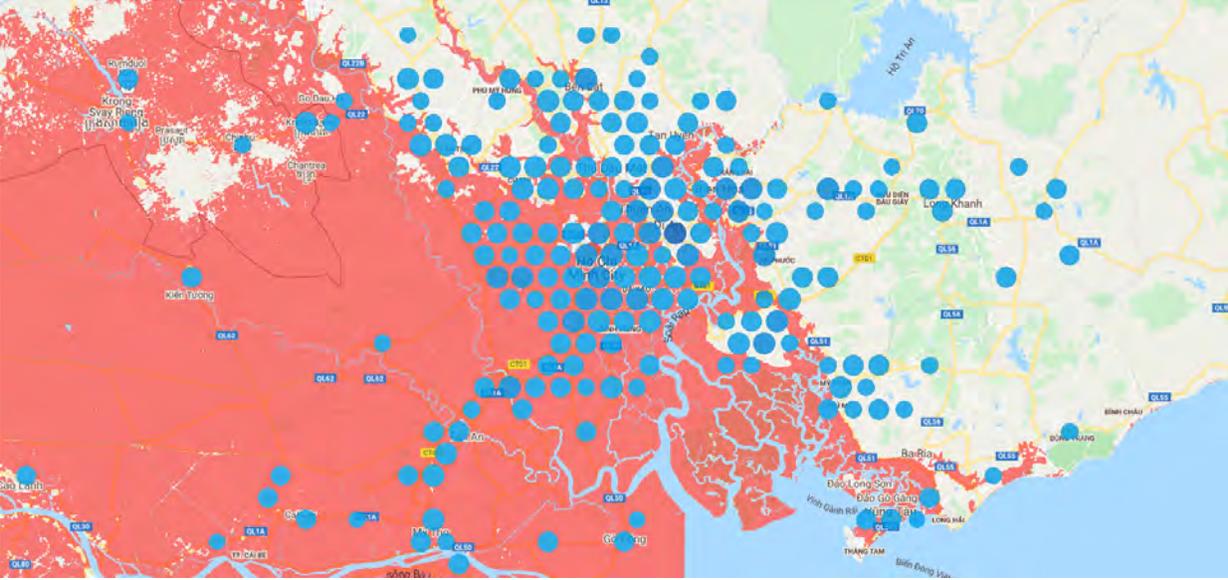


Figure 11. Apparel and Footwear Manufacturing Sites and 2030 Projected Sea Level Rise in the Jakarta, Indonesia and West Java region.

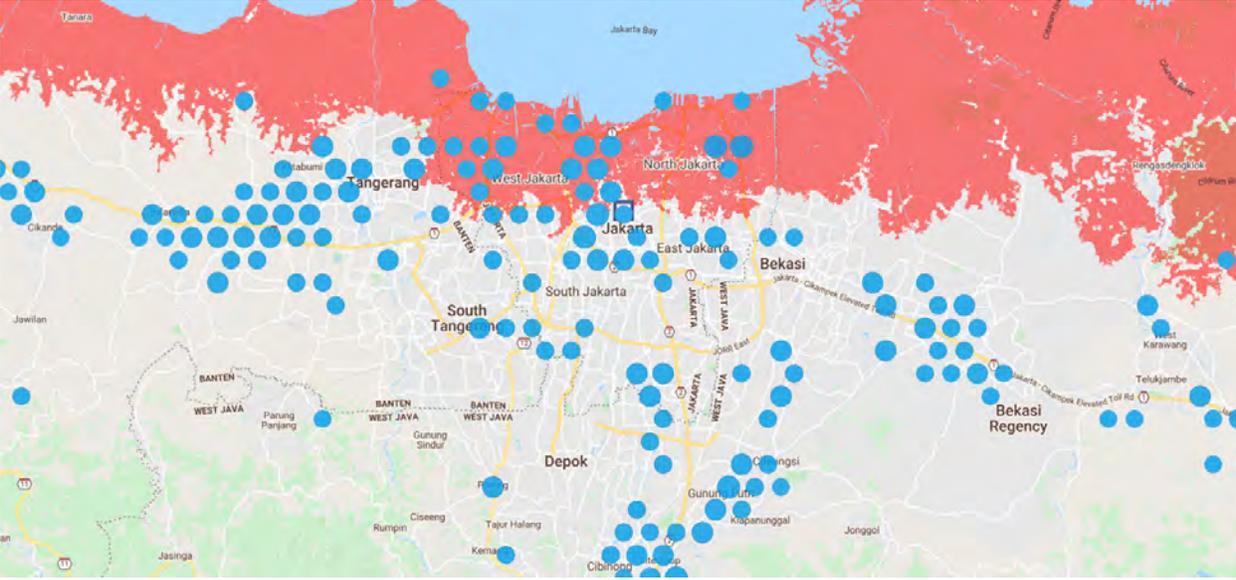


Figure 12. Apparel and Footwear Manufacturing Sites and 2030 Projected Sea Level Rise in the Phnom Penh and Sihanoukville region.

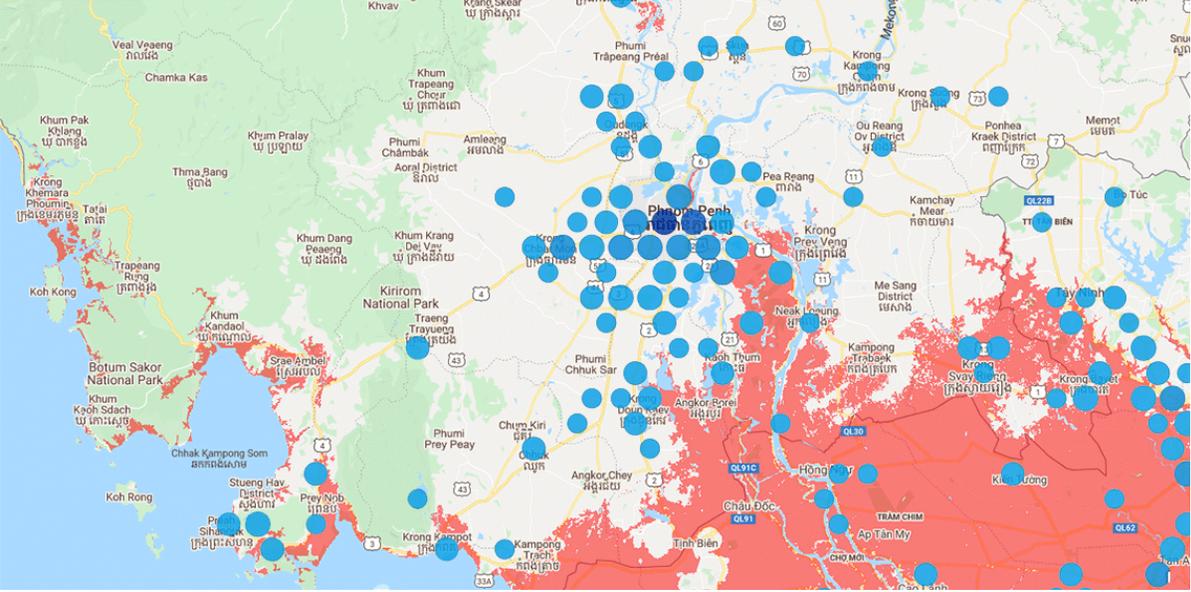
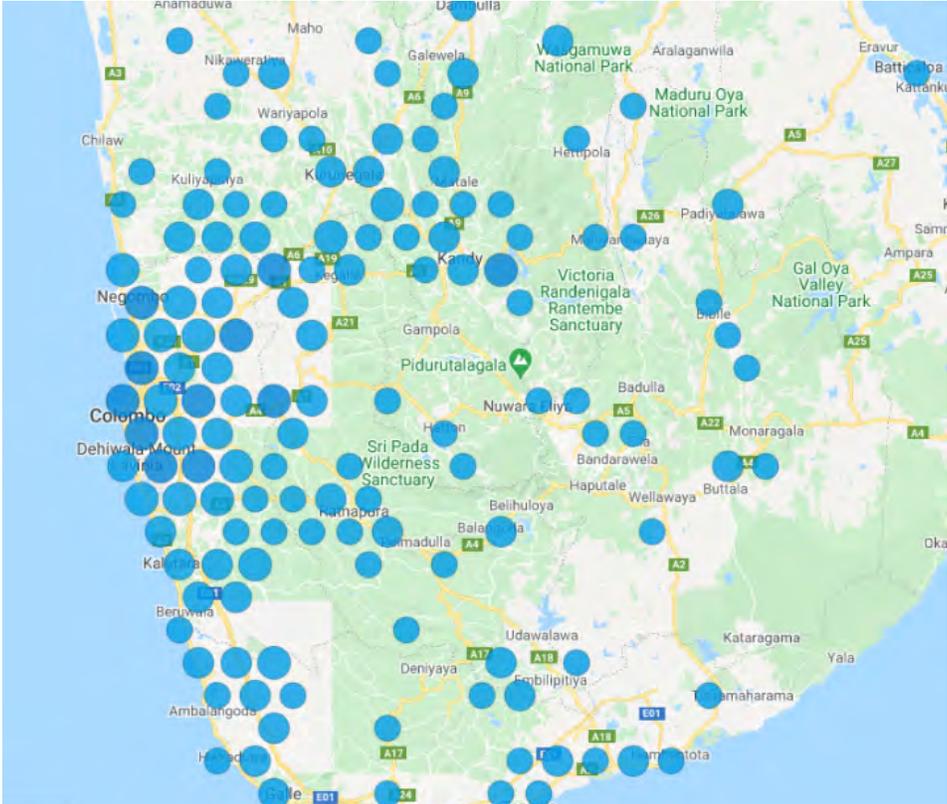


Figure 13. Apparel and Footwear Manufacturing Sites and 2030 Projected Sea Level Rise in the Colombo, Sri Lanka region.



