

How has garment workers' pay changed in recent years?

Part I – Changes in pay in recent years

The minimum wage for Cambodian garment workers has increased significantly in recent years. This issue of the ILO's Cambodian Garment and Footwear Sector examines the impact of this minimum wage growth on workers' take-home pay.

The Bulletin uses a sample of payroll records from Cambodian garment factories in 2016 and 2017 to identify whether take-home pay has increased along with the rising minimum wage. Have employers cut other components of income to make up for the increasing base wage? The findings of this Bulletin suggest not. In fact, there was an increase in overtime work along with the increase in minimum wage, resulting in the rise of final take-home pay in 2017.

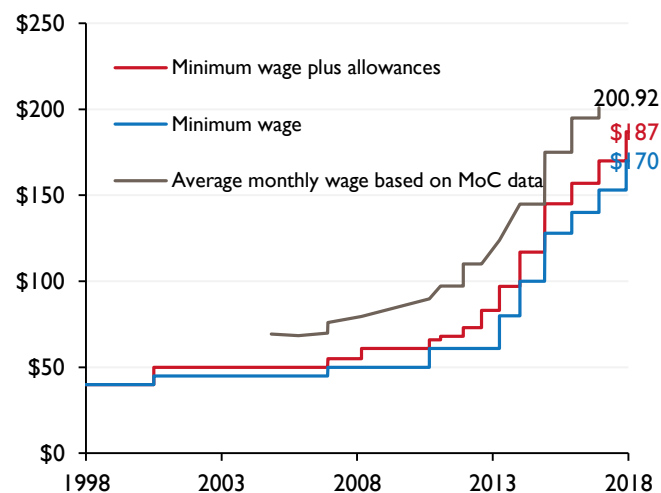
This Bulletin finds that, on average, the base rate of pay makes up only around 65% of Cambodian garment workers' take-home pay, suggesting that elements of pay other than the minimum wage itself are quite significant.

Part I of this seventh issue of the ILO's Cambodian Garment and Footwear Sector Bulletin examines trends in garment workers' incomes in recent years. Part II provides a regular update of key statistics and developments relating to the garment and footwear industry in Cambodia.¹

1. The context: rising minimum wage for Cambodian garment workers

The minimum wage for workers in the Cambodian garment and footwear sector has increased significantly in recent years. In 2013, the minimum wage was US\$80 per month. The minimum is now more than double this level in nominal terms, at US\$170, after the latest increase that came into effect on 1 January 2018.

Figure 1: Minimum wage for Cambodian garment and footwear workers, 1998-2018 (nominal USD per month)



Source: Various Prakas, Ministry of Labour and Vocational Training (MoLVT).

Note: The minimum wage shown in the chart is for non-probationary workers. Allowances shown in the chart in relation to minimum wage include transport and accommodation, health care (2012), attendance bonus, and living support (2008), which are all mandatory. Average monthly wage based on MoC data includes earning from regular work, over time work, compensation and non-mandatory allowances.

This relatively rapid increase in nominal wages in recent years raises a number of questions, including about the effect of the minimum wage on workers' actual incomes. Have workers' take-home incomes increased in line with the minimum wage? What has happened to the number of hours worked by Cambodian garment workers? What has happened to the distribution of pay among workers?

This Bulletin examines these and other questions, using confidentialised payroll data from a random sample of Cambodian garment workers in 2016 and 2017, acquired in partnership with the Better Factories Cambodia programme.²

2. Distribution of base pay

Base pay is the most important element of workers' take-home pay. By 'base pay' we mean the amount that workers

¹ The analysis in this Bulletin is based on official statistics from various official sources including the European Commission (Eurostat), Cambodia's Ministry of Commerce, the Ministry of Labour and Vocational Training, the Cambodia Investment Board, the General Department of Customs and Excise, the National Institute of Statistics and the National Bank of Cambodia. The ILO wishes to acknowledge and thank the Ministry of Labour and Vocational Training; the Ministry of Commerce; the Cambodia Investment Board; General Department of Customs and Excise; the National Institute of

Statistics and the National Bank of Cambodia for their support and the data used in this publication. Any errors should be attributed to the ILO.
² Payroll data from 25 factories in 2016 (1,349 workers), and 32 factories in 2017 (1,424 workers) is used for this analysis. Payroll records pertain to February/March (and May for 2017 only) of each year. Full payroll records were acquired; every 20th individual worker record was entered into the database.

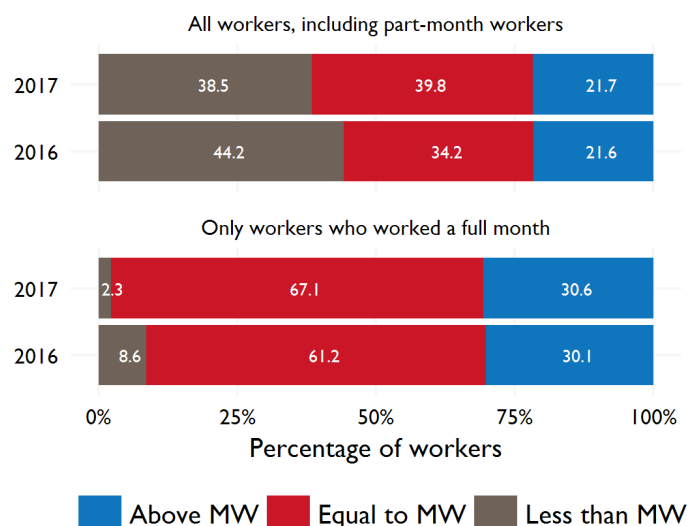
receive as per their contract for their ordinary hours of work, not including any allowances, incentives, or overtime payments. Base pay is the element of take-home pay that is most affected by minimum wage regulation. In the absence of any overtime work, this base pay, in addition to attendance bonus and transport allowance, is all that a worker receives. For 2016, if a worker worked the full amount of time as set out in their contract, then their base pay should be at least equal to the minimum wage of the time, which was \$140 per month. For 2017, this was \$153 per month.

In 2016, when the statutory minimum wage was set at US\$140 per month, 55.8% of workers had base pay equal to or higher than the minimum wage. Their final take-home income was generally higher than this amount, because in addition to their base pay, workers also often received payment for overtime hours, allowances, and incentives, bringing their final monthly income above the minimum wage, as illustrated in Table 1. In 2017, the minimum wage increased to US\$153 per month. With this new rate, the proportion of workers who earned above or equal to the minimum wage was 62%.

Although a substantial proportion of workers have base pay below the minimum wage, this almost entirely reflects the fact that those workers are not working a full month, rather than any non-compliance with the minimum wage. Those who had base pay below the monthly minimum wage generally did so either because they worked less than the full month required, or because they were still on probation.

Along with the distribution of base pay for all workers, Figure 2 also shows the distribution of base pay among workers who worked a full month.³ It shows that the proportion of full-month workers with base pay below the minimum wage is very small (2.3% in 2017 and 8.6% in 2016). These worker with base pay below the minimum wage appear to be probationary workers; there are no full-month workers in the sample with base pay below the probationary minimum wage⁴. The average base pay amongst full-month workers was \$147 per month in 2016 and \$162 per month in 2017, as illustrated in Table 2.

Figure 2: Distribution of Cambodian garment workers' base pay, including part-month workers



Note: this data includes workers who did not work a full month, and are therefore not required to be paid the full-month minimum wage.

3. The composition of workers' pay

Base pay, which is largely determined by the minimum wage, is the most important element of workers' take-home income. But other components of pay are still quite significant. Base pay only accounts for around 65% of total take-home pay, with other components including allowances, bonuses and overtime payments making up the remaining 35%. The effect of the rising minimum wage on these other elements of pay has not, until now, been studied in Cambodia.

