

ILO Asia-Pacific Working Paper Series

Employment, wages and working conditions in Asia's Garment sector: Finding new drivers of competitiveness

Phu Huynh
November 2015



ILO Asia-Pacific Working Paper Series

Employment, wages and working conditions in Asia's garment sector: Finding new drivers of competitiveness

Phu Huynh
November 2015

Regional Office for Asia and the Pacific

Copyright © International Labour Organization 2015
First published 2015

Publications of the International Labour Office enjoy copyright under Protocol 2 of the Universal Copyright Convention. Nevertheless, short excerpts from them may be reproduced without authorization, on condition that the source is indicated. For rights of reproduction or translation, application should be made to ILO Publications (Rights and Licensing), International Labour Office, CH-1211 Geneva 22, Switzerland, or by email: rights@ilo.org. The International Labour Office welcomes such applications.

Libraries, institutions and other users registered with a reproduction rights organization may make copies in accordance with the licences issued to them for this purpose. Visit www.ifrro.org to find the reproduction rights organization in your country.

Huynh, Phu

Employment, wages and working conditions in Asia's garment sector : finding new drivers of competitiveness / Phu Huynh ; ILO Regional Office for Asia and the Pacific. – Bangkok : ILO, 2015
(ILO Asia-Pacific working paper series, ISSN: 2227-4405 (web pdf))

ILO Regional Office for Asia and the Pacific

employment / wages / working conditions / clothing industry / shoe industry / productivity / competitiveness / trend / Asia / Pacific

13.01.3

ILO Cataloguing in Publication Data

The designations employed in ILO publications, which are in conformity with United Nations practice, and the presentation of material therein do not imply the expression of any opinion whatsoever on the part of the International Labour Office concerning the legal status of any country, area or territory or of its authorities, or concerning the delimitation of its frontiers.

The responsibility for opinions expressed in signed articles, studies and other contributions rests solely with their authors, and publication does not constitute an endorsement by the International Labour Office of the opinions expressed in them.

Reference to names of firms and commercial products and processes does not imply their endorsement by the International Labour Office, and any failure to mention a particular firm, commercial product or process is not a sign of disapproval.

ILO publications and digital products can be obtained through major booksellers and digital distribution platforms, or ordered directly from ilo@turpin-distribution.com. For more information, visit our website: www.ilo.org/publns or contact ilopubs@ilo.org.

Printed in Thailand

Preface

The International Labour Organization (ILO) is devoted to advancing opportunities for women and men to obtain decent and productive work. It promotes rights at work and encourages decent employment opportunities, enhanced social protection and strengthened dialogue processes in handling work-related issues. As countries in the Asia-Pacific region navigate a sustainable recovery from the global economic crisis, the ILO Decent Work Agenda and the Global Jobs Pact provide critical policy frameworks for strengthening the foundation for a more inclusive and sustainable future.

The developing economies of Asia and the Pacific have become the global leaders in apparel production. The region accounts for US\$601 billion in garment, textile and footwear exports, and the industry now employs more than 40 million Asian workers. However, industrial tragedies in recent years have again raised concerns about the working conditions in Asia's garment factories, the safety of its workers and the quality of their jobs. In that context, this paper presents a comprehensive overview of developing Asia's garment, textile and footwear sectors. Based on official trade statistics and national labour force survey data, it analyzes regional trends and cross-country estimates of exports, employment, wages, working time and productivity for key garment-producing economies in the region. The paper provides empirical evidence for policies that would help the industry sustain growth and find new drivers of competitiveness based on improved working conditions and higher productivity.

This paper is part of the *ILO Asia-Pacific Working Paper Series*, which is designed to enhance our understanding of decent work issues, stimulate discussion and encourage knowledge sharing and further research that will promote decent work in Asia and the Pacific.

Tomoko Nishimoto
Assistant Director-General and
Regional Director for Asia and the Pacific

Contents

Preface.....	iii
Acknowledgements.....	vii
Abstract.....	ix
Abbreviations.....	xi
Introduction.....	1
Asia as the garment and textile factory for the world.....	2
China's dynamism and emerging markets are transforming the competitiveness landscape.....	6
Emerging opportunities for creating jobs, particularly for young women.....	8
Wages are low but rising.....	11
Fair wages and better working conditions as drivers of productivity and competitiveness.....	13
Conclusion: Competing in global markets through stronger institutions.....	20
References.....	22
Annex	
Table A1. Indicators of wage and salaried employment in the garment, textile and footwear industry by sex, selected Asia-Pacific countries, latest available year.....	25
Table A2. Adjusted hourly wage premium for high-skill occupations in manufacturing of garments, textiles and footwear (GTF) and all manufacturing excluding GTF, full weighted samples.....	27
List of figures	
Figure 1. Global exports of garments, textiles and footwear.....	2
Figure 2. Share of garment, textile and footwear exports in total merchandise exports by subregion (per cent), 1995-2012.....	5
Figure B1.1 Wage and employment growth in China Manufacturing, 2003-13.....	7
Figure 3. Employment in garments, textiles and footwear, various years.....	9
Figure 4. Average nominal monthly wages in garments, textiles and footwear by sex (\$), various years.....	11
Figure 5. Monthly minimum wages in the garment industry (\$), as of 1 January 2015.....	12
Figure 6. Labour productivity in selected industries (current \$), latest available year.....	14
Figure 7. Share of wage employees in garments, textiles and footwear working more than 48 hours per week (per cent), various years.....	15

Figure 8. Estimated wage premium for high-skilled employees in manufacturing of garments, textiles and footwear (GTF) and all manufacturing excluding GTF (per cent), various years.....	16
Figure 9. Estimated wage premium in garments, textiles and footwear (per cent), various years	17
Figure 10. Gender pay gap in garments, textiles and footwear (per cent), various years.....	19

Acknowledgements

This paper benefited from very helpful comments and contributions provided by ILO colleagues including Fernanda Bárcia de Mattos, Matthew Cowgill, Kee Beom Kim, Malte Luebker, Ivo Spauwen, Marko Sternsek, David Williams and Cuntao Xia. Any errors are the sole responsibility of the author.

Abstract

This paper presents regional trends and national estimates of exports, employment, wages, productivity and working time in the garment, textile and footwear industries in developing Asia and the Pacific based on official trade statistics and national labour force survey data. It finds that the region accounts for 60 per cent (US\$601 billion) of global exports of garments, textiles and footwear. The industry employs more than 40 million Asian workers. However, labour productivity and wages remain low overall, and working time is often excessive. Applying standard Mincerian wage regressions, the paper presents empirical evidence on wage premiums and gender pay gaps in the industry, and discusses policy measures that can help sustain growth through new drivers of competitiveness.

About the authors

Phu Huynh is a Labour Economist in the Regional Economic and Social Analysis Unit of the ILO Regional Office for Asia and the Pacific in Bangkok.

The responsibility for opinions expressed in articles, studies and other contributions rests solely with the authors, and publication does not constitute an endorsement by the International Labour Office of the opinions expressed in them, or of any products, processes or geographical designations mentioned.

Abbreviations

BGD	Bangladesh
CAM	Cambodia
CHN	China
GTF	garments, textiles and footwear
IDN	Indonesia
ILO	International Labour Organization
IND	India
ISCO	International Standard Classification of Occupations
ISIC	International Standard Industrial Classification of all Economic Activities
LAO	Lao People's Democratic Republic
LCU	local currency unit
MFA	Multi-Fibre Arrangement
OBM	original brand manufacturing
ODM	original design manufacturing
OEM	original equipment manufacturing
PAK	Pakistan
PHL	Philippines
SITC	Standard International Trade Classification
THA	Thailand
UNCTAD	United Nations Conference on Trade and Development
US	United States
VNM	Viet Nam

1. Introduction

Asia's garment and textile industry has entered a pivotal juncture. Economic and demographic transition in China and the rise of an affluent consumer class in emerging markets are shifting the competitiveness landscape across the industry.¹ New opportunities and challenges are emerging for the less developed economies of the region. Whether Asia's apparel-producing countries successfully attract international buyers and expand their export markets will depend on policy choices. Historically, the industry has relied on low wages and minimum standards in working conditions, but low labour costs are not the only factor that drives sourcing decisions. Global garment buyers are increasingly prioritizing productivity and reliability of supply. They are also adverse to the reputational risks of poor working conditions.

Recent developments in both Bangladesh and Cambodia help illustrate these dynamics. In April 2013, the collapse of Rana Plaza caused 1,136 fatalities in the outskirts of Dhaka. The event prompted the local and international communities to take immediate action towards improved workplace safety for Bangladesh's more than 4 million garment workers through the Bangladesh Accord. In Cambodia, industrial protests for higher wages in early 2014 sparked violence. In response, the country's Labour Advisory Committee – which makes recommendations on minimum wage adjustments – is working towards stronger minimum wage setting mechanisms with annual reviews based on tripartite dialogue and statistical evidence.

These events have highlighted social responsibility and legal compliance as fundamental considerations in apparel sourcing decisions. Consumers and multinational apparel brand executives are demanding transformative change in the way the industry operates. Asia's apparel industry must respond by developing a new model of competitiveness that is sustainable. This requires improving wages and working conditions throughout the region.

This paper contends that fair wages, better working conditions and continued productivity enhancements are the only way to secure the continued growth of Asia's apparel industry. The discussion opens with the global, regional and national economic contexts for the apparel industry. It then examines the factors that will heavily shape the medium-term outlook for its growth – including demographic changes and China's industrial upgrading – and the resulting opportunities that will emerge. Based on analysis of recent industry trends, the paper argues that promoting fair wages and better working conditions can help countries drive national competitiveness by attracting a more qualified workforce and enhancing workplace productivity. The paper concludes with considerations for establishing and strengthening institutions that can both help improve working conditions and boost growth and competitiveness in the industry.

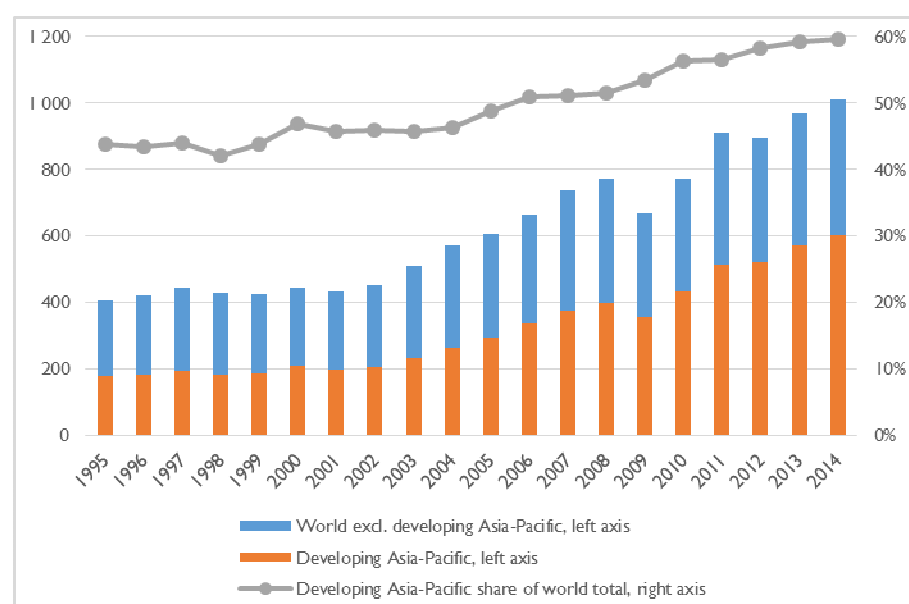
¹ Unless explicitly stated otherwise, the terms “garments”, “garments and textiles”, “clothing” and “apparel” are used synonymously throughout this study to represent the combined garment, textile and footwear industry. All industry figures correspond to International Standard Industrial Classification of All Economic Activities (ISIC) Rev. 3 (groups 17, 18 and 19) or ISIC-Rev. 4 (groups 13, 14 and 15), if not noted otherwise.