For buyers, the relative lack of attention to sea level impacts on suppliers and their workers underlines the nature of the relationships; buyers with very few exceptions do not own factories and risks such as catastrophic flooding belong to their suppliers. Well-capitalized, trans-national suppliers can be expected to amortize low-land facilities and consolidate production on higher ground. Smaller-scale and locally-owned suppliers have fewer options. Bangladesh’s industry, for now the apparel industry’s second-favorite exporter, appears particularly vulnerable. Workers too, except those able and willing to migrate for work, have few options.

Not all of Asia’s major apparel-producing regions are threatened. Projected sea level rise for Sri Lanka’s industry, based around Colombo, will leave apparel factories unaffected.

Extreme heat also threatens production and workers

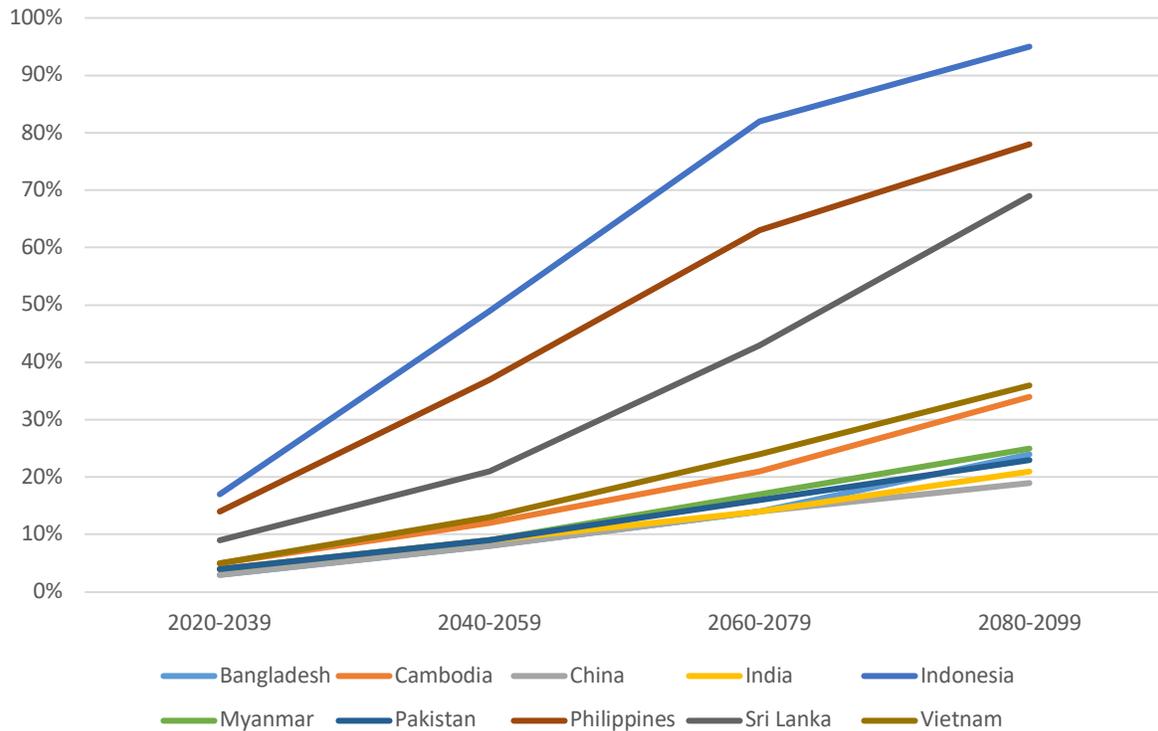
Extreme heat is also worsening in important Asian apparel producing areas. A 2017 UN Development Program report noted that “climate change has already altered thermal conditions in the workplace, and additional warming is a serious challenge for any worker or employer reliant on outdoor or non-air conditioned work... The world’s warmest regions—tropics and sub-tropics—are worst affected due to pre-existing heat extremes and because of high concentrations of exposed sectors (agriculture and manufacturing)” (UNDP, 2016).

Table 3. Projected Change in Mean Annual Temperature

	Projected Change in Mean Annual Temperature (Celsius)			
	2020-2039	2040-2059	2060-2079	2080-2099
Bangladesh	0.79	1.69	2.62	3.55
Cambodia	0.89	1.54	2.36	3.16
China	1.37	2.43	3.70	4.90
India	1.02	1.89	2.99	4.02
Indonesia	0.82	1.42	2.19	3.01
Myanmar	0.91	1.74	2.62	3.49
Pakistan	1.33	2.34	3.59	4.87
Philippines	0.77	1.35	2.12	2.86
Sri Lanka	0.80	1.41	2.13	2.88
Vietnam	0.98	1.66	2.55	3.38

Source: World Bank Climate Change Knowledge Portal, Projections based on emissions pathway RCP8.5

Figure 14. Projected Change in Annual Probability of Heat Wave, 2020 - 2099



Source: World Bank Climate Change Knowledge Portal, Projections based on emissions pathway RCP8.5.²¹

High heat brings serious long-term health risks from dehydration, heat-stroke and even increased risk of poisoning from the evaporation of workplace chemicals. It also brings more prosaic risks for workers and suppliers: absence and loss of income due to illness, lower productivity and longer hours (See e.g. Sebastio, 2018; Somanathan et al., 2021).

Heat risks are easier for governments, suppliers, buyers and workers to isolate and manage. Investments in cooler, air-conditioned workplaces are the most obvious solution.²² Sea level

²¹ Note from the World Bank Portal: “Heat waves are defined as a period of 3 or more days when the daily temperature remains above the 95th percentile. A single day often is discomforting, but only after a few days are the health effects significantly increasing. The heatwave probability is thus the daily probability of a sudden heat wave. Globally, the numbers are expected to increase. But its particularly the tropics where the systematic warming might lead to the largest increases, simply because the day-to-day and month-to-month variability are small.”

²² Admittedly, this solution brings with it other problems including increased energy usage and acceleration of climate heating. Note that air conditioning systems were invented to control temperature and humidity in large-scale manufacturing environments. See, for example,

rise and government efforts to mitigate the job and investment losses from sea level rise are, naturally, not focused on the apparel industry but economic life more generally. Apparel buyers can focus on its likely impacts, whether out of narrow concern for loss of production capacity or, more broadly, the dictates of sustainable fashion, the plight of its workforce and the demands of partnership. But it appears that some of apparel's production centers representing a significant percentage of current output will not escape the projected acceleration of the climate crisis.

2.4 Rethinking the buyer-supplier relationship

Much of the post-pandemic talk in fashion is about 're-imagining' the largely transactional relationship between buyers and suppliers. A 2020 survey reported that 73 percent of the sourcing leaders were counting on "deeper partnerships" in the post-pandemic period (BOF & McKinsey, 2020).

What might they look like? Brands and retailers must be willing to make investments and take on financial risks—including flexibility on purchase prices—that come with responsible sourcing, as these burdens are often placed on suppliers (van der Weerd, 2021).

But industry observers interviewed for this paper were, on average, skeptical of new partnership talk. Edward Hertzman of the industry trade publication, *Sourcing Journal*, argued in an interview for this paper that this skepticism comes from "a 'Who can you trust?' mentality borne out of an extremely fragmented industry. The pandemic has only further ruptured this ecosystem, and the trust that apparel's model depends on between vendors and suppliers is now more frayed than ever. "The industry is adversarial, and the term 'partnership' rings more hollow than ever" (Industry journalist, interview).

How do partners share risk and costs?

Partnership suggests a formal and durable sharing of risk and cost along the apparel supply chain. That would mark a change in the traditional distribution of power between buyers and suppliers and their workers. If those changes are coming, what do they look like for suppliers and workers, in particular?

The concentration and consolidation analyses in this paper do not mark a change in the industry's evolution but an acceleration along the familiar curve. And for the largest supplier groups, their growing confidence and power allows them to negotiate the terms of their buyer partnerships. In interviews for this paper, one major supplier confirmed that it is able to drop unwanted buyers altogether, and one major buyer reported being dropped by a longtime

<https://www.theguardian.com/environment/2019/aug/29/the-air-conditioning-trap-how-cold-air-is-heating-the-world>.

supplier (Asia apparel manufacturer, industry expert interviews). And a longtime sourcing and sustainability director for European brands noted that “some brands have relationships so close with [strategic] suppliers that they engage in a profit-sharing relationship” (E.U. buyer, interview).

But this dynamic is not found in much of the rest of the industry.²³ A 2017 ILO survey of apparel suppliers found that 52 percent had accepted orders “whose price did not allow them to cover their production costs (Vaughan-Whitehead and Caro, 2017). At the onset of the pandemic in early 2020 prompted buyers to cancel or fail to pay for an estimated USD 16.2 billion of orders (See BOF & McKinsey, 2020; Dean, 2020), and in the months since, researchers report that:

a large majority of suppliers surveyed reported that brands have demanded price discounts substantially larger than the year-over-year reductions they typically seek. As a result, over half reported that they are being forced to accept prices for orders that are below the cost of production. Suppliers also reported that many customers have imposed payment schedules that will require suppliers to wait additional weeks or months to be paid for their work (Anner, 2020).