With the minimum wage increasing at a solid rate, it may have been expected that other elements of take-home pay might decline. For example, employers looking to accommodate a minimum wage increase may reduce overtime or non-compulsory allowances and incentive payments. But that is not what the ILO found in our examination of factory payroll records. Instead, the data show that overtime payments actually increased in 2017, compared to 2016, as did non-mandatory incentive payments.

³ In our sample, 58% of workers worked a full month in the payroll month (56% in 2016, 59% in 2017).

⁴ There is, however, one worker in the sample who was paid higher than the probationary minimum wage but lower than the minimum wage. The

worker had been with the factory for over 6 years but received a base pay for full month work of only \$138 per month, instead of \$140 per month.

Table 1: Elements of workers' pay, all workers, 2016-2017

Income element	Wage bill		Worker's pay	
	2016	2017	2016	2017
	%	%	US\$	US\$
Base pay	66.47	67.75	136.96	152.86 ⁵
OT	12.50	14.76	25.75	33.35
Meal	3.79	3.43	7.81	7.74
Incentives	5.25	6.56	10.83	14.81
Mandatory allowance	9.50	8.90	19.58	20.09
Compensation	3.09	1.06	6.36	2.40
Deduction	-1	-2	-1.55	-5.60
Suspension (pay)	0.15	0.09	0.31	0.21
TOTAL	100%	100%	206.05	225.87

Note: this data includes workers who did not work a full month, and are therefore not required to be paid the full-month minimum wage.

Non-mandatory incentive payments actually increased as a proportion of total pay, rising from 5 per cent in 2016 to 6 per cent of the total in 2017. This suggests that employers have not offset the rise in base pay driven by the minimum wage increase by reducing other elements of income over which they have some discretion.

Deductions for union membership fees, NSSF contributions, tax deductions, advance deductions, deductions for arriving late at work and other forms of deductions increased a little, rising from 1% to 2% of the wage bill, while compensation (which includes severance pay, annual leave not being made use of and other such payments), declined as a proportion of the total.

The amount received by workers for 'mandatory allowances' increased a little, rising from an average of \$19.58 to an average of \$20.09, although they declined a little as a proportion of total pay. Mandatory allowances are allowances mandated by government regulations and include seniority bonus, attendance bonus, transport/accommodation allowance, and child care allowance. The decline in mandatory allowances as a proportion of total pay largely reflects the fact that there was no increase in the dollar amount that employers were required to pay in mandatory allowances in 2017.

Amongst full-month workers, mandatory allowance did actually increase as a proportion of total wages, though only very slightly, from 8.9 per cent to 9.1 per cent as shown in Table 2.

⁵ A data entry error of \$0.15 was deducted from the original number of this category.

Table 2: Elements of workers' pay, full-month workers only, 2016-2017

Income element	Wage bill		Workers' pay	
	2016	2017	2016	2017
	%	%	US\$	US\$
Base pay	65.04	66.71	146.60	161.97 ⁶
OT	13.70	15.43	30.89	37.47
Meal	3.64	3.79	8.20	9.20
Incentives	5.66	6.50	12.75	15.78
Mandatory allowance	8.92	9.15	20.11	22.23
Compensation	3.55	0.89	7.99	2.16
Deduction	-0.50	-2.48	-1.13	-6.02
TOTAL	100%	100%	225.41	242.79

Note: this data includes only workers who completed a full month of work as per their contract in the payroll month.

4. Hourly and daily rates of pay

We found that workers earned higher income in 2017 than 2016. However, this was not due to the fact that their hourly wage increased significantly. Workers earned more because they worked more hours. The price of their labour did increase, albeit very slightly, but what is chiefly responsible for their income increase is the extra hours they put in to work, not the price of their labour per se.

On average, all workers in our sample put in a total of 216 hours per worker per month in 2017, approximately 11 hours more than they did in 2016 where they worked 205 hours per worker per month. If we look only at workers who completed a full work month, the average working hours per month inclusive of regular time work and overtime work increased from 222 hours per worker per month in 2016 to 229 in 2017.

The hourly total wage, including any overtime payments, allowances, and incentive payments, increased only very slightly from approximately US\$1 per hour (or \$206.05 per month for 205.08 hours) to US\$1.05 per hour in 2017 (or \$225.87 per month for 216.07 hours). Amongst full-month workers, these rates went up from \$1.02 per hour in 2016 to \$1.06 per hour in 2017. The rises in their hourly rate, in fact, were a little lower than the rise expected in the hourly rate based solely on minimum wage increase, which increased by 7 cents per hour, rising from \$0.75 per hour in 2016 to \$0.82 per hour in 2017.

The fact that total pay did not rise as fast as the minimum wage likely reflects a few factors. First of all, the minimum wage has had a 'compressing' effect on pay scales – lower-paid workers have benefited more from the pay rise than

⁶ A data entry error of \$0.23 was deducted from the original number in this category.

higher-paid workers. Secondly, some elements of take-home pay such as attendance bonus and transport allowance are fixed in dollar terms.

Nevertheless, for all workers and for full-month workers, the average hourly and daily rates of pay were still higher than what a typical worker would earn based solely on the basis of minimum wage, which works out to US\$6.03 per day per worker in 2016 and US\$6.54 in 2017.⁷ Workers took home an average of \$8.04 per day in 2016, \$8.36 in 2017, while the figures for full-month workers were \$8.13 and \$8.44.

5. Hours of work

Worker's regular, contractual hours worked rose from an average of 180.36 per month in 2016 to 185.03 per month in 2017.⁸ Average night shift hours, overtime hours, and hours worked on public holidays all also increased between 2016 and 2017.

The increase in the hourly rate in 2017 in tandem with the increase in overtime hours suggested that final take-home income was affected not only by the quantity of overtime hours, but also by the type of overtime hours called for by employers.

Table 3: Breakdown of hours worked, all workers, 2016-2017

Type of hours worked	2016		2017	
	Hours per worker	%	Hours per worker	%
Regular work hours ⁹	180.36	87.95%	185.03	85.63%
Night shift hours	0.14	0.07%	1.30	0.60%
Public Holiday 100%	1.14	0.56%	1.38	0.64%
Public Holiday 200%	0.18	0.09%	1.08	0.50%
OT 150%	22.81	11.12%	26.80	12.41%
OT 200%	0.20	0.10%	0.26	0.12%
OT Sunday	0.24	0.12%	0.21	0.10%
TOTAL	205.08	100%	216.07	100%

Note: this table includes all workers in our sample, including those who did not work a full month.

⁷ This assumes a typical worker in their first year of work (thereby without seniority bonus) working all 26 mandatory days per month, thus is qualified for US\$10 attendance bonus and \$7 transport/accommodation allowance. For 2016, this daily rate would be $(140+10+7)/26 = \text{US\$}6.06/\text{day}$ and for 2017, $(153+10+7)/26 = \text{US\$}6.54/\text{day}$.

⁸ This may reflect different patterns in public holidays and the fact that some factories work on different schedules.

⁹ 'Regular work hours' refers to contractual hours of work as required in workers' employment contract that they need to fulfil to enable them to

Table 4: Breakdown of hours worked, full-month workers, 2016-2017

Type of hours worked	2016		2017	
	Hours per worker	%	Hours per worker	%
Regular work hours	192.63	86.85%	195.59	85.04%
Night shift hours	0.05	0.02%	1.01	0.44%
Public Holiday 100%	0.00	0.00%	1.03	0.45%
Public Holiday 200%	0.23	0.10%	1.19	0.52%
OT 150%	28.46	12.83%	30.80	13.39%
OT 200%	0.12	0.05%	0.26	0.11%
OT Sunday	0.31	0.14%	0.11	0.05%
TOTAL	221.80	100%	229.99	100%

Note: this table only includes workers who completed a full work month in the payroll month.