Asia as the garment and textile factory for the world

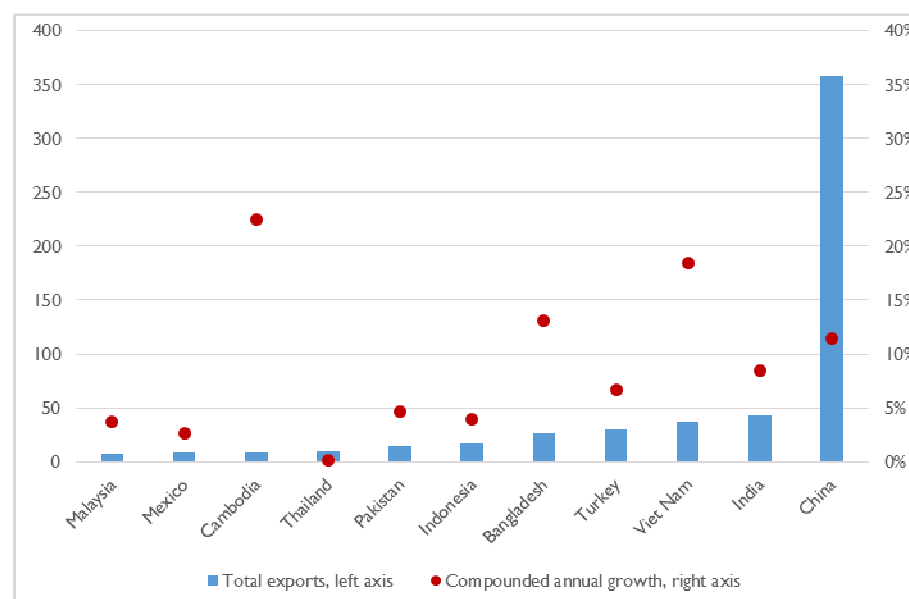
Asia has become the garment factory for the world. In 2014, the developing Asia-Pacific region accounted for US\$601.1 billion (59.5 per cent) of global exports of garments, textiles and footwear (figure 1, panel A). This marks an astounding rise from \$178.3 billion (43.8 per cent) in 1995. Asian economies encompass three of the world's top five garment exporters, and 10 of the top 20. Annual compounded growth in apparel exports from the developing Asia-Pacific region averaged 6.6 per cent from 1995 to 2014, while the global average (excluding developing Asia and the Pacific) was only 3.1 per cent. The region's long-term growth achievements are even more remarkable, given the sharp deceleration in clothing exports immediately following both the 1997–98 Asian financial crisis and the 2008 global economic crisis.

Figure 1. Global exports of garments, textiles and footwear

Panel A. Exports from developing Asia-Pacific region (\$ billion) and share of world total (per cent), 1995–2014



Panel B. Exports from selected economies (\$ billion), 2014, and compounded annual growth (per cent), 1995–2014



Note: Garments, textiles and footwear include Standard International Trade Classification (SITC) Rev. 4 groups 26, 65, 84 and 85.

Source: Author's estimates from UNCTAD: UNCTADstat Database. Available at: <http://unctad.org/en/Pages/Statistics.aspx> [18 Aug. 2015]

Within the region, several economies are shaping the global landscape (figure 1, panel B). China has been the international leader in garment exports for decades. In 2014, it exported \$358 billion in textiles, apparel and footwear and dominated 52 per cent of the export market share among all developing economies. India and Viet Nam also ranked among the highest in clothing exports globally, totalling \$42.7 billion and \$37 billion, respectively. Annual export growth from 1995 to 2014 was robust and exceeded double-digits in Cambodia (22.5 per cent), Viet Nam (18.4 per cent), Bangladesh (13.1 per cent) and China (11.5 per cent). Clearly, these trends provide strong indication that Asia's global dominance in garment, textile and footwear production will not soon diminish.

In their respective national context, the garment and textile industry is a crucial contributor to total exports for a number of Asian countries (figure 2). In Bangladesh, the sector accounted for 89.2 per cent of total merchandise exports in 2014, an increase of 12.6 percentage points since 1995. The growth of the sector has been even more remarkable in Cambodia, with its share of merchandise exports spiking rapidly from 20.6 per cent in 1995 to 86.8 per cent in 2003. Despite the end of the Multi-Fibre Arrangement in 2004 and weak external markets since the global economic crisis in 2008, the sector remains vital for Cambodia's economy and accounted for 77.4 per cent of merchandise exports in 2014. Together, Bangladesh and Cambodia are the only two Asian economies in which the ratio of garments, textiles and footwear in total merchandise exports in 2014 exceeded the level in 1995.

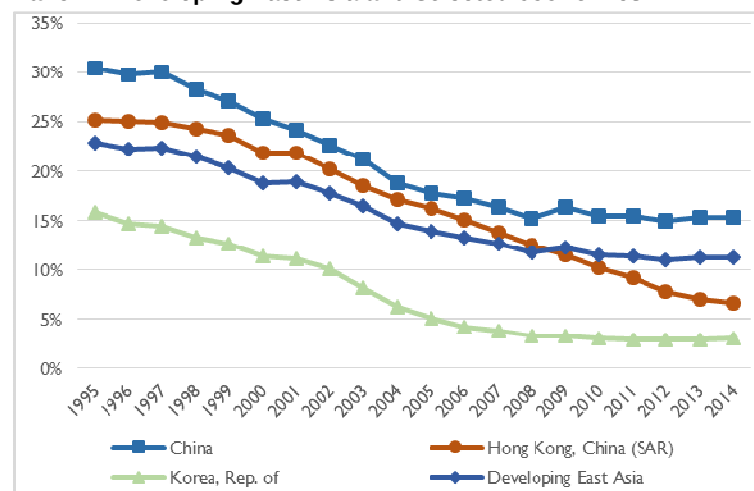
In Pakistan, the sector's contribution to merchandise exports waned by 16.9 percentage points since 1995 but still stood at 58.7 per cent in 2014. This overall sector trend is attributed to the marked decline in textiles while garment and footwear exports remained steady. In Sri Lanka, 48.1 per cent of merchandise exports in 2014 were derived from the garment, textile and footwear industry, down

from 54.4 per cent in 1995, with declining long-term trends in all three subsectors. Despite a gradual diversification away from labour-intensive exports in Viet Nam, the garment, textile and footwear sector there has accounted for around one-fourth of total merchandise exports since 1995, with the proportion slightly larger in the few years preceding the end of the MFA. During this period, a slight uptick in the export share of textiles was offset by a comparable fall in footwear exports.

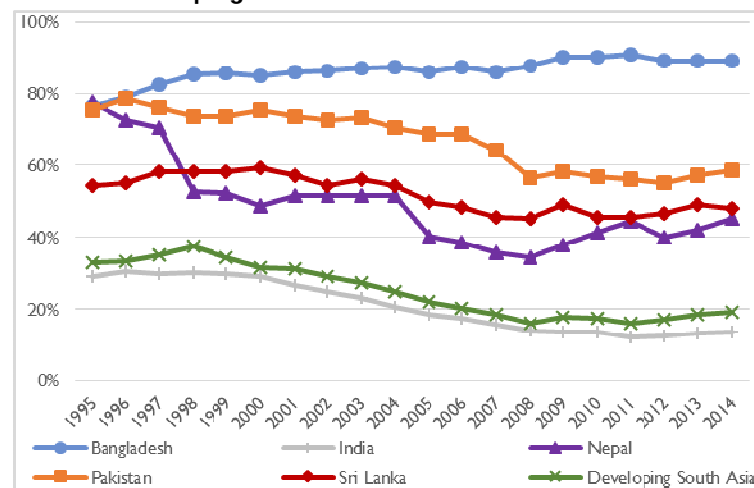
By contrast, several Asian economies became significantly less reliant on the apparel industry and shifted into other higher-skilled manufacturing sectors over the past couple decades. In China, for example, garment exports as a percentage of total merchandise exports decreased around 15 percentage points to 15.3 per cent from 1995 to 2014. In the Republic of Korea and Hong Kong (China), the share of garments in total merchandise exports declined since 1995, by 13–19 percentage points to merely 3.1 per cent and 6.6 per cent in 2014, respectively. In India and Indonesia, dependence on apparel production also declined considerably during that same period, but the sector still contributed 12.3 per cent and 9.8 per cent, respectively, of merchandise exports in 2014.

Figure 2. Share of garment, textile and footwear exports in total merchandise exports by subregion (per cent), 1995-2012

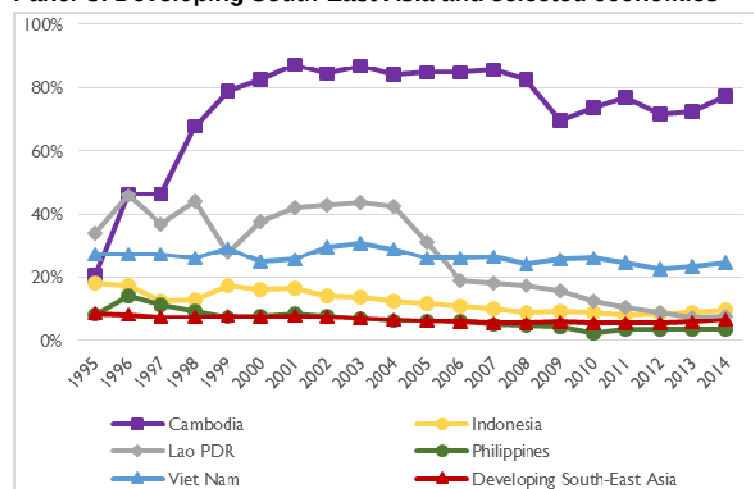
Panel A. Developing East Asia and selected economies



Panel B. Developing South Asia and selected economies



Panel C. Developing South-East Asia and selected economies



Note: Garments, textiles and footwear include SITC Rev. 4 groups 26, 65, 84 and 85.

Source: Author's estimates from UNCTAD: UNCTADstat Database. Available at: <http://unctad.org/en/Pages/Statistics.aspx/> [18 Aug. 2015]

China's dynamism and emerging markets are transforming the competitiveness landscape

In China, which remains the dominant global garment supplier, tremendous changes are shaping the future of the industry for the whole region. First, the country's process of economic transformation has been rapid, with industrialization increasingly focused on higher value-added production. From 1995 to 2014, garment exports as a share of total merchandise exports fell from 30.5 per cent to 15.3 per cent. During that same period, the share of total manufacturing exports of labour- and resource-intensive products decreased by 20.1 percentage points to 23.7 per cent, with a concomitant rise of 15.8 percentage points in the share of medium- and high-skill and technology-intensive manufacturing exports.²

Second, the country's historical advantage of massive labour surpluses is diminishing due to an ageing population. China's labour force is projected to grow by merely 6 million, or 0.7 per cent from 2015 to 2025.³ Moreover, jobseekers are increasingly turning to more prestigious industries with higher earnings and better career prospects, further constraining the garment sector's ability to recruit a high-quality workforce (box 1). Finally, wages in the garment and textile industry have risen in the past decade, in line with broader economic policies to re-balance growth towards domestic consumption. Although productivity has also increased (and thus unit labour cost remains competitive), this process has weakened the country's comparative cost advantage for very low-end garment production. In sum, these economic and demographic dynamics are influencing the strategy of international apparel buyers to locate new suppliers outside of China and diversify their production source.