Finally, only 17 percent of buyers in Bangladesh reported a willingness to enter a concrete partnership: to “co-invest in [their] suppliers to secure future capacity” (McKinsey & Co., 2020).

SECTION 3: FUTURE IMPACTS FOR WORKERS

The concentration and consolidation analyses in Section 1 above mean that it is highly likely that the industry will see large, well-capitalized suppliers in Asia receiving ever-larger orders from ever-larger buyers, allowing market concentration and consolidation, automation and digitalization to move together. What does this combination mean for workers? This is question is taken up below, followed by an examination of the likely meaning for apparel and footwear workers—and women workers in particular—of the long-term changes in sourcing patterns and relationships described in Section 2.

3.1 Concentration, automation and employment levels

Where high labor standards are a feature of these strategic buyer-supplier partnerships, decent work is a possible or likely by-product. Workers could also see higher wages proceeding from productivity gains in major manufacturing operations, particularly where the presence of

²³ Reporting initiatives that track and disclose apparel buyer purchasing practices have revealed the workings of the typical buyer-supplier relationship, and have noted both structural unfairness and progress on some measures. See <https://betterbuying.org/our-ratings/>

independent unions allows workers to bargain to maintain or grow labor's share of income. The extent to which these converging trajectories will transform working conditions and at what speed remains unclear.

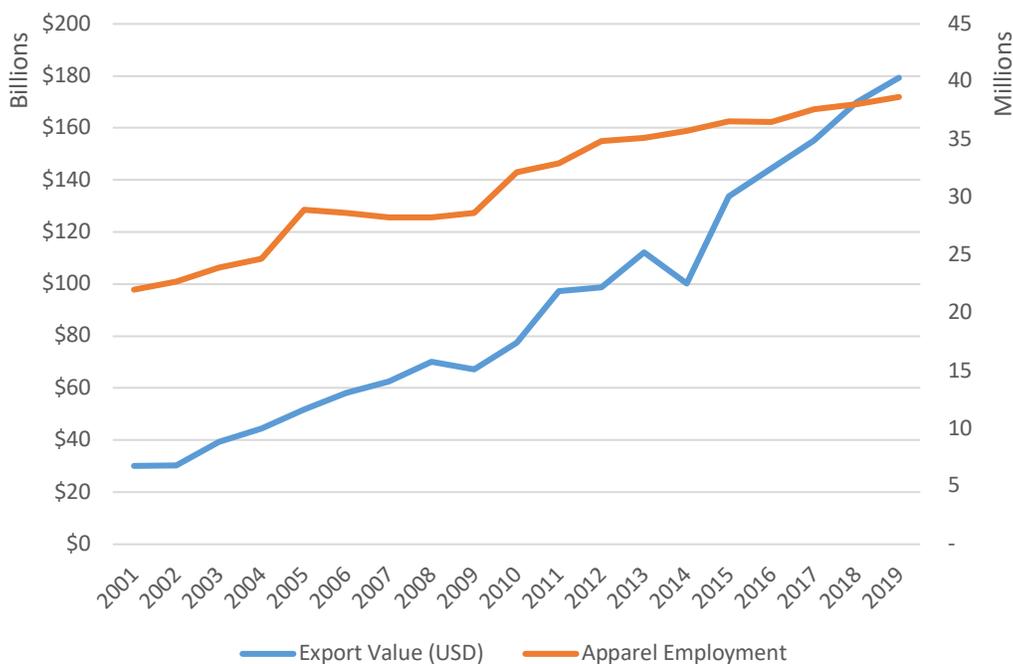
But more generally, consolidation and automation will mean fewer workers are needed at given production levels for the leading global brands, and the pool of workers available for the rest of the apparel market—in general, lower-value and (consequently) lower-wage—will grow. An increase in the competitive pressures on these smaller, non-specialist suppliers and their workers will work against realization of decent work and other key social and environmental goals in the global apparel industry.

Asian apparel, footwear, and textile exports including China increased steadily in nominal terms between 2001 and 2019 from USD 87.6 billion to 462 billion—a 428 percent increase.²⁴ Aggregate employment in the industry over the same period increased from 59.7 million in 2003 to a peak approximately 71.3 million in 2012 but had fallen rather abruptly to 60.9 million by 2019—a 14 percent decrease. And the steady decline in the industry's employment levels after 2011 coincides with the global recovery from the 2008 – 2010 financial crisis.

Without China, there is no decline in aggregate Asian apparel employment but note that in the years after the financial crisis, employment increases at a far less rapid rate than the increase in export value.

²⁴ For this analysis, export data from Bangladesh, Cambodia, China, India, Indonesia, Myanmar, Pakistan, Philippines, Sri Lanka, and Vietnam was used. Data and references for this paper pre-date the February 2021 military coup in Myanmar and do not reflect the collapse in the apparel industry there in the first half of 2021.

Figure 15. Total Apparel, Footwear, and Textile Exports for Asia Pacific Countries (excluding China), 2001 – 2019²⁵



Sources: ITC HS Codes 42, 43, 57, 58, 60, 61, 62, 63, 64, 65, 66. Employment for countries listed: ILOSTAT labor force surveys ISIC 13-15 and ILO Asia Regional Office data

In opaque institutional fields like the global apparel industry, it is difficult to track the adoption of new technologies and to weight them against other possible causes for the changes in employment levels shown above. The phenomena could resemble the productivity-driven ‘reallocation’ effect observed in other post-recession economies (Foster et al., 2014) or the start of a more dramatic ‘hollowing out’ effect of increasing ‘robot diffusion’ seen in the IMF’s 2018 analysis of post-recession automation (IMF, 2018). Regardless, these trajectories are worrisome for (future) workers and problematic for policymakers and planners in low-income economies for whom apparel production has been a reliable engine of employment growth.

²⁵ The ILO data used in this analysis includes employment in factories producing apparel, footwear and textiles for export and domestic markets. Production for the latter tends, on the whole, to be less efficient than export-focused production (See ILOSTAT, 2021; Powell and Wagner, 2014). As a result, the analysis may understate the negative impact of productivity gains and automation impacts on employment. As above, export data from Bangladesh, Cambodia, China, India, Indonesia, Myanmar, Pakistan, Philippines, Sri Lanka, and Vietnam was used.

Finally, large-scale re-sale, re-use and high-tech customization would undoubtedly reduce income for Asian suppliers and employment for apparel workers. But as noted in the above discussion, the impacts for production workers of shifts in demand—up and down—by consumers and buyers depend on countless factors.²⁶

Rapid growth in digitalization and e-commerce, re-generative agriculture and other elements of ‘circular fashion’ arguably have greater impacts on workers who are up- and down-stream from apparel and footwear workers. For example, buyer staff may find their functions taken on by suppliers as digitalization shortens the (internal) design and production processes, and retail workers will find their functions distributed to e-marketing staff and warehouse workers. A permanent shift away from traditional brands and retailers with established private regulation programs to online platforms that lack programs or leverage with vendors could, absent changes in public regulation of supply chain labor practices, lead to a deterioration in oversight by buyers of workplace conditions and protection of labor rights. ASOS in 2020 required vendors using its online platform to commit to its labor standards under penalty of removal from the platform, but perhaps of recognition of the limits of this approach the brand endorsed in 2020 the European Commission proposal for mandatory human rights due diligence.

3.2 Sourcing

Perspectives of buyers, suppliers, union leaders and labor advocates interviewed for this paper met on one point: a re-distribution of risk and cost in the post-pandemic apparel industry must address vulnerability of apparel workers and their employers to economic shocks like the global COVID-19 pandemic.

The unilateral cancellation by buyers in 2020 of apparel production contracts, some of them already completed or in-process, aroused media attention and public anger (See Kelly, 2020; McNamara, 2020). All of those interviewed regarded the responses as necessary but not sufficient: government social protection programs in low-income producing countries, buyers’ rearguard action to cover broken contracts (particularly after mounting pressure from the PayUp campaign - See Ilchi, 2020), and the early commitments made to the ILO-organized Call to Action for lost wages and the shoring up of social protection programs.

Variations on a ‘severance fund’ proposal from the global garment workers union IndustriALL, Clean Clothes Campaign, Asia Floor Wage Alliance, and others call for a comprehensive social protection programs and severance funds for garment workers supported chiefly by global buyers, as well as suppliers and producer-country governments (CCC, 2020a; Judd, Kuruvilla et

²⁶ In this context, commitments to ‘100 percent circularity’ by 2030 are hard to understand. See for example Khusainova, 2019 and Wicker, 2020

al., 2021).²⁷ Funds would offset wage losses to workers when employers fail or larger economic effects such as a pandemic threaten livelihoods and the industry's short-term survival. Buyer support for a binding agreement would mark the start of a different type of partnership in fashion: enforceable, trans-national and direct-to-workers in a way that recognizes the ties between global buyers and the workers who make their products.

Does 'new value' translate to higher wages?

The combination of new tools, from data science to virtual design, and an attack on buyers' notorious inefficiencies described above could 'release new value'. Industry experts argued that this will make it possible for buyers to ease production and price pressures on their suppliers, and increase wages and invest in social protection for workers.