6. Pay for experienced workers

Cambodian garment workers are entitled to receive a seniority bonus based on their length of service with a particular factory. Workers are entitled to a bonus of \$2 per month in their second year of employment, rising to \$3 per month in the third year, \$4 in the fourth year and so on, up to a maximum of \$11 per month in their eleventh and subsequent years of employment. This section examines the question of how much workers' total pay – including but not limited to this seniority bonus – rises with their experience.

In the preceding sections of this Bulletin, our analysis was based on the 'raw' payroll dataset, with data values entered as they were recorded in the payroll records of the factories. The drawback with this is that the dataset includes a substantial number of workers who did not complete a full month, which affects the average pay rates and so on. To provide a complete picture, therefore, in the preceding sections we analysed data for *all* workers (including part-month workers) and *full-month* workers (dropping those who worked a part month).

To analyse the relationship between experience and pay, we have 'scaled up'¹⁰ the original dataset to convert each worker's pay to a "per-full month" basis. This is our estimate of what the worker would have received if he or she worked a full month. Some of the variables under the analysis were scaled up based on a scaling factor: a multiplier to be applied across variables to bring their value up to a per-full month

receive at least the minimum wage, exclusive of public holidays entitled to workers and taken by workers.

¹⁰ The payroll data analysis comprised 102 variables, which could be classified into base pay or piece rate pay, overtime pay, meal allowance, paid time off, unpaid time off, incentive, mandatory allowance, compensation, deductions and penalties. The components that were scaled up using the scaling factor were base pay/piece rate pay and over-time pay. Under mandatory allowances, only attendance bonus and transport allowance were scaled up, if reported value was greater than zero, in order to retain the state of compliance between the non-scaled and the scaled data.

basis. For example, if a worker worked half a month in February and received a base pay of \$70 per month for that month, we scaled them up by a scaling factor of 2, bringing their base pay to \$140 per month.

Using our scaled dataset, we found that in 2016, workers with less than one year's experience with their current employer had average total pay of US\$188.83 per month with the figure increasing to \$220.61 per month in 2017.

On average, however, the returns to seniority went down in 2017 compared to 2016. On average, each extra year of experience in 2016 was associated with \$8.61 extra pay per month; in 2017 that figure was just \$3.66.

Pay patterns are somewhat different among union members and non-members.¹¹

The benefit of income increase is experienced differently by workers reporting union memberships (fee-paying union members) and those without (or could possibly be non-fee paying union members), henceforth will be termed non-union members for ease of cross references in this report.

On average, union members had take-home pay of \$247.63 in 2016 and \$243.61 in 2017. Non-members' take-home pay rose from \$201.63 in 2016 to \$227.57. The difference in average pay between the two groups therefore fell from \$46 in 2016 to \$16.04 in 2017. This premium appear smaller once we statistically separate out the effects of seniority on pay.

In 2016, inexperienced workers with union memberships would see an average of \$29.37 per month more in take-home pay than inexperienced non-members. In 2017, this union premium went down to \$12.75 per month.

Though higher wages are correlated with union memberships, correlation should not be equated with causation. Using our data, it was possible to establish only that union membership is correlated with higher wages; the question of whether union memberships caused higher wages cannot be established by this analysis.

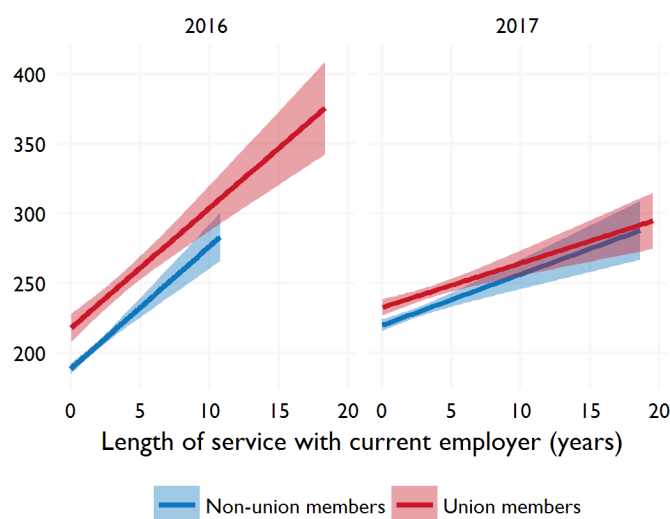
Table 5: Relationship between length of service at current employer and pay

Service length	2016		2017	
	Union	Non-union	Union	Non-union
Less than one year of experience with current factory	\$218.00	\$188.63	\$232.75	\$220
Each additional year of experience with current factory	\$8.61	\$8.79	\$3.18	\$3.66

Note: this data includes all workers in our sample, with part-month workers' pay 'scaled up' to a per-full month basis.

The average returns to experience fell sharply among both union members and non-members between 2016 and 2017. This may reflect some 'compression' of pay scales as a result of the rising minimum wage.

Figure 3: Average pay for Cambodian garment workers, by length of service with current employer and union membership



Note: excludes 204 workers for whom service length is not recorded in the payroll records.

7. Distribution of income

This section investigates income equality in the sector, drawing upon our 'scaled' data in which part-month workers' pay is 'scaled up' to a per-full month basis. To calculate inequality, we first group workers into 'percentiles'. A worker at the 10th percentile has pay greater than 10% of workers in the data; a worker at the 90th percentile has pay greater than 90% of workers.

In 2016, a worker at the 90th percentile had take-home pay of \$271.76 per month, while a low-income worker at the 10th

¹¹ We use the phrase 'union members' to refer to workers with union deductions recorded against their name in factory payroll records. It is also possible that some workers without union fee deductions are union

members, but they are treated as non-members for the purpose of this analysis.

percentile received \$166.07. The ratio between the 90th and 10th percentiles, a common measure of wage inequality, was therefore 1.64.

In 2017, this pay ratio barely changed, narrowing slightly to 1.63. High-income workers, those at the 90th percentile, received \$294.93 in 2017, with those at the 10th percentile receiving \$181.14 per month.¹²

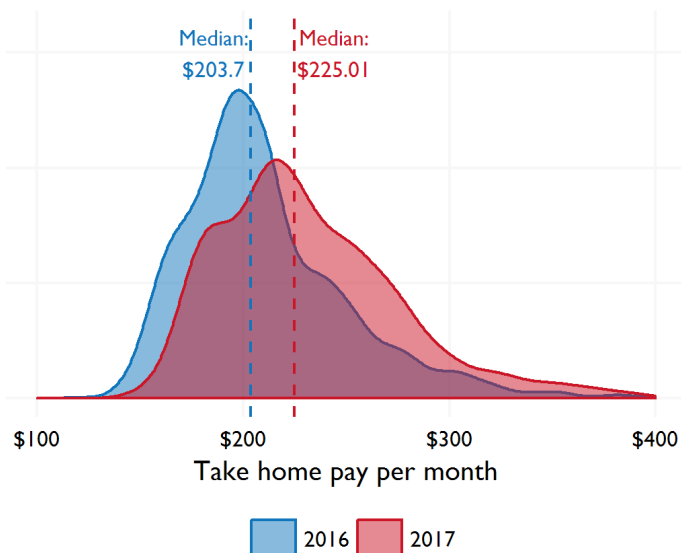
A broader measure of income inequality, the Gini coefficient, also suggests a very modest narrowing of pay gaps in the sector between 2016 in 2017. The Gini coefficient ranges from 0, if all workers have the same pay, to a value of 1 if a single worker received all the pay of the entire sector. The Gini for the Cambodian garment sector was 0.122 in 2016, indicating quite a high degree of equality; the sector became even more equal in 2017, with the Gini falling to 0.115.