Another important regional development is the expanding consumer classes in not only China but also India and Indonesia. Collectively, these three emerging economies will account for an estimated middle class workforce of 727 million in 2018, a substantial increase of 33.5 per cent from 2013.⁴ As garment production in these middle-income countries gradually declines, consumer demand will be increasingly met by a greater influx of imported clothing. From 1995 to 2014, total imports of garments and footwear (excluding textiles) to China, India and Indonesia combined grew on average by 11 per cent annually.⁵ With formidable growth in domestic consumption and purchasing power in these emerging markets, the opportunities for apparel suppliers within the region appear massive.

² Author's estimates from UNCTAD: UNCTADstat Database. Available at: <http://unctad.org/en/Pages/Statistics.aspx/> [18 Aug. 2013].

³ Author's estimates from ILO: ILOSTAT Database. Available at: www.ilo.org/ilostat/ [19 Aug. 2015].

⁴ These estimates are based on a middle class definition of daily per capita expenditure of US\$4 or more in 2005 purchasing power parity US dollars. For further discussion, see Kapsos and Bourmpoula, 2013.

⁵ Based on compounded annual growth rate; Author's estimates from UNCTAD: UNCTADstat Database. Available at: <http://unctad.org/en/Pages/Statistics.aspx/> [19 Aug. 2015].

Box 1

Rising wages and employment dynamics in China's manufacturing industry

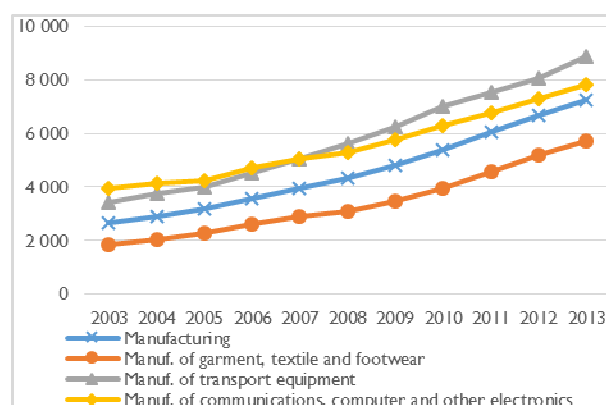
China's Twelfth Five-Year Plan (2011–15) specifies both increased domestic consumption and industrial upgrading as major economic targets. It promotes a number of priority sectors – including biotechnology, clean energy vehicles and high-end equipment manufacturing, among others – which would enable the continued move away from low-end manufacturing and drive higher consumer demand through viable wage increases.

Recent wage and employment trends in China's manufacturing sector characterize these economic development goals. On a compounded annualized basis, real wages in manufacturing increased by 10.6 per cent from 2003 to 2013 (figure B1.1, panel A). In the garment and textile industry, real wage growth was even more astounding, at 11.9 per cent during that period. Despite these robust wage increases, earnings in the apparel industry significantly lag behind other key sectors. Real wage levels in the transport equipment and the communications manufacturing industries, for example, were respectively 55.2 per cent and 37.4 per cent higher than in the garment industry in 2013.

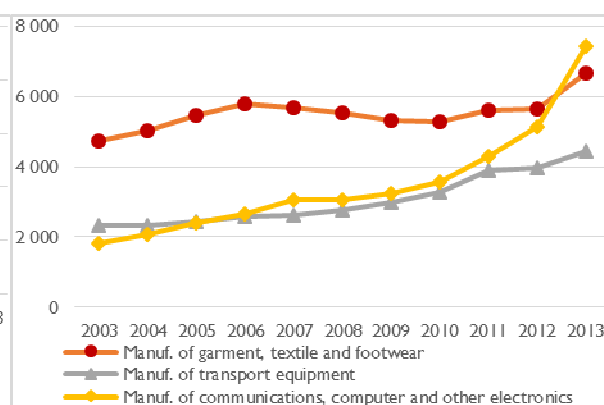
These inter-industry wage differentials reflect the higher-skilled composition of the workforce in the more sophisticated manufacturing sectors and provide a strong impetus for attracting more qualified workers in a tight labour market. Increasingly, the garment and textile industry is becoming relatively less enticing for jobseekers (figure B1.1, panel B). From 2003 to 2013, garment and textile employment expanded by only 3.5 per cent (compounded annually), compared with 6.7 per cent in transport equipment and 15.1 per cent in communications manufacturing. Notably, employment in the garment and textile sector contracted from 2007 to 2011 during the global economic crisis. And despite a rebound of 18.4 per cent in 2013, employment levels in communications and electronics have now surpassed that in garment production.

Figure B1.1. Wage and employment growth in China manufacturing, 2003–13

Panel A. Real annual wages (yuan renminbi)



Panel B. Employment (thousands)



Note: Nominal average annual wages deflated by the urban consumer price index of 1978 base-year prices. Wage and employment figures applicable only to public urban units (excludes private urban units and individual employment). Wages include hourly-paid wages, piece-rate wages, bonuses, allowances and subsidies, overtime wages and wages paid under special circumstances.

Source: Author's estimates based on China National Bureau of Statistics and Ministry of Human Resources and Social Security, 2014; China National Bureau of Statistics, 2014.

Emerging opportunities for creating jobs, particularly for young women

These regional dynamics point to booming prospects for a number of Asian economies to expand their garment and textile export markets. This process, in turn, could contribute hugely to both economic growth and new jobs, given the relatively labour-intensive nature of the industry. Low-end garment production in developing Asia has historically provided an important pathway for millions of informal workers with limited educational qualifications to transition into formal manufacturing jobs with regular wages. The wage premium for making this shift provides them and their families the opportunity to increase household incomes and improve living standards.

Across a sample of ten developing Asian economies, employment in the industry totalled more than 40 million (figure 3, panel A). China (6.7 million) and India (16.8 million) accounted for almost three-fifths of that total.⁶ Employment in the sector also exceeded 3 million in Indonesia (3.8 million) and Pakistan (3.6 million).⁷ Moreover, where comparable data are available, trends indicate that jobs in the garment and textile industry have continued to expand, with the exception of Thailand. Job growth was robust in India, increasing by 10.7 per cent on a compounded yearly basis from 2009/10 to 2011/12. In China, sector employment expanded by 8.1 per cent from 2010 to 2013. By comparison, annual employment increases during the same three-year period averaged 4.6 per cent in Pakistan, 3.4 per cent in the Philippines and 3.1 per cent in Viet Nam. In Indonesia, however, industry expansion in terms of employment was only 1.4 per cent per annum between 2010 and 2014, with women accounting for less than 45 per cent of that growth.

The garment, textile and footwear industry in developing Asia is also important given the large extent that jobs in the sector provide workers with regular wages. With a few exceptions, the bulk of employment in the industry was comprised of wage earners (figure 3, panel B). For example, salaried employees accounted for around four in five industry jobs in Cambodia, Indonesia and Viet Nam. Likewise, in Pakistan, the Philippines and Thailand, the comparable ratio was more than three in five. By contrast, garment, textile and footwear production in India and the Lao People's Democratic Republic is dominated by own-account and contributing family workers. Relative to other countries, the small share of wage employment (around one in three) reflects the predominantly informal nature of the industry in both countries where a majority of workers are home-based subcontractors who are typically paid on a piece-rate basis.

In terms of total wage employment, the industry employed nearly 5 million employees in India and around 3 million salaried jobs in Indonesia. In comparison, there were more than 2 million garment and textile workers earning wages in Pakistan and Viet Nam. These jobs are predominantly occupied by women. The share of employees who were women in the garment, textile and footwear industry ranged from more than one-half in Indonesia to around four-fifths in Cambodia. By contrast, in India and Pakistan the industry was driven by considerably more men than women workers, mirroring the

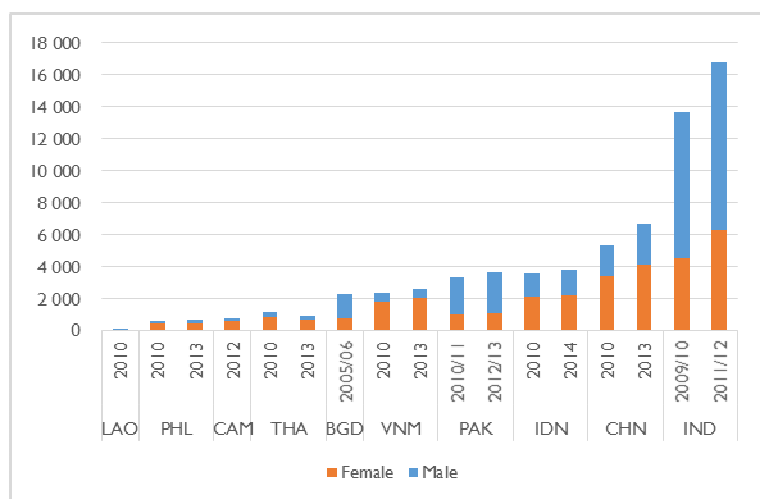
⁶ Regional figure of more than 40 million includes a recent estimate of 4.2 million workers in Bangladesh's ready-made garment sector (ILO, 2014). Total industry employment figure for China includes only public urban units and therefore should be considered an underestimate of the actual size of the garment sector workforce.

⁷ In addition, comparable household survey data from Myanmar are not available but the country's budding garment sector reportedly employs a workforce of 260,000 and is forecast to reach 600,000 in the next three years (ILO, 2015a).

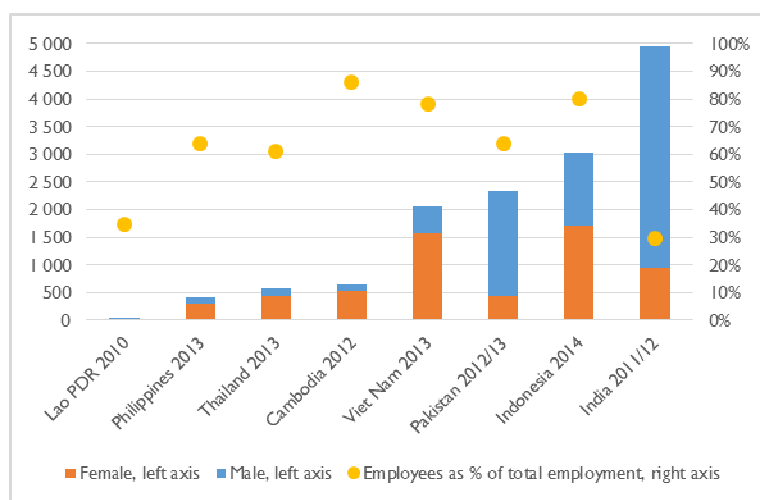
wider challenge of low female participation in the overall economy.⁸ The industry workforce is also young. On average, wage workers in the industry were as young as 24.5 years in Cambodia and 27.8 years in the Lao People's Democratic Republic (see Annex table A1).