This simplified version of the shift assumes that buyers can re-imagine and re-make their processes and that their suppliers can not only survive but thrive in an accelerated supply chain process. It also assumes that buyers have both the will and the means to deliver higher wages to workers.

Is it possible? The massive growth of fast-fashion production over the last two decades argues that suppliers can survive in accelerated supply chains (See for example Uberoi, 2017). And an online-only fast fashion retailer argued in an interview for this paper that its supplier base is stable and happy: 90 percent have supplied the brand for more than 5 years (E.U. buyer, interview). And industry-level bargaining via ACT and 'labor costing' methodologies to calculate and distribute living wage costs among numerous buyers are well-developed and widely available to brands (see for example Fair Wear Foundation, n.d.; Miller, 2013). These two elements of a post-pandemic shift—more efficient buyer processes and higher wages for workers—have been tested and proved separately. But they have not been tried together on a large scale, so the model has a hot-house quality to it: capable of flowering only under carefully-controlled conditions.

²⁷ The Penn State Center for Global Workers' Rights (CGWR) estimates wage losses by workers due to cancelled contracts of at least USD 1.6 billion (Anner et al., 2020).

BOX 3. MORE LIGHT THAN HEAT: NEW DATA ON APPAREL WAGES AND FREEDOM OF ASSOCIATION

Arguments about the prospects for living wages and effective freedom of association for workers in apparel production are well-worn but the relationships between labor compliance, worker incomes and worker freedom of association are little-explored. Recent analysis (Li & Kuruvilla, 2021) using data from 451 supplier factories of a global fashion retailer on worker turnover and labor compliance shows that wages are far-and-away the most important factor in worker turnover:

Average turnover in Cambodian garment export factories exceed 45% per year (Kaing 2017). Turnover levels in Vietnam’s garment exporting industry range from 15-20% for large factories to 30-40% per year in small ones (Vietnam News 2018). Turnover rates in Bangladesh garment factories range from as little as 10% to as much as 100% per year, with 60% being very common (ILO 2019), while 40-60% per year is quite common in Indian garment factories.

High turnover poses problems for the supplier, i.e. the inability to fulfil orders from global buyers, in an industry that is time -sensitive given different seasons, and becoming even more so due to the emergence of “fast fashion”. For the global buyer, high worker turnover thus creates significant “supply chain risk”. Not only may their orders be delivered late, but high worker turnover may also cause their supplier to subcontract production to factories that were not “authorized”—a common practice in apparel supply chains (CITE). Thus, evidence on what workers value i.e., which aspects of compliance are more important in explaining turnover may be a win-win for all parties. Suppliers will learn how better to retain workers, the supply chain risk to global buyers would reduce, and it would make it possible to refine private regulation to focus on what matters to workers.

To the extent that low worker turnover rates improves factory productivity and profits, higher wages are—perhaps counter-intuitively in a low-wage, low-skill, low-margin manufacturing sector—a key to profitability.)

Kuruvilla (2021) conducted two similar analyses using data from Better Work and Fair Wear Foundation to test the relationship between factory-level labor compliance and freedom of association and collective bargaining. Factories with both a union and a collective bargaining agreement showed labor compliance that was 10 – 30 percent higher than in factories with no unions and no bargaining.

Table 4. Presence of a Union and/or Collective Bargaining Agreement and Compliance

Union, CBA Interaction	Number of Factories	Overall Compliance %
Union with CBA (A)	903	90.61
Union but no CBA (B)	586	83.97
CBA, but no Union (C)	34	86.48
No Union, no CBA (D)	441	81.63

Source: Kuruvilla 2021

This is a significant finding but the realization of its promise faces two strong headwinds. One, the three countries that account for approximately 44 percent of global apparel exports (WTO, 2020)—China, Vietnam and Bangladesh—restrict workers’ freedom of association *de jure* or in practice, as noted by the ILO’s Committee of Experts in recent years.²⁸ These macro-level sourcing choices suggest that freedom of association is not a leading consideration in country-level sourcing strategies. Two, the supply of unions and suppliers prepared to engage in productive social dialogue, broadly defined, is very small. A trans-national apparel supplier working with major E.U. and U.S. buyers interviewed for this paper put at ten percent the percentage of suppliers amenable to dealing with organized workers. A senior U.S. regulator interviewed for this paper noted that country-level labor practices are “important to buyers and they will leave if there are reputation problems, but it’s not clear that they go to a place because labor standards are better.” U.S. Government trade official, interview).

Imbalances in risk and cost along apparel supply chains mean that the recovery prospects for the industry as a whole will differ for buyers, national industries, suppliers and workers. Employer Association representatives noted the different impacts and recovery among varying manufactures: smaller, locally-owned companies have not received as many orders or have been wait out the crisis compared to larger, foreign-owned factories. A leader of a south Asian apparel industry group offered a ground-level view. First, not all of Asia’s apparel industries suffered equally: “Jobs will be lost permanently, but the national industries with a “history of cooperation and investment, and something special to offer [versus cheapest prices]” are more likely to recover” (Asia apparel manufacturer, interview). Second, the “larger suppliers”—those

28 See FOA cases for Vietnam, China, and Bangladesh.

among the 20 percent of firms globally that provide an estimated 80 percent of the product to major buyers—“have the resources to see the crisis through but smaller manufacturers will struggle [and] revert to subcontracting” (Ibid.). European and American buyer representative echoed this statement, stating that smaller suppliers have suffered the most with larger, vertically integrated suppliers able to weather through the crisis.

Finally, two ILO reports—a 2010 report on the impacts of the financial crisis on the apparel industry and 2021 brief on post-COVID recovery—noted that economic recoveries are uneven and discriminate amongst workers. From the 2021 report: “losses in post-support labour income were relatively larger for young workers, women, the self-employed, and low- and medium-skilled workers. Often, job destruction has disproportionately affected low-paid and low-skilled jobs. All this points to the risk of an uneven recovery, leading to still greater inequality in the coming years.” (ILO, 2021)

3.3 Disparate impacts for women workers

The pandemic disproportionately impacted women workers and exacerbated existing inequalities regarding unpaid care work, wage gaps, discrimination, and gender-based violence. Many women workers found themselves bearing a heavier workload than men by having to take on household chores and dependent care (CARE, 2020b). Labor rights organizations found that women who returned to work in Bangladesh earned a median salary of Tk 9,200 (USD 109) compared to Tk 10,000 (USD 118) for men (Garment Worker Diaries, 2020). Trade unions and reported discriminatory termination of pregnant women workers and failure to pay maternity benefits (Politzer, 2020). And overall violence against women, particularly domestic violence, increased during the pandemic (UN Women, 2020).

More concerning, the pandemic response has not been gender-responsive, threatening to exacerbate pre-COVID inequalities and undermining the limited progress campaigners and have made. In the broad view, social dialogue has largely been absent in the COVID-19 response with many governments and employer associations taking unilateral action without consultation of worker representatives (Jackson et al., 2021). However, even where dialogue did occur, labor rights organizations have found a lack of women representation and involvement. A June 2020 CARE International survey of 20 countries’ COVID-19 policy responses found that a majority of national-level committees established to respond to the pandemic did not have equal female-male representation (CARE, 2020a).

The inequities experienced by women workers and representation gaps in the COVID-19 policy response (in addition to pre-existing gaps in trade union leadership, factory management, and other institutions) are further compounded by the changing structure of the industry that may increase the vulnerability of women workers. With increasing consolidation, technical upgrading, other forms of industry restructuring, an ILO analysis of ‘Gendered impacts of

COVID-19 on the garment sector' posited that "[t]he sector may not provide the same number and level of opportunities as it did before." Further:

Many countries depend on the sector to provide individuals, mainly women, with formal, paid work. But decreasing demand for these workers' labor could leave millions of people with increasingly informal job arrangements, both within and outside of the sector. This practice shifts the burden of uncertainty to workers and reverses progress made on decent work. This is particularly concerning, since women are more exposed to informal employment than men in almost 75 per cent of Latin American countries, 89 per cent of countries in Southern Asia and over 90 per cent of sub-Saharan African countries (ILO, 2020c).

The report concluded that "uncertainty over the future of the global economy and new realities faced by businesses, governments and workers alike will probably exacerbate the negative impacts of the COVID-19 pandemic on women" (ILO, 2020c).

Union and civil society leaders tended to be more sanguine about the longer-run prospects for women workers in apparel and footwear. This optimism is driven by adoption by the ILO of the Violence and Harassment Convention (No. 190, 2019). An Asia-based labor NGO leader noted in an interview for this paper that although ratifications of the instrument by governments in Asia may come slowly, the convention can be a 'game-changer': "brands may be shameless about not paying living wages, but they are more aware of the dangers of overlooking [gender based violence and harassment]... [Where] gender based violence and harassment is no longer a side issue, [women workers can build] fear-free workplace where freedom of association and collective bargaining can actually happen well" (Labor NGO representative, interview).

SECTION 4: FUTURE OF LABOR GOVERNANCE MODELS

How should the crisis change the way that global apparel supply chains are organized and governed to promote decent work and sustainability?