The Lorenz curve as illustrated in Figure 4b showed this change towards increased equality in income distribution. Equality improves as the curve moves closer to the straight line, known as the equality line. The curve for 2017 inched closer towards the equality line, from the curve in 2016.

Another measure of minimum wage impact, the Kaitz Index, which compares the ratio of minimum wage to average wage showed that the index decreased from 0.77¹³ in 2016 to 0.75 in 2017.

It appeared that the rising tide of minimum wage lifted all boats, but it lifted the pay of lower-paid workers a little more than that of high-paid workers. There is some modest compression in pay scales evident in the data.

Figure 4a: Distribution of take-home pay in 2016 and 2017

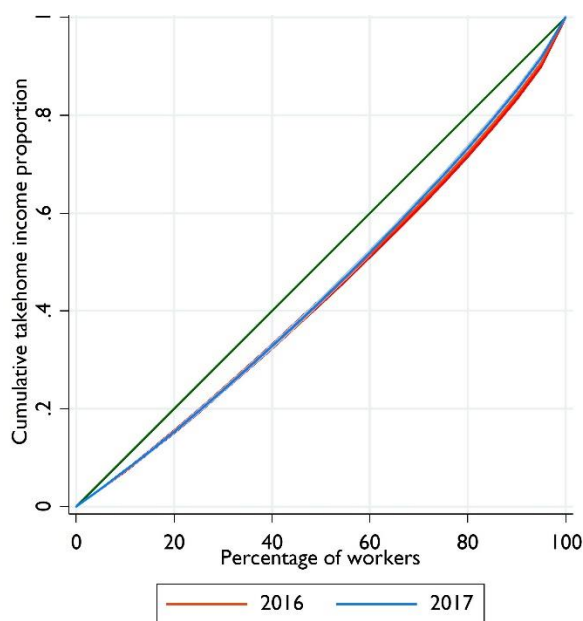


Note: take-home pay of workers who worked less than a full month has been

¹² Inequality also fell in the 'unscaled' data, so this finding is not an artefact of the scaling process.

'scaled up' to give an estimate of what they would have earned if they had worked a full month.

Figure 4b: Distribution of take-home pay in 2016 and 2017, using the Lorenz curve



Note: take-home pay of workers who worked less than a full month has been 'scaled up' to give an estimate of what they would have earned if they had worked a full month.

8. Conclusion

We found that base pay, which is regulated by the minimum wage regulation, was a major contributor to the final take-home income, but that it was not the only major contributor. Other wage components did play significant role in the final take-home income.

We also found that the increase in minimum wage did not appear to reduce the attraction of overtime hours amongst employers, as suggested by the fact that there was an increase in overtime hours in 2017 in tandem with the increase in minimum wage.

Our findings suggested that with base pay as regulated by minimum wage determining only around 68 per cent of income workers take home each month, effort at wage negotiation should focus on more than the minimum wage itself, but also on how this component interacts with other components of wage to ensure that workers are able to maintain a level of take-home income that are not only compatible with the exchange of their labour but that can also grow and grow sustainably.

¹³ Calculation was based on nominal minimum wage figures inclusive of mandatory allowances applicable to each year.

From the analysis in this report, we concluded that the rise in minimum wage improved not only the level of take-home income but also equality in the sector, with the larger gain going towards the bottom 90 per cent than the top 10 per cent earners in the sector.

The increase in minimum wage, and by extension, in final take home pay appeared to benefit garment workers of all union statuses. Income has increased for both groups, and though union workers appeared to take home more income than non-union workers, the gap was closing in 2017.

Part II - Statistical update

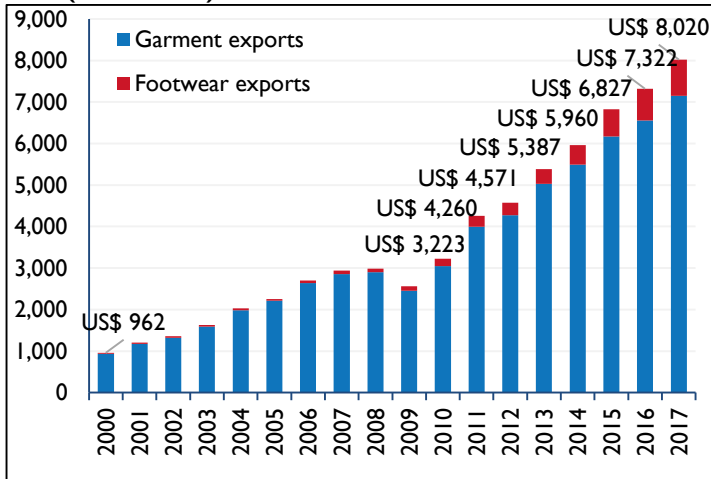
Part II of this Bulletin provides key statistics and analysis regarding recent developments in Cambodia's garment and footwear industry.

I. Garment and footwear exports¹⁴

Cambodia's General Department of Customs and Excise (GDCE) reported a positive outcome for Cambodia's garment and footwear sector during 2017. The value of exports from the sector grew 9.5¹⁵ per cent year on year from 2016 to reach US\$8,020 million. In volume terms, 2017 saw the sector experience an increase of 10%, approximately 0.5 percentage points higher than the growth in value, suggesting either a reduction in price of exported garment products or a minor shift towards lower value production. Footwear continued to grow in importance, with exports growing by 14.4 per cent to US\$873 million for the whole year.

The garment and footwear sector remains the most important component of Cambodia's exports, accounting for 72 per cent of the country's total merchandise exports for 2017.

Figure 5: Cambodia's garment and footwear exports, 2000-2017 (US\$ million)

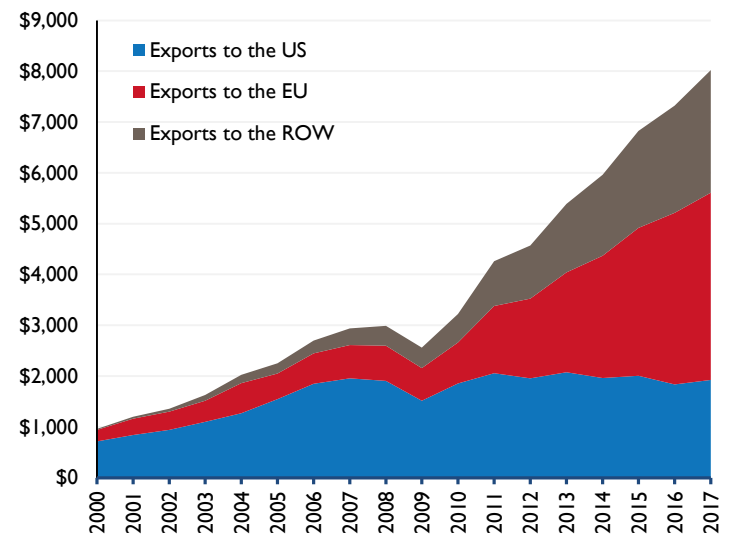


Source: Cambodia's General Department of Customs and Excise

The EU continues to be the most important market for Cambodia's garment and footwear products, absorbing 46 per cent of the sector's exports in 2017, retaining roughly the same share as in 2016. The US maintained its position as the second most important destination for the sector, taking in 24 per cent of the sector's exports in 2017, roughly the same share it took over in the same period in 2016.