Figure 3. Employment in garments, textiles and footwear, various years

Panel A. Total employment by sex (thousands)

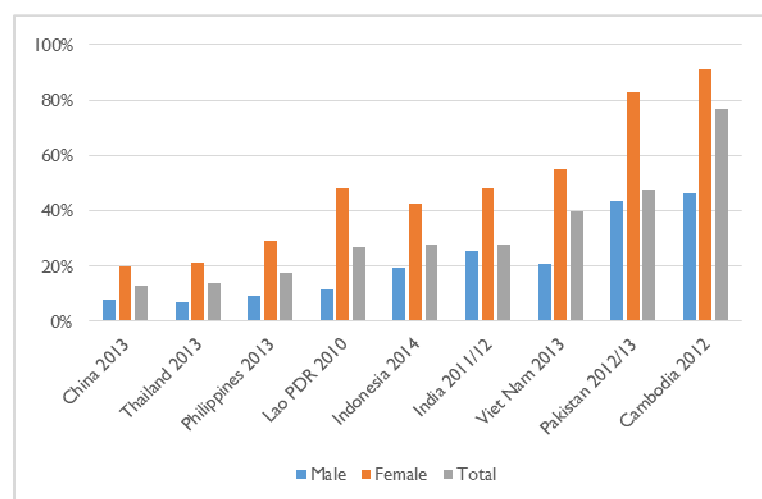


Panel B. Total wage employment by sex (thousands) and share of total employment (per cent)



⁸ For further discussion on low female labour force participation in South Asia, see Chaudhary and Verick, 2014.

Panel C. Wage employment as share of total manufacturing wage employment by sex (per cent)



Note: BGD = Bangladesh, CAM = Cambodia, CHN = China, IDN = Indonesia, IND = India, LAO = Lao People's Democratic Republic, PAK = Pakistan, PHL = Philippines, THA = Thailand, and VNM = Viet Nam; aged 15+; garments, textiles and footwear correspond to ISIC-Rev. 3 (groups 17, 18 and 19) or ISIC-Rev. 4 (groups 13, 14 and 15); China figures include total employment in public urban units only.

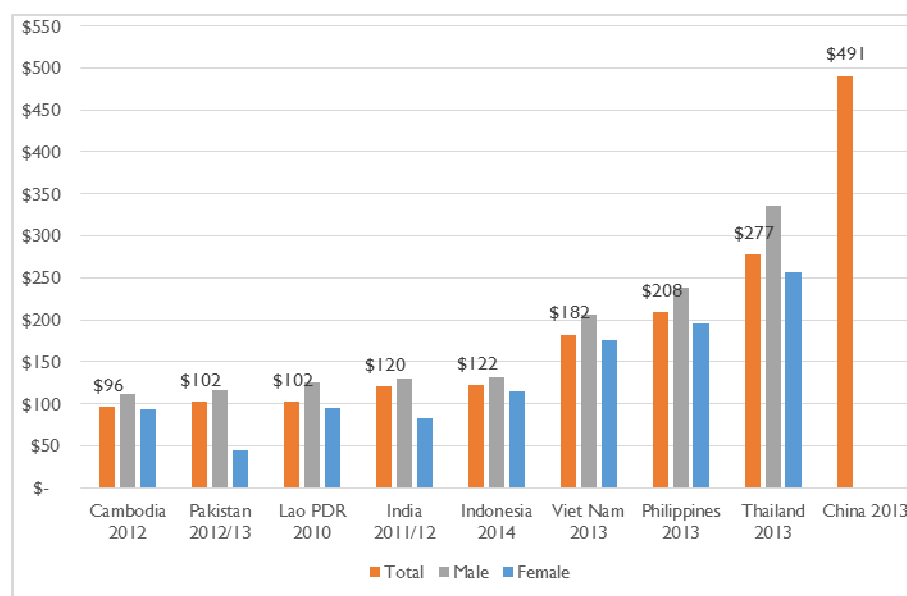
Source: Author's estimates from official national labour force surveys (various years); Annex table A1; China National Bureau of Statistics and Ministry of Human Resources and Social Security, 2014.

The share of wage employment in garments, textiles and footwear relative to all manufacturing sectors further reveals the industry's importance for job creation. In Cambodia, where the manufacturing base is considerably less diversified, the share was the largest, at 77 per cent overall and 91.4 per cent for female employees (figure 3, panel C). In Viet Nam and Pakistan, the comparable percentages were 38.8 per cent (54.9 per cent for women) and 46.7 per cent (80.7 per cent for women), respectively. On the other hand, the contribution to manufacturing wage employment in both India and Indonesia was less than 30 per cent, echoing their longer-term aim to shift towards higher-end manufacturing. Similarly, the industry contributed around 17 per cent or less in China, the Philippines and Thailand. Although the garment and textile industry remains nascent in the Lao People's Democratic Republic, it accounted for more than 27 per cent (48.3 per cent for women) of all wage earners in manufacturing.

Wages are low but rising

Competition across the region for global garment buyers therefore is motivated by not only expanding export market share and economic growth but also the potential to create jobs. The key, however, is to ensure that the dynamism in the industry leads to new jobs for women and men as well as better-quality jobs with decent working conditions and adequate wages. Despite some progress, industry wages remain low across the region. Average earnings were less than \$200 a month in the majority of nine countries with available data (figure 4). The exceptions were China, Thailand and the Philippines where monthly wages were \$491, \$277 and \$208, respectively. On the low end, wages were merely around \$100 in Cambodia, the Lao People's Democratic Republic and Pakistan. Notably, wages for men were consistently higher than that for women, although the gap varied between countries. The important issue of gender pay differences in the industry is discussed below.

Figure 4. Average nominal monthly wages in garments, textiles and footwear by sex (\$), various years



Note: For countries which collect only weekly or daily wage rates, a monthly estimate is based on a conversion of 7 days per week, 52 weeks per year and 12 months per year, then applying official nominal exchange rates. Aged 15+; garments, textiles and footwear correspond to ISIC-Rev. 3 (groups 17, 18 and 19) or ISIC-Rev. 4 (groups 13, 14 and 15). Includes gross remuneration in cash and kind, except the Lao People's Democratic Republic (excludes non-cash payments) and Thailand (excludes bonuses, overtime and non-cash payments). China figure is applicable only to public urban units (excludes private urban units and individual employment). Due to differences in survey data and reference years, figures are not strictly comparable between countries.

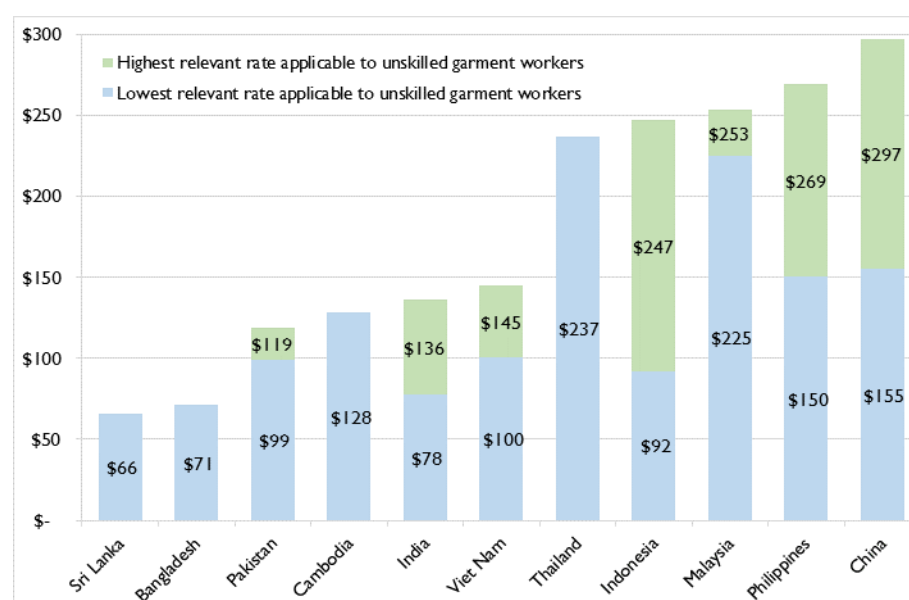
Source: Author's estimates from official national labour force surveys (various years); China National Bureau of Statistics and Ministry of Human Resources and Social Security, 2014; World Bank, 2015.

In this context, minimum wage policies are critical to ensure that earnings are sufficient and fairly reflect the contribution of workers to the growth of the industry. Minimum wages often serve as an indicator for the prevailing wage in Asia's garment industry, given the overall low-skill composition of the workforce and existing weaknesses in the collective bargaining and merit-based wage systems. If properly formulated and implemented, they can help reduce working poverty and provide a minimum level of social protection for the most vulnerable wage workers (ILO, 2012b). Minimum wage setting should be based on various economic considerations as well as the living wage level

sufficient to cover the basic needs of workers and their families – food, shelter, clothing, health care, education and transportation (Anker, 2011).

Among the top apparel-exporting Asian economies, monthly minimum wages are generally low throughout the region (figure 5). By far the lowest levels are in Bangladesh and Sri Lanka, where the respective statutory minimum wages of \$71 and \$66 are less than one-quarter of the highest applicable rate in China. In other competitor markets, such as Cambodia, India, Pakistan and Viet Nam, the highest applicable minimum wage varied from \$119 to \$145, or a range of two-fifths to one-half of China's highest level. By contrast, minimum wages at the highest relevant rate for the industry are significantly higher in Indonesia, Malaysia, the Philippines and Thailand, ranging from \$237 to \$269. Notably, minimum wage levels in Cambodia were less than one-half their current levels as recently as March 2012, but have spiked after a series of increases in the past few years. This trend consequently has had a positive impact on boosting average wages (ILO, 2015).

Figure 5. Monthly minimum wages in the garment industry (\$), as of 1 January 2015



Note: All rates presented are effective as on 1 January 2015 and refer to the lowest skill grade for new entrants. For countries with decentralized minimum wage systems, figures reflect relevant rates in the main garment-producing locations.

Source: ILO compilation from official national sources as cited in ILO, 2015.

With low average and minimum wages pervasive throughout the region, numerous cases of wage-related industrial disputes have arisen in recent years causing work stoppages and even violence in some instances. International apparel brands are increasingly supporting the call to review and increase minimum wages as an integral measure to safeguard basic living standards, create more jobs and reduce industrial conflict. Buyers recognize that labour cost represents only a fraction of total production cost and that reasonable wage increases thus drive up final cost only marginally. In Bangladesh, for example, wages account for only 14 per cent of the overall production cost of a basic, long-sleeve T-shirt (GTZ-Progress, 2008). Likewise, a wage increase of 30 per cent in China would necessitate a rise of only 0.7 per cent on average in footwear retail prices (Wright, Sahni and Zamora, 2011). Other estimates indicate that labour costs account for only around 3–7 per cent of the total freight on board cost of a pair of denim jeans from Bangladesh, China and Viet Nam (Moazzem and Basak, forthcoming).