The 2020 pandemic prompted policymakers around the world to hit 'pause' or even 'stop' on new rules unrelated to economic recovery. But a European Union proposal for mandatory human rights due diligence by its companies seemed to gain momentum after major fashion brands cancelled contracts, demanded price reductions and delayed payment on billions of dollars' worth of apparel in the first months of the 2020 pandemic (for cancellations see Chan, 2020). The European Commissioner for Justice Didier Reynders told companies in April 2020 to expect legislation in 2021 that would be "inter-sectorial, mandatory and of course with a lot of possible sanctions" (RBC Working Group, 2020).

This did not happen quickly. The contest between public and private regulation of the fashion industry's supply chain practices is three decades old. Unions and civil society organizations in interviews for this paper generally favored clearer, stronger regulation of supply chain labor practices at both the producing and consuming ends of apparel supply chains. Industry associations and, to a lesser extent, buyers favor a lighter touch. This dynamic is captured well in the analysis of survey responses for the E.U.-commissioned 2020 report on due diligence:

[C]ivil society stakeholders prefer regulation from the most strict (mandatory due diligence requirements coupled with civil liability or fines) to the least strict (voluntary guidelines). The preferences of industry organisations are in the exact reverse order. There is a preference for voluntary guidelines *to be introduced*, which is revealing, given the influence of the *existing* voluntary measures indicated [previously] by the same industry organisation stakeholders.

The fact that civil society and industry organisations have directly opposing preferences, and their selections follow the same order relating to both *current* types of regulation and regulation that *should be introduced*, again reinforces the impression that these selections were made not based on *effectiveness* but on *level of interference* or strictness of the regulation (Smit et al., 2020).

Private regulation has been the default mode for governance of labor practices in global supply chains. Recent quantitative research on the aggregate global results of private regulation in apparel show little or no improvement for workers and the de-coupling of goals, practices and results described above (Kuruvilla, 2021). The industry's self-regulation record undermines the logic of private governance: first, that it achieves results superior to public regulation, and second, that it is not be used in situations where high rates of participation and compliance are required, where there is limited flexibility regarding actions and timings, or where serious social or environmental risks are involved (e.g. risks that are persistent, irreversible, or poorly understood)" (McCarthy & Morling, 2015).

4.1 Acknowledging private regulation's flaws

The movement for mandatory standards accelerated following the 2013 Rana Plaza disaster and since 2015, public supply chain governance has progressed from broad reporting requirements as in California's Transparency in Supply Chains Act and the 2015 U.K. Modern Slavery Act to mandatory due diligence requirements as seen, for example, in France's 2017 *Loi*

de Vigilance, and targeted forced labor sanctions by the U.S. government against China in 2020.²⁹

This shift toward human rights due diligence, meaningful public reporting requirements and the possibility of legal liability on the part of buyers for injuries to supply chain workers won support in April 2020 from a coalition of largely European and U.S. institutional funds representing USD 4.2 trillion in investments:

We believe that governments have a duty to protect against human rights abuse by business through effective regulatory measures, particularly where voluntary corporate measures continue to leave significant gaps in human rights protections... We therefore call on all governments to develop, implement, and enforce mandatory human rights due diligence requirements for companies headquartered or operating within their own jurisdictions (Investor Alliance, 2020).

A growing number of European and U.K. companies—led by food and agriculture companies but including a smattering of apparel buyers—acknowledge the failure of voluntary measures and have endorsed the principles of mandatory human rights due diligence (See BHRRC, 2021; Smit et al., 2020). The estimated costs for large E.U. companies to comply with a mandatory due diligence requirement throughout their supply chains were 0.005 percent of annual revenues. The rate for small- and medium size enterprises is higher, but still less than seven one-hundredths of one percent of annual revenues. (Estimated costs for large apparel firms are less than one-tenth (6.4 percent) the estimated costs for E.U. food and agriculture firms where support for new, stricter measures is stronger than among fashion brands (Smit et al., 2020).

The U.S. and European Union contribute to this larger agenda through support of the work of the ILO, for example, and via unilateral trade preferences and labor provisions in trade agreements. Brands contribute through participation in the ILO's Better Work program and multi-stakeholder initiatives. Most also maintain factory-level labor compliance programs but, with few exceptions, these efforts are overwhelmed by sourcing practices that ignore or aggravate negative impacts on workers (See Amengual et al., 2020; PST & AGT, 2020). Unions—both national and global—and labor rights organizations have secured a patchwork of agreements with buyers and suppliers including, for example, the over 200 global

²⁹ See a current list of government due diligence initiatives at Investor Alliance, 2020. See U.S. sanctions in Glover, 2020.

framework agreements³⁰ with global unions IndustriALL and UNI, and the Accord on Fire and Building Safety in Bangladesh.

Labor regulation by national governments in Asian apparel hubs has varied from radical deterioration—the forced labor regime in Xinjiang, China, is the standout example—to positive reforms such as the promised relaxation of freedom of association restrictions in Vietnam.³¹ Government labor policy in the COVID pandemic focused on relief for employers and workers is detailed for ten Asian governments in the ILO/Cornell NCP 2020 paper, ‘The Supply Chain Ripple Effect: How COVID-19 is affecting garment workers and factories in Asia and the Pacific’ (ILO, 2020b). The 2020 contraction in the industry and the re-drawing of apparel sourcing patterns described above means that these governments—without new counter-pressures—may lack both the incentives and the urgency to make or redouble efforts to tackle abusive labor practices in the industry. Going further, four Asian governments—Cambodia, India, Indonesia and Myanmar—were alleged in 2020 to have used the economic crisis to tighten curbs on labor rights and postpone wage negotiations (AFWA, 2020).

What will post-COVID labor governance look like?

There was little consensus in interviews for this paper on the shape of a post-pandemic labor governance system but agreement on one point: the predominant voluntary audit-remediation regime is, for different reasons, not working for most buyers, suppliers or workers.

Apparel brand representatives emphasized discrete successes and collaborations but did not defend private regulation’s larger record. Both American and European brand representatives invoked potential improvement in private regulation through advances in the ‘harmonization’ of private regulation systems, referencing their participation in the Social Labor Convergence Project (SLCP).³² Additionally, one leading E.U. retailer offered that it had reduced labor audits by 90 percent to focus on the human costs of suppliers’ grave labor abuses, and their attendant legal liabilities. A few endorsed the principles of public regulation and two backed legal liability for buyers in order to “help level the playing field” for both lead firms and their suppliers.” But U.S.-based buyer representatives favored Customs and Border Patrol (CBP)-style targeted

³⁰ Global Framework Agreements (also known as International Framework Agreements) are agreements negotiated between Global Union Federations (GUFs) and Lead Firms. These agreements are negotiated at the global level and are designed for Lead Firms to implement in all their supplying factories. See <http://www.industriall-union.org/global-framework-agreements>

³¹ In June 2019, Vietnam ratified ILO Convention 98 on the right to collective bargaining and committed to ratify ILO Convention 87 on Freedom of Association by 2023. In November 2020, the Vietnam’s National Assembly adopted a revised Labor Code allowing for unions the establishments of ‘worker representative organizations’ (WROs) independent of the state-run Vietnam General Confederation of Labor (VGCL). These reforms went into effect on January 1, 2021. These reforms were initially born out of pressure from Vietnam’s commitments to the now-defunct Trans-Pacific Partnership as well as the E.U. Vietnam Free Trade Agreement (EVFTA) (See ILO, 2019b).

³² SLCP is a multi-stakeholder initiative that created a Converged Assessment Framework – a common audit tool – that allows manufacturers to use a standardized tool.

sanctions rather than broader due diligence requirements, a long-standing objection from U.S. firms (See e.g. Salminen, 2018).

Leaders of workers' and labor rights organizations interviewed for this paper backed sectoral bargaining such as ACT and Bangladesh Accord-style binding agreements that oblige buyers to take on a greater share of 'decent work' costs and risks along their supply chains (See e.g. CCC et al., 2020). Some suppliers and the associations also embraced the idea of obligating buyers in this way but larger, trans-national suppliers were confident in their relationships with their buyers. An agreement for creation and maintenance of the Global Severance Fund described above would, presumably, meet these requirements: a binding, trans-national deal among buyers, supplier, unions and even governments that re-distributes economic risk and cost along the supply chain.

In interviews for this paper, these unions and labor rights organizations also backed, as part of a superstructure supporting the agreements described above, strong and enforceable labor provisions in trade agreements between buyers' and suppliers' home governments. Brand representatives had relatively little to say, perhaps reflecting buyers' separation of trade policy—handled by industry associations and central to companies' sourcing strategies and financial performance—from their efforts to improve labor practices.

4.2 Advancing labor protections in trade policy

Trade policy has played a key role in the advancement of worker rights and decent work. Two senior policymakers pointed to recent changes in U.S. and, to a lesser extent, European trade policy as harbingers of greater impact for labor provisions in trade agreements.

In the U.S., these include the 2016 forced labor revision to the Tariff Act, a return of (Section 301) tariffs as a major trade tool, new standards and enforcement mechanisms in the 2020 U.S.-Mexico-Canada trade agreement, trade actions in 2020 against Chinese cotton and apparel, and the industry's diversification of its supplier base to less powerful trade partners³³ (U.S. Government trade representative, industry expert, interviews).

In the European Union, trade and global labor policy interests converged in the 2020 revocation of Cambodia's Everything but Arms trade preferences for persistent human rights violations, and the gentle leveraging of changes to Vietnam's legal framework—including the 2019 ratification of ILO Convention 98 on collective bargaining rights—via a new free trade agreement (E.U. Commission, 2020).