¹⁴ The periods covered by this issue are not uniform across sections due to reliance on data from various authorities. In the 'garment and footwear exports' section where data were recorded by the General Department of Custom and Excise, and the section on new investment where data were received from the Council for the Development of Cambodia, data were available for the whole year. Where reporting was reliant on data from the Ministry of Commerce, on section on employment, wage bill and factories records, data were available up to the second quarter of 2017.

Figure 6: Destinations of Cambodia's garment and footwear exports, 2000-H12017 (US\$ million)

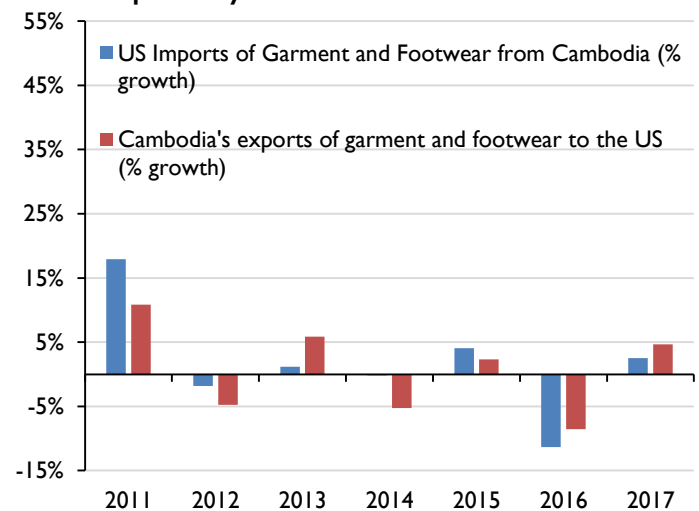


Source: Cambodia's General Department of Customs and Excise

Growth in Cambodian garment exports is reported not only by Cambodia but also by destination countries. To confirm the growth trend, Cambodia's export statistics can be compared against the import statistics recorded by EU and the US, who are major importers of Cambodia's garment and footwear sector taking in a combined 70% of the sector export.

The figures reported by the US authorities are broadly consistent with those reported by the Cambodian authorities. Over 2017, the US reported 3% import growth of garment and footwear from Cambodia, compared to 5% export growth to the US reported by Cambodia, as illustrated in Figure 7 below.

Figure 7: Growth of Cambodia's garment and footwear trade as reported by Cambodia and the US

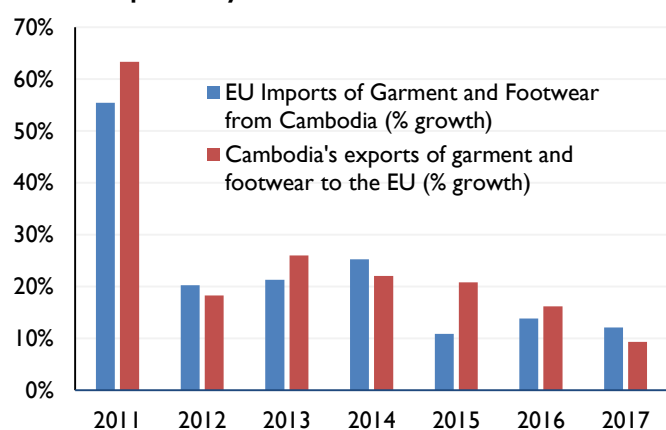


¹⁵ Some source reported the growth rate for 2017 at 7.7 per cent and 2016 rate at 9.1 per cent while ILO reported growth rate at 9.5 and 7.2 per cent for those years respectively. The difference is due to the difference in reported export figures for 2016 where they reported export figure of US\$7,477 million vs ILO's reported figure of US\$7,322. Export figures reported by ILO in this reporting period matched with the figures reported by aforementioned source, at US\$8,020 million. With the same export figures reported for 2017, and a lower export figures reported by ILO for 2016 figures, the growth rate reported by ILO for 2017 is thus higher than their growth rate.

Source: US Department of Commerce and Cambodia's General Department of Customs and Excise (GDCE)

The EU statistics are also broadly consistent with the Cambodian statistics. In 2017, the EU also recorded 12% import growth in garment and footwear products from Cambodia, slightly above the 9% export growth recorded at Cambodia's side, as shown in Figure 5.

Figure 8: Growth of Cambodia's garment and footwear trade as reported by Cambodia and the EU



Source: EU Eurostat and Cambodia's General Department of Customs and Excise (GDCE)

2. New investments, factory openings and closures

a. New investment

In 2017, Cambodian authorities approved 117 new projects from foreign investors, worth a total of US\$5,217 million. The garment and footwear sector accounted for 55 of these projects, worth US\$269 million, or five per cent of the total. This is a decline in proportion of total investment from 2016, when the sector accounted for eight per cent of new investment, suggesting a diversification of investment in Cambodia. Once they come online the Council for the Development of Cambodia estimated from the investment applications that 70,000¹⁶ new jobs in the garment and footwear sector will be required to support the implementation of new investment operations.

b. Opening, closure and operating factories

During the first half of 2017, the Ministry of Commerce (MOC) recorded the number of effectively operating factories at 643, representing a net increase of 17 factories from the end of 2016. This number is the net result of 18 new factories opening, with 16 going into the garment sector and two into the footwear sector, and a closure during the period of one garment factory.

¹⁶ This figure refers to estimated job demands, based on CDC investment data, for all new investments in the garment and footwear sector, not inclusive of new investments in bag subsector, for 2017.

As reported in the previous issue of the Bulletin, the MOC undertook a major overhaul of its factory database in 2016, reclassifying factories either as 'operating', 'inactive', 'temporarily closed' or 'permanently closed'. This exercise resulted in a more accurate record, bringing down the total number of effectively operating factories to 589 at the time of the revision in the first quarter of 2016. With a new increase of 17 factories coming online during the first half of 2017, the number of effectively operating factories by the end of the second quarter of 2017 was 643 factories, comprised of 571 garment factories and 72 footwear factories.

3. Employment and wages

a. Employment and wages according to Ministry of Commerce data

The garment and footwear sector continues to be a major employer for Cambodia's labour force. In the first half of 2017, the sector provided on average 635,000 jobs per month in registered exporting factories, adding approximately four per cent increase over the same period in the previous year. The sector's total wage bill reached an average of US\$126 million per month over the first half of 2017, as compared to the monthly average of US\$116 million over the same period in 2016.

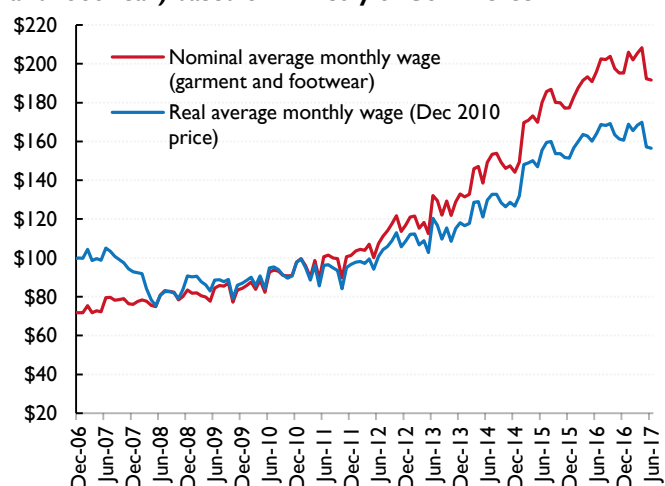
Since 2013, the statutory minimum wage level has been rising, starting from US\$80 in 2013 to US\$170 in 2018, representing a compound average growth rate of 16.3 per cent per year or 14.9 per cent in real terms (as of June 2017).