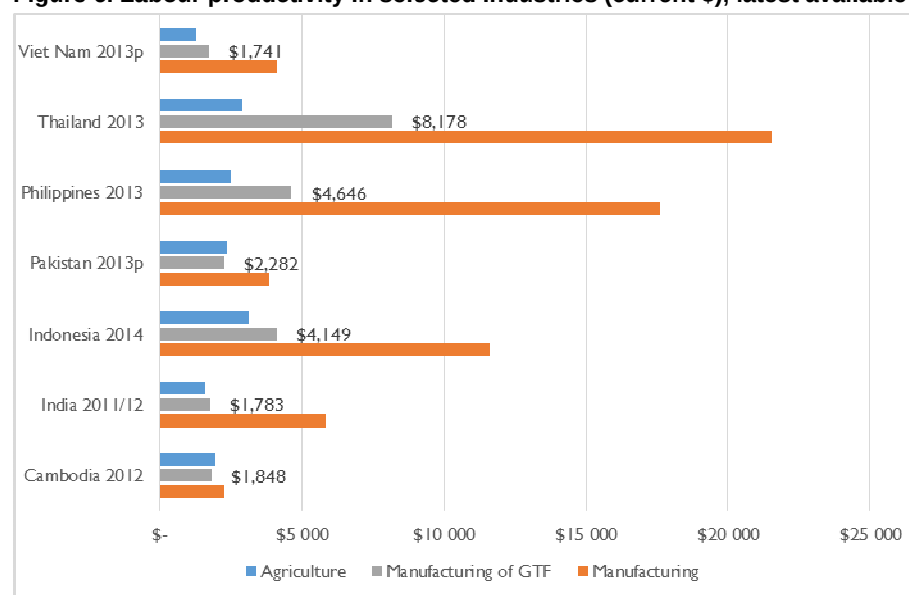
Fair wages and better working conditions as drivers of productivity and competitiveness

More and more, non-wage factors are driving the purchasing and sourcing decisions by European and United States apparel companies (Berg et al., 2011; Frederick and Staritz, 2012). These determinants include capacity, product quality, workforce competency, production efficiency and labour compliance, among others. In addition, industrial tragedies – such as the collapse of Rana Plaza in April 2013 and a deadly textile factory fire in October 2013 in Bangladesh and two fatal apparel factory fires in Pakistan in September 2012 – have heightened pressure on multinational clothing retailers to rethink their sourcing strategies. Global consumers are strongly calling for social responsibility, ensuring workplace safety and labour compliance in the factories that supply the world's apparel. Suppliers throughout the region must address public concerns for decent working conditions while increasing productivity and remaining competitive.

To attract buyers diversifying away from production in China and to tap the potential of emerging markets in the region, improved productivity is needed. Across the region, productivity gaps remain considerable reflecting the generally low-value nature of the industry (figure 6). In Cambodia, India, Pakistan and Viet Nam, productivity levels in garments, textiles and footwear ranged from \$1,700 to \$2,300. Only in Thailand did labour productivity exceed \$8,000 and in Indonesia and the Philippines more than \$4,000.⁹ Inter-industry differences in labour productivity further underscore the productivity challenge in garment production. In all seven countries, productivity in the garment industry was a fraction of that in manufacturing overall, ranging from around one-quarter in the Philippines to four-fifths in Cambodia. The higher ratio in Cambodia reflects its narrow manufacturing base in terms of product diversification and limited overall value addition. Furthermore, in cases such as Cambodia and Pakistan, labour productivity in garments was marginally lower than that in agriculture. In India, it was only around 10 per cent higher.

⁹ There are considerable challenges associated with cross-country labour productivity comparisons. These figures represent one methodological approach. A forthcoming ILO research note will examine labour productivity in the garment sector in greater depth.

Figure 6. Labour productivity in selected industries (current \$), latest available year



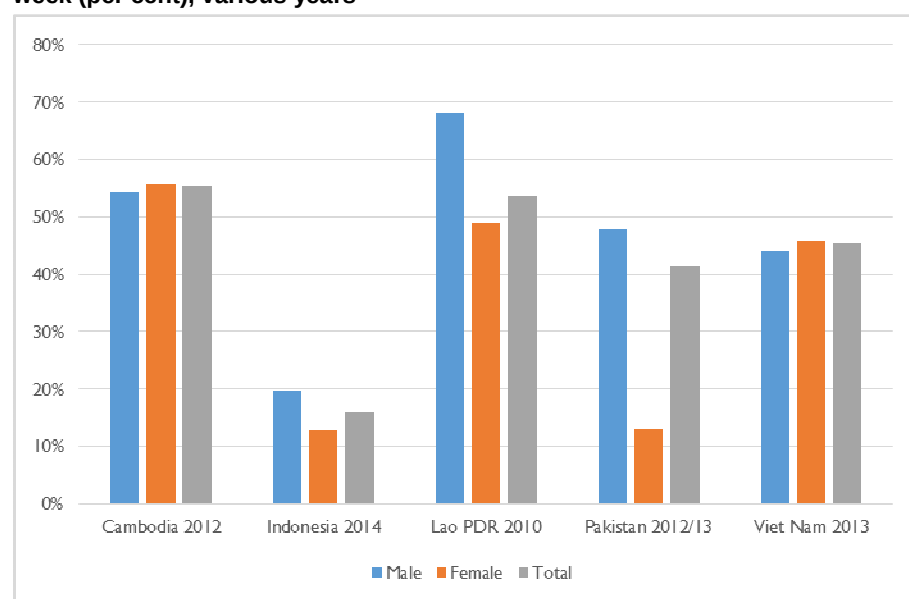
Note: Labour productivity defined as gross value added in current prices per employed persons, with official nominal exchange rates applied; 'p' = projections; GTF = garments, textiles and footwear.

Source: Author's estimates based on official data from national accounts and national labour force surveys (various years); World Bank, 2015.

Improving productivity in the industry is paramount for competitiveness, but productivity gains must be driven by greater efficiency – not work intensity. Greater production volume, based on long hours and excessive overtime, can both compromise workplace safety and health and create disincentives to adopt such measures as technological and process innovations that can propel viable productivity improvements. Across the region, however, excessive working hours in the garment industry are common (figure 7).¹⁰ In Cambodia and the Lao People's Democratic Republic, more than one in two garment employees worked more than 48 hours per week. In Pakistan and Viet Nam, the comparable shares were slightly more than two in five, and in Indonesia the proportion was around one in six. In addition, subnational differences in key garment-producing regions further highlight the extent of this challenge. In Phnom Penh (Cambodia) and Binh Duong (Viet Nam), for instance, more than three in five garment wage earners worked excessive hours.

¹⁰ For further discussion on the concept and international standards for measuring excessive working hours, see ILO, 2012a.

Figure 7. Share of wage employees in garments, textiles and footwear working more than 48 hours per week (per cent), various years



Note: Aged 15+; garments, textiles and footwear correspond to ISIC-Rev. 3 (groups 17, 18 and 19) or ISIC-Rev. 4 (groups 13, 14 and 15); based on actual hours of work in the main occupation.

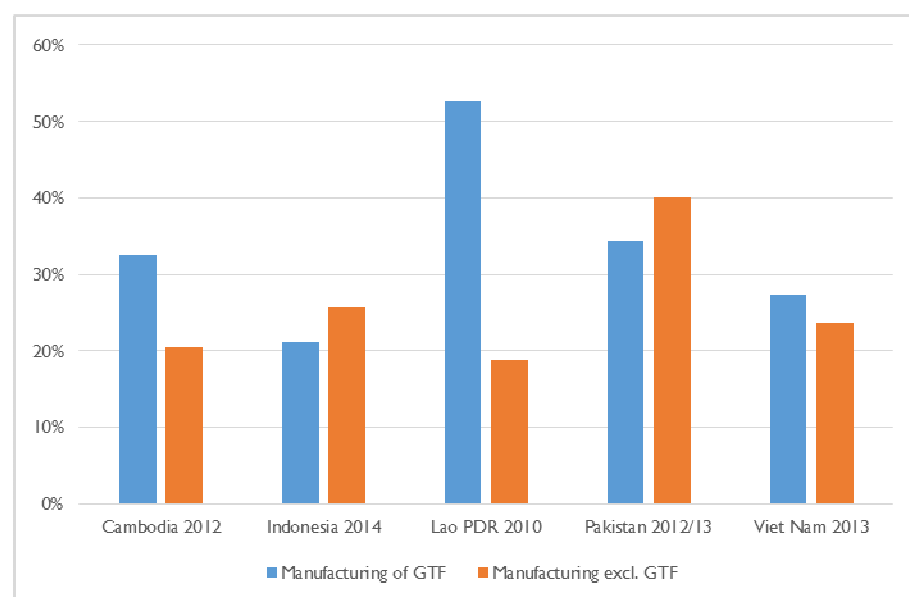
Source: Author's estimates from official national labour force surveys (various years).

Conversely, overtime should be considered exceptional and not normal operations in which workers are paid in line with regulations to help enterprises meet temporary, short-term periods of high demand without exceeding thresholds that compromise legal standards and jeopardize safety and health. Over the medium- and long-term, greater firm capacity to meet increased demand should be driven instead by process and technology enhancements. For factories applying a piece-rate system, workers are able to earn more only by increasing the volume of their individual production. This type of scheme may impel higher production at the cost of safety and create conflict between different work groups and discourage the adoption of more productive work methods (de Silva, undated). Well-designed wage schemes should compensate workers fairly for their performance and help meet business production targets without compromising working conditions or creating disincentives for implementing sustainable efficiency improvements.

Boosting productivity driven by efficiency instead of intensity is critical to offset wage increases and ensure that unit labour cost remains competitive and that overall price levels stay attractive. To increase productivity while maintaining high-quality standards, suppliers will need to focus on innovative business processes, invest in firm-level training and attract and retain a skilled workforce, particularly for middle and higher management positions. Over the medium- and long-term, this approach would allow suppliers to effectively move up the value chain within the garment industry, supply more sophisticated apparel products and offer higher value-added services, such as research and product design. Countries such as China and India, for example, have created the environment needed for their garment industry to progressively mature in terms of product and functional upgrading while still maintaining positive employment impacts (Frederick and Staritz, 2012).¹¹

¹¹ Functional upgrading can involve moving up the different stages of garment production: 1) assembly and cut-make-trim: sewing apparel, cutting fabric and providing simple trim; 2) original equipment manufacturing (OEM): purchasing or producing textile inputs and providing all production services, finishing and packaging; 3) original design manufacturing

Figure 8. Estimated wage premium for high-skilled employees in manufacturing of garments, textiles and footwear (GTF) and all manufacturing excluding GTF (per cent), various years



Note: Indicates the hourly wage premium for employees in high-skill occupations relative to those in low- and medium-skill occupations while controlling for differences in sex, age, marital status, education, geographic location and economic sector. Aged 15+; garments, textiles and footwear correspond to ISIC-Rev. 3 (groups 17, 18 and 19) or ISIC-Rev. 4 (groups 13, 14 and 15). High-skill occupations are defined as ISCO-08 major group 1 (managers), major group 2 (professionals) and major group 3 (technicians and associate professionals). Low- and medium-skill occupations are defined as the remaining ISCO-08 major groups 4 to 9.