³³ See amendments to the U.S. Tariff Act of 1930 in Reed, 2016. See examples of labor provisions in trade agreements in ILO, 2019b.

The trade policy vehicles for improving frameworks and enforcement of labor laws in apparel-producing countries may change in both the E.U. and U.S. A longtime trade expert noted that the U.S. Congress plans to transition from unilateral tariff schemes such as the Generalized System of Preferences (GSP) to wider free trade agreements (FTA)—“they are quasi-permanent and there is no eligibility consideration. Buyers like trade preferences but they are not a leading consideration, more like a bonus. Plus, most apparel in the U.S. is imported under MFN [most-favored nation privileges] and free trade agreements are just a fraction of the total” (US Government Trade Representative, interview).

A 2020 paper from former ILO Deputy Director General Sandra Polaski attempts to point post-pandemic U.S. trade policy away from the vague template used in the past that allows each party to an agreement to define for itself the acceptable standards and practices in spite of “often clearly unacceptable laws and practices.” She argues that labor compliance should figure in a determination of market access (Polaski et al., 2020). This has been accomplished in apparel and other sectors when credible threats of trade sanctions or well-calibrated offers of reward have spurred tightening by governments of legal frameworks and enforcement regimes, and measurable improvements by industry to labor practices.³⁴ Jared Bernstein, a longtime policy aide to U.S. President Joe Biden, argued in 2020 for a similar approach: policy-makers must “select trade partners based on their countries’ records of [labor and human rights] compliance... and known bad actors should be barred from the negotiating table until they’ve made proven, effective efforts to begin cleaning up their acts” (Bernstein & Wallach, 2016).

4.3 Brand pay incentives as labor regulation

Pay systems—not for apparel workers but for sourcing executives and others whose compensation is tied short-term decision-taking and high-stakes negotiations—are overlooked in governance discussions. Overall, buyer representatives interviewed on brand employee compensation note that profitability remains the key determinant of employee bonuses and that so far, little or no compensation is tied to supply chain labor outcomes.

Buyers or sourcing managers are focused on delivery, quality, lower supplier costs and growing the brand’s margins every season: “We were rewarded for screwing down the costs on suppliers and most buyers have absolutely no clue how it affects production”, according to a longtime E.U. brand sourcing executive. “Sourcing see themselves as fast-paced miracle workers, solving problems with split-second adjustments, turning on a dime, meeting needs of changing markets, styles. We pull rabbits of our hats, deliver under ridiculous time pressures” and compensation rewards this.

³⁴ See, for example, the U.S.-Cambodia apparel agreement in Ear, 2013 and Kolben, 2004, and E.U.-Thailand fishing ‘yellow card’ process in ILO, 2020a.

Sustainability staff, on the other hand, typically lack the ‘commercial’ power that belongs to senior buyer. “If a factory manager gets two emails, one from CR and one from sourcing, which one are they going to open?”

To change the internal signals and those sent to suppliers about the place of labor practices among buyer priorities, four changes were identified in research for this paper. One executive’s former brand assigned power to connect a supplier in the brand’s online production system to the sustainability team rather than sourcing.

A second longtime European brand representative interviewed for this paper proposed two more immediate changes—both within the power of buyers to make individually and wholly consistent with their social-sustainability commitments: first, change the way sourcing employees are paid. Instead of rewards based on one short cycle’s free-on-board (FOB) prices negotiated against suppliers, pay them based on the cost-of-goods-sold over several cycles. (Another industry insider working for a leading supplier proposed that manufacturing executive pay be tied to hard measures of improvements in labor practices). Second, tie non-salary compensation for sourcing and senior executives to a few simple labor-related measures including, most importantly, consistent real wage growth for workers.

Finally, a third senior European buyer representative elaborated on this proposal, noting that the firm added labor key performance indicators (KPIs) to the evaluations of design and buying teams, including one that tracks via open costing the impacts of changes to product design or purchase orders for suppliers and workers. Pay systems—not for apparel workers but for sourcing executives and others whose compensation is tied short-term decision-taking and high-stakes negotiations—are overlooked in governance discussions. One longtime European brand representative interviewed for this paper proposed two immediate changes—both within the power of buyers to make individually and wholly consistent with their social-sustainability commitments: first, change the way sourcing employees are paid. Instead of rewards based on one short cycle’s free-on-board (FOB) prices negotiated against suppliers, pay them based on the cost-of-goods-sold over several cycles. (Another industry insider working for a leading supplier proposed that manufacturing executive pay be tied to hard measures of improvements in labor practices). Second, reduce complex and error- and fraud-prone labor audits to a few simple measures including, most importantly, consistent real wage growth for workers. Overall, buyer representatives interviewed on brand employee compensation note that profitability remains the key determinant of employee bonuses and that so far, little or no compensation is tied to supply chain labor outcomes.

4.4 Obstacles to effective regulation

What obstacles will a new global labor governance system does have to overcome? Among many, this paper examines briefly the industry’s aversion to mandatory standards for global

supply chain labor practices, and the lack of data available for impact analyses of labor governance efforts, both public and private.

First, the fashion industry's sustainability narrative, particularly in the U.S., is dedicated to private regulation and routinely emphasizes intent over impact and process over results. Buyers and suppliers generally avoid disclosure of data that would allow for independent analysis of private regulation's impacts (See Kuruvilla, 2021; Wicker, 2020).

Larger-still gaps in data and results are found among the vast majority of buyers and suppliers that does not engage meaningfully in voluntary regulation and is largely untouched by apparel industry campaigns—estimated by a veteran of industry regulation at 80 percent of the global apparel industry. In broad terms, private regulation and labor rights campaigning is focused on the 'best' and it falls to public regulation to raise the floor for the 'rest'.

The Clean Clothes Campaign for meaningful transparency in the fashion industry noted progress in 2020 with the adoption by brands of minimum, voluntary reporting standards and pointed hopefully toward more stringent public reporting standards required by the European Union's Non-Financial Reporting Directive, in effect since 2018 (CCC, 2020b). But see, for example, the 2019 critique of fashion's self-reporting on sensitive topics including worker's wages by the Netherlands-based investment coalition, Platform Living Wage Financials:

In companies' public reporting there is a strong focus on social compliance and their efforts to mitigate adverse impacts on workers' lives rather than the effects of those efforts... Companies should make an effort to identify the effectiveness of the actions that they have implemented to mitigate adverse impacts... Measuring the effects of companies' mitigating actions also demands more transparency from companies on their data collection and analysis processes as well as the internal review process (PLWF, 2019).

This mode of governance also appears in efforts at global soft law regulation; strict process requirements are followed by vague standards and implementation. It is known as *crème brûlée* policy-making—hard and slickly transparent on top, soft and deeply opaque underneath—and will frustrate efforts by regulators to set clear, meaningful public reporting requirements and achieve measurable impacts (See e.g. Pickering et al., 2019).

BOX 4. EZ ESG FUNDS

EZ ESG Funds with an obligation to advance environmental, social and governance goals through their investments in apparel companies also suffer from a lack of hard measures of risk in global supply chains. They rely on a combination of selective company disclosures, high-level country risk analyses and uneven ground-level reporting that can lead them to spectacular misjudgments. U.K.-based fast-fashion brand Boohoo was an ESG investor favorite despite a 2019 Parliamentary report. But a *Guardian* exposé in 2020 revealed gross abuses in its U.K. sourcing and production practices (Nilsson & Mooney, 2020). In the legislative report, Boohoo buyers “play suppliers off against each other to drive down costs:

‘Boohoo holds weekly meetings at its Manchester head office, where suppliers bring samples to the product teams in a single room with 10 to 12 large tables. ‘It’s like a cattle market,’ says one person from a supplier who did not want to be named. ‘Say I’m the buyer, and [you’ve] just given me the price of this [dress] for £5. I will literally hold it up to the next table and say, ‘How much for that?’ and he’ll tell you £4. It’s ruthless’ (UK Parliament Environmental Audit Committee, 2019).

After a sharp drop following the exposé, Boohoo’s share price returned within three months to 95 percent of its pre-*Guardian* level (FTSE, n.d.). Boohoo’s resurgence also included the purchase in 2021 of remnants of Arcadia, focusing on its online platforms and passing on its physical shops and staff.³⁵

Second, the systems for the monitoring and reporting of labor practices are—with a few notable exceptions—broken. This was the subject of a rare consensus among those interviewed for this paper. The lack of accurate and meaningful data on working conditions and labor rights protections in apparel factories is well-documented (See Kuruvilla, 2021; Wicker, 2020). How will useful data be collected, organized, disclosed and analysed?

Collection of basic working conditions data is now routinized and, in the aggregate, improving. This was confirmed in interviews for this paper. And convergence, broadly speaking, of voluntary codes of conduct and labor and environmental audit tools has grown since 2015 with acceptance by buyers of Higg standards for environmental practices and the ILO Better Work and Social and Labor Convergence Program (SLCP) standards for labor practices. Recent technologies were offered in interviews for this paper as supplements to the consolidated

³⁵ See for example <https://www.reuters.com/article/uk-arcadia-m-a-boohoo/boohoo-snaps-up-arcadia-brands-to-complete-break-up-of-green-empire-idUSKBN2A80LB>

monitoring regime. Forensic analysis of cotton fibers to determine their origins and improve inputs tracing (See Friedman, 2017). Phone-based surveys of apparel workers could be used to measure compliance with labor standards and allow workers to “‘out’ bad companies” for serious labor abuses (Audit firm executive, interview). Labor advocates argued that workers do not in general rely on ‘apps’ and remote management tools to solve workplace problems, and called for leading, well-designed roles for workers and unions in monitoring and reporting on working conditions and labor rights protections (Labor NGO representatives, interviews).