Year	Nominal Minimum Wage	Real Minimum Wage* (Dec 2010 = 100)
2013	80	71.01
2014	100	87.86
2015	128	109.33
2016	140	115.17
2017	153	123.80
2018	170	
Growth rate (2013-18)	16.27%	14.91%

*Calculation is based on CPI as of December of each year, except for 2017 where figure was available for up to November only. Growth rate here refers to compound annual growth rate. The growth rate of 14.91% calculated based on the real minimum wage is up to 2017 only.

As illustrated in the graph in Figure 9 below, the average take-home wage of the sector's workers has continued to increase both in real and nominal terms. This take-home wage is the combination of the base wage, overtime payments, and other allowances the workers are entitled to by law and in some cases, factory policies to incentivise performance. The nominal wage averaged out at US\$197 per month for the second quarter of 2017, around 29 per cent over the statutory minimum wage of US\$153 albeit a 5 per cent decrease from the US\$204 per month reported in the first quarter of 2017. Meanwhile, the inflation-adjusted take home pay reached US\$164 per month on average during the first half of 2017 expressed in constant 2010 dollars, up from the average US\$161 per month in the same period in 2016.

Figure 9: Nominal and real average monthly wage (garment and footwear) based on Ministry of Commerce



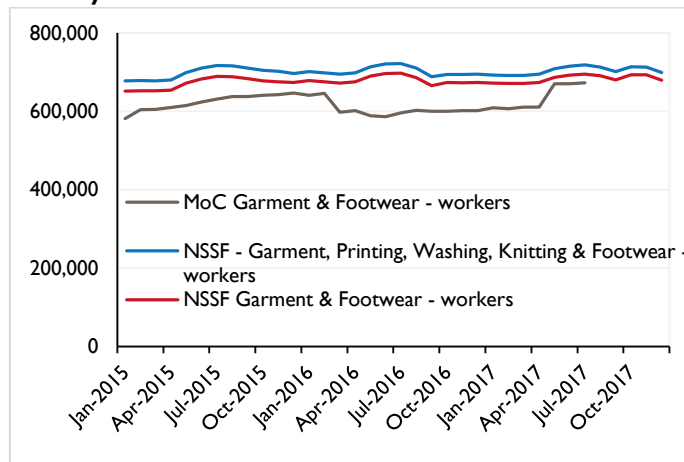
Source: Cambodia's Ministry of Commerce, National Institute of Statistics (NIS) of the Ministry of Planning (of Cambodia)

b. Employment and wages according to National Social Security Fund data

To provide a more holistic picture of the sector, data from the NSSF on employment and the wage bill are also reported in parallel with those reported by the MOC. Where the MOC figures are based only on exporting factories, the NSSF data cover both exporting and non-exporting factories.

In Figures 10 and 11, data from NSSF related to garment sector were reported under two scenarios, one where only garment sector was accounted for and another one where printing, washing and knitting sub-sectors were also included in the picture. The figures from MOC included data on knitting sector only where the factories are exporting factories. Printing and washing, usually carried out for local market, are not included in their data. Two scenarios of garment sector as reported by the NSSF were thus included in the comparison.

Figure 10: Number of garment and footwear workers as reported by Ministry of Commerce and National Social Security Fund



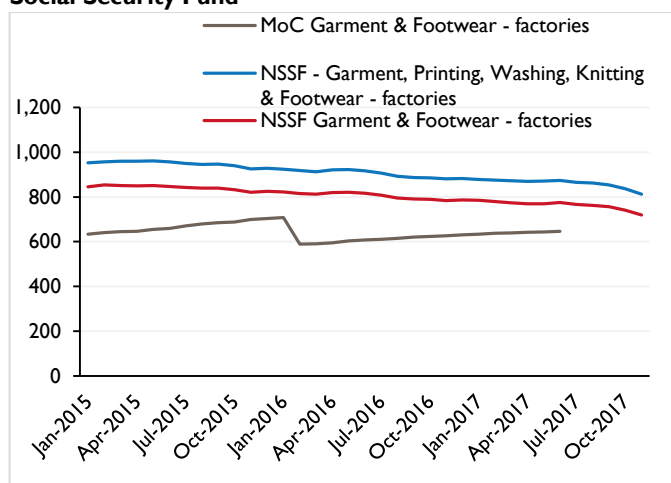
Source: Cambodia's Ministry of Commerce, National Social Security Fund

As discussed earlier, the MOC undertook a major overhaul of its database in 2016, leading to a sharp decline in recorded number of garment workers during the first quarter of 2016. Since then, the number of workers in the MOC database has been slowly climbing up to reach its pre-overhaul level. After some fluctuations over 2016 and into the first quarter of 2017, the gap in the reported number of workers in the sector between these two authorities seems to have been closed and by May 2017, data from the two sources began to intersect. As the data from both sources stand, based on MoC data, employment increased in the first half of 2017 year on year, whereas NSSF data reported a slight decrease in employment over the same period. It should be noted, though, that even with such decreased rate of employment, the NSSF employment figures still stand higher than the employment figures reported by MOC.

One interesting observation concerns the number of operating factories reported by the NSSF and MOC. Although their number of workers reported by the two sources are now broadly similar, there remain differences in the number of factories in the garment and footwear sector reported by the MOC and NSSF. There have been overall converging trends of the two data sources but the gaps remain sizeable. In June 2017, there were 571 garment factories operating, according to the MOC, and 663 garment factories (not including printing, washing and knitting) according to the NSSF. For the footwear sector, the gap is between 72 footwear factories from the MOC record and 107 factories by the end of June 2017 from NSSF database. These differences could perhaps be explained by the fact that the NSSF statistics cover all factories, whether exporting or not, whereas the MOC figures pertain only to the exporting factories. Given that employment tends to be higher in exporting factories, this would explain the fact that the employment figures are broadly comparable across the two sources, while the factory numbers are somewhat different.

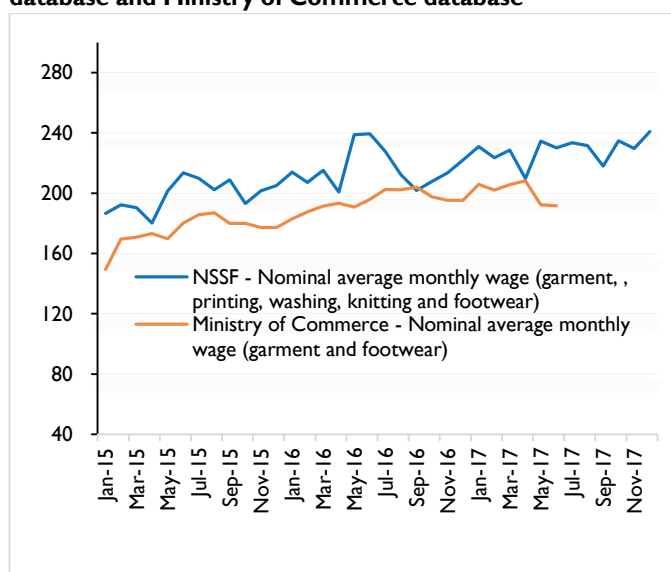
Discrepancy in data aside, the two data sources told the same story about the sector situation in terms of employment: even though there was a slight increase in employment over first half 2017 as compared to the same period 2016, and an increase in employment based on the MOC data, the bottom line is employment figures were still hovering around 630,000. The trends in reported number of factories are somewhat different, but the bottom line remains that, though NSSF report a decreased trend, their number is still higher than MOC, who reported a growth rate of number of factories.