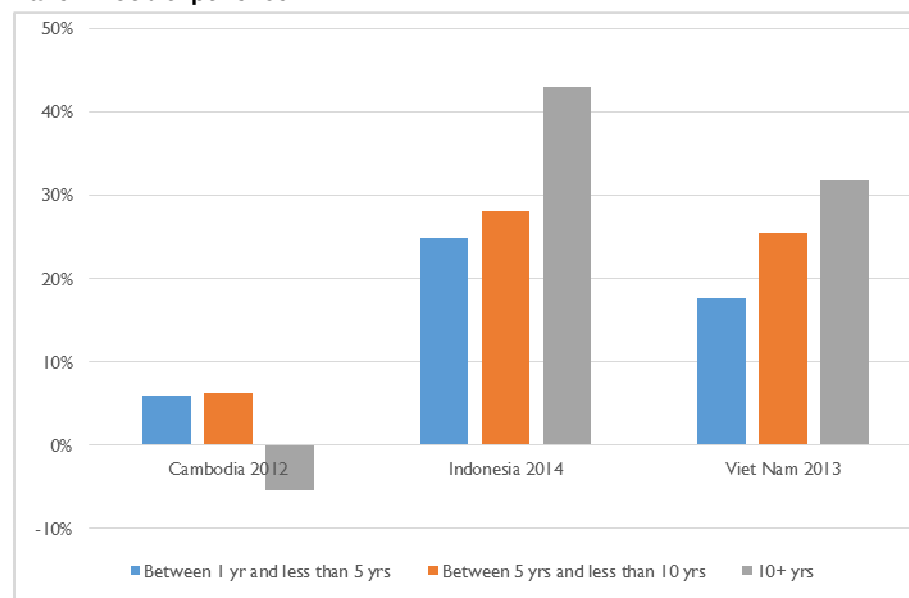
Source: Annex table A2.

To implement this type of strategy, compliance with minimum wage and overtime regulations should be viewed as only a first step. In addition, competitive wage schemes and decent working conditions can provide convincing incentives for the recruitment and retainment of top managers and technical specialists in the industry. Across a selection of five garment-producing economies, the wage premium for garment sector employees in high-skill occupations relative to low- and medium-skill occupations varied considerably, even after controlling for differences in demographics, education, geography and economic sector (figure 8). In Indonesia, for example, the high-skill wage premium for managers and technical professionals was only 21.1 per cent. By comparison, in Viet Nam, the earnings of high-skilled employees in garment production were around 27 per cent higher than for less skilled employees. Conversely, on the opposite end, the wage premium for managers and technical professionals in garment manufacturing was the highest in the Lao People's Democratic Republic (52.6 per cent). Moreover, in some countries the high-skill wage premium in garment production lagged behind that in the other manufacturing sectors. In Pakistan, for instance, the earnings premium for high-skilled employees in non-garment manufacturing was about 6 percentage points higher than in the garment sector. Likewise, in Indonesia the inter-industry gap was about 5 percentage points lower for managers and technical professionals in apparel production vis-à-vis their counterparts in other manufacturing sectors.

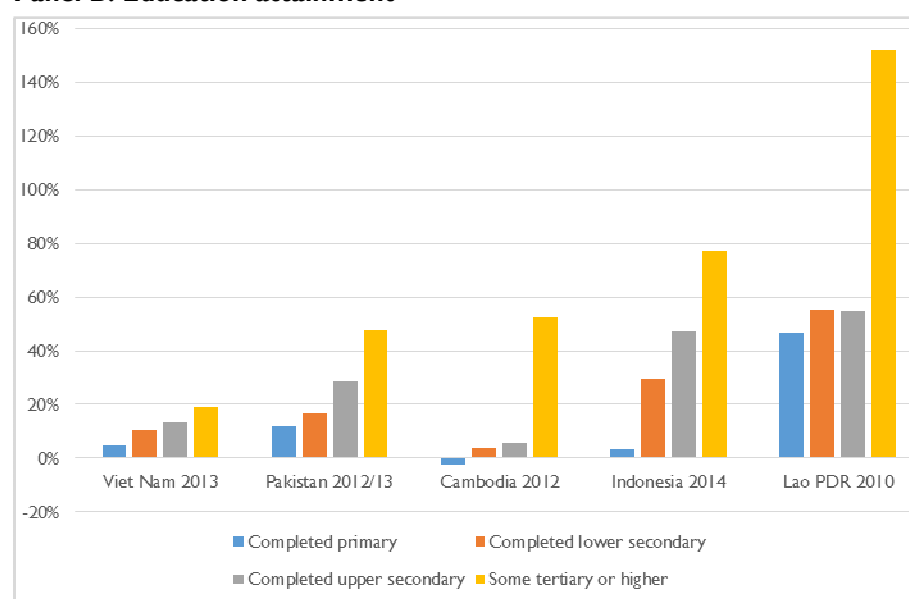
(ODM): involvement in design and product development and coordinating all OEM activities; and 4) original brand manufacturing (OBM): responsible for final product branding and marketing.

Figure 9. Estimated wage premium in garments, textiles and footwear (per cent), various years

Panel A. Job experience



Panel B. Education attainment



Note: Indicates the hourly wage premium (or penalty) relative to the base scenarios of having less than one year of job experience (panel A) and having no education or less than a primary degree (panel B), while controlling for differences in sex, age, marital status, education, geographic location, economic sector and occupation. Job experience captures the years of experience the employee has worked in that occupation for that employer. Aged 15+; garments, textiles and footwear correspond to ISIC-Rev. 3 (groups 17, 18 and 19) or ISIC-Rev. 4 (groups 13, 14 and 15).

Source: Huynh, forthcoming: figure 3 and table A2.

These findings underline the increased difficulty in drawing the most skilled workers to the garment sector as economic structures develop and manufacturing industries upgrade. Attracting and keeping a highly qualified workforce necessitates wage systems that reward workers' educational achievements and on-the-job performance in addition to relevant experience. In this regard, survey data from Cambodia, Indonesia and Viet Nam provides some insights to assess the wage premium for having more job experience (figure 9, panel A). In both Indonesia and Viet Nam, the wage premium for more

experience, even after controlling for differences in sex, age, marital status, education, geographic location and economic sector, exhibits an expected pattern. That is, employees are well compensated for their increasing levels of job experience and tenure. In Indonesia, an employee with between one year and less than five years of experience receives a 25 per cent wage premium over her counterpart with less than one year of experience. For more than ten years of experience, the return to hourly wages spikes to 43 per cent. Similarly, Vietnamese employees are paid incrementally more given their job experience, ranging from 18 per cent (one year to less than five years) to 32 per cent (ten years or more).

Conversely, the experience-based wage premium for Cambodia is vastly different. Having between one year and less than ten years of experience boosts the expected hourly pay by around 5–6 per cent, compared to a newer employee with less than one year of experience. However, workers with ten or more years of experience tend to be penalized for their experience with that employer, earning approximately 5 per cent less than recruits with less than one year of experience. These results could reflect the high attrition rates in the garment industry where more experienced workers find little monetary incentive to stay with the same employer while new recruits are joining firms at more competitive wages. However, skilled labour shortages are reportedly prevalent in Cambodia, particularly at the management, supervisory, technical and design levels, and better compensation schemes that account for job tenure and experience could be an effective countermeasure.¹²

With regard to education, employees in the garment, textile and footwear industry tend to be justifiably rewarded for their educational credentials (figure 9, panel B).¹³ In a five-country sample of wage earners in the industry, the return on higher education relative to having less than a primary degree is lowest overall in Viet Nam where the wage premium increases from 5 per cent for a primary diploma to 19 per cent for having some tertiary studies. By contrast, the wage premium for increased education is highest in the Lao People's Democratic Republic and this is consistent with the sizeable wage premium for high-skilled employees discussed above. Given the generally low-value nature of garment production in Asia, it is unsurprising that the wage differential for employees with a primary degree vis-à-vis those with incomplete primary studies is less than 5 per cent in three of the five countries. In Cambodia, in fact, the wage premium exceeds 5 per cent only after completing an upper secondary education. At the other end, however, the sizeable gains for tertiary schooling exceeds 40 per cent in all cases except Viet Nam. This common pattern could signal the high demand for (and relative scarcity of) qualified workers to fill managerial and technical positions that are better paid.

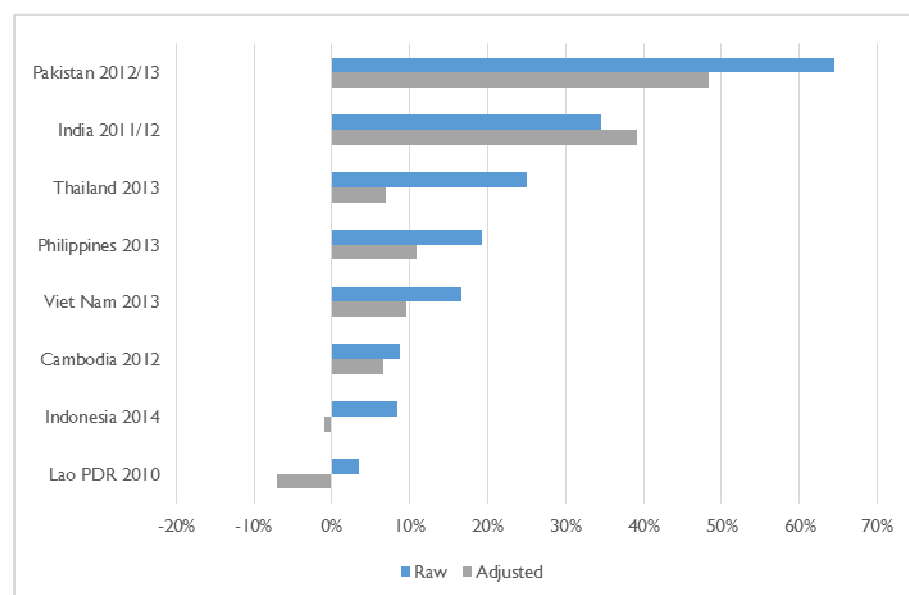
Another important strategy to increase productivity and competitiveness is promoting workplace equality. Asia's garment industry is primarily dominated by women, yet their earnings commonly lag behind that of men (figure 10). The male-female difference in garment sector earnings was the highest in Pakistan (64.5 per cent) and India (34.6 per cent). In comparison, the pay gap ranged from around 17–25 per cent in the Philippines, Thailand and Viet Nam. When adjusting for demographic, educational, geographical, subindustry and occupational variances between women and men, a wage disparity in favour of men still exists in six of the eight countries. In sum, closing the gender wage

¹² Skilled labour shortages have been well documented in not only Cambodia but also Bangladesh (Staritz and Frederick, 2012; Savchenko, 2012).

¹³ While the results show a positive and statistically significant correlation between education and hourly earnings overall, a few counterintuitive cases include the lower than expected wage premiums for a primary degree in Cambodia and an upper secondary education in the Lao People's Democratic Republic.

gap in Asia's garment industry would drive competitiveness by attracting female jobseekers with higher skills and competencies needed to increase firm-level efficiency. It would also signal to international buyers and consumers worldwide a commitment to core labour standards and gender equality in the workplace.