4.5 Watchdogs and data disclosure

The changes noted above are improvements to the existing regime, but interviews for this paper and recent scholarship advanced several alternatives. First, from a leader of a leading Asian labor rights organization: “creation of an international jurisdiction for monitoring and remediation of labor abuses via an ILO convention that builds on the U.N. Guiding Principles and OECD guidelines.” In the same vein, Peter Bergsten argues that the 2021 E.U. due diligence legislation “will have no significant impact if its enforcement accepts the current private audit format as adequate fulfilment of a company’s duty of care instead of including verification measures independent of industry’s control” (Bengtson, 2020a, 2020b). Martin Curley elaborates the likely challenges for smaller firms’ to understand and act out their duty of care along fragmented supply chains:

There are thousands of lead firms, and each controls and understands just a few supply chain stages. It is one thing to ask a company to assess risks internally, or at a subsidiary. It is quite something else to ask companies to assess and mitigate risks at other independent companies, that require very different competencies, in other regulatory and cultural settings—and expect them to be effective.

Can civil society really expect good outcomes for garment workers by asking e.g. European marketing organisations to find technical solutions to human rights risks in Cambodian or Ethiopian garment manufacturing units? (Curley, 2020)

Both end up in a similar place: sectoral bargaining with unions (Curley), and ‘watchdog’ systems for global supply chains that include labor rights organizations and investigative journalists argues that global apparel brands will not “fear the risks of lawsuits with no adequate cross-border monitory system in place” (Bengtson, 2020a).

Second, new analysis of apparel factory labor compliance data (Kuruvilla 2021) points to measures of labor compliance that have more predictive power than audit measures of working conditions—that is, data on wages, hours and working conditions. Predictive modeling of

factory-level compliance can re-orient or largely replace unreliable audit with harder and more easily verified data on factory characteristics such as firm size, workforce make-up, worker turnover rates and geography.

Third, a corollary to the rule about unreliable and spotty factory-level data on labor practices is a rule long-known to the ESG investors: country- and industry-level analyses of labor practices and enforcement regimes are poor indicators and need to be replaced with hard measures of labor practices reliable enough to drive buyers' macro-level sourcing decisions.

In the end, better tracing, monitoring, data, disclosure and analyses are only component parts of an effective supply chain governance regime. A 2020 analysis of apparel industry compliance with its voluntary environmental standards Higg Index standards noted that elaborate programs to measure compliance with standards where there is no expectation of effective enforcement of those standards is a "scale without a diet" (Lollo & O'Rourke, 2020a, 2020b).

SECTION 5: FUTURE SCENARIOS FOR THE INDUSTRY

Plotting in this paper the pre-pandemic trajectories of the apparel industry—its structure, sourcing patterns and labor governance—and teasing out possible changes in direction allow us to outline here three possible scenarios for the post-COVID future of the industry in Asia and globally.

These scenarios—given the diversity of firms, product types and regulations—are necessarily broad. They are permutations of the most important and variable of the factors explored above: consolidation, automation, e-commerce and consumer habits from Section 1 ('Structure') above. 'Sourcing' variables include country-level sourcing patterns, worker income, supply flexibility, near-shoring, and climate-change impacts. Finally, 'governance' turns chiefly on changes in U.S. and E.U. trade policies, types and intensity of regulation of supply chain practices, and investor attention to ESG concerns in the apparel supply chain.

There are however three factors in the post-pandemic industry landscape which current evidence suggests will be inexorable, thus making them essentially fixed in any scenario. First, industry concentration will continue and e-commerce leaders will figure prominently in this future. Second, online sales will grow, albeit more slowly, and accelerate their disruption of traditional retail models. Three, climate impacts will change the geography and modes of apparel production in Asia.

Each scenario re-sizes the relevant factors, outlines the likely shape of the industry beyond the COVID-19 recovery, and projects its possible impacts for apparel suppliers and workers in Asia.

The first high-level scenario can be called **Repeat**: a return, where possible, to pre-pandemic trajectories for industry structure, sourcing and governance.

Repeat

The Repeat scenario is the default and simply extends where possible the long-term trajectories of the last decades. Brand and supplier concentration and supply chain consolidation continue, and ‘best practices’ from the leading firms are slowly developed and then adopted by less-adept firms. With the exception of accelerated online sales—together with rising heat and sea levels, an irreversible feature of the post-pandemic world—the pace of internal change will revert in the post-pandemic period to a familiar stroll. Fast and cheap fashion will continue to prove irresistible to most consumers. Pressure for shorter cycles will land predominantly on suppliers and their workers, and the buyer-supplier relationship for most brands and retailers will still be organized around price rather than shared risk. Sourcing patterns will continue to shift toward the low-wage, low-cost production centers in Asia and Africa. The excited chatter about near-shoring, large-scale automation and sustainable and resilient supply chains will remain largely unrealized.

For workers, Repeat depends on a return to pre-pandemic production levels but, as in the recovery from the 2008 – 2010 recession, employment for a constant level of production is likely to fall as seen in the production and employment graph above (Figure 15). Employers which operated on narrow margins in the pre-pandemic period may not recover and larger, better-capitalized and more efficient suppliers may absorb their orders without taking on their full workforces (Foster et al., 2014; IMF, 2018). Where larger suppliers are attentive to decent work standards, this kind of consolidation benefits workers at the ‘marquee’ end of the industry where a relative handful of brands, industry media and non-governmental organizations congregate.

But at the larger and less-seen ‘sideshow’ end of the industry, increased competition among suppliers for the remaining orders may drive down workers’ wages and working standards and subcontracting of orders may expand. For these suppliers and their workers an already precarious existence may feel more precarious still. With the exception of suppliers and their workers that are part of one of a handful of robust (private and multi-stakeholder) regulation and compliance programs—the ILO’s Better Work program, for example—or effective collective bargaining regimes, private regulation provides little relief (Kuruvilla, 2021).

The evidence of the persistent gaps between brand, supplier and regulator commitments on labor issues and the results are increasingly well-documented by independent research.³⁶ In an

³⁶ See, for example, Kuruvilla (2020), Amengual and Distelhorst (2020), Robertson (2020), and Abriata and Delautre (2020) “What drives CSR? An empirical analysis on the labour dimensions of CSR”

extension of an earlier round of academic research that focused on labor practices of individual buyers and their suppliers, researchers have:

garnered access to previously unavailable data of leading buyers, their suppliers, audit firms and multi-stakeholder initiatives to conduct analyses of their investments in labor programs and their results. Research on private regulation reveals a significant ‘de-coupling’ between the practices of private regulation of global firms with their expected outcomes—improved working conditions and respect for labor rights. This decoupling is partly due to opacity induced by the lack of analyses and public sharing of analyses by global firms. There is significant “behavioral invisibility” ... [meaning that] brands, suppliers, unions, governments have little knowledge about what are, empirically, the best practices (Judd & Kuruvilla, 2020).

The goals-practices de-coupling described above will remain the norm and the share of global apparel workers covered by bona fide unions and collective bargaining agreements (with and without China) or engaged in productive social dialogue will remain small.³⁷

The judgements of three senior industry experts quoted above who doubted the industry’s will to re-organize its priorities and processes. A senior labor regulator noted that there is no evidence of shifts “in the [industry’s] economics or finances that would change buyers’ economic incentives to [continue to] shift costs to suppliers.” A longtime private compliance executive sees little prospect of industry-wide change: “Labor continues to be so cheap in Southeast Asia that [we] see two supply chains: a premium group making technology investments—not the majority—and the rest are fly-by-night enterprises with low barriers to entry that will survive for a long time.”

Repeat may not be the operating scenario for the world’s most reputation-sensitive buyers and their supply chain partners, but it is the default mode for many of the firms that make up the 1.9 trillion dollar global apparel industry. It is a portrait of an ‘opaque’ industry accustomed to muddling through and relying on low production costs to make up for its well-documented inefficiencies and carelessness, both social and environmental. It is likely where both private and public labor governance and demands from investors and consumers are touted as forces of the future but, in reality and in the aggregate, lack real interest in far-away labor issues and exert very little pressure.

³⁷ “[The damage done to many buyer-supplier relationships by] the widely-condemned cancellations by brands of their pre-pandemic apparel orders, including those already completed and in-process, and a general apparel market contraction in 2020 and 2021 will re-shuffle global buyer-supplier relationships. Suppliers struggling to survive in the post-pandemic period are unlikely to invest in social dialogue except where it helps to leverage government support for the industry” (Jackson et al., 2021).

Regain

The second scenario is **Regain**, in which changes to industry structure and sourcing habits are accelerated but governance changes, driven by outsiders, are merely accommodated.