Figure 11: Number of factories in the garment and footwear sector as reported by Ministry of Commerce and National Social Security Fund



Source: Cambodia's Ministry of Commerce, National Social Security Fund

Figure 12: Nominal average monthly wage (garment, printing, knitting, washing and footwear) from NSSF database and Ministry of Commerce database



Source: Source: Cambodia's Ministry of Commerce, National Social Security Fund

In Figure 9, the MOC reported a quarterly nominal average for the second quarter of 2017 at US\$197 per month. From Figure 12 above, the corresponding number reported by the NSSF

(inclusive of the printing, washing and knitting sub-sector) is US\$225 per month. One possible explanation in the difference is that the NSSF database embraces all types of workers in their record, from production workers, to office and managerial staff members both foreign and local staff members, while the record from the MOC includes only local staff members both in the factories and office.

Another possible explanation is recording anomaly within the data from MOC and the NSSF. Both sources of the data came with their own peculiarity but in opposite directions.

While the NSSF reported a small increase in the number of workers, they reported a large increase in the wage bill, whereas MOC reported a large increase in the number of workers but only a small increase in wage bill. During the second quarter of 2017, the compound monthly growth rate of numbers of workers according to the MOC is 4.8 per cent while that of NSSF is only 1.4 per cent. From April to May 2017, the number of workers increased from 610 thousand workers to 670 workers or 9.7 per cent per record by the MOC, while the recorded increase of wage bill was around US\$1 million or 1.3 per cent only.

This suggested that the marginal cost of labour is US\$20 per month per worker according to MOC data, which is intriguing. This also explains why the average monthly nominal wage as shown in Figure 9 went down from an average of \$204 per month in the first quarter to only \$197 per month in the second quarter of 2017.

Equally interesting is the numbers recorded by the NSSF. While there was a modest increase in the number of workers of around 1.7 per cent, the increase in wage bill was recorded at 14 per cent. This can possibly explain why there was a big gap in wage level between these two data source during May: the average nominal wage from NSSF in April was recorded at US\$209 against those recorded by MOC at US\$208 while May's figures fluctuated to US\$234 against US\$194 respectively.

Nevertheless, despite the discrepancy in data, the picture of the industry with regards to average nominal wage is the same: over the first half of 2017, average monthly wage increased. Based on MOC data, the increase was by \$10 per month per worker from \$190.3 per month in 2016 to \$200.9 per month in 2017. According to NSSF data, wage went up from a monthly average of \$219.4 per month over the first half of 2016 to \$226 per month in the first half of 2017.

4. Other policy developments relating to the garment and footwear sector

New minimum wage and new income tax threshold: In October 2017, the government approved a minimum wage increase of 11 per cent for 2018, effective 1 January, bringing

the statutory base wage to US\$170 per month. For the third year in a row now, the threshold for income tax will be raised, rising to US\$300 per month effective January 2018, up from US\$250 per month in 2017, and US\$200 per month in 2016.¹⁷ This lifting of the threshold will continue to ensure that the new gain in wage amongst the worker groups will not be diminished by taxes. Non-salary allowances and benefits the workers receive will also continue to remain outside of the tax threshold calculation: this includes transportation and accommodation allowances, meal allowances, National Social Security Fund or social well-being fund provided to workers, health insurance and life insurance premium and benefits disbursed to workers, baby allowance and baby-care related expense, and severance pay or indemnity.

Maternity benefit: Effective January 2018, female employees are entitled to a three-month maternity leave with 120% salary, co-shared by 70% from the National Social Security Fund and 50% from employers.

Health insurance and two-year access to free public transport: Starting from 20 August 2017, workers in the garment and textile sector are entitled to a free two-year access to public transport. In addition, the cost of health insurance which was previously levied at 1.3% on their salary under the 50-50 contribution scheme to National Social Security Fund will be shifted to come under 100% employers' responsibility. A pension for workers in the garment sector was also announced to come into effect in 2019.

Exemption of management fee and suspension of income tax: In November 2017, the government announced a measure help enable businesses to accommodate increases in the minimum wage as well as to incentivize further investment in the sector through an exemption of Export Management Fees (EMF), a fee required of exporters as part of their application procedure for Certificate of Origin, effective January 2018 and a nine-year profit tax exemption for garment factories.¹⁸

Conclusion

The garment and footwear sector remains a significant contributor to Cambodia's merchandise exports, accounting for two-third of the total exports. Against the backdrop of the minimum wage of US\$153 per month in 2017, the sector continued to maintain a stable footing in the international market, with the sector continuing to grow, *at a higher growth rate than 2016* according to calculation by ILO¹⁹. The sector's

contribution to the labour market remained robust, recording a total employment figure of 670 thousand workers in registered exporting factories by the end the second quarter of 2017 and an average monthly nominal take home income of US\$197 per month per worker, according to data from the MOC. The number of factories effectively operating continued to increase from the last reporting period, standing at 643 factories as of the second quarter of 2017 while employment in the sector saw an increase of four per cent in the half of 2017 over the same half in 2016. The sector also received new investments over the year, totalling in US\$ 269 million or 55 new projects during 2017.

¹⁷ Phnom Penh Post. <http://www.phnompenhpost.com/national/pm-seeks-tax-break-low-earners>

¹⁸ Phnom Penh Post. <http://www.phnompenhpost.com/business/government-will-drop-export-fee-starting-next-year>

¹⁹ Please refer to footnote 15 for explanation.

Annex Table I: Cambodian garment and footwear industry - selected indicators

	Q1	Q2	Q3	Q4	2015	Q1	Q2	Q3	Q4	2016	Q1	Q2	Q3	Q4	2017
I. Economic output															
GDP (% real growth)	-	-	-	-	7	-	-	-	-	7	-	-	-	-	-
GDP (% nominal growth)	-	-	-	-	8.9	-	-	-	-	10.6	-	-	-	-	-
GDP (current prices, US\$ million)	-	-	-	-	18 083	-	-	-	-	20 043	-	-	-	-	-
Value added (garment and footwear, current prices, US\$ million)	-	-	-	-	1 915	-	-	-	-	2 111	-	-	-	-	-
Value added (garment and footwear, % of GDP)	-	-	-	-	10.6	-	-	-	-	10.5	-	-	-	-	-
2. Garment and footwear exports															
2a. Growth of total garment and footwear exports															
Garment and footwear exports (US\$ million) ^{1/}	1 549	1 602	1 995	1 681	6 827	1 773	1 718	2 073	1 758	7 322	1 856	1 874	2 290	2 000	8 020
% growth (year-on-year)	5.8	16.1	22.8	12.6	14.5	14.5	7.2	3.9	4.6	7.2	4.7	9.1	10.5	13.7	9.5
Garment exports (US\$ million) ^{1/}	1 400	1 434	1 832	1 501	6 167	1 605	1 527	1 882	1 545	6 559	1 647	1 655	2 084	1 761	7 147
% growth (year-on-year)	3	12.9	21.9	10.6	12.3	14.7	6.5	2.7	2.9	6.3	2.61	8.39	10.73	13.98	8.96
Footwear exports (US\$ million)	149	168	163	180	660	168	191	191	213	763	209	219	206	239	873
% growth (year-on-year)	41.7	54.4	33.6	33	40	12.9	13.8	16.7	18.6	15.6	24.6	14.7	8.0	12.0	14.4
Retained imports of garment materials (US\$ million)	-616	-816	-813	-705	-2 949	-710	-846	-890	-781	-3227	-809	-930	-989		
2b. Garment and footwear exports by main destination															
Total exports (garment and footwear, US\$ million)	1 549	1 602	1 995	1 681	6 827	1 773	1 718	2 073	1 758	7 322	1 856	1 874	2 290	2 000	8 020
To United States (garment and footwear) ^{1/}	491	494	585	439	2 009	429	440	555	414	1 838	452	426	571	475	1 924
To European Union (garment and footwear) ^{1/}	617	686	844	757	2 904	793	777	921	881	3 372	797	895	1 055	939	3 686
To rest of world (garment and footwear) ^{1/}	440	422	566	486	1 914	550	501	597	463	2 111	607	553	665	586	2 410
Total exports (garment, US\$ million) ^{1/}	1 400	1 434	1 832	1 501	6 167	1 605	1 527	1 882	1 545	6 559	1 647	1 655	2 084	1 761	7 147
To United States (garment) ^{1/}	462	461	557	408	1 888	400	409	521	382	1 711	421	393	534	427	1 775
To European Union (garment) ^{1/}	546	600	768	670	2 583	714	679	669	542	2 604	693	773	954	822	3 242
To rest of world (garment) ^{1/}	392	373	508	424	1 696	491	439	693	621	2 243	533	489	596	512	2 130