Figure 10. Gender pay gap in garments, textiles and footwear (per cent), various years



Note: Raw pay gap indicates the difference in the estimated natural log of hourly wages of employees while controlling for only sex, and the adjusted pay gap controls for differences in sex, age, marital status, education, geographic location, economic sector and occupation by applying standard Mincer regression equations. A positive pay gap value indicates higher earnings for men relative to women. India figures are based on the natural log of estimated daily earnings. Aged 15+; garments, textiles and footwear correspond to ISIC-Rev. 3 (groups 17, 18 and 19) or ISIC-Rev. 4 (groups 13, 14 and 15).

Source: Huynh, forthcoming: figure 1 and table A2.

Conclusion: Competing in global markets through stronger institutions

Developing Asia's garment production is unrivalled in the world. The industry employs more than 40 million workers. Its \$601 billion in exports of garments, textiles and footwear account for three-fifths of the global total. In addition, garment exports from the region will likely expand further as emerging consumer classes in China, India and Indonesia create new intra regional markets and opportunities. But major industrial tragedies in Bangladesh, Cambodia and Pakistan in recent years have heightened global awareness about factory conditions where clothes are produced and later sold around the world. The prevalence of unsafe workplaces, excessively long working hours and low wages, and a lack of social compliance could jeopardize its future success and undermine the living standards of tens of millions of workers in the industry. Consumers and multinational apparel brands are demanding meaningful change in the way the garment sector operates.

Asia's apparel and textile industry can sustain its progress, but new drivers of competitiveness are clearly needed. To this end, boosting labour productivity is paramount. Productivity in the industry was less than \$2,500 in key garment manufacturing bases such as Cambodia, India, Pakistan and Viet Nam. Raising productivity is particularly important in smaller firms and household enterprises where subcontracting is widespread and productivity is lower. Efforts to adapt more efficient processes and technologies could help the industry upgrade functionally and eventually shift to higher value garment production and design. Moving up the productivity ladder would also enable sustainable increases in wages, which are currently meagre overall, while keeping unit labour cost competitive. In the vast majority of garment-producing countries highlighted in this study average monthly wages in the industry were less than \$200 per month. Minimum wages varied throughout the region but were also low in spite of some recent progress.

A focus on improved productivity through better working conditions and a more skilled workforce would transform the industry's operating model. Compensation schemes that better reward skills, experience and education could help to attract and retain a workforce with the competencies and creativity to drive growth and boost competitiveness. In Cambodia, for example, empirical findings indicate that more experienced workers are penalized for their lengthy job tenure. In Viet Nam, education-based wage premiums in the industry, particularly at higher education levels, are relatively low compared to other competitor garment producers in the region. In addition, significant gender pay gaps persist in garment manufacturing across the region, which could be creating barriers that prevent the recruitment of qualified women to the industry. In a context where labour shortages are reportedly pervasive, especially at the managerial and technical levels, a refocus on improved remuneration schemes could be an effective strategy.

Ensuring the future success of Asia's garment sector requires a collaborative effort from all stakeholders. In this regard, positive developments are increasingly evident. Initiatives such as the Better Work Programme in Cambodia, Indonesia and Viet Nam – which involves partnership between government, workers, suppliers and multinational buyers – have shown that improving worker-management relations and compliance with labour standards can go hand-in-hand with boosting competitiveness and creating more jobs. In Bangladesh, tripartite efforts supported by the international community following the Rana Plaza tragedy have led to new legislative changes

regarding workplace safety and trade unions and widespread safety inspection of factory buildings. In Cambodia, the Labour Advisory Council is strengthening mechanisms to adjust minimum wages for the garment industry based on tripartite cooperation and empirical evidence with the aim of avoiding industrial strife and ensuring viable wage increases.

These cases illustrate that the actions of government are critical in furthering the growth of the garment industry in a sustainable manner. This includes establishing and building industry compliance systems towards better working conditions, improving minimum wage setting institutions, strengthening education and technical training to prepare a qualified workforce and enhancing industrial relations. Garment suppliers are also integral in ensuring compliance with labour laws regarding occupational safety standards and minimum wages, investing in firm-level training and eliminating workplace employment and pay discrimination. Ultimately, however, international buyers and the policy choices they make will have a massive impact on the future of Asia's apparel industry. Taking a long-term approach to partnerships with suppliers, even during periods of economic volatility, supporting measures that improve firm-level productivity gains and basing sourcing strategies on factors beyond wage cost would help to facilitate gradual upgrading in the industry and improve working conditions for Asia's garment workers.

References

- Abras, A. 2012. “Success and upgrading after the end of the MFA”, in G. Lopez-Acevedo and R. Robertson (eds.); pp. 87–135.
- Anker, R. 2011. *Estimating a living wage: A methodological review*, Conditions of Work and Employment Series No. 29 (Geneva, ILO).
- Asokan, S. 2013. “Bangladesh poised to hike garment wages, but may not end strikes”, in *Reuters*, 21 Oct. Available at: www.reuters.com/article/2013/10/21/us-bangladesh-garments-wage-idUSBRE99K02M20131021 [22 Oct. 2013].
- Bangladesh Bureau of Statistics. 2013. *Statistical pocketbook Bangladesh 2012* (Dhaka).
- . 2013a. *Survey of manufacturing industries (SMI) 2012* (Dhaka).
- Bangladesh Employers’ Federation. 2009. *A handbook on the Bangladesh Labour Act, 2006*, Aug. (Dhaka).
- Berg, A. et al. 2011. *Bangladesh’s ready-made garments landscape: The challenge of growth* (McKinsey & Company).
- Chaudhary, R.; Verick, S. 2014. *Female labour force participation in India and beyond*, ILO Asia-Pacific Working Paper Series (Bangkok, ILO).
- China National Bureau of Statistics. 2014. *China Statistical Yearbook 2014* (Beijing).
- China National Bureau of Statistics and Ministry of Human Resources and Social Security. 2004. *China Labour Statistical Yearbook* (Beijing).
- . 2005. *China Labour Statistical Yearbook* (Beijing).
- . 2006. *China Labour Statistical Yearbook* (Beijing).
- . 2007. *China Labour Statistical Yearbook* (Beijing).
- . 2008. *China Labour Statistical Yearbook* (Beijing).
- . 2009. *China Labour Statistical Yearbook* (Beijing).
- . 2010. *China Labour Statistical Yearbook* (Beijing).
- . 2011. *China Labour Statistical Yearbook* (Beijing).

—. 2012. *China Labour Statistical Yearbook* (Beijing).

—. 2013. *China Labour Statistical Yearbook* (Beijing).

—. 2014. *China Labour Statistical Yearbook* (Beijing).

de Silva, S. Undated. *An introduction to performance and skill-based pay systems* (Geneva, ILO). Available at: www.ilocarib.org.tt/images/stories/contenido/pdf/Employers%20Activities/srspaysy.pdf [13 November 2015].

Fair Wear Foundation. 2014. *Living wage engineering* (Amsterdam). Available at: http://www.fairwear.org/ul/cms/fck-uploaded/documents/fwfpublishations_reports/LivingWageEngineering20141.pdf [13 November 2015]

Frederick, S.; Staritz, C. 2012. “Developments in the global apparel industry after the MFA phaseout”, in G. Lopez-Acevedo and R. Robertson (eds.);, pp. 41–85.

Greenhouse, S. 2013. “Some retailers rethink role in Bangladesh”, in *The New York Times*, 1 May. Available at: www.nytimes.com/2013/05/02/business/some-retailers-rethink-their-role-in-bangladesh.html?pagewanted=all&_r=0 [2 Oct. 2013].

GTZ-Progress. 2008. *Production cost mapping for selected apparel items* (Dhaka).

Huynh, P. Forthcoming. *Assessing the gender pay gap in in Asia’s garment industry* (Bangkok, ILO).

International Labour Organization (ILO). 2015. *Growth continues for Cambodia’s garment and footwear sector*, Cambodia Garment and Footwear Sector Bulletin Issue 1 (Phnom Penh).

—. 2015a. *Myanmar garment sub-sector value chain analysis* (Yangon).

—. 2014. *Towards a safer ready made garment sector for Bangladesh: Progress made and way ahead* (Dhaka).

—. 2013. *Global Employment Trends 2013: Recovering from a second jobs dip* (Geneva).

—. 2012a. *Decent work indicators: Concepts and definitions* (Geneva).

—. 2012b. *Global Wage Report 2012/13: Wages and equitable growth* (Geneva).

—. 2005. *Guide to the Cambodian labour law for the garment industry* (Phnom Penh).

—. Database on Conditions of Work and Employment Laws (Geneva). Available at: www.ilo.org/dyn/travail [13 November 2015].

Kapsos, S.; Bourmpoula, E. 2013. *Employment and economic class in the developing world*, ILO Research Paper No. 6, June (Geneva, ILO).

KPMG China. 2011. *China's 12th Five-Year Plan: Overview* (China).

Lopez-Acevedo, G.; Robertson, R. (eds.). 2012. *Sewing success? Employment, wages, and poverty following the end of the Multi-fibre Arrangement* (Washington, DC, World Bank).

Moazzem, K. G.; Basak, K. Forthcoming. *Margin and its relation with firm level compliance: Illustration on Bangladesh Apparel Value Chain* (Dhaka, Centre for Policy Dialogue).

Moazzem, K. G.; Raz, S.; 2013. *Revision of the minimum wage in the RMG sector in 2013: Proposals as regards definition, method of determination and the levels* (Dhaka, Centre for Policy Dialogue).

Polaski, S. 2009. *Harnessing global forces to create decent work in Cambodia*, International Institute for Labour Studies Research Series No. 119 (Geneva, ILO).

Record, R.; Kuttner, S.; Phouxay, K. 2012. *Labour practices and productivity in the Lao garments sector: Perspectives from managers and workers*, Better Work Discussion Paper Series No. 8, Aug. (Geneva, ILO).

Robertson, R. 2011. *Apparel wages before and after Better Factories Cambodia*, Better Work Discussion Paper Series No. 3, July (Geneva, ILO).

Savchenko, Yevgeniya. 2012. "The rise of small Asian economies in the apparel industry", in G. Lopez-Acevedo and R. Robertson (eds.);, pp. 163-196.

Saxena, S. B.; Salze-Lozac'h, V. 2010. *Competitiveness in the garment and textiles industry: Creating a supportive environment: A case study of Bangladesh*, Occasional Paper No. 1, July (The Asia Foundation).

Staritz, C.; Frederick, S. 2012. "Bangladesh", in G. Lopez-Acevedo and R. Robertson (eds.);, pp. 213-245.

The Economist. 2011. "Textiles in South-East Asia: Good darning, Vietnam", 2 July. Available at: www.economist.com/node/18775499 [18 Oct. 2013].

Ur-Rehman, Z; Walsh, D.; Masood, S. 2012. "More than 300 killed in Pakistani Factory Fires", in *The New York Times*, 12 Sep. Available at: www.nytimes.com/2012/09/13/world/asia/hundreds-die-in-factory-fires-in-pakistan.html [2 Oct. 2013].

World Bank. 2015. *World Development Indicators* (Washington, DC).

Wright, J.; Sahni, M.; Zamora, R. 2011. *Wage increases in China: Should multinationals rethink their manufacturing and sourcing strategies?* (Accenture).