The arguably more likely Regain scenario resembles an accelerated version of the future outlined in the ILO's 2019 "future of work" paper in which the apparel industry bifurcates more dramatically than in the Repeat scenario above. Nearshoring and automation by the largest buyers in partnership with a consolidated group of global suppliers will mean that "low-cost, low-tech production in developing countries will co-exist with a steady growth in the design and application of robotics and automation in middle- and high-income countries closer to or within the largest markets" (ILO, 2019a). A modest acceleration of brand and retailers' market share by 2025—not unlikely after a post-COVID shakeout of global buyers—would mean that the top firms control a greater percent of global apparel and footwear production and income. Modeling by John Thorbeck using the factors described above leads him to argue that there are three candidates—all of them fast-fashion retailers—for a dominant global apparel firm. But unknowable at present in any of these scenarios is the outcome of the contest between e-commerce platforms and omni-channel retailers.

In this scenario, a lot depends on the recognition by major brands and retailers that changes to their processes, as opposed to minor operational adjustments and more pressure on supplier costs, are required to maintain or improve profits. And this recognition depends on signals to brands and retailers from investors, major suppliers, unions and campaigners, and regulators that a return to pre-pandemic norms is blocked. The 2021 announcements of new living wage and Global Severance Fund campaigns by worker advocates, and a coalition of apparel employer organizations in Asia could act as a new floor for sourcing and labor practices by the largest buyers.³⁸

What would Regain mean for workers? Accelerations in supply chain consolidation, automation and nearshoring by leading buyers and their suppliers all point toward higher wages for higher-skill workers and fewer jobs for lower-skill workers at a given level of production. Larger market shares for these buyers may offset jobs lost in Asia to automation and nearshoring by European and U.S. buyers. The future for workers in much of the rest of the industry—the majority of the apparel production whether global, regional or domestic in which neither private labor

³⁸ The STAR Network (Sustainable Textile of Asian Region) – an association of various apparel manufacturer employers associations – formed in April 2020 in response to COVID-19 buyer order cancellations. In January 2021, the STAR Network launched a new initiative aimed at securing better purchasing practices for the sector. The initiative on 'Manufacturers Payment and Delivery Terms', seeks to draft a set of minimum expectations and outline best practices related to payment and delivery conditions for brands. The initiative is supported by GIZ FABRIC Asia, the International Apparel Federation (IAF), and the Better Buying Institute (IAF, 2021).

governance nor effective public regulation are not phenomena—looks like the future described in the Repeat scenario above.

Missing in this scenario is a reinvention of labor governance for networked global production. Absent effective and broad-based regulation of buyer and supplier practices—by their respective governments or via trade-labor mechanisms or binding agreements with workers. Signals from regulators and worker advocates about changes to sourcing and labor practices, though growing louder, are still hard to hear over the signals on financial performance. And suppliers and buyers alike are confident in their abilities to capture or accommodate regulators, as with policy-focused reporting requirements or ‘plausible deniability’ due diligence standards (See ‘Governance’ section for a discussion of existing and proposed non-financial reporting requirements).

Renegotiate

The final scenario, **Renegotiate**, imagines an industry in which changes to structure, sourcing and governance are integrated and mutually reinforcing.

Renegotiate is the most ambitious and hopeful of the three scenarios. It integrates the most desirable, from a decent work perspective, and durable of the possible changes in industry structure, sourcing and governance.

This scenario depends on partnership, a collaborative approach to the industry’s challenges that not only reflects the interests of fashion’s ‘outsiders’—suppliers, workers and their organizations, regulators, consumers—but writes their negotiated terms into the contracts and formulas by which the industry operates. This in turn depends on important changes in the industry’s power relationships and the focus here is largely on sourcing and governance.

If major suppliers (or alternatively, regulators) use their post-pandemic leverage—a product of their scale and geographic diversity, reliability, production innovations—to force buyers to assume more risk, this scenario begins to come into view. And, if organizing among apparel producer associations takes root, the deals available to the largest producers may be within reach for smaller suppliers.

New terms between buyers and suppliers that do not address the long-standing demands of workers and their organizations regarding wages, working conditions and protection of worker rights are not collaborative, or sustainable. Post-pandemic calls by global unions and labor rights organizations to negotiate binding agreements with suppliers and buyers for a Global Severance Fund and Wage Assurance, for example, signal the need for change in the industry’s power relationships.

Renegotiate is the only scenario that can answer the questions raised earlier in this paper: How does greater 'supply flexibility' avoid turning into more of the same: more pressure and risk for suppliers and their workers? How should new value be shared along the supply chain with suppliers and workers?

In this scenario, the emergence of three bargaining blocks (buyers have numerous vehicles available to them) could lead to binding global agreements that distribute cost and risk more equitably along apparel supply chains. These agreements might most resemble those between freight vessel owners and seafarers' union (International Transport Workers Union), or the pattern bargaining agreements of the sort found in the U.S. auto industry (See ITF, 2019; UAW, 2015).

But why would powerful suppliers and leading brands and retailers submit to this? First, public regulation of supply chain practices, like those under consideration in the European Union, that include legal liability for apparel brands and retailers would put a premium on genuine supply chain collaboration and accountability for working conditions and protection of worker rights (Smit et al., 2020).

Second, growing anxiety among investors—beyond financial performance—about the industry's opacity and its ability to see itself and reform. There is a lot to worry about: private regulation failures, risky and fragile sourcing strategies, unexplored climate risks, grave human rights abuses in China, and the possibility of civil war in Myanmar and Ethiopia.

Third, campaigns against buyers' practices are institutionalized and increasingly integrated in the Americas, Europe, and Asia. Combined with verifiable shifts in consumer expectations for the leading fashion brands, the threats of reputational and, hence, financial damage are real.

But what about workers and suppliers not connected to the largest global brands and retailers? The evidence of the last twenty years says that large-scale change for workers across an apparel sector is possible, driven largely by trade or tragedy. The deaths of nearly 1,300 apparel workers at Rana Plaza in 2013 led to a binding agreement that covered much of the sector. And U.S. trade deals with Mexico (and Canada) in 2020 and Cambodia in 1999, Vietnam's participation in the free-trade agreements with labor provisions, and E.U. trade threats against Thailand's seafood industry in 2016 demonstrate the power of international trade to motivate industry and government to make changes to labor law and practices they would rather not.

Taken together, these pressures can drive leading brands to negotiate with suppliers and workers global or country-specific agreements that change the industry's familiar formulas in ways that advance decent work and make the industry more resilient.

Which of these three scenarios is the likeliest? Repeat takes the least effort but may be, to the extent its pursuit is detectable, unacceptable to investors, regulators, worker advocates and the

majority of suppliers. Regain is perhaps likelier, driven ahead by changes in process (supply flexibility) and production technology. Renegotiation takes the most effort and depends on a lining up of planets—investors, regulators, unions, campaigners, and suppliers—rarely found in alignment.

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DISCUSSION
PAPER

Repeat, Repair or Renegotiate?

The Post-COVID Future of the Apparel Industry

JULY 2021

Jason Judd
J. Lowell Jackson



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Jason Judd

J. Lowell Jackson

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International Labour Organization

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First published July 2021

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APPENDIX

Research Topics and Questions and List of Interviewees

Industry structure and resilience:

1. Which business models will be more resilient and sustainable in the “new normal” (based on what we now know about the winners and losers from the pandemic)?
2. What are the defining characteristics of firms that survive the crisis?
3. How might the distribution of power between buyers and manufacturers shift and what will the implications be for global supply chain actors and for workers (especially women workers)?
4. Is industry consolidation likely to continue/accelerate, and how will this affect jobs and enterprises?
5. How will different sub-categories of workers (e.g. women) or enterprises (e.g. SMEs) be affected?
6. What is the likelihood of greater geographical diversification of sourcing, including more nearshoring?
7. Will there be more vertical integration?
8. What lessons can the apparel industry learn from industries with more sophisticated, integrated, or resilient supply chains?

Technological Change:

1. What role will new technologies (including more vertically integrated supply chains, growth of automation, digitization, and robotics, etc.) and reshoring play in the future configuration of the industry?
2. Will COVID-19 accelerate existing trends and how will this impact the industry in Asia?

Global Governance and Policy Implications

1. How should the crisis change the way that global apparel supply chains are organized and governed to promote decent work?
2. Will labor, social and environmental compliance requirements evolve and in which direction (more comprehensive or more limited)? Will they converge?
3. Will national due diligence laws (governing business conduct in global supply chains) proliferate further, and with what implications?
4. Are there new governance settings or initiatives emerging from the COVID-19 crisis?
5. How to leverage better the benefits of tripartite social dialogue for a human-centered future of the industry?

Interview List (Oct 2020 – Apr 2021)

- U.S. Government Trade Official 1
- U.S. Government Trade Official 2
- Asia Apparel Manufacturer
- E.U. Buyer 1
- E.U. Buyer 2
- Audit firm executive
- International Trade Union Representative
- Apparel industry researcher
- Asia Apparel Employer Association Representative
- Garment Industry Consultant
- Asia Apparel Employer Association Representative 2
- Industry Expert 1
- Apparel industry researcher 2
- Industry Expert 2
- U.S. Buyer 1
- Sustainable Supply Chains consultant
- U.S. Buyer 2
- International Organization Representative
- Industry Journalist 1
- Industry Journalist 2
- Labor NGO Representative 1
- Labor NGO Representative 2
- U.S. Buyer 3
- E.U. Buyer 3
- Industry Expert 3
- Industry Journalist 2
- Labor NGO Representative 3
- E.U. Buyer 4
- E.U. Buyer 5

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