Total exports (footwear, US\$ million)	149	168	163	180	660	168	191	191	213	763	209	219	206	239	873
To United States (footwear)	29	33	28	31	121	29	32	34	32	126	31	33	37	48	149
To European Union (footwear)	72	86	76	86	321	79	97	65	87	328	104	122	101	117	444
To rest of world (footwear)	49	49	58	62	218	60	62	92	95	308	74	64	69	74	281
3. New Investment, factory openings and closures															
3a. New Investment Project															
Total CIB approved investment projects	37	26	30	31	124	37	23	33	28	121	21	33	38	25	117
Thereof: Garment and footwear projects ¹¹	19	19	20	14	72	22	9	15	10	56	11	5	24	15	55
Garment projects	17	12	15	13	57	18	7	10	6	41	7	4	21	13	45
Footwear projects	2	7	5	1	15	4	2	5	4	15	4	1	3	2	10
Total CIB approved projects (US\$ million)	2 873	255	279	513	3 920	955	827	960	507	3 249	131	1 960	3 005	120	5 217
Thereof: Garment and footwear projects (US\$ million) ¹¹	72	80	84	141	377	86	42	75	46	248	76	30	102	61	269
Garment projects (US\$ million)	64	42	64	55	225	71	31	55	19	175	54	22	81	56	214
Footwear projects (US\$ million)	8	38	20	86	151	15	11	20	27	73	22	8	20	5	55
3b. Factory openings and closures (registered factories) ¹¹															
Total garment and footwear factories (end of period)	640	655	680	699	699	589*	604	615	626	626	638	643			
Garment factories (e. o. p.)	572	585	607	626	626	526	538	548	556	556	567	571			
Footwear factories (e. o. p.)	68	70	73	73	73	63	66	67	70	70	71	72			
Total net openings (garment and footwear) ¹¹	14	15	25	19	73	-110*	15	11	11	-73	12	5			
Garment factories	14	13	22	19	68	-100	12	10	8	-70	11	4			
Footwear factories	0	2	3	0	5	-10	3	1	3	-3	1	1			
Openings (garment and footwear) ¹¹	14	16	26	19	75	12	15	19	12	58	13	5			
Garment factories	14	14	23	19	70	10	12	18	9	49	12	4			
Footwear factories	0	2	3	0	5	2	3	1	3	9	1	1			
Closures (garment and footwear) ¹¹	0	1	1	0	2	122*	0	8	1	131	1	0			
Garment factories	0	1	1	0	2	110	0	8	1	119	1	0			
Footwear factories	0	0	0	0	0	12	0	0	0	12	0	0			
Total garment and footwear factories (end of period) - NSSF Data	957	962	946	925	925	918	923	893	881	881	876	871	862	813	813

Garment factories (e. o. p.)	869	874	855	834	834	824	828	798	782	782	771	764	755	711	711
Footwear factories (e. o. p.)	88	88	91	91	91	94	95	95	95	99	105	107	107	102	102
4. Employment in the garment and footwear sector															
Total garment and footwear workers (period av., '000)	597	616	635	643	623	628	592	600	601	605	609	650			
% change (year-on-year)	10.7	9.8	10.3	10.7	10.4	5.3	-3.9	-5.7	-6.6	-2.9	-3.1	9.9			
Workers in garment sector (period average, '000)	500	516	533	538	522	525	494	499	498	504	506	541			
Workers in footwear sector (period average, '000)	97	101	102	106	101	103	98	101	103	101	103	109			
Total garment and footwear workers (period av., '000) - NSSF Data	678	696	714	701	697	698	711	706	694	702	692	706	711	708	704
% change (year-on-year)	-	-	-	-	-	3.0	2.1	-1.1	-1.0	0.7	-0.9	-0.7	0.6	2.0	0.3
Workers in garment sector (period average, '000)	571	587	601	587	587	584	592	587	571	584	567	578	582	577	576
Workers in footwear sector (period average, '000)	107	109	113	114	111	114	119	119	123	119	124	128	128	132	128
5. Wages and prices															
Minimum wage (garment and footwear sector, US\$)	128	128	128	128	128	140	140	140	140	140	153	153	153	153	153
Average monthly wage (garment and footwear, US\$)^{4/}	164	174	184	178	175	187	193	203	196	195	205	197			
Average monthly wage (garment workers, US\$) ^{3/}	165	176	188	181	178	190	195	208	201	198	209	200			
Average monthly wage (footwear workers, US\$) ^{3/}	157	165	166	165	163	173	184	180	173	178	183	184			
Real average monthly wage (garment and footwear, constant Dec. 2010 US\$)^{3/ 4/}	143	151	158	152	151	160	162	169	162	163	168	161			
Real average monthly wage (garment, Dec. 2010 US\$) ^{3/ 4/}	144	152	161	154	153	162	164	173	166	166	171	163			
Real average monthly wage (footwear, Dec. 2010 US\$) ^{3/ 4/}	137	143	142	141	141	148	154	149	143	149	150	151			
Minimum wage (garment and footwear sector, US\$) - NSSF data															
Average monthly wage (garment and	190	199	207	200	199	212	227	214	214	217	228	225	228	235	229

footwear, US\$^{4/}															
Average monthly wage (garment workers, US\$) ^{3/}	194	202	210	203	202	215	231	219	218	221	233	232	233	240	235
Average monthly wage (footwear workers, US\$) ^{3/}	167	180	191	183	180	196	206	191	198	198	201	194	202	212	202
Real average monthly wage (garment and footwear, constant Dec. 2010 US\$)^{3/ 4/}															
Real average monthly wage (garment, Dec. 2010 US\$) ^{3/ 4/}	170	175	180	174	175	184	194	182	180	185	191	189	189	194	191
Real average monthly wage (footwear, Dec. 2010 US\$) ^{3/ 4/}	147	156	163	157	155	167	172	159	163	166	165	158	164	172	165
Consumer Price Index (period average) rebased, Dec. 2010=100															
Inflation rate (CPI period average, y-o-y growth)	1.00%	1.00%	0.80%	2.00%	1.20%	2.50%	3.00%	3.00%	3.60%	3.00%	4.27%	2.77%	2.58%	2.23%	2.93%

Note: 2016 real GDP growth rate is projected figure (of the IMF and the Cambodia's Ministry of Economy and Finance)

1/ Includes textiles.

2/ Effective 1 February 2014.

3/ Based on Ministry of Commerce, effectively operating factories only. The data exclude foreign office workers and foreign managers.

4/ At December 2010 prices.

*/ Note that a large proportion of the recorded closures are the result of the Ministry of Commerce's inspection and reclassification of on-going and temporary closed factories, which includes some inactive factories that closed down without notice to the Ministry.

Sources: National Institute of Statistics, Ministry of Commerce, National Bank of Cambodia, IMF and ILO Staff Calculation

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