Annex

Table A1. Indicators of wage and salaried employment in the garment, textile and footwear industry by sex, selected Asia–Pacific countries, latest available year

	Cambodia (2012)			India (2011/12)			Indonesia (2014)		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Wage employment in GTF (000)	123.0	520.7	643.7	4 022.6	939.3	4 961.9	1 322.1	1 700.2	3 022.3
<i>Textiles</i>	6.7	22.7	29.4	2 019.3	379.7	2 399.1	562.9	520.3	1 083.1
<i>Garments</i>	101.0	456.1	557.1	1 456.8	423.5	1 880.3	462.9	848.4	1 311.3
<i>Luggage, handbags, footwear, etc.</i>	15.3	41.9	57.1	546.5	136.1	682.6	296.3	331.5	627.8
Share of total employment in GTF (%)	85.6	86.0	85.9	38.4	14.9	29.6	82.7	77.8	79.8
Share of total wage and salaried employment in manufacturing (%)	46.2	91.4	77.0	25.2	48.0	27.7	19.3	42.4	27.9
Average age (years)	24.8	24.5	24.5	32.4	28.5	31.6	32.7	31.0	31.7
Average weekly hours of work (hours)	52.9	52.6	52.6	n.a.	n.a.	n.a.	45.9	43.7	44.6
Average nominal monthly wages (000 LCU)	448.9	374.0	388.3	6.5	4.1	6.0	1 557.4	1 361.8	1 447.4
	Lao PDR (2010)			Pakistan (2012/13)			Philippines (2013)		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Wage employment in GTF (000)	3.7	11.5	15.2	1 902.0	429.2	2 331.2	132.6	289.6	422.1
<i>Textiles</i>	0.2	1.5	1.6	1 000.7	120.8	1 121.5	20.1	33.7	53.8
<i>Garments</i>	3.0	9.9	12.9	766.3	294.7	1 061.0	83.6	220.3	303.9
<i>Luggage, handbags, footwear, etc.</i>	0.6	0.1	0.7	135.0	13.7	148.7	28.9	35.6	64.4
Share of total employment in GTF (%)	62.2	30.4	34.8	74.0	39.9	63.9	70.1	61.4	63.9
Share of total wage and salaried employment in manufacturing (%)	11.4	48.3	27.0	43.3	82.8	47.4	9.3	28.9	17.4
Average age (years)	32.7	26.2	27.8	31.1	29.2	30.8	33.8	37.8	36.5
Average weekly hours of work (hours)	54.1	50.7	51.6	53.3	35.7	50.1	48.6	45.8	46.7
Average nominal monthly wages (000 LCU)	1 038.3	779.6	845.4	11.3	4.3	10.0	10.1	8.3	8.8
	Thailand (2013)			Viet Nam (2013)					
	Male	Female	Total	Male	Female	Total			
Wage employment in GTF (000)	148.2	426.8	575.0	487.3	1 573.3	2 060.6			
<i>Textiles</i>	61.5	109.9	171.4	69.0	139.8	208.9			
<i>Garments</i>	60.7	250.5	311.2	230.1	878.3	1 108.5			
<i>Luggage, handbags, footwear, etc.</i>	26.0	66.4	92.4	188.1	555.2	743.2			
Share of total employment in GTF (%)	65.9	59.6	61.1	79.6	78.0	78.4			
Share of total wage and salaried employment in manufacturing (%)	7.0	21.4	14.0	20.9	55.2	39.8			
Average age (years)	35.0	37.3	36.7	30.5	30.4	30.4			
Average weekly hours of work (hours)	49.9	49.3	49.4	51.0	50.5	50.6			

Average nominal monthly wages (000 LCU)	10.3	7.9	8.5	4 306.3	3 660.4	3 813.2	
--	------	-----	-----	---------	---------	---------	--

Note: Aged 15+; garments, textiles and footwear correspond to ISIC-Rev. 3 (groups 17, 18 and 19) or ISIC-Rev. 4 (groups 13, 14 and 15); GTF = garment, textile and footwear; LCU = local currency unit; n.a. = not available. India survey data do not include information on hours of work.

Source: Author's calculations based on Cambodia Labour Force Survey (2012), India National Sample Survey (2011/12), Indonesia Labour Force Survey (Aug. 2014), Lao People's Democratic Republic Labour Force Survey (2010), Pakistan Labour Force Survey (2012/13), Philippines Labour Force Survey (Oct. 2013), Thailand Labour Force Survey (Quarter 3, 2013), Viet Nam Labour Force Survey (2013).

Table A2. Adjusted hourly wage premium for high-skill occupations in manufacturing of garments, textiles and footwear (GTF) and all manufacturing excluding GTF, full weighted samples

	(1 a) Cambodia GTF	(1b) Cambodia Non-GTF	(2a) Indonesia GTF	(2b) Indonesia Non-GTF	(3a) Lao PDR GTF	(3b) Lao PDR Non-GTF
High-skill occupation dummy	03.26 (0.003)**	0.205 (0.011)**	0.211 (0.002)**	0.256 (0.001)**	0.526 (0.016)**	0.188 (0.011)**
Female sex dummy	-0.061 (0.002)**	-0.107 (0.004)**	-0.021 (0.001)**	-0.185 (0.000)**	0.044 (0.010)**	-0.024 (0.008)**
Age	0.040 (0.001)**	0.046 (0.001)**	0.030 (0.000)**	0.019 (0.000)**	0.042 (0.002)**	0.023 (0.002)**
Age ²	-0.064 (0.001)**	-0.046 (0.001)**	-0.038 (0.000)**	-0.022 (0.000)**	-0.055 (0.003)**	-0.032 (0.002)**
Married dummy	-0.060 (0.002)**	-0.236 (0.004)**	0.088 (0.001)**	0.052 (0.001)**	-0.095 (0.009)**	-0.014 (0.008)
1-5 years of experience dummy	0.067 (0.002)**	0.090 (0.003)**	0.235 (0.001)**	0.104 (0.001)**		
5-10 years of experience dummy	0.075 (0.003)**	0.348 (0.006)**	0.272 (0.001)**	0.185 (0.001)**		
10+ years of experience dummy	-0.002 (0.004)	0.372 (0.007)**	0.423 (0.001)**	0.348 (0.001)**		
Primary education dummy	-0.014 (0.002)**	0.018 (0.004)**	0.069 (0.002)**	0.161 (0.001)**	0.180 (0.069)**	0.290 (0.016)**
Lower secondary education dummy	0.028 (0.002)**	0.018 (0.005)**	0.351 (0.002)**	0.367 (0.001)**	0.218 (0.069)**	0.263 (0.016)**
Upper secondary education dummy	0.093 (0.003)**	0.114 (0.008)**	0.572 (0.002)**	0.666 (0.001)**	0.199 (0.068)**	0.316 (0.016)**
Tertiary education dummy	0.623 (0.019)**	0.922 (0.015)**	1.010 (0.003)**	1.177 (0.001)**	0.728 (0.070)**	0.350 (0.019)**
Rural residency dummy	-0.338 (0.003)**	0.098 (0.006)**	0.109 (0.001)**	0.017 (0.001)**	0.053 (0.009)**	-0.161 (0.008)**
Constant	6.875 (0.015)**	7.231 (0.021)**	6.328 (0.023)**	7.789 (0.004)**	7.447 (0.055)**	8.165 (0.037)**
R ²	640 163	192 278	2 941 565	7 688 991	13 912	31 568
N						
	(4a) Pakistan GTF	(4b) Pakistan Non-GTF	(5a) Viet Nam GTF	(5b) Viet Nam Non-GTF		
High-skill occupation dummy	0.344 (0.002)**	0.401 (0.002)**	0.273 (0.001)**	0.237 (0.001)**		
Female sex dummy	-0.507 (0.001)**	-0.233 (0.002)**	-0.118 (0.001)**	-0.160 (0.001)**		
Age	0.035 (0.000)**	0.023 (0.000)**	0.022 (0.000)**	0.026 (0.000)**		
Age ²	-0.034 (0.000)**	-0.019 (0.000)**	-0.035 (0.000)**	-0.036 (0.000)**		
Married dummy	0.047 (0.001)**	0.129 (0.001)**	0.041 (0.001)**	0.051 (0.001)**		
1-5 years of experience dummy			0.181 (0.001)**	0.103 (0.001)**		
5-10 years of experience			0.263 (0.001)**	0.193 (0.001)**		
10+ years of experience dummy			0.326 (0.001)**	0.274 (0.001)**		
Primary education dummy	0.109 (0.001)**	0.063 (0.001)**	0.072 (0.001)**	0.087 (0.001)**		
Lower secondary education dummy	0.163 (0.001)**	0.163 (0.001)**	0.155 (0.001)**	0.173 (0.001)**		
Upper secondary education dummy	0.291 (0.002)**	0.394 (0.002)**	0.190 (0.001)**	0.257 (0.001)**		
Tertiary education dummy	0.642 (0.002)**	0.762 (0.002)**	0.320 (0.002)**	0.412 (0.001)**		
Rural residency dummy	-0.064 (0.001)**	-0.052 (0.001)**	-0.031 (0.001)**	-0.039 (0.001)**		
Constant	2.825 (0.003)**	2.882 (0.003)**	2.213 (0.003)**	2.273 (0.003)**		
R ²	0.27	0.31	0.39	0.45		
N	2 297 970	2 541 318	2 048 306	3 099 512		

Note: Standard errors in parentheses; * significant at 5 per cent; ** significant at 1 per cent.

Results of Mincer wage regressions on the natural log of hourly earnings. Base cases for dummy variables include: (1) Skill: low- and medium-skill occupations; (2) Sex: male; (3) Marital status: unmarried; (4) Experience: less than 1 year of job experience; (5) Education: none or less than a completed primary education; and (6) Residency: urban residence. High-skill occupations are defined as ISCO-08 major group 1 (managers),

major group 2 (professionals) and major group 3 (technicians and associate professionals); low- and medium-skill occupations are defined as the remaining ISCO-08 major groups 4 to 9. For further discussion on methodology and summary statistics, see Huynh, forthcoming. For brevity, the regression coefficients for province/district dummy variables and sub-industry dummy variables are not presented. A variable for job experience is included in only the Cambodia, Indonesia and Viet Nam datasets. GTF = garments, textiles and footwear.

Source: Author's calculations based on Cambodia Labour Force Survey (2012), Indonesia Labour Force Survey (Aug. 2014), Lao People's Democratic Republic Labour Force Survey (2010), Pakistan Labour Force Survey (2012/13), Viet Nam Labour Force S

Employment, wages and working conditions in Asia's garment sector: Finding new drivers of competitiveness

This paper presents regional trends and national estimates of exports, employment, wages, productivity and working time in the garment, textile and footwear industries in developing Asia and the Pacific based on official trade statistics and national labour force survey data. It finds that the region accounts for 60 per cent (US\$601 billion) of global exports of garments, textiles and footwear. The industry employs more than 40 million Asian workers. However, labour productivity and wages remain low overall, and working time is often excessive. Applying standard Mincerian wage regressions, the paper presents empirical evidence on wage premiums and gender pay gaps in the industry, and discusses policy measures that can help sustain growth through new drivers of competitiveness.

ILO Regional Office for Asia and the Pacific

United Nations Building, 11th Floor
Rajdamnern Nok Avenue,
Bangkok 10200, Thailand
Tel.: +66 2288 1234, Fax.: +66 2280 1735
Email: BANGKOK@ilo.org

www.ilo.org/asia

DECENT WORK

A better world starts here.

ISSN: 2227-4405 (web pdf)